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THE

MEDICAL RECORD

A Weekly Journal of Medicine and Surgery

EDITED BY

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Volume 27

JANUARY 3, 1885—JUNE 27, 1885

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6827

NEW YORK
WILLIAM WOOD & COMPANY
1885

Trow's
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The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 1 NEW YORK, JANUARY 3, 1885 Whole No. 739

Original Articles.

A SERIES OF ONE THOUSAND CASES OF ABDOMINAL SECTION.

By LAWSON TAIT, F.R.C.S.,

BIRMINGHAM, ENG.

THE conclusion of such a series affords a suitable time for a retrospect and a critical examination of the results of the work and a consideration of what general conclusions may be drawn from them.

The first point for consideration is an accurate determination of the meaning and application of the term abdominal section, and this is by no means so easy a matter as might at first sight be imagined. I have gathered from the writings of others that there is by no means a complete agreement on this point, and there are several of my own cases upon whose classification I have considerable doubt. The commonly accepted view is that an operation is not an abdominal section when the peritoneum is not opened, yet there are many operations where this is done that are not, at least so far have not, been classified as abdominal sections. Thus herniotomy, when the sac is opened, would be an abdominal section if this definition were logically followed. The removal of a kidney or the opening of the colon might or might not be an abdominal section by the accidental peculiarities of any particular case. Indeed, numerous difficulties may be raised. Any definition can be objected to, and no hard and fast line can be logically followed, but it seems to me that less confusion will arise upon the discussion of many points if we take the definition I have indicated, and therefore I follow it. The only changes effected by it upon the series already published are that a few kidney operations, all successful, are excluded, as are also two cases of removal of extraperitoneal cyst, both fatal operations. The difficulty mentioned in connection with herniotomy does not occur in my practice, as I do not perform such operations save in the umbilical variety, and that operation no one can object to being classed as an abdominal section.

I desire it to be understood, therefore, that in all of the cases in the following analysis of the series, the peritoneum has been involved.

ANALYSIS.

	Cases.	Deaths.	Percentage. Mortality.	
Exploratory incisions	54	2	2.1	
Cystoma—Parovarian	65	2	3.07	8.1
Cystoma—One ovary	239	26	11	8.1
Cystoma—Both ovaries	101	5	5	8.1
Removal of appendages for myoma	99	7	7	
" " " " inflammatory disease	201	10	5	
" " " " epilepsy	6	0	0	
" " " " deformity	1	0	0	
Hysterectomy	54	19	35.7	
Opening for draining pelvic abscesses	30	0	0	
" " incomplete operations	30	15	50	
" " cholecystotomy	13	0	0	
" " nephrectomy	3	0	0	
" " nephrotomy	9	0	0	
Extra-uterine pregnancy	11	2	18	
Hepatotomy for abscess and hydatids	10	0	0	
" " hydatids of peritoneum	2	0	0	
Tumors of omentum and mesentery	5	0	0	
Enterotomy	8	1	12.5	
Adhesion of intestines relieved	2	0	0	
Chronic peritonitis opened and drained	7	1	14.3	
Acute peritonitis	2	1	50	
Umbilical hernia	4	0	0	
Cæsarean section	1	1	100	
Scirrhous tumor of abdominal wall	1	0	0	
Suprapubic lithotomy	1	0	0	
Enucleation of myoma	1	1	100	
	1,000	93		

The question of the best anæsthetic for use in abdominal surgery is one to which of course I have given a very large amount of attention, and it is very singular that in the class of drugs, the action of which there can be the least doubt about, we are as yet certainly very unsettled in our views. Like all pupils of Simpson, I began my professional life with a most profound belief in the advantages of chloroform over all other anæsthetics. I have never seen an accident from chloroform, but partly by reason of the fear of inquests and partly by the example and teaching of Dr. Keith, a belief grew in my mind that ether was preferable to chloroform, and at first I had the impression that the sickness after ether was less marked than after the use of its rivals. I was not, however, very long in discovering that ether has special risks for people with a tendency to bronchitis; and later on I discovered, and have already published the fact that during the administration of ether the secretion of urine is completely arrested. It was subsequently very forcibly impressed on me that for patients with damaged kidneys ether is a dangerous anæsthetic, and although I cannot say that I have seen any fatal results arising from this peculiarity of its action, I certainly have had abundant cause to fear it. My first alteration, therefore, in my views concerning ether was to limit its application to patients under forty, but even after this I found my confidence in its safety greatly diminished by the fatal occurrence of bronchitis in a case of hysterectomy in a woman aged thirty. In this case the patient's breathing was embarrassed from the moment she recovered from the anæsthetic, her urine was scanty and became ultimately albuminous, and she died on the fourth day from suffocative catarrh, the post-mortem showing that so far as the operation was concerned everything was perfectly satisfactory.

Among my other experiences of anæsthetics was the employment of bichloride of methylene and of Richardson's mixture, generally known as methylene ether. The latter is by far the most easy of employment of all the anæsthetics I have seen tried. Patients recover more rapidly from it and seem to be less affected by it than any other anæsthetic; but I had a death from it, and on that account promptly gave up its use. The bichloride of methylene has many advantages, but it has one practical disadvantage, that its application requires a special apparatus and an amount of skill in the employment of that which cannot always be had. I have also found that the sickness after it is more persistent and troublesome than after ether or chloroform, and there are some patients who are kept under its influence with very great difficulty. A further objection to it is that it does not keep well, and it certainly is not commonly supplied in a pure condition, so that my employment of it was not very extensive. The last stage of my experience in the employment of anæsthetics is the use of a mixture of two parts of ether and one part of chloroform, given by means of Clover's apparatus. This mixture is rapid in its action, is not at all unpleasant to the patient, and certainly the sickness after it is far less than with anything else I have ever used. I cannot say that I think it more safe than any other anæsthetic, for we may be quite certain that with none of these drugs will there ever be absolute security against accidents, but I have seen no bronchitis after its use; it has no effect in arresting the secretion of urine, and, on the whole, I am far better pleased with it than any other, and I may say that

Dr. Annie Clarke, who has now been my administrator through a very extensive experience, is quite in agreement with this conclusion.

The first point to attract attention is the general death-rate, 9.3 per cent. Whether this is high or low I cannot say, for no such series has before been published, and, therefore, I cannot discuss it relatively. I think it high, and am perfectly certain that if I live to complete another such series it will have a very much lower mortality, and for two reasons: In the first place, the present series contains my early work, where the want of experience told heavily. Contrasting the results in my first series of fifty ovariotomies (thirty-eight per cent. mortality) with my last three hundred and thirteen (4.76 per cent. mortality), is enough of itself to indicate the terrible influence of want of experience; and though other factors enter into the explanation of this great difference, the influence of inexperience is everywhere visible. In hysterectomy it is very evident, and in the removal of diseased appendages, but it is most apparent in the undue preponderance of incomplete operations in my early practice. Many operations were then left unfinished which would not be so now, and thereby a heavy item of mortality would be removed.

This quite justifies what I said in my first contribution to abdominal surgery, that in this branch of our art "more, I think, than in any other in the whole field of surgery, does the personal experience of the operator, gained by failures and hair-breadth escapes, serve him in good stead for his subsequent work."

The second reason from which I predict that my second series of a thousand cases will have a much lower death-rate is that important causes of failure have been completely removed by the discontinuance of the clamp in ovariotomy and of the ligature in hysterectomy, and cases of all kinds are now operated upon at earlier stages of these diseases than they were when I first began my work, all of which points will be discussed in their proper places.

The first group of cases of which I have to speak is formed of ninety-four exploratory incisions, made for the purpose of ascertaining exactly the state of matters inside the abdomen and settling any doubt as to the diagnosis and prognosis in each case. Ninety-four is a large number, but it must be remembered that years ago I advocated an exploratory incision in preference to a first tapping, and that I have persistently carried out the practice. As I have said many times before, so I say again now, I make exploratory incisions to be sure that I am not wrong, whereas formerly I used to make them only to find I was entirely mistaken. They serve the purpose of complete tappings, and, as the patients almost uniformly recover, they do no harm at all. There are two deaths recorded in this group, but I might have eliminated these two cases with perfect fairness, for one died really of the prolonged sickness after the anæsthetic, a broken-down old woman of sixty, and in the other I passed a trocar into the irremovable tumor, so that the operation was not strictly limited to mere exploration.

In nearly fifty of the cases the exploration has amounted merely to a tapping. Occasionally it was followed by drainage, and in some of these cases results of the most marvellous kind have followed—results which have completely justified the practice. In four cases I have explored the abdomen to see if I could remove the spleen, and in two of these the enlargement of the organ has completely disappeared, and the patients have now perfect health. In one case, resident in London, I opened the abdomen and found a large tumor of the liver, which seemed to me to be certainly malignant. The ascitic effusion has not occurred again, and the tumor now, nearly a year after the operation, is certainly less than half of its original size, and the patient is rapidly getting well. In five cases, where there was a large effusion due to papilloma, mere exploration has completely cured the patients, a singular fact that I have already drawn attention to. It is perfectly impossible to understand this, just as it is perfectly impossible to understand how papilloma in two cases, presenting in every detail identically the same characters, is a curable disease in one and a rapidly malignant disease in the other. But of this there can be no doubt now, for my original observation has been fully confirmed by Mr. Albon Doran. Several cases have also been published where pelvic pain has been relieved in a most inexplicable way by mere exploration.

The great advantage, however, of this extended application of abdominal section is most apparent in other groups where tumors have been removed and diseases cured under circumstances apparently hopeless, and when the operation was begun under the belief that nothing satisfactory could be accomplished.

The next group includes four hundred and five cases of cystomata. Of these I have nothing new to say; there is nothing that I have said of recent years that I have to unsay, unless it be that I have an impression that in some previous paper I have said that I never lost a case of removal of a parovarian cyst. I cannot find the statement, but I have a strong impression that I did say it, and now I display a group of sixty-five cases of removal of parovarian cysts, with two deaths. These two cases have been dissected out of my earlier lists published before I recognized the importance of separating parovarian from ovarian cystomata. The explanation of the fatalities is that they were clamp cases.

Upon the subject of the clamp, as on the subject of Listerism, I have nothing more to add to what I have already said, and the following analysis of the four hundred and five cases proves, as clearly as any figures can indicate a conclusion, that the clamp was the chief cause of my early mortality, and that Listerism had little or no influence one way or the other.

	Cases.	Deaths.	Mortality, per cent.
Clamp (Listerian)	36	9	25
Clamp (non-Listerian)	26	7	27
Ligature (Listerian)	30	2	6.6
Ligature (non-Listerian)	313	15	4.80
Total	405	33	8.15
Extraperitoneal cases	62	16	25.7
Intraperitoneal cases	343	17	4.58

The diminution of mortality, about two per cent. in the group of cases (313) where I used the intraperitoneal method without Listerian details, when compared with the group (30) when I used the same method with Listerism is in all probability due to increased personal experience. I have only further to say that as far as I am concerned this statement ends all discussion of this much-debated subject, unless something should happen to alter my opinions about it. For the present I am tired of wrangling about it.

The third group contains ninety-nine cases of removal of the appendages for the arrest of the growth of uterine myoma and for the hemorrhage due to that disease; and in connection with these cases it will be convenient to discuss the group of hysterectomies, fifty-four in number

Nothing could be more startling than the different mortalities of these two operations, and it is only fair to the first of the two to say that five out of the seven deaths occurred in the early part of my practice, and that the other two might very fairly be reckoned on a list of what Mr. Bryant calls "too late" cases. My belief is now firmly established that if this operation were performed as soon as symptoms drew attention to the disease its mortality would be hardly appreciable, and it would restrict the necessity of the terrible operation of hysterectomy to a very small group of cases. I am glad to know that in this view I am supported by Mr. Knowsley Thornton. The operation is very often not an easy one, and in the earlier part of my practice it happened three times that I was unable to complete the operation; one of these cases died. In another I could neither remove the appendages nor the tumor; it went on growing, and was removed (hysterectomy) some years after

by Mr. Knowsley Thornton, with a fatal result. The third incomplete case died, I am informed, about two years after my attempt, from protacted hemorrhage.

The ultimate results of about a third of these cases I have already published, and the whole of them will form the subject of a detailed paper when a sufficient time has elapsed to enable me to obtain fair conclusions.

DRAINAGE-TUBES ACCIDENTALLY LOST IN THE PLEURAL CAVITY IN CASES OF EMPYEMA.[1]

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Case I.—Willie O——, a flabby, fat, rachitical boy, has been under my care at various times. At the age of nine months was treated for an extensive erysipelas of lower extremity, back, and abdomen. Later on had measles and several attacks of intestinal catarrh. December 6, 1881 (when nineteen months old), was suddenly taken with fever, cough, and pneumonic breathing. During the following weeks he became very much emaciated, had diarrhœa, fever (high at outset, became moderate later on). As flatness over left side of chest did not diminish, and as the diarrhœa persisted, though the fever was not very high, a purulent effusion was suspected. Diagnosis verified by the hypodermic syringe.

December 30th.—Withdrew about half-pint of pus by means of a Dieulafoy's aspirator. Further attempts at removal of fluid, as also the antiseptic washing-out of abscess cavity, had to be abandoned, as large pieces of lymph occluded the needle of aspirator.

December 31st.—Assisted by Drs. F. A. Beck and J. F. Golding the child was put under chloroform and a free opening was made in the eighth intercostal space laterally. About a quart of matter mixed with numerous large pieces of lymph escaped. A drainage-tube about nine inches long was then introduced, and the cavity was washed out with a weak solution of carbolic acid. A large pad of oakum and a bandage completed the dressing. The child was then put to bed and placed upon the left side, so as to allow of free drainage. Under the daily use of carbolated injections the cavity gradually diminished in size, and at the end of about a month the drainage-tube was permanently removed; two weeks later the external wound also healed.

In this case I made use of a long drainage-tube. The first four inches only were perforated with lateral openings. At the time of making the injections the tube was introduced nearly its entire length, so that deeper portions of cavity would be thoroughly washed. Then the tube would be withdrawn up to fenestrated portion, and the non-fenestrated external extremity was secured to chest-wall by a broad strip of adhesive plaster; a large pad of oakum was placed over the wound and tube, and a bandage tightly applied around the chest. One day, upon removing the dressing, I found the plaster loosened by the discharge and the tube had disappeared. The lips of the wound were then separated by dressing-forceps and the tube indistinctly seen at the bottom was readily seized and removed by means of a pair of forceps.

The tube was then secured by means of a silk thread passed through rubber about one-fourth inch from its outer end—the other end of silk being fastened to bandage with a safety-pin. The accident in this case was fortunately remedied in a simple manner. Presented at Dr. Jacobi's clinic in latter part of February, 1882, the lung was found fully expanded; breathing and voice heard all over left lung. No subsequent retraction of chest-walls.

Case II.—Jennie D——, twenty-seven months old, seen October 29, 1883. The child had been taken sick two days before with a slight cough, fever, and pain in right side of thorax when lifted up. A scarlatinal eruption existed upon the back and extremities—very restless. Temperature 104° (rectal).

September 3d.—Eruption disappeared. Full developed pleuro-pneumonia of right side. No subsequent desquamation; diarrhœa.

September 15th.—As flatness did not diminish, temperature continued elevated, and diarrhœa persisted, a hypodermic needle was introduced and pus withdrawn.

September 16th.—Chest aspirated and about a pint of pus removed. The needle being now occluded, further withdrawal of pus and antiseptic washing had to be given up.

September 21st.—Incision made in eighth intercostal space laterally, and over a quart of foul-smelling pus mixed with numerous pieces of lymph escaped. Drainage-tube introduced and cavity washed out with weak solution of carbolic acid. Not desirous of a repetition of the accidental entrance of the tube into the chest, I considered myself secure by taking the precaution to transfix one end of tube with a safety-pin. A large pad of oakum and a bandage completed the dressing. Child then placed in bed upon the affected side. Temperature 104½°, next morning 100°.

September 24th.—Upon removing the dressing, mother found the closed safety-pin upon the oakum. Diligent search failed to discover tube.

September 26th.—Numerous foul, decomposed pieces of lymph were washed out. From this time on temperature did not exceed 101°. No septic signs until October 5th. Temperature rose to 102°, and orifice closed. Upon dilating opening with Trousseau's tracheal dilator, about two ounces of pus escaped. No smell. Slight diarrhœa.

October 6th.—Temperature is normal in morning, 104½° in evening. Quantity of pus increased and foul.

October 7th.—Temperature 100°. About three ounces of pus evacuated. No smell.

October 8th.—Temperature 103° at 8 A.M. Pus fetid; wound again dilated and cavity hyperdistended with a weak solution of carbolic acid; about half an ounce of blood discharged. 9 P.M.—Temperature, 100°; discharge grumous.

October 9th.—Temperature, 101½° at 8 A.M., 100° at 12 M., 103° 9 P.M. Several attempts had been made to discover the whereabouts of tube in chest; forceps of different sizes and shapes were used. Septic symptoms continuing a radical operation was done October 13th, under Dr. A. Jacobi's supervision, and with his kind assistance, as also that of Drs. Golding, Breyman, and Scheersinger, a final attempt was made.

Forceps of various kinds were used by Dr. Jacobi and myself. As the opening would not admit a finger, it was decided to remove a portion of a rib. The original wound in eighth interspace was enlarged down to rib. The periosteum was then incised and peeled of so as to expose about one and a half inch of eighth rib. Bone cut by a pair of bone forceps and about an inch removed. The original wound in pleura was then enlarged by means of Trousseau's tracheal dilators. The index finger was then introduced into wound, and after a little search the tube was felt near the vertebral column. It was hooked up by finger and readily removed by forceps.

It gave off an exceedingly offensive odor, and upon closer examination we found that the rubber had been torn through by the safety-pin. A larger tube, fastened by safety-pin and silk, was then introduced. The chest was then washed out. A large pad of oakum and bandage around chest completed the dressing. Temperature at time of operation, 3 P.M., 103°; at 9 P.M., 101°.

Further progress favorable until October 25th; then temperature rose rather suddenly to 104° at 10.30 A.M., 102° at 9 P.M.

October 26th, 100½° at 10.30 A.M., 105° at 5.30 P.M.; October 27th, 99° at 8 A.M., 101° at 8 P.M.; October 28th, 98° at 8 A.M., 103¼° at 7 P.M.; October 29th, 99° at 8 A.M., 104° at 7 P.M.; October 30th, 99½° at 8 A.M.,

[1] Read before the New York Medical Union, October 14, 1884.

102¼° at 7 P.M.; October 31st, 99° at 8 A.M., 101½° at 7 P.M.; November 1st, 99° at 8 A.M., 103° at 7 P.M.; November 2d, 99° at 8 A.M., 100° at 7 P.M.; November 3d, 99° at 8 A.M., 103½° at 7 P.M.; November 4th, 99° at 8 A.M., 100¼° at 7 P.M.; November 5th, 99° at 8 A.M., 99° at 7 P.M.; November 6th, 98⅝° at 8 A.M., 99° at 7 P.M.; November 7th, 99° at 8 A.M., 100° at 7 P.M.; November 8th, 98⅝° at 8 A.M., 99½° at 7 P.M.; November 9th, 99° at 8 A.M., 101° at 7 P.M.; November 10th, 99° at 8 A.M., 99° at 7 P.M.; November 11th, 99° at 8 A.M., 99° at 7 P.M.; November 12th, 98⅜° at 8 A.M., 98⅜° at 7 P.M.; November 13th, 98⅜° at 8 A.M., 98⅜° at 7 P.M. Increase in cough, dyspnœa, and râles point to a pneumonia of right side.

November 14th.—As cavity would not hold over a few drachms, the tube was permanently removed and a plug of oakum inserted. Superficial necrosis of both ends of cut rib; two small spiculæ subsequently escaped, and toward end of November wound all healed. Later on a small abscess formed, and another piece of bone came away. Discharged cured during latter part of December. Lung fully expanded; no retraction of chest. The patient had been presented at the Children's Clinic several times, and to Dr. Jacobi my thanks are due for advice and assistance rendered during the progress of the case.[1]

The successful result in the above cases (restoration with full expansion of lung) is mainly due to the early removal of the fluid—accomplished before the lung had sustained any material damage from compression, or had been bound down by adhesions. In this connection it may be well to draw attention for a moment to the following, abstracted from an editorial in the London *Lancet*, 1880, p. 181, part 2, American reprint:

"An empyema can never be cured unless the cavity of the pleura is obliterated by the expansion of the lung, the displacement of viscera, or the falling in of the chest walls, or all of these together. But only when the lung expands to its former size have we any right to speak of a 'cure' having been accomplished; in the other cases recovery may have resulted, but the patient is sadly crippled, having a much diminished breathing power. We cannot keep this consideration too constantly and clearly in view; it is not enough to save the life in such cases, we ought also to save the lung, and it is as much a stigma on surgery to allow a patient to recover with a collapsed useless lung as to permit anchylosis of the hip to occur in a false position."

In view of the numerous excellent articles published in the journals lately, a general survey of the subject of empyema, though interesting, is beyond the scope of this paper. I shall not concern myself with the etiology, symptomatology, pathology, etc. The treatment varies widely with different authorities, and to go into details in regard to the various plans followed would lead me too far. I shall limit myself principally to the consideration of a mishap incidental to the employment of the drainage-tube—namely, the accidental loss of the tube in the thoracic cavity.

This complication is unfortunately not an infrequent occurrence. I have come across a number of cases in a not very extended research into various English, French, German, and American medical journals. The instances, however, are more numerous than we would infer from reported cases. The explanation is obvious. The accident is associated in the minds of many with extreme and even criminal carelessness, and thus many cases are not published because of the fear of adverse criticism. Hospital surgeons have met with this accident in their own practice; and it has occurred when recognized precautionary measures have been resorted to.

No longer surgical curiosities, the cases form an interesting series and merit more than a passing notice.

L. Solomonson recommends that the drainage-tube be passed through a disk of leather and fastened with wax, in order to avoid the accident ("Virchow's Jahresbericht," 1875, vol. ii., p. 195).

Berkeley Hill ties a piece of silk thread firmly to the outer end of the tube, and secures that to the skin by placing over it a good-sized disk of diachylon plaster three or four inches above the wound, to prevent the tube slipping into the cavity—a mishap that has occurred ere now (*Lancet*, July 17, 1875).

Case III.—J. Radek reports a case of a medical man, twenty years of age, with an empyema operated upon by some one else; suppuration was profuse, and death occurred in a few months in consequence of inanition. At the autopsy a tube was found floating in a quantity of pus ("Virchow's Jahresbericht," 1876).

Case IV.—E. D——, twenty-one years of age; tube slipped into chest, July, 1876, and on Christmas second tube was lost. As the surgeon in charge was unable to remove them, the patient went to St. Francis' Hospital. Operated upon January 18, 1877. Dr. Ripley made an incision in seventh intercostal space, six and one-half inches from median line, and prolonged it backward about four inches. The seventh and eighth ribs were closely approximated and necrosed where tube had been in contact. Before proper instruments could be used, a portion of eighth rib was excised. (An angular fracture of the seventh rib was found, caused probably by attempts to force ribs apart in operations performed before admission.)

The cavity was then explored with uterine forceps and Emmet's silver probe, bent at extremity to form a hook. After repeated attempts the two tubes were found posteriorly and superior to incision, about one inch apart. First tube, seven inches long; diameter, goose-quill. Second tube, six inches long (Medical Record, 1877, vol. xii., p. 150).

Case V.—H. F——, female, twenty-six years of age; admitted to Charing Cross Hospital with empyema of right side and possibly phthisical changes in same lung. Aspirated January 8th, chest opened 10th, and drainage-tube of ordinary gum-elastic catheter used. Slipped into cavity 22d, and removed 24th. The piece of catheter, two and one-half inches long, was carefully secured by tying it with thread, but owing to some unexpected movement of the patient these threads were broken. An incision was made parallel to upper border of eighth rib and a bent probe passed in. After a little manipulation the tube was felt, seized, and successfully removed (J. A. Bloxam, *Medical Times and Gazette*, vol. i., p. 149. London, 1880).

Case VI.—Dr. R. Abbe was called in consultation to see a boy, five years of age, with an empyema operated on two months before. A drainage-tube had slipped into chest a fortnight ago. The patient was etherized; a probe passed in failed to detect the tube. The sinus in the eighth intercostal space was then dilated and dressing-forceps, straight and curved, were used without success. To give more room, one inch of ninth rib removed as follows: An incision, two inches long, was made down to the bone, the periosteum stripped, and a portion of rib gnawed away with rougeurs and Langenbeck's gouge. Some care was necessary in order to press back periosteum and pleura. The original sinus was then enlarged by lateral cuts of intercostal tissue, and two stout ligatures were passed into cavity by means of aneurism-needle introduced at either side of wound, and brought out in ninth interspace near cut end of rib. Thus the pleural subcostal periosteum and vessels were included and tied. The parts between were then cut through well into ninth interspace without any hemorrhage. The finger now introduced detected the tube parallel to spine, and a finger's length from opening. It was readily fished out with a stout bent probe and forceps, and found to be seven inches long.

In conclusion he adds, the accidental introduction of a drainage-tube into a cavity, which it is designed to empty, ought not to occur, if its end external to the

[1] Both cases presented at meeting of the New York Medical Union.

wound be transfixed by a safety-pin or needle, which will lie flat on the skin, and should not cross the lumen of the tube (MEDICAL RECORD, 1882, vol. xxi., p. 172).

CASE VII.—Dr. J. M. Hobson, in a detailed account of seven cases, treated antiseptically, states that in dressing No. 5 a second time, he found that "the tube had got into chest." Not stated how it was removed. "To prevent the tube slipping into the chest again it was transfixed with a needle, the point nipped off, and a strip of gauze interposed between its ends and the skin" (London *Practitioner*, 1882).

Dr. William B. Cheadle, Physician to the Hospital for Sick Children, Great Ormond Street, London, recommends as the best form of drainage-tube a modification of Baker's india-rubber tracheotomy tube. The flange prevents the loss of the tube into the pleural cavity—an accident which has occurred more than once with a portion of common tubing; once, perhaps more often, this has led to a fatal result (*Lancet*, American reprint, 1882, vol. i., p. 139).

CASE VIII.—At a meeting of the Société des Sciences Médicales de Lyon, Conette presented a drainage-tube removed from the pleural sac. A large tube was introduced after the first had entered the cavity. In some extraordinary manner the smaller tube got into the lumen of the second and was thus readily removed. Truly a remarkably fortunate occurrence (*Lyon Médical*, 1882, No. 20, p. 53).

CASES IX., X., XI. and XII.—Martin Oxley, in an article on "Pleurisy with Effusion" (*Liverpool Medico-Chirurg. Journal*, January, 1882), remarks: "If an ordinary drainage-tube is used, care must be taken to prevent its falling into the cavity of the pleura. This has happened on several occasions." He refers to a case reported by Dr. Wyglesworth, no bad result following. In the "Appendix of Illustrative Cases" four cases of foreign body in pleura are added. 1. In Dr. Durham's case a piece of linen was drawn in by violent inspiratory movement; removed by a pair of slender forceps, designed for removal of foreign bodies from the œsophagus. 2. In Mr. Brudenell Carter's case, a tube—six inches long—slipped into chest and remained for seven years without giving rise to symptoms; discharge still going on through another tube. 3. Dr. S. Thompson, gum-elastic catheter in chest for seven months, giving rise to no special symptoms referable to it. 4. Dr. Pugh, five inch drainage-tube slipped into chest; the opening closed; and two and a half years afterward the man is in good health.

CASE XIII.—Under the long heading "Extraction sans opération sanglante d'un tube à drainage tombé accidentellement dans la cavité thoracique, dans un cas de pyo-pneumothorax ancien, du côté gauche, avec persistance d'une fistule cutanée au point où avait eu lieu l'évacuation artificielle d'un abcès pleural," M. Duboné reports a case occurring in a male, twenty-four years old. One day while the patient was introducing the tube, it suddenly slipped in, in consequence of a deep inspiration provoked by a violent fit of coughing. The patient's condition was such (having had the fistula for six or seven years) that operative measures could not be used. Health became worse and worse, and the following plan was adopted: An elastic rubber cord covered with silk (about 50 ctm. long, diameter No. 5, Charrière) was folded into two equal parts. The looped portion readily entering the fistula was first introduced, then the rest was introduced once or twice daily into the thoracic cavity, 3 to 4 ctm. of each extremity remaining outside, and then slowly withdrawn, the idea being that as the cord was pushed into the cavity, its inherent elasticity would cause it to spread out and act as a snare. After fifteen days' trial (repeated once or twice daily) the tube was caught (one end appearing in the wound) and readily removed. The tube was 76 mm. long, diameter No. 10, Charrière, and though fifty days in chest it had not changed any (*Bull. et Mém. de la Soc. de Chir. de Paris*, 1882, pp. 571–574). It is difficult to say, which to admire most, the ingenious plan or the patience and perseverance of the physician.

CASE XIV.—Weir, in a clinical lecture delivered at the New York Hospital, refers to a case of his in which a rubber catheter, introduced to effect drainage, proved defective and broke off, so that one end of it remained loose in the pleural sac. For this reason a free incision was made through the chest-walls in order to remove it (*New York Medical Journal*, December 29, 1883).

CASE XV.—Dr. A. Caillé kindly favors me with the following: Child, sixteen months old; empyema of right side; chronic pneumonia of left side. Incision in eighth space; eight ounces of pus escaped, and cavity washed out with Labarraque's solution. Medium-sized drainage-tube (rubber) introduced and fastened with a safety-pin. The latter was a source of much irritation to the child, and induced me to split the end of the tube and stitch to skin with strong silk about two weeks after the operation. The child rested well after this. A week later the parents came to my office and asked me to hunt for the tube, which had probably slipped into the thoracic cavity. I introduced a "hook pincette" and succeeded in grasping the tube at the split end and withdrawing it. The silk had cut through the skin, but not through the tube.

CASE XVI.—To Dr. Martin Burke I am indebted for a brief history of a case occurring in the practice of Dr. J. Burke. N——, thirty-five years of age. Pleurisy, pus, drainage. Two weeks after incision patient carelessly took off strings which were attached to the plasters. Tube slipped into chest cavity. No operation would be consented to. New tube introduced. Five days after, patient had a violent fit of coughing, and both tubes were expelled through the incision. Patient made a good recovery.

CASE XVII.—Dr. J. L. Morrill kindly communicated the following: B. W——, male, eight years of age. June 26, 1882, an empyema of about two months' standing was operated upon by incision. A soft rubber drainage-tube, ten inches long and a quarter of an inch in diameter, was inserted and firmly fixed to a bandage around the body. July 1st, while dressing in the water-closet, the patient declared that the "tube had dropped into his body." The doctor, however, concluded that the boy was mistaken, inasmuch as the tube was bent upon itself at right angles, with more than half upon the outside, and securely fastened to the bandage. In the absence of positive evidence another tube was introduced and developments awaited. August 8th: Sent to country; gained nine pounds in ten days, and could walk about five miles daily. Tube removed August 26th, and wound healed at once. Patient frequently examined during the following months. The lung had expanded, vesicular breathing present to base; some pleural thickening. About the middle of the following May he took cold and developed a bronchitis of the right side. May 26: Was taken with a chill, fever, cough, and pain in the left side. Subsequently an empyema of the left side manifested itself. August 5, 1883: Drs. J. R. Leaming and White were called in consultation and an immediate operation advised. The new trouble being attributed to the presence of the tube which had fallen into the chest eleven (?) months before. August 6, 1883: Under ether an incision two inches long was made in the ninth intercostal space, and the pleura opened; thirty-two ounces of fetid pus escaped. The little finger was then introduced, and in a mass of thick pus and broken-down clots the tube was found in the most dependent portion of the chest. No adhesion or encystment. The boy was turned on his back, the tube brought to opening and removed with a blunt hook. September 17th: Nothing could be injected into opening; wound allowed to close. Patient perfectly well at date of this report, October 10, 1884.

CASE XVIII.—Yesterday (October 13, 1884) I had the pleasure of witnessing Dr. J. L. Little operate, and re-

move two drainage-tubes from the chest of a patient with empyema, at St. Luke's Hospital. The following are the main points in case: Male, thirty years of age. Was aspirated twice (five and three quarts of pus being withdrawn). In April, 1883, Dr. Burchard made an incision about two inches in length in the eighth intercostal space—eleven quarts of pus escaping. Two drainage-tubes were then introduced, and the extremities made fast by ligatures fastened to strips of adhesive plaster. The next day it was found that the adhesive plaster had become softened by the discharges, and the tubes had disappeared. The surgeon in charge searched for nearly two hours without finding them. At the consultation held next day it was decided that as the patient was doing well, and as the cavity was large, it was best not to attempt further search until the cavity had contracted. Two months after the patient passed from under the doctor's care. When presented to Dr. Little, eighteen months after the first operation, the daily discharge amounted to about one-half pint. On introducing the probe it came in contact with a tube. About an inch of ninth rib was excised, and the drainage-tubes were removed without much trouble. The tubes were three-eighths of an inch in diameter—one was eleven and one-half inches, and the other nine inches in length, and had been in the chest for eighteen months.

Case XIX.—At a meeting of the New York Surgical Society, Dr. Stimson said he had once occasion to remove a drainage-tube about one inch long from the pleural cavity, into which it had slipped after the breaking of the string by which it was secured. He removed a portion of one rib and seized the tube with a long forceps.

In an exceedingly elaborate, exhaustive, and learned discussion, extended over a number of months at the Academy, and reported in the *Bulletin de l'Académie de Medécine*, Paris, 1872—"Sur la Thoracocentèse"—the following cases are referred to:

Case XX.—M. Béhier removed a rubber bougie from the thoracic cavity of a patient with empyema, at La Pitié after incising an intercostal space. Patient recovered (p. 383).

Case XXI.—M. Richet was called in consultation by M. Beonutz to see a case of empyema in which a rubber bougie had escaped into the pleural sac. Removed through an incision in third intercostal space (*de bas en haut*). Recovery (pp. 479, 494, 700).

Case XXII.—Dr. Labric successfully removed a rubber tube from the chest of a child by means of a pair of curved tracheotomy forceps (La Thèse de M. Voyet, February 2, 1870, p. 43, *Bulletin de l'Académie*, 1872, pp. 479, 624).

Chassaignac has made it a rule to pass a cord through the entire length of the drainage-tube, and tie the ends externally, whenever the rubber is poor in quality (*Bulletin de l'Académie*, 1872, p. 482).

On page 552 he says: "The use of the elastic fenestrated tubes (*en forme de tube annulaire*) prevents an unfortunate but not infrequent accident, the escape of the tube or canula into the chest it is designed to drain."

Case XXIII.—Duplay ("Pathologie Externe," fasc. 3, p. 501) has seen a patient operated upon for empyema, in whom the long rubber bougie, which had been placed in the wound, entered the thoracic cavity. It occasioned so little inconvenience that he would not admit the reality of the accident, though it was evident that the tube could not be anywhere else than in the chest.

Case XXIV.—Rubber tube in right pleural cavity. The wound was dilated with a tent and long curved forceps, introduced by M. Peyrot. . . . Returned to the hospital later (une 2e fois chute du tube en cavité), it was impossible to seize the tube with dressing-forceps introduced into the wound. The patient was then turned, so that the aperture was dependent, the forceps were then introduced, and readily caught the foreign body (Dupuy, "Des Soins à donner aux operés d'empyèmes," Th. de Paris, 1876).

Case XXV.—M. Toussaint (médecin aide-major de 2e classe) reports the following: L——, twenty-two years of age, soldier; tapped several times (4 litres of sero-purulent fluid withdrawn, then 1,250 grm.); diphtheria of fauces, etc. June 5th, punctured with hydrocele trocar, and a fenestrated elastic tube introduced through canula; 900 grm. pus removed, and pleura washed out. As fistulous opening gradually enlarged, a tube, size No. 20, Charrière, was then introduced. General condition, better; vesicular breathing heard all over anteriorly. July 1st, when about to wash out the chest, it was found that tube had escaped into the pleural cavity. The little finger was introduced and forceps passed in various directions. Fistula then dilated. Next day a variety of forceps were passed in different directions by M. le Médecine-principal Poucet. The cavity was then injected, and patient so placed that fistulous opening would be at the most dependent portion. Then finger introduced. The patient's condition counter-indicated any further trials. A diaphragmatic purulent effusion subsequently formed on the other side. Though aspirated a number of times (1,200, 600, 310 grm. being removed), the patient died November 17, 1880, his death being preceded by hectics, colliquative diarrhœa, œdema of lower extremities, etc.

At the autopsy the inferior third of left lung was adherent in front, posteriorly, and in neighborhood of fistula. In front, and a little below the fistula, the tube was found angularly bent upon a bridge of new tissue about the size of the little finger. One side of the angle ran parallel to the sixth rib in a cavity with thick, fibrous walls, formed inferiorly by adhesions between the diaphragm and parietal pleura. The other side was lying transversely in a cavity shaped like the finger of a glove formed by the lung itself. These two sacs contained about 60 grm. of pus. Lower third of lung was hepatized, and presented some spots of cheesy pneumonia—no tubercles (*Rec. de Mémoires de Méd. de Chirurgie et de Phar. Militaires*, No. 205).

Dr. H. Kretz, in a personal communication, informs me that he succeeded in removing two rubber tubes from the chest of a child.

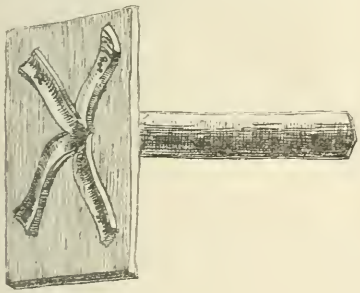
The original wound was incised, but the hemorrhage was so profuse that it became necessary to plug the opening. Subsequently he introduced an endoscope, and was thus able to locate and readily remove the tubes from the upper and posterior portion of pleural cavity.

Drainage-tubes.—Before proceeding further it may be well to spend a moment in considering drainage-tubes. Most surgeons have their individual preferences: the result is, that a variety of ingenious and excellent devices have been developed. Tubes of metal, india-rubber, hard rubber, or glass, may be used. Metal spirals and drainage-probes have their advocates. India-rubber tubes, first systematically resorted to by Chassaignac, possess many advantages over the costly, unyielding, metallic instruments. They are flexible, non-irritating, readily made, and easily manipulated, and form an inexpensive and universally applicable means of drainage. Ordinarily we employ rubber tubing of different diameters (red, not containing free sulphur is preferred), perforated laterally at short intervals (diameter of each opening being about one-third circumference of the tube. The outer end is cut flush with the skin. To keep the drainage-tube from slipping into the cavity, a variety of methods have been advised.

Mechanism of process.—Aside from sheer carelessness and the use of poor and defective tubes, the accident may occur in consequence of imperfect methods of fastening tube, and second, inward traction. The latter, in my mind, is the prime factor in many cases. Goyder (Senior House-Surgeon, Newcastle-on-Tyne Infirmary) found in treating a case of empyema by "respiratory irrigation," that one-half ounce of fluid was drawn up at every normal inspiration, and four ounces in deep inspiration, the tube used being eighteen inches long and three-quarters of an inch in diameter (*Lancet*, 1881,

p. 406, American reprint). Not only may the tube be sucked in during forced inspiration, but if a long tube be used, a further force, exerting a more gradual effect, is brought into play. On the latter ground only can I explain the accident in my case. It seems to me plausible to presume that a long tube may be caught between the chest-wall and the lung, which is expanded with each inspiration, at the same time the other extremity is carried upward and outward by the movements of the ribs; thus a certain amount of traction is put upon the fixed portion of the tube external to the wound. This process is repeated with each inspiration. The result is a yielding of the weaker portion. In my first case the plaster, loosened by the pus, no longer afforded protection, and the tube was gradually drawn in. In the second case the safety-pin gradually cut through the rubber, and thus allowed the tube to slip in.

Prophylactic means.—In view of the disadvantages and danger attending the use of the ordinary tube, numerous modifications have been adopted. A simple, efficient, inexpensive, and safe tube was suggested by Dr. E. Buchanan Baxter, of King's College Hospital. "A round hole is first cut in a piece of red india-rubber sheeting one-twelfth of an inch thick, and about one and a half to two inches square. A tube of the size required, and without holes, is then split at one end into four pieces, which are drawn through the hole in the flat piece of rubber, turned down and fixed in position by stitches of fine silver wire." The tube should be just long enough to project into the chest cavity—one and a half to two inches—according to the thickness of the chest wall. Nothing is gained by curling up an enormous length of tubing in the chest. Such a tube adapts itself to a sinus leading in any direction, and requires no special manœuvre to prevent it entering the chest (Godlee, *Annals of Anatomy and Surgery*, July, 1883, vol. viii.). These tubes can be made in a few minutes, of any size required, by the physician himself.



Ought the removal of the tube accidentally lost in the pleural cavity to be undertaken in every case? If so, what methods may we resort to, in order to accomplish this object?

These questions come up naturally. If allowed to remain, the tube may be encysted; second, may give rise to an intractable fistula; or third, may set up new inflammatory action. Though encysted or innocuous for the time being, the tube may give rise to trouble in the future. In the literature of antiseptic surgery we meet with instances in which a rubber tube, accidentally overlooked in the wound, has not given any evidence of its presence until an abscess form, followed by the discharge of the offending body.

O. Eyselin reports a tube, seven centimetres long and three-fourths centimetre diameter, overlooked in a case of deep-seated suppuration in right lumbar region (the thread fastening it having been broken). There was no complaint for nearly seven months. When four months advanced in second pregnancy an abscess formed in the lumbar region, broke, and to the surprise of the doctor and patient, the tube appeared, and when removed was found unchanged (*Berl. klin. Woch.*, 1881, xviii., p. 476). In this connection the case or Dr. J. L. Morrill is particularly interesting. "The wound had all healed, and during eight months there was absolutely no indication of the presence of the tube, and had he not taken cold or contracted some other disease that would light up the old trouble, it might have been there to-day."

Radek and Toussaint have reported fatal cases. Cheadle says once, perhaps more often, this (loss of tube in chest) has led to a fatal result:

The dangers attendant upon long-continued suppurated processes are well recognized and understood. The cause must be removed. The same rule of surgery ought to guide us in cases of thoracic fistula due to the presence of a foreign body. Remove the tube, which has escaped into the pleural cavity, as early as possible. Do not subject your patient to the danger of tuberculosis, waxy degeneration of important organs, or septic poisoning. New inflammatory complications arising from the presence of an irritant in the chest may place the patient's life in the greatest danger.

Thus we must necessarily admit the advisability of operative interference. As the various measures have been fully entered into in the cases reported above, I shall merely present the following resumé:

The simple methods should be resorted to first. If we are fortunate enough to see the case within a short time of the accident, before the position of the tube has been changed by cough or other movement, we may succeed in seizing the tube with forceps introduced into the wound. If the orifice be too small to admit the forceps, use a sponge-tent or dilator. In using the tent we must bear in mind the possible existence of a bony bridge of union between the ribs in chronic cases, the tract passing through an osseous ring. The attempt to enlarge such a sinus by means of a sea-tangle tent necessitated the removal of a portion of two ribs in a case reported by Godlee ("Annals of Anatomy and Surgery," July, 1883). In order to gain the "required sense of touch" it is advisable to pinch an india-rubber tube with forceps, before blindly searching the cavity.

If we fail after passing forceps of various kinds into the thoracic cavity in different directions, the patient should be placed in the horizontal position, the fistulous opening being most dependent, and then search again with forceps, bent probe, etc. This not succeeding, inject the cavity with water, in the hope that the return stream will carry the tube into the vicinity of the opening.

These means proving unsuccessful, the orifice should be enlarged with a knife so that the finger can be introduced. If the space be still too small, a portion of a rib must be removed in order to accomplish our object.

The patient's condition being such that operative means cannot be resorted to, we may avail ourselves, if we possess the necessary amount of patience, of Dubonè's plan.

Further, it is well to bear in mind that the adhesions which have occurred between the pulmonary and costal pleura in some cases will probably retain the foreign body in the neighborhood of the fistula, rendering the removal a simple and easy process. The case is apt to be more serious if the affection be recent; adhesions not having had time to form, the tube has probably gained the most dependent portion of the cavity, and will in all probability be found in the costo-diaphragmatic sinus. The complication is greater if the original incision have been made high up. A second opening in one of the lower intercostal spaces may be required before we can reach the tube in the chest.

In conclusion I would add, if an ordinary tube be used, thorough measures should be observed in order to avoid any accident. Poor material should be discarded; subject the tubing to the proper test—"it should bear being tripled in length without breaking" (Nicaise, *Revue de Chir.*, December, 1881). Inefficient means should be avoided. A strip of plaster, a pad of oakum, or other

dressing will not answer. If the patient be permitted to introduce the tube, warn him of the attending danger, and instruct him how to fasten the tube in a proper way. Remember that the silk threads attached to the tubes have been broken more than once. The safety-pin may cut through the rubber in other instances. The tube of Baxter, recommended by Godlee and Pilcher, is so simple, readily made, and safe, that I would insist upon its use in all cases. I have used it twice during the past six months, and have no fault to find. It answered its purpose fully, and is unattended with the danger of accidentally slipping into the chest. I cannot say too much in its favor.

SEPTIC PYÆMIA PRECEDING PARTURITION FOLLOWED BY METASTATIC CHOROIDITIS, ETC.

By S. H. HUNT, M.D.,

LONG BRANCH, N. J.

Mrs. B—— was delivered of a dead fœtus and a purulent placenta July 25, 1884. The case presented a train of unusual symptoms, made more noticeable on account of a similar result of labor which occurred one year previous (June 14, 1883). At that time it was supposed she had overrun the average period of gestation. Her appearance was peculiar on account of the unusual size of the abdomen, which pointed to a plurality of conception, but the event proved otherwise. But this conviction was not dissipated by the delivery of the child, as she still appeared to be of mammoth proportions. An examination (intra-uterine) showed an absence of any other fœtus, but revealed a mass on the fundus or side of the womb larger than a fœtal head. This was more discernible by external palpation and manipulation. Having delivered a woman of a living child weighing nine pounds who presented a similar condition, and had three large fibroid or intramural tumors, which accounted for her deformity, it naturally occurred at first thought that a somewhat similar condition might now be present. But this conclusion was gradually abandoned as the history of the case unfolded itself. In two or three days a discharge of half a pint of pus from the uterus awakened further investigation and inquiry. This discharge continued for some time, but gradually abated, the womb slowly assuming normal proportions under massage and intra-uterine douches. It was fully three months before it ceased to be noticeable, at which time but little sub-involution existed.

The patient had a tardy but complete restoration of health, and no untoward symptoms presented themselves. Before her return to the city, late in the fall, she informed me that she was again pregnant, and full of hope for a more successful accouchement the coming summer.

It was my misfortune to witness her disappointment on the day before stated. The authorities I had consulted during her first illness gave no history of an abscess occurring under such circumstances in the body of the womb, or rather in its muscular coat, and I was led to the conclusion it was one of those rare cases of salpingitis, or an abscess of the Fallopian tube which found its escape into the uterus. The cause was undoubtedly owing to a partially decomposed fœtus or a decomposing placenta.

The absorption of septic material may, as Virchow has shown, be delayed by the local changes produced in the lymphatics and in the glands with which they communicate, which are therefore conservative in their action, and the further progress of the case may in this way be stopped, and local inflammation alone result, such cases being believed by Heiberg to be examples of *abortive pyæmia*.

The subsequent accouchement of this lady was a confirmation of the conclusion that was reached during her first confinement. I was called to see her on July 22d, at which time she informed me that her labor was past due, and that 280 days had elapsed the preceding week since the cessation of her menses. Knowing full well that considerable variation is frequent where accurate records are kept, and that when labor is deferred it rarely interferes with the viability of the child, I endeavored to assure her on this point, as she appeared in perfect health. If her record was correct, it was not unusual or remarkable, in view of the many cases that have been reported. That its duration is oftener less than 280 days is indisputable, while some controversy has arisen as to its being prolonged beyond that time, but facts, which are stubborn things, prove it beyond a shadow of doubt. Desormeaux reports from a single coitus a case of 287 days; Lee, 287 days; Beatty, 291 days; and Skey, 293 days. McIlvain reports one 293 days, and another 296 days. Ashwell, 300 days, while Asdrubali believes a pregnancy of 13 months and 22 days, and Meigs that 420 days does not vitiate chastity. In The Medical Record, November 22d, Dr. J. W. Wright reported and substantiated a case in which the duration of pregnancy was 330 days. The lady was delivered of a living child weighing 11½ pounds, the time of parturition being only three hours. He further states the longest case he was able to find was reported in Leishman's "Midwifery," and was 332 days.

July 24th.—Mrs. B——'s condition was good, and promised well until the evening of this day, when she was taken with a heavy and pronounced chill lasting about twenty minutes, followed by a burning fever with a temperature of 104½°. She complained very much of burning of the skin and the terrible irritation it produced. I have rarely seen the capillary congestion so intense and so pronounced.

This new and unexpected development awakened the alarm of her husband, and Dr. James B. Hunter was called in consultation to consider the feasibility of producing labor, which he deemed inadvisable, and it was therefore deferred. I was called at twelve o'clock the same night and found labor had commenced. The temperature had fallen to 103°. I delivered her of a dead fœtus slightly changed in appearance. The cord was dark and fragile. The placenta, which was intact, presented a peculiar appearance. Its surface, where it had been attached, looked like a grayish sloughing ulcer, and quite a quantity of apparently purulent matter followed its removal.

John Hunter is reported to have taught that the separation of the ovum from its temporary lodging-place in the uterus involves what is equivalent to an extensive wound, healthy and well-disposed, and nearly always equal to its own cure. The wound left in this case, from the appearance of the detached placenta, must have been unhealthy and ill-disposed, and judging from the placental tufts it was a sloughing wound and the foci of the septic absorption that was ushered in by a chill before parturition commenced. It was without doubt autogenetic. The labor was a comparatively easy one, lasting but six hours, though she required some assistance. Her thirst could not be assuaged, nor the fever allayed. I visited her again at midday and found that a thoughtless woman had carelessly opened both windows and the door, and a strong draught from a cold raw and chilly northeaster was sweeping over her. This was done at her urgent solicitation to allay the burning heat of her face and body, which she said would set her wild. Quinine was given, thirty grains daily, and intra-uterine douches of bichloride of mercury, while vaginal douches of carbolic acid were frequently made.

July 26th.—She complained of pain in the left knee and shrieked with its every movement. It was swollen, and several fiery red spots attracted attention. My worst apprehensions were about to be realized. On the same day the right eye was violently inflamed.

June 27th.—Fever varied during the day from 102½° to 103½°, but no more chills were experienced: knee was

more swollen, and the left arm became useless from a similar cause.

July 27th.—There was a slight abatement of the fever, but the orbit of the eye was pressed out by the intra-ocular effusion, which ruptured the conjunctiva and allowed it to hang in serrated folds on the cheek. It was unmistakably metastatic choroiditis, and the rapid inflammation soon resulted in purulent effusion pushing the lens forward into the anterior chimney of the eye.

July 28th to 30th.—The lochia came on profusely and was of a bright arterial color for several days. There was no marked odor of the lochia, nor were there any symptoms of metritis or peritonitis. The abdomen was not tender on pressure, nor was there any tympanites. The fever continued with slight variations, and the new foci of poisoning showed themselves in the lymphatic glands of the neck, which became enormously swollen. The right limb became also affected, and only anodynes alleviated her sufferings. There was no secretion of milk in the mammary glands, and they were flaccid and unenlarged. She was given with quinine the bichloride in minute doses, and the douches were continued. Her appetite continued fair, and a liberal diet of eggs, milk, and the juice of broiled steak, with milk-punch, constituted her diet.

August 1st to 3d.—Her symptoms grew gradually worse. There was sordes, her mouth was coated with a thrush-like exudation, and the stringy, tenacious secretion was with difficulty wiped from her swollen lips. She now became at times delirious, while the swelling of the joints partially subsided, but her strength was gradually failing her. The eye had suppurated and no symptom of septic pyæmia was absent. Drs. Hunter, Riley, Smith, and Hughes saw the anomalous case with me, and all gave a fatal prognosis.

August 3d to 7th.—She was now in a low typhoid condition, and had to be aroused from her stupor to take nourishment. Still, despite this, every time she was lifted on her pillow she groaned from pain. At this time there was a slight enlargement of the abdomen, while a profuse diarrhœa which came in frequent and overwhelming gushes added to her misery and discomfort. It was temporarily checked, but returned again, proving how thoroughly the mucous membrane of the intestinal tract—her whole system, in fact—was poisoned by the septic matter. This very estimable lady, of many graces and accomplishments, gradually sank from exhaustion, and died on the tenth of the month—seventeen days after her confinement.

A Simple Expedient in the Management of Strangulated Hernia.—A correspondent who has forgotten to attach his name to his article writes calling attention to a simple expedient that he has resorted to successfully in cases of strangulated inguinal hernia after taxis had failed. It consists in dilatation of the constriction which produces the strangulation at the internal abdominal ring by passing the finger along the inguinal canal, carrying the integument before it until the constricting ring is felt, which generally is easily done; the finger is then gently insinuated into the opening, and if the band of opposing fibres does not yield readily, gentle pressure is made against the upper border of the ring until it is felt to give way, when a resort to taxis again will ordinarily result successfully.

The advantages to be gained by this expedient are that it can be tried as soon as moderate efforts at taxis prove ineffectual, and before the tissues involved are injured by prolonged or severe manipulation; the patient is saved from the dangers resulting from delay; and the dangers attending operative interference, with the complications and sequences which may arise therefrom, are supplanted by a procedure which is harmless in itself and is not liable to be followed by any complication.

Our correspondent finds that there is no danger of creating a larger permanent opening at the internal ring. He has tried it in five cases.

PURPURA HEMORRHAGICA.

By JOS. HAV. ZITEKE, Ph.D., M.D.,

NAPOLEON, IND.

The quick and fatal termination of the following case of purpura hemorrhagica, its strange course, and the absence of all the common symptoms of the malady, lead me to submit its history to the notice of the medical profession at large.

Mr. Johnson M——, a farmer, living about three miles from our village, called upon me toward the end of last June, in order to consult me about some spots which appeared a few days previously upon his arms and legs, and caused him considerable uneasiness.

The spots were but few in number, of red color, which by and by changed into a purplish hue, and became surrounded by a yellow-greenish aureola. His general state of health was excellent; his appetite and his digestion good, his bowels regular, his sleep healthy—in short, he considered himself well in every respect, except the eruption.

I told him he was suffering from purpura hemorrhagica, and knowing but too well that he indulged very often in alcoholic drinks, I advised him to stop drinking and eating of old salty pork, take more light and vegetable nourishment, and use lemons in large quantities for some time to come.

The advice given did not suit the man, for I saw him during the following two weeks several times in one or another of our rather too numerous saloons, and sometimes far from sober.

About three weeks later he called again, and said he had consulted Dr. I. Anderson, one of the most able and respected practitioners of Ripley County, and had asked his advice. The doctor told him it was purpura, and advised him to use "iron tonic" and to take good care of himself, as the disease was dangerous. He had followed the advice of the doctor, used two bottles of iron tonic, but, instead of getting better, he grew weaker, and for some days had been bleeding from his gums.

On this occasion I examined him carefully, but could detect no disease whatever.

Stat. præsens.—The patient was a tall, muscular man, with very little of adipose tissue, but firm muscles and strong bones. His age was about fifty-six years, and his height nearly six feet. His skin was of a slight yellowish hue, his hands and feet covered with about ten to fifteen small lentil-formed carmine-red spots, and about as many dark purple petechiæ with large aureolæ of green-yellowish color. Heart and lungs were normal. His pulse was full and 75 per minute. His urine was tested for albumen and sugar, but the result was negative. No epithelial casts were present. The specific gravity was 1.020; the color light yellowish; the reaction slightly acid.

Examination of his past life revealed nothing. He was never sick. Even at that moment his appetite was good, his digestion perfect, his bowels regular, his sleep sound. No cough, no dizziness, no headache, no frequent micturition—in short, he felt all right, only a little weak, and bleeding from his gums, which had the common, infiltrated, spongy, scorbutic appearance.

I repeated once more the advice I gave him, and gave him liq. ergotæ purificatus and a tonic mixture of iron and aromat. sulph. acid.

About a week later I was called to his house, and found him sitting on the porch spitting from time to time a large quantity of blood mixed with saliva.

There was no change in his state, no symptom to be detected, no pain to be complained of, except the increasing debility and the continued bleeding. I was surprised that the remedies prescribed produced no effect, for I had tried them many times before, and they never failed in their action, but said nothing, and gave the same remedies in increased doses. However, I soon found out the cause of the inactivity of my drugs, which

consisted in nothing but the impatience of Mr. M——, who, having taken two or three doses and feeling no better, discontinued them at once and consulted another physician, who proclaimed his case to be "Bright's disease," and gave him some remedies which were "sure to cure him." However, after a week of treatment for Bright's disease, the patient grew worse and sent for me again, as I have already stated.

Having given him the remedies, I ordered him to use them carefully and punctually, as otherwise he would surely die.

The next day his son called at my office and told me the bleeding had stopped, but his father felt awfully weak. I advised him to continue the medicines, as no improvement or cure were possible but in the course of several weeks.

From that day on I never saw the patient again; for Mr. M——, disgusted with the slow treatment, took my medicines but for two days and sent then for another physician, who said the disease was a "lung trouble," and promised speedily to cure him. Having taken some of the medicines prescribed by this doctor, Mr. M—— was obliged to retreat to bed, which he never left, dying in about eight days later. If our county papers are to be trusted, the death certificate was "Death by Bright's disease."

Interested as I was in the case, I inquired about the symptoms of the last eight days of his sickness, and his nephew, an intelligent young man, said that from the moment he was confined to his bed till his death, he never coughed, had no fever, ate sufficiently, passed his water four or five times in twenty-four hours, and complained of no pain whatever. Only about an hour before his death he seemed to suffer. The petechiæ appeared also on his chest during the last week of his sickness.

The entirely painless course of the disease, the sudden death, and the impossibility of detecting any important organic disease, were facts which seemed to merit the placing the whole case on record. While practising in Austria, and later in Northern Germany, I have often had opportunity to see and to study cases of purpura hemorrhagica and morbus maculatus Werlhofii, but the prominent symptoms of all those cases were quite different from this one.

Thus in the districts of Northern Germany, where large quantities of brandy-wine are fabricated and consumed, I saw several cases of purpura, in cachectic subjects, debilitated drunkards, and persons suffering from cirrhosis, chronic nephritis, or Bright's disease.

Even here I saw but a few months ago a case of Bright's disease (Mr. D——) accompanied by slight purpura, but profuse hemorrhage of the gums, which appeared at the same time as the general anasarca, and lasted till the death of the sick man. In that case all the symptoms of Bright's disease were evident, and the chemical test of the urine confirmed the diagnosis.

And again, in cases of morbus maculosus Werlhofii, I never saw the patient bleeding from gums presenting the well-known infiltrated, spongy, scurvy appearance. Besides, the slow formation of the purpura petechiæ was always preceded by slight derangements of the digestive apparatus and a general debility and weakness of the constitution, while in the case of Mr. M—— the purpura appeared without any previous and warning symptoms, and was followed by a slight weakness, which did not prevent him from attending to his business at all.

Dr. Leloir published some time ago, in the *Annales de Dermatologie et de Syphilis* two cases of purpura, each of a different nature.

The first was that of a man, fifty years of age, suffering from inveterate syphilis, cirrhosis of the liver, and œdema of the extremities, who died of bilateral pneumonia. The post-mortem examination of a portion of the skin furnished a splendid picture of the changes caused by œdema in the skin, while the pathological changes as to purpura revealed but an enlargement of the capillary vessels, most conspicuous in the papillæ, which were considerably enlarged, even to fifteen or twenty times their former diameter. The external side of their walls was covered with numerous white blood-corpuscles. On places where the hemorrhagic infiltration took place all the vessels were strangely changed, the greatest and most conspicuous being in the endothelium. The epithelial cellulæ were lodged in four to five rows, and had on some spots a tendency to rise into the blood-vessels and thus to obstruct their lumina. Around the altered and obstructed vessels spots of extravasation were found, which though small in circumference were nevertheless very numerous.

The other case of Dr. Leloir was a subject in the last stage of phthisis, on whom the purpura appeared during the few last days of his sickness. The petechiæ were observed only on his extremities, which were slightly œdematous. The pathological examination revealed tuberculosis, dilatation of the heart, and partial fatty degeneration. The microscopical examination of the skin proved that the seat of the hemorrhage was in the central portion of the skin. The blood-vessels of the papillæ were normal and, even in the central portion and in the seat of the hemorrhage, unchanged, though in some few places enlarged. Meanwhile, the greater part of the blood-vessels of the central portion, and even some of the deeper ones, had their lumina closed by clots of fibrin. The blood examined showed a considerable diminution in the number of red corpuscles. Dr. Leloir explains the appearance of purpura in this case by formation of fibrin clots, which took their origin in the cachectic condition of the blood, and having closed the lumina of the blood-vessels, produced the hemorrhagical infarct upon the skin.

The first case, according to Leloir, is a case of purpura caused by the diseased condition of the vessels, the other by the cachectic condition of the blood itself.

Other cases of purpura reported more recently, were those of Dr. Schwartz, of Vienna, in which purpura appeared in company with an insufficiency of the valves of the aorta, and those of Dr. Morel-Lavallée, where purpura was seen in consequence of using chloroform (*Wiener Medicinische Wochenschrift*, No. 32. 1883. *Annales de Dermatologie et de Syphilis*, No. 2, 1884).

Some attempt at a classification of purpura was made by Dr. Mathieu in the *Archives Générales*, September, 1883, where it was stated that hæmophilia, morbus maculatus Werlhofii, and purpura produced by arthritic and rheumatic cachexia, by infection and poisoning, are nothing but a common symptom of several diseases, which he calls purpura cachectica, and which general term he subdivides into the following classes: 1, That produced by progressive anæmia; 2, that produced by tuberculosis; and finally, 3, the hydropignous or nephritic cachexia, following Bright's disease. The chief cause of the first class is pernicious anæmia, in which the physio-pathological state of the spleen is of the greatest importance.

Purpura which accompanies tuberculosis, and is sometimes called neuropathic purpura, has its origin in the diseased condition of the nervous system, and is found mostly in subjects with a hæmophilic or hemorrhagic diathesis.

As to the hydropignous cachexia, the hemorrhagic diathesis is as often found as anasarca or œdema. Similar to the purpura of Bright's disease is the purpura senilis, characterized by its long duration, its appearance on some favorite spots (as dorsum manuum et pedum), and its small petechial form without an aureola.

The short synopsis of the opinion of Dr. Mathieu can be given as follows:

First.—Pernicious and excessive anæmia, has as its characteristic sign general want of blood, often repeated œdematous swellings, hemorrhages, and its similarity to cancerous cachexia.

Second.—Purpura accompanying phthisis or tuberculosis pulmonum is caused by some secondary disease, as

meningitis, hepatitis, cirrhosis, yellow fatty degeneration, etc.

Third.—Purpura accompanying Bright's disease is not uncommon—yea it can often lead to detection, or perhaps to confirmation, of a doubtful diagnosis.

The prognosis in such a case is, however, always fatal. Cardial cachexia may also be accompanied by purpura, in which case it is usually caused by a general sclerosis of the arteries, or by icterus, albuminuria, etc., in which case it spreads all over the body. If it is, however, only local, or covering the extremities, it originates from embolism, œdema, or some local obstacle in the circulation.

As to its form and shape, it appears both in the form of petechiæ or ecchymoses, which sometimes may cover a large circumference. The papular or erythematous form, however, is never observed in such cases. Such is the synopsis of the classification of purpura hemorrhagica by Dr. Mathieu.

To return, however, to my own case, I can but say that the absence of all physical and pathological symptoms, and the impossibility of examining the blood or skin of the deceased chemically and microscopically, made me quite unable to place the disease into any class whatever, and obliged me to design it by the simple name, purpura hemorrhagica.

In conclusion, however, I cannot help saying, that if the statistical tables of Indiana are based upon such an accuracy as was done in this case, and as I observed in at least ten other cases, I think the time and money expended worse than useless, and do not wonder that Dr. Elder, the Secretary of the State Board of Health, does not look upon them with full confidence.

Progress of Medical Science.

Naphthalin in Various Intestinal Diseases.—The success attending the employment of naphthalin in diarrhœa was recently noticed in our columns. In the *Berliner Klinische Wochenschrift*, October 20, 1884, Rossbach relates his experience with the drug in a variety of intestinal disorders. He now regards it as the best of disinfectants for internal use; indeed, it was from its action on the process of putrefaction in the intestine that he was led to employ it, not only in diseases of this organ, but also in those systemic maladies which affect especially the intestinal tract. The drug must be given in a purer form than that usually found in the shops, and it is advisable to wash it with alcohol until this flows clear. His favorite prescription is as follows:

℞. Naphthalini purissimi,
Sacch. albi.....āā gr. lxv.
Ol. bergamot..... gtt. j.

M. F. pulv. divide in part æq. No. xx.
S. from five to twenty powders during the day in wafer.

In tubercular affections of the intestine he has used it uninterruptedly for weeks without any ill effects. When a sufficient quantity of naphthalin is given the stools become almost odorless. In long standing catarrh of the small or large intestine, with or without ulceration, the drug has, in the author's experience, given the happiest results. In acute diarrhœa it acts well, but as this disease is self-limited and so well controlled by opium, its employment is not urged. In the summers of 1883 and 1884 a large number of children were treated for cholera infantum. Those treated with naphthalin in doses of one to three grains, every two hours, appeared to do as well, at least, as those treated with calomel. When given in small doses in typhoid its effects were not marked, but when the dose was increased some cases were seemingly aborted in five or six days, and others appeared much benefited. Judgment is reserved on the beneficial effect of the drug in tuberculosis of the bowels, but in the present helplessness of medicine in this affection it may well be tried. Finally, arguing from its undoubted benefit in most intestinal diseases, the author advises its trial in large doses in the premonitory diarrhœa of the first stage of cholera.

Uræmia.—The pathology of uræmia reminds one of attempts to thread a needle in darkness, the distance of the point of the thread from the eye of the needle being very difficult to determine. One year we are informed on good authority that urea may be injected into the system without serious results, and the next year the direct opposite is affirmed. This is but one aspect of this many-sided subject. The chief dispute in the pathology of uræmia is as to the nature of the toxic agent. Drs. Gréhant and Quinquaud have returned once more to the question, and in an experimental method (*London Lancet*). Subcutaneous injections of aqueous solutions of pure urea have been employed in gradually increasing quantities on frogs, guinea-pigs, rabbits, pigeons, and dogs. The result was constant for the different kinds of animals, and consisted in a more or less rapid death from tetanic convulsions, similar to those produced by strychnia. The most numerous experiments were performed on dogs. The toxic dose of urea in the blood was fixed with exactitude, and the influence of urea on muscular contractility was studied. Death always ensued when a dog received into its system 10 grammes of urea for every kilogramme of body weight, or in other words when a hundredth part of the body weight of urea was injected. The proportion of urea in the blood, as estimated just before or after death, was 6 grammes for every 100 grammes of blood, and this relative proportion obtained in all the other animals employed. In a case of anuria in a man the proportion was .410 per 100 grammes, and in another case of retention of urine, .278; in a case of interstitial nephritis, the patient suffering from uræmic dyspnœa, it was .210, and in a case of uræmic coma .215. Under the circumstances of the experiments all the tissues of the animals were impregnated with urea, so that 100 grammes of blood yielded 613 milligrammes of urea; 100 grammes of liver, 580 milligrammes; 100 grammes of cardiac tissue, 311 milligrammes; 100 grammes of spleen, 662 milligrammes. The observers always noticed that the urea injected under the skin was never completely absorbed, even at the time of death, though death might have been delayed for ten hours. By exposing the sciatic nerve and displaying the calf muscles, to the cut tendo Achillis of which a dynamometer was connected, the authors decided that uræmia does not increase or diminish muscular contractility. The blood of the dead animals, when submitted to distillation at a temperature of 40° C. *in vacuo*, furnished a liquid absolutely free from ammonia; the conclusion drawn from this experiment is that urea does not act as ammonic carbonate.

Paracentesis Thoracis as a Therapeutic Agent.—Dr. White (*British Medical Journal*, November 1, 1884) recently read a comprehensive paper on paracentesis thoracis. From the earliest period, no subject has excited more discussion, or has evoked greater divergence of opinion, than the treatment of effusion into the thorax. This divergence, however, while of late years much lessened, yet continues; and the profession is still far from unanimous as to the best methods of dealing with such cases of thoracic effusion as are found to resist routine treatment. The points which, according to the author, are of importance in treatment are these: 1. In pleuritic effusion, early evacuation of the fluid by the siphon principle, discarding the aspirator, is indicated. 2. In empyema, pus should be withdrawn at once, by the siphon or by the aspirator, with the use of the manometer, and the pleural cavity irrigated. 3. Incision is called for where large empyemata have existed for some time in old or rigid chests, or where irrigation, having been practised several times, has failed. 4. Where incision fails to effect a cure, resort must be had to resection of ribs. 5. Paracentesis, with drainage, should be employed in the treatment of lung-cavities.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, January 3, 1885.

THE GERMAN, ENGLISH, AND AMERICAN METHODS OF TREATING ACUTE BRIGHT'S DISEASE.

ACUTE nephritis is a disease which is by no means rare and which always occasions anxiety to patient and physicians. Its treatment since it was first recognized has undergone some changes, and at the present day there is a lack of complete unanimity as to the best methods to employ.

In a recent lecture upon the therapy of nephritis, Professor H. Nothnagel gives an interesting presentation of his views upon this matter.

As regards the *indicatio morbi*, we have, he says, an acute inflammation with which to deal. Unfortunately, however, we cannot apply the ordinary antiphlogistic measures. Cold is dangerous; venesection is also of no use and may cause harm; even the application of wet cups to the loins, as once recommended, should be avoided, except in sthenic cases where there is great pain. The patient should be put to bed and the room kept at a warm and equable temperature. His diet should be carefully regulated, and should consist of milk, soup, a little meat, but no vegetables and no alcoholic drinks.

There are no remedies, says Professor Nothnagel, which act upon the kidneys to influence the course of the disease. "Whether one gives them or not, it is just the same." In practice, however, he adds, it is necessary on psychical grounds, *solatii causa*, to prescribe something. Acetate of lead or ergot may be given in the hemorrhagic forms. These drugs stop the hemorrhage, but do not affect the course of the disease. Tannin, gallic acid, and nitric acid, as recommended by Frerichs, are of no real service. Of fuchsin, which has been much used by Italian physicians, we know only this, with certainty, that it colors the urine. Potassium iodide has not yet produced any certain results. Nothnagel does not seem to be aware of the value of digitalis or of the alkaline salts, as used by English and American physicians.

But, although drugs are useless, "the physician must not stand idle with his hands in his pockets." If the inflammation cannot be directly affected, it can be at least lessened or checked by derivative methods.

The bowels and skin are to be acted upon. Drastic cathartics or drastic doses of senna, bitter-water, or other salines are advised. These drastics, however, are only to be given in severe cases, when some uræmic symptoms appear. Ordinarily, laxatives are all that is necessary. It is most essential that the skin should be acted upon, and for this purpose hot-water baths, hot compresses, etc., and pilocarpin are indicated. Such are the views of the Vienna Professor.

Coming to this side of the Atlantic, we find that the latest expression of American views upon the treatment of nephritis differs from that of the Vienna clinician. In Professor A. L. Loomis' recent treatise on "Practical Medicine," the author reviews this subject of treatment by diaphoretics and hydragogue cathartics. He states that he has been convinced for some years that the depurative method was wrong, and gives as the three indications: the elimination of urea and its allies, the removal of inflammatory products from the tubules, and the counteraction of the effect of urea and its waste products upon the nervous system. For this purpose the patient is put to bed, frequent dry cups are applied over the loins, and infusion of digitalis is given internally. This may be supplemented with acetate of potassium, spirits of nitrous ether, or some other mild diuretic. The bowels are of course kept open, and the skin moist. If severe uræmic symptoms appear, hydragogue cathartics and hot-air baths may be temporarily resorted to. Milk should be the only article of diet, and water is the best diuretic.

The view taken as to the utility of digitalis and the potash salts in nephritis, is sustained by the clinical experience of nearly all English observers from the time of Bright.

We believe that it is no national prejudice, therefore, which makes us express the decided opinion that Americans are in advance of the Vienna physicians in the practical management of acute nephritis. But both Germany and America must pay tribute to the scientific acumen and practical sense of the English in this branch of therapeutics.

THE INJURIES CAUSED BY VACCINATION.

IT is, we believe, advisable to give the anti-vaccinators full opportunities to ventilate their fanaticism, the parable of the calf and the rope being most instructive in this connection. It is not to be denied either that these same anti-vaccinators have done some good in causing more careful investigations to be made into the value of vaccination, its associate dangers and the safest methods of its application. Thus do we get wisdom out of the mouths of babes. *A propos*, we publish a portion of a letter just sent to us by Mr. William Tebb, of London, bearing upon the subject of the dangers of vaccination. He says that an anti-vaccination committee recently sent out four thousand circular letters of inquiry to medical men, receiving three hundred and eighty-four answers in return. Regarding these replies, Mr. Tebb says: "A conspicuous feature is the large proportion emanating from public vaccinators, medical officers of health, and, in short, those whose practical connection with the subject entitled their replies to serious consideration. These number one hundred and two. The object of this communication, however, is to call attention to one revelation of paramount importance to the public, which I apprehend, few of the committee suspected when the circulars were issued. I refer to the disclosures made in answer to the

third and most pregnant question : 'What diseases have you in your experience known to have been conveyed, occasioned, or intensified by vaccination?' From a careful analysis made by Mr. T. Baker, of the Inner Temple, it appears that 10 medical witnesses certify to inflammation, 19 to phlegmon, 22 to erythema, 24 to skin diseases [*sic*], 47 to syphilis [?], 69 to eczema [!], and 122 to erysipelas. Of these, 33 *refer* to fatal cases. In all 40 diseases are specially mentioned by 242 medical practitioners as having occurred in connection with vaccination in their own experience."

Without explaining the inoculation of eczema, or the forty-nine cases of syphilis, Mr. Tebb proceeds in artless disregard of logic to draw a number of conclusions from these statistics. It is useless to argue with such minds as that which our correspondent represents. Vaccination protects, and vaccination, if carefully performed, is safe. These propositions are absolutely demonstrated, and are perfectly unassailable. We abandon, as idle waste of time, attempting to demonstrate them again for the benefit of fatuous ignorance.

SOME RECENT VIEWS ON THE SURGERY OF THE GALL-BLADDER.

THE feasibility of ridding the gall-bladder of accumulated calculi, as well as the possibility of relieving obstruction of the various bile-ducts, may at any moment present itself to the practitioner as a question calling for decisive action. It is but a few years ago, that Sims brought cholecystotomy into prominence and repute, and already the operation has been performed almost thirty times.

In an article, discussing this subject, which appeared in THE MEDICAL RECORD, of May 3, 1884, Dr. C. W. Allen recorded eight cases of cholecystotomy for the relief of gall-stones, with five recoveries, and one successful cholecystectomy, which had been reported up to that time.

Lawson Tait, in *The British Medical Journal* of the same date, reported thirteen cases successfully operated upon by himself. Nine of these had not previously been made public. In one case, published by him in the same journal, July 12, 1884, Tait opened the abdomen and crushed a stone in the common duct, the patient making a good recovery.

Langenbech's operation for the complete removal of the gall-bladder appears to have been done in six cases, three of which recovered. Nevertheless cholecystectomy, as advised by him, can have but a limited range of applicability. And certainly in case the stone obstructs the ductus communis, as it often does, preliminary or supplementary lithotrity would become a necessity.

Spencer Wells' operation consists in removing the contents of the bladder, closing the incision in its walls by a continuous suture, and returning the organ to the peritoneal cavity without attaching it to the abdominal wound.

Tait condemns both of these operations, believing that in ordinary cholecystotomy we have all that can be desired.

However, Dr. Gaston, of Atlanta, Ga., is not satisfied with the simple operation, as advocated by Tait. In a paper published in *Gaillard's Journal*, October, 1884, he proposes, as a substitute, to establish an opening between the gall-bladder and the upper division of the intestinal canal. He thinks that Spencer Wells' operation may prove adequate, provided it is followed up by a subsequent procedure, allowing the bile to flow into the intestine. This suggestion of Dr. Gaston's is not, as he supposes, an entirely new one. Over two years ago Dr. Winiwarter performed a successful operation for occlusion of the cystic duct, attaching the gall-bladder to the colon. The case is reported in the *Prager Medizinische Wochenschrift*, No. 21, 1882. Dr. Gaston has not hitherto had occasion to perform his operation on man; but he gives the result of some interesting experiments on dogs. In several animals he united the walls of the gall-bladder to those of the duodenum by means of an elastic ligature. This he encircled with catgut stitches to produce adhesion of the surrounding surfaces. The ligature, by constricting and cutting the tissues, effected an opening between the two organs. One dog lived eight days, when an examination showed the existence of a communication between the gall-bladder and the gut. Four dogs died four, six, eleven, and fourteen days respectively after the operation. Still, in every instance an opening into the duodenum was found. Twice the ligature had passed into the intestine, once it was found in the gall-bladder, and once lying upon the duodenum. It was intended to ligate the cystic duct in the dog that survived, with the view of directing the discharge altogether through the artificial opening. This was found impracticable, however, by reason of abundant adhesions, which had been formed in consequence of the operation.

Dr. Gaston claims that, "a permanent obliteration of the communication of the gall-bladder with the intestine is incompatible with health, if not inconsistent with the continuance of life." He asks whether "there is any guarantee of final and complete recovery" after cholecystotomy has resulted in the external discharge of the bile. In fact, Dr. Gaston states that, if the operation of cholecystotomy is ever to be crowned with success it must be resorted to while the patient has yet strength to outlive the depreciation of all the vital functions incident to an interruption of the supply of bile.

This extreme opinion implies an exaggerated notion of the importance of the gall-bladder to the economy. It is, moreover, not borne out by actual experience. It should be remembered that the physiological dignity of the gall-bladder is a rather low one. For it acts chiefly as a temporary receptacle for surplus hepatic secretion.

Now it has been repeatedly shown that, even in those cases in which no bile enters the intestine, and the stools remain clay-colored for a long time, the patients experience no serious disturbances.

Tait says that none of his cases suffered in any way, even when all the secretion has come through the fistula. Indeed, at times great improvement in health and in weight have been noted. Nor should it be forgotten that the gall-bladder has been entirely removed, and one-half of the cases operated upon have recovered, and, so far as known, remained well.

To perform Wells' operation, as Gaston suggests, and supplement it by uniting the bladder with the intestines,

would necessarily entail great danger. The external wound would either have to be kept open or reopened after closure. Adhesions would doubtless interfere with the success of the subsequent operation, as well in the human being as in the case of the dog, upon which Dr. Gaston attempted it. But apart from any considerations of a theoretical nature, the actual success that has so far attended cholecystotomy should be a sufficient guarantee that final and complete recovery after this operation may and does take place.

Improvements will doubtless be made in the surgery of the gall-bladder, but for the majority of cases it does not appear that the operation proposed by Dr. Gaston offers advantages sufficient to compensate for the additional risk its performance would entail. In the present state of our knowledge cholecystotomy, as performed by Sims and Tait, still offers the best possible chances of success. At the same time the fact should not be lost sight of, that before an operation is attempted at all, a positive diagnosis and accurate indications must be definitely established.

THE PATHOGENESIS OF SIMPLE ULCER OF THE STOMACH.

The mode of origin of simple gastric ulcer, in spite of much experimental study and careful clinical observation, is still involved in obscurity. That it should have claimed in almost equal degree the attention both of pathologists and clinicians, is by no means surprising, for it is not alone a theoretical interest which attaches to the subject. Evidently, if the causation and pathogenesis of the disease are more clearly understood, treatment, both curative and prophylactic, can be made more uniform, rational, and successful.

We have had occasion, from time to time, to allude to new investigations bearing on the subject (see Medical Record, September 22, 1883, page 321, and September 6, 1884, page 270), and to-day we wish to call attention to the most recent contribution relating thereto.

Dr. Stiénon (*Bulletin de l'Academie Royale de Médecine de Belgique*, vol. xviii., 1884) has just completed an elaborate study of the pathology of gastric ulcer. His researches were prosecuted at the histological laboratory of the University of Brussels. As the result of his labors he arrives at a certain number of conclusions that it may be worth while to examine. In the first place he shows that in order to obtain a proper understanding of ulcer of the stomach, and more particularly of its pathogenesis, it will be necessary to take into account not only those causes which originally produce it, but also certain influences that promote its tendency to become chronic.

The former do not lead to true ulceration, but only result in the formation of a simple wound with a tendency to cicatrization. The latter depend upon secondary tissue-changes, starting at the edges of the ulcer. Among such changes the author mentions destructive inflammatory action, cirrhosis, and excessive glandular development.

As regards the latter, he finds that it is a process in all respects similar to what is observed in certain ulcerations of the cervix uteri. Glandular hypergenesis of this kind may lead to changes which result in naked-eye appearances hardly distinguishable from cancer or epithelioma. Of course, a microscopical examination would remove any previous obscurity or doubt as to the true nature of the metamorphosis in question. But, long before the microscope would finally decide the matter, clinical observation should have made diagnosis possible. Yet Dr. Stiénon has nothing new to offer touching the symptomatology of gastric ulcer and its differential diagnosis from incipient cancer, or those perplexing disturbances of neuropathic origin that may seem at one time almost nothing, and at another may so closely simulate the gravest forms of structural disease of the stomach as to mislead the most experienced among us.

Glandular hypergenesis is also invoked by Stiénon to explain the phagedenic character of some chronic ulcers of the stomach. It is possible, however, for the destructive process to be arrested at any moment. In that case the glandular cavities become contracted under the surrounding pressure of new-formed cicatricial tissue. The development of the latter takes its origin from the connective tissue that is found beyond the epithelium of the gastric tubules. But this very epithelium becomes disintegrated and finally disappears completely, leaving only the cicatricial tissue already mentioned. Inflammatory irritation of the glandular epithelium may thus be the first step toward the formation of a true gastric ulcer of the chronic variety. But besides all this there lurks in all such epithelial irritation the added danger of cancerous metamorphosis. Epithelioma or true cancer is but the irregular or atypical glandular hypergenesis that ordinarily leads to ulceration. The secondary process of destructive degeneration is similar in both morbid conditions.

Whether we accept the views of the Belgian writer or not, it seems pretty clear that gastric ulcer and cancer of the stomach are pathologically more nearly related than is generally supposed. And from this point of view gastric ulcer acquires a new and graver importance than is commonly accorded it. This practical inference seems eminently justifiable, that convalescents from ulcer of the stomach should be strictly enjoined to avoid carefully any and every kind of gastric irritation; for a process of benign cicatrization may, under such irritation, become transformed into one of destructive malignancy.

THE CAUSES AND PREVENTION OF DENTAL CARIES.

Dr. Henry Sewill has written for the *Lancet* an article in which he sums up the causes and means of prevention of caries of the teeth. Caries is a process of disintegration, invariably commencing at the surface, proceeding inward, and due entirely to external agents; enamel and dentine are passive under this process. The predisposing causes of caries are: first, innate structural defects in the teeth, which render them more susceptible to the action of agents; secondly, all such diseases as are attended with vitiation of the oral secretions, or which tend to the formation and deposit of acid and the accumulation of products of decomposition within the mouth; thirdly, to crowding and irregularity of the teeth, due to smallness and malformation of the maxillæ. The direct agents in initiating caries are acids, the products of chemical change and fermentation set up in fragments of organic matter which are commonly present in the

mouth and lodge between the teeth. These acids are often assisted in their action by acid mucus secreted by unhealthy gums, acid saliva in some diseases, acid eructations from the stomach in others.

Enamel, according to Dr. Sewill, is always the starting-point of caries. The enamel organ—that portion of a developing tooth from which enamel is formed—consists of epithelial cells, and it retains its epithelial character throughout the process of calcification. The completed tissue results from direct calcification of the internal layer of cells. Vascular papillæ arise from the contiguous layer of the dental sac, penetrate to a slight depth the external layer of cells, and convey nutriment to the developing tissue. On completion of the enamel these external cells, with the vascular loops, undergo atrophy and disappear.

Dentine consists of a homogeneous calcareous matrix with a basis of fibrous tissue. It is permeated by minute tubes occupied by fibrils which endow the tissue with sensibility, and which form the sole protoplasmic element in dentine. The bearing of these anatomical and physiological considerations upon the subject of caries depends upon the obvious fact that enamel is devoid of any physiological mechanism whereby either vital or pathological changes could be brought about in it, and that whatever changes enamel undergoes are induced by external agencies. It is a calcareous mass, devoid of cellular elements, and incapable of imbibition. The one dark spot in our knowledge of the remote causation of caries, according to Sewill, is found in the first predisposing cause: inherent structural weakness of the tissues. The enamel varies indefinitely, in different individuals, in the quality of its calcareous matrix; we often, in fact, encounter teeth whose soundest enamel is chalk-like in its softness. Teeth of general defective character often present patches of surface, the enamel of which consists merely of an imperfectly united mass of granules. Sometimes, in places, enamel fibres are penetrated at their centres by minute tubes which render the tissue at such places porous. Honeycombed teeth have enamel full of small pits and fissures, and there is scarcely a set of teeth to be found in which here and there, in one or more teeth, an isolated crack or cleft, a solution of continuity of the tissue, does not exist.

While our knowledge of origination of mal-development of teeth is very incomplete, there is evidence that in all races of advanced civilization there is a notable deterioration in dental development. Comparative disease of the organs of mastication has led in civilized races to decrease in size and strength of the whole apparatus of mastication—jaws, muscles, and teeth. This fact has been demonstrated by Professor Flower, who shows by examination and measurement of many thousand skulls that there is a gradual diminution in the size of the teeth from the anthropoid apes through the lower races of man to the European. It has been argued that progressive dental deterioration may be brought about by the overwhelming demand upon the vital powers by the growth of the brain and its increased exercise in modern life. The brain and the jaws are alike fed from the common carotid artery, and it is urged that the demand for blood by the growing and working brain leads to imperfect supply of the masticatory organs. Again, dental deterioration has been ascribed to improper and imperfect feeding of children, to insufficiency in the food of lime salts, the proper pabulum of developing teeth. If this were true the whole osseus system might be expected to be ill-developed, and it would be impossible to find a single individual with a solid skeleton. Perhaps, with very rare exceptions, there is no modern people displaying general progressive physical degeneration, and which is accompanied by ill-developed teeth. But it must be recollected that there has been among the populations a constant augmentation in the number of the physically imperfect. Vast numbers of the phthisical, the scrofulous, the rickety, and the congenitally syphilitic who would formerly have perished in childhood, are now by science kept alive, and these imperfect types are all associated with faulty dental development.

With regard to the association of defective dental tissues with particular diatheses, we find ourselves on firmer ground. Hereditary syphilis leads often to the imperfect formation of tooth tissues. The children of syphilitic parents are apt to have the enamel soft and easily broken down.

Imperfect dental development is also found in the majority of cases of scrofula. One class of patients, the subject of phthisis of tubercular origin, almost invariably presents faulty dental tissues. This is the type most frequently found in females, in which there is often, with a fragile form, considerable facial beauty, in which the eyes are large and expressive, the complexion fair, with the blue veins visible beneath the skin. In this not uncommon type Dr. Sewill has invariably found the teeth, though well shaped and fair to look at, covered with the softest enamel. With rickets, too, inherently defective teeth are invariably found.

Premising that but little can be done to prevent dental deterioration, except by the promotion of national sanitation in the broadest sense, and that any treatment designed to influence beneficially the developing teeth of the fœtus in utero when the parents have been subjects of the diatheses or cachexiæ above mentioned can be of little effect, the writer considers other factors in the causation of caries, viz., vitiation of the buccal secretions. The diseases of our times are largely those which give rise to derangement of these secretions, for many or most of them are either diseases of the digestive organs or maladies accompanied by disturbance of the organs of digestion. In this way we may account for the prevalence of caries among certain portions of the community whose dental tissues are not of the worst structure. The constant presence of dyspeptic troubles in some classes of factory operatives is undoubtedly enough to account for the rapid tooth decay from which they suffer. Moreover, some of the diatheses, notably a variety of scrofula attended with a chronic condition of congested oral mucous membrane, and rickets, are often accompanied by a secretion of viscid saliva and acid dyspepsia. The broad facts now before us are: first, that without acid, without vitiation of the secretions of the mouth, caries is impossible; and, secondly, that acid capable of dissolving enamel—and of more rapidly dissolving it in proportion as the tissue is soft and ill-made—is always being formed in greater or less quantity in every mouth in which absolute cleanliness does not exist.

In combating this second cause of caries, the patient's general health must first be considered, and we must remember that probably every lapse from a perfect standard will be attended with a proportionate vitiation of the secretions of the mouth. The question of the general health should then first receive attention and dyspeptic troubles be remedied. But even with perfect health and perfect dental tissues caries may appear if organic débris be allowed to remain and decompose in contact with the teeth. The first thing, therefore, in every case is to insure mechanical cleanliness by the use of a tooth-brush and tooth-pick, which latter should be of quill or wood only. When the teeth are crowded and of delicate structure, the use of floss silk passed between the teeth and rubbed to and fro supersedes the use of the tooth-pick. The tooth powder recommended by Dr. Sewill is as follows: Take of Castile soap, two drachms; powdered orris-root, half an ounce; borax, two drachms; and prepared chalk, two ounces. Mix and rub together; flavor with a few drops of oil of cloves and lavender. Instead of the perfume, Dr. Sewill has lately added a few drops of carbolic acid to each ounce of the powder, the whole being flavored with eucalyptus oil. The mixture should be used freely with a wet tooth-brush, the mouth to be freely rinsed with water at intervals during the brushing. In all cases where great vitiation of the secretions is present, as in the dyscrasia of pregnancy, extra means should be adopted to prevent putrefaction and fermentation in the deposits which form upon the teeth. A useful mixture for this purpose is made by dissolving a grain of bichloride of mercury in an ounce of eau de Cologne or tincture of lemon. Mix a teaspoonful of this with two-thirds of a wineglassfull of water, and rinse the mouth with it several times a day.

As for the caries which depends on crowded jaws and irregularity of the teeth (favoring retention of food-débris in contact with the teeth), the most beneficial measure to prevent caries in these cases, especially when the teeth are of imperfect formation, is the extraction of the six-year-old molars as soon as the second molars are well in place. The first permanent molars are generally the worst-made teeth of the set, and in cases where room is urgently needed it is seldom that their permanent preservation is possible. Removal of these teeth allows an equal and sufficient spreading apart of all the teeth and prevents the evils of crowding. The operation of filing and polishing the contiguous surfaces of canines and incisors as an effectual means of cutting short the progress of incipient caries in crowded jaws is too well recognized to need comment.

THE DOCTOR AND RELIGION.

If to serve one's fellow-man be the essence and the end of religion, no one is more devout than the doctor. If, as most think, and we among them, religion includes also something spiritual, a duty to God, a reverence for things eternal, a faith in the unseen and undemonstrable, then doctors are, many of them, lacking. Every profession has something in it which tends to drag the man down from higher planes. The clergyman is in danger of losing manliness and liberality of thought; the lawyer, a fine perception of the absolute value of right and wrong; the doctor, his faith. The doctor sees so many promises fail, hears so much that turns out false, reads so much that proves to be rubbish, that as he passes on in life he becomes more and more inclined to base his convictions only on that he has himself seen or known. What wonder that he sometimes doubts the beneficence of misery, and the utility of piety, or questions if the human wrecks that he meets have been ennobled with immortality, or stamped in the image of God.

While we trust that the spirit of benevolence and kindness is not growing any the less among the profession, there is a probability that reverence and faith are being supplanted, in a measure, by indifference and agnosticism. This is in accordance with a tendency, we will not say of the age, but of the period. If it is a fact, it should excite deep regret and call for earnest protest. We do not propose to preach a sermon, but we say with all the emphasis in our power, that the doctor should avoid this tendency and cultivate the feelings of reverence and faith. Mr. Jonathan Hutchinson, in one of his addresses to medical students, once said that faith was the most essential element of success. Taken in its largest meaning, nothing is more true, and nothing is more worthy of being impressed upon the young physician's mind. It is this which gives earnestness to purpose, sincerity to character, and a hope and object in living. Agnosticism is a cancer which eats into the moral fibre, deadens the higher impulses, and takes away half the joy of living and half the chances of a successful and useful life. We say, then: let the physician think what he pleases, but let him believe and hope, leading withal a reverent and truthful life.

LEADING THE WORLD IN MEDICAL JOURNALISTIC ENTERPRISE.

Dr. Edward Bork, of St. Louis, has written an interesting and instructive account of his last summer's experience abroad. Alluding to the International Medical Congress, at Copenhagen, he says: "The New York Medical Record was the only medical journal that had a shorthand reporter present at the Congress, and all speeches and proceedings were cabled at once across the Atlantic (see Medical Record, August 16, 1884, and following numbers). The reporter, of course, had some difficulty in obtaining the reports of the secretaries of the different sections, as it was impossible for him to be present at all of them at the same time. But the slowness of rendering assistance to the reporter by the secretaries, I feel sure, was not through lack of courtesy or willingness on their part to do so, but it depended more upon the non-understanding nor apprehension of our ways and methods of doing business quickly. They are slow in all their ways in the old country. Nevertheless The Medical Record deserves great credit, which should be liberally acknowledged by the medical profession."

As all the leading medical journals, both in this country and in Europe were represented at Copenhagen, we can justly claim that in the thorough efficiency of our reporter, in the promptness and completeness of his work, and in the pecuniary outlay made for the benefit of its readers, The Medical Record took the lead.

A NEW WORD.

When medical science contributes a new word to the vernacular, it is a matter of sufficient importance to deserve comment. The newspapers and periodicals during the past summer very soon got hold of the word "microbe," and it has already become considerably popularized, being much more generally used than the word "bacillus." Recently a Chicago drummer, in the heat of argument, called a St. Louis fish-merchant a "leather-faced, crop-eared, malaria-ridden microbe." This characterization has been promptly and extensively taken up by the press of the West. The fate of the word is settled, and microbe is now a part of the English language. A too-learned medical contemporary has given currency to a popular mistake regarding the origin of this word, attributing it to Sédillot.

The word macrobe, which means long-lived, has been employed for centuries. Pomponius Mela, a Roman geographer, applied it to a race of long-lived Ethiopians, and Rabelais gave the name *Macrobio* to one of his characters.

The word microbe should mean, by contrast, short-lived, but it may very well mean "small life" also, and such is the significance given it by Filippo Pacini, of Florence, who in the *Gazetta Medica Italiana*, thirty years ago, described a small organism which he called "microbio colerigeno." Whether Sédillot devised the word independently in 1878, as is probable, or whether he had see Pacini's communications, we cannot say. At any rate, it is only since the Frenchman's adoption of it that it came into any general use.

The *Medical Annals* discusses the question of pronunciation, and thinks that it should be divided in three syllables, mi-cro-be. This is a mistake, however. The word is given us by the French, who make but two syllables, while the three-syllable word, mi-cro-bie, is left, at Littre's suggestion, to indicate a state or condition.

THE REQUIREMENTS OF ADMISSION INTO THE MEDICAL CORPS OF THE ARMY AND OF THE NAVY.

A brief note which we made some weeks ago regarding vacancies in the medical corps of the army and navy, has caused us to be flooded with inquiries from all quarters. Our correspondents wish to know how many vacancies exist at present in these departments, and what are the requirements for appointment.

Since our last writing, the report of the Surgeon-General of the Army has appeared, in which it is stated that the fourteen vacancies existing the year previous have now all been filled. The Surgeon-General informs us that there are now no vacancies in the Army Medical Department, but that there probably will be such before long, and that an Examining Board will be convened in the Spring.

For the convenience of those desiring to prepare themselves for examinations before such Board we append some of the regulations governing it:

"All candidates for appointment in the Medical Corps must apply to the Secretary of War for an invitation to appear before the Army Medical Board of Examiners. The application must be in the handwriting of the applicant, must state date and place of his birth, and place and State of which he is a permanent resident, and must be accompanied by certificates based on personal acquaintance from at least two persons of repute as to citizenship, character, and moral habits. The candidate must be between twenty-one and twenty-eight years of age (without any exceptions), and a graduate of a regular medical college, evidence of which, his diploma, must be submitted to the Board."

"The morals, habits, physical and mental qualifications, and general aptitude for the service, of each candidate, will be subjects for careful investigation by the Board, and a favorable report will not be made in any case in which there is a reasonable doubt."

The physical examination is very rigid.

"The Board will satisfy itself by an actual examination that the candidate possesses a thorough knowledge of the branches taught in the common schools, especially of *English Grammar, Arithmetic, and History and Geography of the United States.*"

"An examination on general science will include Chemistry and Natural Philosophy; and that on general literature will embrace English literature, Latin, and general history, ancient and modern. Candidates claiming proficiency in other branches of knowledge, such as the higher mathematics, the ancient and modern languages, etc., will be examined therein and receive due credit therefor."

"Written examination on anatomy, physiology, surgery, practice of medicine, and general pathology, obstetrics, and diseases of women and children. Oral examination on these subjects, and also on medical jurisprudence, materia medica, therapeutics, pharmacy, toxicology, and hygiene. Few candidates pay the attention to hygiene which it deserves."

"Clinical examination, medical and surgical, at a hospital."

"Performance of surgical operations on the cadaver."

"Due credit will be given for hospital training and practical experience in surgery, practice of medicine, and obstetrics."

The requirements and examinations for the Navy are of about the same character as those for the Army. Those desiring particular information should write directly to the Surgeon-General.

News of the Week.

Professor Virchow has had a severe attack of the gout. The great pathologist took a course of Carlsbad waters and was cured by them—and time.

A Statue of Professor Bouillard, of Paris, is being made by the sculptor, M. Vernet.

During 1884, the Six Faculties of France produced about seven hundred doctors.

An American Society of Public Analysts was organized in Brooklyn on the 24th of last month, by representatives holding appointments under the Boards of Health in the several States of the Union. Its objects will be, by frequent meetings, the discussion and publication of papers, etc., to advance and disseminate knowledge regarding adulteration of food or drugs, to secure uniformity of results, and to provide for efficient sanitary control over the food-supply. A meeting was held December 8th for the election of officers.

Characteristics of the Cholera Epidemic of 1884.—These, as summed up by a committee of the Académie de Médecine, composed of M.M. Dujardin-Beaumetz, Hardy, and Proust, are as follows: 1. Relative benignity, corresponding with the regular decrease in the gravity of cholera epidemics since 1832. 2. Absence of special premonitory constitution, as shown by choleriform diarrhœas. 3. Uncertainty, or at least great variability, in the mode of propagation. 4. Many facts showing that the disease is very contagious; many others showing the contrary.

The Trial and Acquittal of Dr. Fordyce Barker by the New York Academy of Medicine.—The trial last week of Dr. Fordyce Barker before the New York Academy of Medicine, of which he was President, for improperly claiming a Paris degree of Doctor in Medicine, was a sad business. We care very little for the evidence in the matter one way or the other. But the forcing of such an issue, in such a manner, against a professional brother of Dr. Barker's standing, bears too plainly the impress of personal pique and spite. The profession of medicine can gain nothing from such performances. This trial is to be regarded as a melancholy echo of the wrangle over the Code in New York last year. Whatever opinion we may entertain of the wisdom of the men who forced that foolish issue last year, we are glad to be able to congratulate Dr. Barker heartily upon the handsome vindication he has received.—*Boston Medical and Surgical Journal.*

An Official Register of Physicians and Midwives of Illinois has been issued by the Board of Health of that State.

The City Physicians of Atlanta, Ga., receive a salary of eighty-five cents a day, and furnish their own medicine.

A Mode of Curing Cancer.—Dr. H. M. Lawson, of Cuthbert, Ga., who is described by the editor of the *Southern Medical Record* as "a modest though worthy practitioner," announces a cure for cancer. It consists, as we understand, in the heroic use of arsenic combined later with caustic applications. In one patient suffering from epithelioma on the left temple, one-fourth of a grain of arsenious acid was given, and gradually increased to three-fourths of a grain.

A Reply to Koch.—Professor Winckler, who claimed to have discovered true comma-bacilli of cholera in cholera nostras, has written an elaborate reply to Koch in the *Gazette de Cologne.* He denies that his methods of culture were faulty and reaffirms his original opinion, viz., that the comma-bacillus of Koch differs very little in form from that of cholera nostras, and that the differential points laid down by Koch are not sufficient for diagnostic purposes.

Death of Dr. George H. Atkinson.—The death of Dr. Atkinson, of Brooklyn, was one of the saddest illustrations of the physical dangers of a surgeon's life. Dr. Atkinson died from a painful and distressing disease contracted in the discharge of his professional duty. Last August, while operating, as we are informed, the patient, who was suffering from syphilis, became irritable under the knife and scratched the middle finger of the doctor's right hand with his nails, breaking the skin and drawing blood. The wound was small, but the doctor took proper precautions and gave the matter little further thought. A week or two afterward the finger, and subsequently the hand and wrist, began to swell. Dr. Atkinson knew his danger, and began a prompt course of treatment with mercury. Toward the end of November, he began to feel pains in his head and limbs, attended with constant drowsiness. It was with difficulty that he could attend to his patients. About a week ago, while sitting in his office, he was seized with partial paralysis. The next morning he was unconscious, and he then grew steadily worse. During brief intervals of consciousness he has been able to express his wants by signals, but he could not speak an intelligible word. He died last week, a victim of malignant syphilis.

Dr. Atkinson was born at Portland, Or., in 1851, and was graduated from Dartmouth College in the Class of '71. He came to Brooklyn the same year, and having studied medicine at Dartmouth, he was graduated the following year from Long Island College Hospital. After his graduation he was appointed assistant surgeon in the hospital, and two years ago he was appointed full surgeon. At the time of his death he was a lecturer on surgery and genital diseases in the collegiate department of the institution.

Dr. Atkinson was a man of fine physique, and was personally very popular among his associates.

The late Dr. William Darling.—At a meeting of the Faculty of the Medical Department of the University of the City of New York, held December 26, 1884, the following resolutions were adopted:

Whereas, At the end of a long life, devoted to the profession of which he was a learned and honored member, William Darling, A.M., M.D., LL.D., F.R.C.S., has been removed from our midst; and

Whereas, It becomes those who have been associated with him as colleagues for many years, to give official expression to their sense of the loss they have sustained in his death. Be it therefore

Resolved, That we, the members of the Faculty, fully appreciating his great learning, his wonderful ability as a medical teacher, and believing that the most enduring monument to his memory will be found in the record of his life, here tender to his relatives and friends our heartfelt sympathy in their grief.

Resolved, That these resolutions be spread upon the minutes of the Faculty, and be published in the medical journals of this city.

J. W. Wright, M.D.,
W. M. Polk, M.D.,
Committee.

New York Academy of Medicine.—This Society, as is known, has its handsome building centrally situated at 12 West Thirty-first Street. Its large and valuable library, with its extensive circulating department of the medical journals of both hemispheres, is specially attractive and useful. The Society is doing good service to science, and the papers read before the Association, and the discussions thereon, constantly appear in these pages. The library has been made a public one, and the laity and profession can consult it daily without cost, Sundays and

holidays excepted, until 9 P.M. A mortgage of $5,000 remains on the premises, and it has recently been proposed to liquidate this, so that it can commence the new year free of this incubus. The Society needs all its available income to promote its scientific objects. Already between two and three thousand dollars have either been paid or subscribed for the purpose, and it is hoped every Fellow will aid in this desirable work. Any member of the Committee of Ways and Means is authorized to receive subscriptions. Committee—Dr. Gouverneur M. Smith, Chairman; Dr. Fred. A. Castle, Secretary; Dr. Willard Parker, Treasurer; Drs. C. R. Agnew, A. Jacobi, A. A. Smith, V. P. Gibney, Wesley Carpenter, P. A. Morrow, E. D. Hudson, C. C. Lee, H. L. Hanks, Everett Herrick, A. M. Jacobus.

THE NEW HEALTH BILL.—Dr. A. L. Carroll, of New Brighton, N. Y., writes: "The bill proposed by the conference of State Boards of Health, to establish a National Board of Health, appears to need much revision before it can justify your semi-laudatory comments, or give promise of an efficient, or even tolerable, organization. In the first place, the provision that the President's appointment of members must be "confirmed by the Senate," affords a possibility, if not a probability, that political rather than sanitary qualifications might be considered in the selection of representatives of the several State Boards; and in the second place, in the absence of any specified tenure of office, these members are seemingly to be appointed for life, to hold annual (and intermediate) meetings at Washington until death or future Congressional action shall part them from the potential profits of the proposed machinery. No qualifications are predicated for the Secretary (the mode of whose appointment is not mentioned), who can only be removed by a two-thirds vote of the full Board; so that, for all that the proposed bill says to the contrary, we might have a National Sanitary Board without a single sanitarian upon it; its business conducted by an executive officer wholly uneducated in aught that relates to epidemiology or preventive medicine, drawing any part of an annual half-million dollars which the Board at its first meeting may choose to award him, and clinging to his position as long as a minority consent to his retaining it. The only nominal control to be exercised over his action is by means of an executive committee of seven, "representing the various geographical divisions of the country," none of whom are required to possess any knowledge of the rudiments of hygiene. And such a possibly incompetent body is to be empowered to make rules and regulations in its discretion to control commerce in foreign ports as well as at home, and to dispense a tempting amount of "patronage." I do not, of course, mean to intimate that, even in such a cumbrous machinery as that which is proposed by the bill in question, it would not be possible to congregate from the various State Boards of Health (if the boards themselves had the power of selection) a representative body of sanitarians whose opinions might not irreconcilably clash on subjects connected with "the control and protection of the public health of the United States;" but better guaranty should be demanded of the "selection of the fittest" before the medical profession or the mercantile community endorse a measure giving permanent and arbitrary powers to an irresponsible central board. It is proper to add that the printed copy of the proposed bill, issued by the conference for Congressional action, contains provisions for enforcing the rules of the National Board within the States by persons to be appointed by the President for that purpose, which provisions are omitted from the draft published in your columns."

[The bill, as sent to us, was understood to be the amended one presented to Congress. It was so stated to be by the Committee having it in charge.—ED.]

NORTHWESTERN MEDICAL AND SURGICAL SOCIETY.—At the annual meeting of the Northwestern Medical and Surgical Society, the following officers were elected for the ensuing year: *President*—Dr. Thomas H. Burchard; *Vice-President*—Dr. A. R. Robinson; *Secretary and Treasurer*—Dr. J. Henry Fruitnight; and *Committee on Admissions*—Dr. S. Barnet, Dr. E. S. Peck, and Dr. Charles A. Leale.

THE LATE DR. A. S. CHURCH.—At the last regular meeting of the Northwestern Medical and Surgical Society, the following resolution was adopted:

Resolved, That in the death of Dr. A. S. Church, this Society has met with a great loss, which we all most deeply deplore; that his kindly, genial smile, accompanied by his always welcome presence will be missed by us, and that we can only in this sad bereavement tender to the family of the deceased our heartfelt sympathy.

CHARLES S. WOOD, M.D.
CHARLES A. LEALE, M.D.
MARK BLUMENTHAL, M.D.
Committee.

A DISPENSARY WHICH PAYS ITS MEDICAL ATTENDANTS.—It is reported that the New York Dispensary is to be reorganized. All the present staff, save the House and Assistant-House physicians, will resign, and a new one appointed after a competitive examination of candidates. The successful physicians will receive $800 a year, for which they will be required to contribute four hours of their time daily.

SURGEON P. H. BAILHACHE, of the Marine Hospital Service, known in this city from his connection with the Service here a few years ago, has been assigned to duty in Philadelphia.

PROPOSED STATE BOARD OF MEDICAL EXAMINERS AND LICENSERS IN PENNSYLVANIA.—A bill has been prepared for presentation before the Legislature of Pennsylvania during the present winter, having for its object the establishment of a permanent commission, to be known as the State Board of Medical Examiners and Licensers, which shall have the power to pass upon the qualifications of all physicians seeking to practise medicine or surgery in the State of Pennsylvania after September 1, 1886. The bill has been framed with care by a Committee of Conference consisting of members of the Philadelphia Medical Jurisprudence Society, members of the Philadelphia County Medical Society, and Pennsylvania State Medical Society, as well as from the Homœopathic State Medical Society of Pennsylvania. It will only affect those who enter upon practice after September 1, 1886. It is thought that it cannot affect graduates of Pennsylvania institutions. The sentiment of the medical press seems to be in favor of the bill.

Obituary.

PROF. WILLIAM DARLING., A.M., MD., LL.D., F.R.C.S.,

NEW YORK.

It is our painful duty to announce the death of Professor William Darling, the distinguished anatomist, which occurred on Christmas morning. The deceased was not alone noted as one of the most accurate anatomists and an excellent mathematical and classical scholar, but was remarkable for a strong individuality, regarded by many as approaching the realm of eccentricity, which served to render him one of the best-known figures in the medical community. He descended from an old Scotch family, Grace Darling, the well-known heroine, being a cousin by blood of the Professor. He was born in the old town of Dunse, the one from which the celebrated scholar, John Duns Scotus, derived his middle name. It was among his peculiarities that he was very reticent as to his age and relatives; to an intimate friend he admitted that he was born in 1805, while a biographical notice gives 1815 as the figure; the death certificate, however, as well as the funeral notice, assign eighty-two years as his age, and this figure is evidently near the truth. After receiving a good preliminary education, which began at the University of Edinburgh, he came to this country in the early part of the century with his father, who had failed in business in consequence of the depressed condition of trade. The date of his advent is not accurately known, but may be fixed from the fact that he had already been in this country several years when Captain Marryat made his American tour. At first Professor Darling had a severe struggle with adverse circumstances, and obtained subsistence by acting as a private tutor. Among the families in which he served in this capacity was that of Doctor Valentine Mott, and to the interest which the latter took in the young man, his subsequent choice of the medical profession and adoption of the teaching career is due. He entered the University and studied for a much longer period than was necessary, being of unusual diffidence and bashfulness. The deceased Dr. Benjamin Raphael, who knew Dr. Darling then, frequently spoke of him as having at this time developed those characteristics for which he became noted later on. He graduated at the school in which he subsequently became a teacher, in 1842, and continued private instruction in anatomy, which he had begun while an undergraduate. He made many of Dr. Mott's dissections, and was his prosector for some years. Then he occupied at various times the position of physician to the Quarantine Hospital, Sailors' Snug Harbor, and the Emigrant Asylum. It was while on Staten Island that he laid the foundation for the collection of dried anatomical specimens, which to this day is the largest and best selected accumulated by a single man. The grave-yards and charnel-houses furnished at that time a rich mine for the collector; many Indian and negro skulls were unearthed by him, and among the most prized treasures was a skull with an enormous interparietal bone, which, it is believed, cannot be duplicated in any European collection.

Having through his rigid economy accumulated sufficient funds, he carried out a long-cherished wish and went to England, where he entered at the Royal College of Surgeons, and studied under Owen, Huxley, and other distinguished anatomists, until he regarded himself proficient. In after years the writer was told by one of his contemporaries, at the time an officer of that institution, that when the uncouth candidate appeared before the examining board, the latter were inclined to treat him with *hauteur*, and expected a lamentable failure. So thoroughly grounded was the candidate, however, that in a few minutes, as one of the examiners remarked, the tables were turned, and the candidate seemed to be examining his examiners. He passed with flying colors, and took the degree of Member in 1856, and after the necessary interval of ten years more, that of Fellow of the Royal College of Surgeons, being at the time of his death the only one in the United States. In 1866 he had resumed his position as demonstrator of anatomy, and having filled the vacancy caused by the death of Professor Pattison to the greatest satisfaction of the Faculty and students, was in that year appointed Professor of Anatomy at the Medical Department of the University of the City of New York. He was an earnest teacher, and his devotion to the subject such that, with other of the distinguished teachers of the past who identified themselves with their subject, he was familiarly known by an osteological cognomen. At the same time he was respected, loved, and admired, as teachers of more glittering qualities have not been. The secret of his influence lay in the essential worth of the man, and if he was a popular figure with those who graduated under him, it was more due to this than to those peculiarities which enhanced his value at the social board with his confrères. Endowed with a prodigious memory, and master of the classics, he was able to carry the burden of entertainment single-handed during an entire evening. His memory of dates, names, and events in local medical history would have enabled him to have written a chronicle of interesting and important events which, it is feared, cannot be furnished by any one now living. He was in this respect a link between the first and last halves of the century. His early reminiscences were of the period of Mott, Cheesman, and Pattison, while his memory remained green to his dying day for recent as well as ancient events, and he was as capable of assimilating and reproducing an anatomical subject toward the close of his life as he was accurate in reproducing from memory whole pages of the ancient and modern classic authors.

Professor Darling lived as a bachelor, having rooms at the University building. He regularly left the College at three o'clock every afternoon, and walked on foot to and from Rolfe's chop-house in John Street, where he dined. He was singularly robust, and careless with regard to the vicissitudes of the weather. His resistance to the latter engendered an over-confidence, which undoubtedly led to his fatal illness. On the Wednesday preceding Christmas week he was last seen in a well condition. From this day to the Monday following little is known of him. It transpired, however, that he went out on a cold Thursday (December 18th) inefficiently clad, and was seen tottering along Broadway on Friday, evidently in a delirious state. In this condition the old gentleman fell, probably several times, producing three abrasions of the scalp. His further history is a blank till Monday; he seems to have lain in his room, without food or medical attendance. On that day Doctor Polk saw him and prescribed for the patient, whose peculiarities rendered him as reticent regarding his suffering as he was in other respects. He wrote Dr. Spitzka, who found him in a typhoid state that evening, and suffering from a pulmonary disorder. He continued, with the sanction of Dr. Polk, under his treatment and that of Dr. Brill, who the following morning determined the existence of croupous pneumonia of the upper part of the right lung, with general bronchitis. There was a slight rally during Tuesday and the night from Tuesday to Wednesday, when the patient became entirely lucid. He declared that he expected to recover, and declined to have any relatives or friends notified of his illness. Many of the latter called, but the patient was becoming so feeble that only those whom he expressed a special wish to see could be admitted. On Wednesday evening he was last seen by Dr. Brill, who found him hopelessly sinking and becoming unconscious. He died at a few minutes after four o'clock, having delivered in his terminal delirium a coherent anatomical disquisition. Among the last subjects regarding which he spoke while in a lucid condition was the disturbance in the Academy of Medicine

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 26, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

DR. T. MITCHELL PRUDDEN presented, in behalf of a candidate, a specimen of *chronic endarteritis*, with obliteration of the left subclavian artery.

REMOVAL OF THE COCCYX.

DR. J. A. WYETH presented the coccyx removed from a male patient thirty-six years of age, and a native of South Carolina, who came to New York two years ago for surgical relief. The patient received a fall about four years ago, striking upon the buttock. No peculiar symptoms developed at the time, but afterward he suffered occasionally from spasms of the sphincter ani muscle. He was examined by a physician who said he detected a fissure of the anus, and operated upon the patient with the knife, but the disease was not relieved, and he was again operated upon for the same fissure by stretching.

Dr. Wyeth saw the patient about six weeks ago, and detected that the coccyx had been displaced forward, and was projecting directly upon the posterior wall of the rectum, so much so that when the finger was introduced he found a kidney-shaped passage, two and a half inches above the anus. In the meantime, the patient had become filled with the idea that his case was beyond help. Dr. Wyeth removed the coccyx, and for two or three weeks after the operation the patient was relieved, and Dr. Wyeth believed that recovery would ensue, although the patient was unwilling to admit that he was cured.

Dr. Wyeth also exhibited

A MODIFICATION OF DR. OTIS' URETHROTOME.

The modification consisted in the attachment of a cog-wheel arrangement, by means of which the movements of the knife could be regulated and arrested at any desired point.

DR. PEABODY asked if any other member had met with cases where it seemed to be desirable to remove the coccyx, and in which the operation had been performed without giving relief. He referred to a case of coccygodynia in which the operation was performed without affording relief, and the patient was subsequently cured by anti-neuralgic remedies.

DR. GARRISH had met with several cases, and had performed the subcutaneous operation of division of the nerves, sweeping the knife around the coccyx close to the bone. He obtained the idea of this plan of treatment from the instruction of the older Dr. Meigs.

DR. WYETH was unable to understand how the nervous supply of the coccyx could be reached by such an incision, as it was exceedingly difficult to cut the coccygeal nerve upon the cadaver. Some of the superficial branches, however, might be divided by such subcutaneous section.

DR. W. M. CARPENTER referred to cases recently reported by Dr. Goodell, of Philadelphia, who had practised subcutaneous division of the tissues immediately surrounding the coccyx, but unsatisfactorily, and recommended that, in all cases of true coccygodynia, the coccyx be removed.

DR. L. EMMETT HOLT presented specimens illustrating

GANGRENE OF THE LUNG IN A CHILD, FOLLOWING PRIMARY PNEUMONIA—ACUTE PARENCHYMATOUS NEPHRITIS.

"A. M——, aged three years, came under my observation November 5, 1884. He was a well-developed boy and had been, up to the beginning of the present illness, apparently in perfect health. Had never had measles, scarlatina, diphtheria, nor any other sickness except one attack of 'bronchitis' two years before, lasting a few days only. He was taken quite suddenly, about noon of November 3d, with a high fever and some cough. Was very restless, constipated. Temperature, 104½°, pulse 200, when first seen. For a week he continued to have a high fever, his temperature ranging from 103° to 104½°, in spite of full doses of cinchonidia. The physical signs were: slight dulness over the lower half of the right chest, behind, which gradually increased in intensity; coarse and firm mucous râles over both lungs; high-pitched breathing over the right base, behind; splenic dulness slightly increased.

"At the end of a week his prostration became extreme, the face was very pale, sordes formed on the lips and teeth, the mouth bled easily, and he lost flesh rapidly. The pulse was frequent and feeble, while the respirations were not much accelerated, and the temperature dropped to 101°. He could be made to take but very little nourishment, and stimulants only in small quantities. The bowels were loose, the urine was passed freely, there was no vomiting, and no cerebral symptoms except a little drowsiness. The physical signs now became more pronounced; there was decided dulness over the lower half of the right chest, extending forward to the anterior axillary line. Over this part were heard pleuritic friction sounds, a few râles, and feeble distant bronchial and broncho-vesicular breathing. The rest of the chest showed only exaggerated resonance and fine râles. The heart's apex was not displaced. Subsequently the temperature again rose to 104° and over, and although he now took nourishment better and stimulants in quite large amounts, he sank steadily and died from pulmonary œdema, early on November 18th, after an illness of exactly two weeks. There was no expectoration, no fetor to the breath, no dropsy, and the urine was passed freely up to the day of death.

"*Autopsy*, made eight hours after death.—The *brain* was not examined. *Chest.*—A sacculated pleurisy was found occupying the lateral and posterior regions of the right chest, containing five or six ounces of dirty brownish serum. Both the lungs were pretty firmly adherent to the chest-wall throughout nearly their whole extent; the left was particularly adherent to the diaphragm. The heart was not displaced and the pericardium was normal. The *right lung* was covered with a thick false membrane, which could be torn off in large strips. It was of a yellowish color. The upper lobe crepitated on pressure, but rather less than normal, and on section showed marked congestion and moderate œdema, but no pneumonic changes to the naked eye. The lower half of the lung was solid, did not crepitate, and sank in water. The diaphragmatic surface presented two irregular patches of a dark gray color, with rounded borders distinctly circumscribed and softer than the surrounding tissue. From these larger patches a number of smaller ones branched off, both together embracing about one-half of this surface of the lung. On section these dark patches were found to correspond to gangrenous areas in the lower part of the lung. This part embraced about two-thirds of the lower lobe. It was separated by a tolerably defined, but very irregular line. It was made up of patches of necrosed lung tissue, gray at their borders and almost black at the centre. The largest were about the size of a walnut, the smallest of a small pea.

"The lung tissue was so disintegrated that it could be washed away by a current of water. Many of these patches touched each other and formed irregular masses, while about and between them on other sides were parts of lung tissue showing only hepatization. The pleura was not perforated at any point. There was no gangrenous odor. Careful dissection of the pulmonary artery showed no obstruction and no disease. The gangrene did not seem to follow the arterial distribution. It did correspond to the distribution of the bronchi. No change was found in these other than those of an intense catarrhal inflammation. About four-fifths of this region of the

lung was gangrenous. It presented a peculiar honeycombed appearance.

"The *left lung* was covered with a thin false membrane, not so tough as that of the right side. The gross appearances of the lung showed only the changes of bronchitis, congestion, and some œdema. The *bronchial glands* were not enlarged nor cheesy.

"The *heart* walls and valves were healthy; a post-mortem clot was found in the right ventricle. The *liver* was somewhat enlarged and slightly fatty. The *spleen* was about twice its normal size, and was firmer than normal. The *kidneys* were nearly as large as in the adult, a little softened, of a light yellowish color, capsule not adherent. On section the right showed swelling of the cortex, the markings being quite indistinct. The cortex was of a yellowish white color. The changes in the left were similar, but not quite so decided.

"The *bladder* contained about two ounces of urine. An examination of this yielded about five per cent. albumen; the microscope showed a large amount of epithelium from the pelvis of the kidney, from the kidney itself, and some from the bladder. Also numerous fragments of epithelial casts, a few hyaline casts, and some blood. The other viscera were healthy. There were no tubercles found anywhere."

Dr. W. P. Northrup made the following report concerning the *microscopical examination:* The lung exhibited the characteristics of gangrene. There was between the branching areas of gangrene ordinary broncho-pneumonia, the product of the inflammation being mostly pus with some swollen epithelial cells. These areas gradually merged into the areas of necrosis, and these in turn into the areas of gangrene, which consisted of a grumous soft mass of granular matter containing the bacteria of putrefaction. The pneumonia on the opposite side was the ordinary broncho-pneumonia. There was, probably, some parenchymatous change in the kidneys. He thought Dr. Holt was justified in saying that there was acute parenchymatous nephritis.

Dr. Prudden thought it was necessary, in this case, to take into consideration the possibility of gangrene being secondary to the pneumonia in a rather general way; that is, that the gangrenous areas might be due to hemorrhagic infarction. He thought that in considering the statistics on this subject, this form of gangrene should be separated from the diffuse variety which occurs not infrequently in pneumonia.

Dr. Northrup asked if there was anything peculiar in the fact that the areas of gangrene, in this case, seemed to follow the ramifications of the bronchi.

Dr. Holt remarked that Gerhardt, in his "Handbook on Diseases of Children," under the head of Gangrene, described almost exactly the case which he had presented, and stated that gangrene generally affects groups of lobules, and that the irregular scattered patches of gangrene are the form in which the disease occurs in children.

Dr. George L. Peabody then made the following remarks concerning

THE RELATION EXISTING BETWEEN RETENTION OF UREA AND URÆMIA.

"Mr. President, at the last meeting of this Society, reference was made to the investigations of Grehant and Quinquand on the subject of uræmic symptoms being produced by subcutaneous injection of urea in animals. Yesterday I took occasion to refer to their paper in the *Comptes Rendus* for August 25, 1884. These observers were able to produce convulsions, coma, and death in frogs, guinea-pigs, rabbits, pigeons, and dogs, by injecting subcutaneously enormous doses of urea. They give us the doses necessary to produce these results in these animals as follows: In the frog the urea was equal to $\frac{1}{3}$ of the weight of the animal; in the guinea-pig, $\frac{1}{8}$; in the rabbit, $\frac{1}{100}$; in the pigeon, $\frac{1}{35}$; in the dog, $\frac{1}{150}$.

"Now, taking the smallest amount with which they were able to produce these results, and transferring, for the sake of argument, the results to the human animal, we find that in order to produce uræmia artificially in a man weighing one hundred and fifty pounds, one and a half pound of urea would have to be injected subcutaneously.

"According to Hermann, in the human adult $\frac{1}{13}$ of the weight of the body is made of blood. In man the same author tells us that, in 1,000 parts of blood, 624 parts are plasma. The following calculation tells us simply, therefore, that the man weighing 150 pounds has 7.1999 + lbs. plasma:

$$150 \times \tfrac{1}{13} \times .624 = 7.1999 +$$

"For practical purposes, to simplify our calculation, let us consider the plasma of the man weighing 150 pounds equal to 7.20 pounds, and let us also consider, only for practical purposes, plasma and serum as equivalent terms. Hoppe-Segler and Oppler, working separately, each found in the blood of a uræmic patient 1.27 parts urea to the 1,000 parts serum.

"Now, sir, I believe that I am correct when I say that in the following proportion x will represent the total amount of urea in the serum of the uræmic man weighing 150 pounds:

$$1.27 : 1000 :: x : 7.20, \text{ or } x = \tfrac{9.14}{1000} \text{ lb.}$$

We are taught that urea is found in other fluids of the body and some of the tissues, but chiefly in minute proportions. Let us allow, for the sake of argument, that it is present throughout the entire body of the uræmic subject in the same proportion as it is in his serum. The following proportion will represent this idea:

$$1.27 : 1000 :: x : 150 —$$
$$x = .19 \text{ lb.}$$

"This result gives the largest conceivable amount of urea in the body of a uræmic man weighing 150 pounds.

"In other words, if urea is the cause of uræmia we are forced to admit that nature can accomplish a result, with less than $\frac{1}{5}$ of a pound, to produce which artificially nearly eight times as much is required. The absurdity of the proposition needs no comment. I will not detain you with the many clinical arguments which might be adduced on this question."

Dr. J. C. Peters remarked that the quantity of urea daily excreted by the human adult was four hundred and eighty grains, and the question might arise how large an accumulation could occur in cases of uræmia extending over many months, and perhaps years.

Dr. Peabody said that, of course, no single examination of the blood could determine the exact amount of urea present in the circulation. The observations to which he had referred had been made upon the uræmic blood of patients dying with cholera, and he thought that we must take their estimate of the quantity of urea retained in the blood as nearly correct. Of course, it was quite impossible to simulate artificially the various changes in the kidney structure which are present in what is called uræmia, but he thought all who had paid attention to the subject must have seen cases of total suppression of the urine without any impairment of the intelligence or the occurrence of convulsions, and the patients died usually with fever.

Dr. Van Gieson thought it wise to have a conservative scepticism with regard to the method in which uræmic convulsions are produced artificially. Whether urea may or may not be present in the blood in the condition known as uræmia, one fact remains, that after certain changes have taken place in the kidney which seem to prevent the excretion of the urea, such patients are peculiarly liable to convulsions. For example, in the kidney troubles in which there is a small amount of organic change revealed by the microscope, but there is urine with constantly low specific gravity, such cases are peculiarly liable to fulminate at any time in uræmic convulsions. If one would take the trouble in such cases to estimate the quantity of urea in the urine, it would be found to be very much below the normal—probably one-third, if not one-half, less than normal—and yet the quantity of urine excreted is reasonably large. It had

seemed to him that the cause of these convulsions was the retention of a certain quantity of urea which should have been excreted.

He thought that the evident absurdity demonstrated by Dr. Peabody with reference to the experiment which had been performed by the French experimenters was perfectly in order.

Dr. Prudden thought one point should be emphasized in comparing pathological experiments upon animals with pathological conditions naturally produced. It was not fair to assume that a given quantity of urea put into the blood would produce the same effect which the same quantity would produce when left in the system in consequence of disease.

Dr. Peabody would like to say that Fort, and several other observers, had produced all the symptoms of uræmia by the injection of benzoate of soda, sulphate of soda, and several other agents which were innocuous when taken in ordinary doses, and he thought that the results of the French experimenters were those which would have been obtained by the injection of other substances than urea. By injecting some foreign substance in enormous quantities they have produced convulsions, coma, and death, but had not contributed anything at all to our knowledge of the method in which the symptoms of uræmia are produced. Of course, these physiological experiments were not to be compared with the conditions produced by disease, and that was the point which he wished to make, that it was not the urea circulating in the blood which produced the clinical phenomena, but the pathological condition of the kidney.

Dr. Peabody also presented a specimen of

ABSCESS OF THE LIVER.

The patient was an Irish laborer, married, and forty-eight years of age, who was admitted to the New York Hospital September 11, 1884. He stated that his parents and other members of his family were alive and well, and so far as he knew there was no disease in the family. Nine or ten years ago he had been sick for about twenty-one days, having a fever accompanied by chills and sweating. With this exception his health had always been good. He had always been accustomed to drink to the extent which he called "moderate," and he denied syphilis.

Five weeks ago, while drinking more than usual, and eating insufficiently, he began to have attacks of vomiting and diarrhœa. For the last three weeks he had in addition a cough and feelings of weakness, and, at irregular intervals, slight chills. These symptoms had lasted to the date of his admission.

On admission (1 P.M.), temperature, 103.6°; respiration, 36; pulse, 120. Patient was poorly nourished, had no œdema. He was very stupid and drowsy, and when roused spoke in a very thick, indistinct voice.

On physical examination no cardiac lesion was detected, and in the lungs only bronchial râles and crepital râles at base of chest on both sides behind. There was no apparent abdominal lesion. Over the skin of the abdomen and back there was an eruption of small red papules, and in some places pustules. There was no itching. Urine was normal. In the evening he had a chill, his temperature rose to 104.2°, pulse and respiration being substantially unchanged. His tongue was heavily coated. He was given quinine in ten-grain doses, and subsequently arsenic, and for several days he slowly improved in general condition, his temperature remaining in the morning between 100° and 101°, and in the evening not going beyond 102°.

A week after his admission his tongue got dry and brown, and his pulse became feebler. Under digitalis he brightened up, however, his pulse improved, his temperature dropped to 99.8° and did not go above this point for several days; he grew hungry, and at his own request was allowed solid food. On the 21st of September he grew decidedly weaker, sordes collected about his teeth, but his temperature remained low, *i.e.*, under 100°. On September 23d his pulse began to grow irregular, his temperature rose to 100°+, and his stupidity increased. He continued to fail, and his breathing became labored. Stupidity deepened into coma during the night, and he died at five o'clock on the morning of the 24th, his temperature having steadily risen during the last few hours of life to 105.2°.

He was constipated during most of his hospital career, and was given cathartics with temporary relief, and nothing characteristic was noted in the color of his stools. He was frequently sponged with alcohol and water for his fever, and was freely stimulated.

"I have given you as fair a representation of his condition as I can, the prominent features of his case being all dwelt upon, and now I have to ask if there is sufficient basis for a diagnosis. For me there was not. Taking all the points into consideration, it seemed to me that the man, who was very ignorant, might have had a mild attack of typhoid fever three weeks previously, and might, on his admission to the hospital, have been suffering from a relapse.

"The autopsy was made nine hours after death. The only facts which are important are these: 1. The spleen was large and soft. 2. There were, as you see here, two large abscesses in the liver, the larger being in the right lobe just beneath the diaphragm and containing about half a pint of pus and necrotic liver-shreds, the other being in the left lobe and somewhat smaller. In the portal vein, in close proximity to the larger abscess, is a firm thrombus of considerable size. 3. There are several small, well-defined ulcers in the large intestine, scattered all the way from the cæcum down to the sigmoid flexure, all apparently in process of healing.

"The relations of these lesions to one another, and to the clinical symptoms, are now simple enough; but it seems to me that this is another obscure case of abscess of the liver whose diagnosis was practically impossible."

Dr. Carpenter asked Dr. Peabody if he regarded the relation which existed between the intestinal ulcers and the abscess of the liver as that of cause and effect.

Dr. Peabody replied that he did.

Dr. Seguin asked Dr. Peabody if the patient was melancholic.

Dr. Peabody replied that he was very lethargic, and presented very much the appearance as though he was suffering from a relapse of typhoid fever.

Dr. Ferguson presented a specimen of

OSTEO-SARCOMA OF THE RING FINGER.

The patient was admitted to Dr. Little's service at St. Luke's Hospital, August 28, 1884. Six months previously he struck the tip of his right ring finger on the floor. No deformity was produced at the time, but a tumor gradually formed. It had never been painful. On admission there was an ovoidal mass the size of a duck's egg upon the first phalanx. The skin was normal. The tumor felt boggy, and gave an expansive pulsation. On September 9th, the finger was amputated by Dr. Little, and on microscopical examination made by Dr. Ferguson, Pathologist to the hospital, the tumor was found to be composed of spindle and round cells, with a great number of giant cells.

Dr. Ferguson presented microscopic sections which showed the giant cells in great abundance. These cells in places were closely aggregated, while in other places they were represented by granular and homogeneous substance. The tumor was limited by a fibrous capsule, and the bone was not distinguishable except in mere fragments.

Dr. Ferguson also presented a specimen of

SARCOMA OF THE KIDNEY

removed from a child four years old. The case had already been reported by Dr. Little.

Dr. George A. Dixon presented a specimen of

ANEURISM OF THE ABDOMINAL AORTA.

C. S——, female, native of Ireland, twenty-seven years of age, married, housekeeper, was admitted to Charity Hospital November 18, 1884.

Family history.—Father died of consumption; mother was living and well; brothers and sisters all died young.

The previous history of patient up to May, 1883, was good. At this time patient noticed a pulsating tumor on the inner side of her right thigh; felt some pain just below and to inner side of tumor; also had some pain just below right knee and in ankle. The swelling increased rapidly and at times pain was so severe that she could not walk. For this trouble she entered St. Luke's Hospital on July 5, 1883. She gave no history of any injury, alcoholism, or of syphilis. She stated, however, that in carrying tubs of water or clothes she rested the sharp edge of the tub on her right thigh. There was no weakness of the leg; her general health was good. Heart, lungs, and kidneys normal. Menses had always been regular. Never had any children. The circumference of thigh over the tumor was twenty-one and three-eighths inches. Diagnosis was femoral aneurism. This was treated by digital compression on cardiac side of aneurism, pressure being constant for twelve hours. At the end of this time tumor was one inch smaller, hard to the feel, and there was no pulsation, bruit, or sense of fluctuation. Twenty-four days after this treatment patient was discharged cured, thigh measuring nineteen inches; tumor was firm and there was no sign of pulsation. From this time up to August, 1884 (a period of a year), deceased remained perfectly well, doing general housework. Then noticed that her "courses failed," that she had pain in her back and legs on walking, also in abdomen. Appetite failed, and she was troubled with nausea and occasional vomiting. These symptoms increased in severity, and in October, 1884, patient noticed a "pulsating lump" in her abdomen, for which trouble she entered Charity Hospital.

On admission, November 18th, patient was weak and anæmic, no appetite, bowels constipated, vomited a great deal. Could not sleep.

Physical examination.—Heart: there was a slight systolic murmur; lungs, liver, spleen, and kidneys normal. Abdomen: inspection showed a pulsating tumor in epigastric region; by palpation there was felt a distinct impulse occurring with second sound of heart, and on auscultation there was heard a double bruit. The original seat of the femoral aneurism was examined, and no tumor or pulsation was found.

The patient was put on tonics and ordered to remain in bed. Nothing unusual was noticed until the evening of November 20th, when the patient became pale, complained of shortness of breath, rapidly became collapsed, and died early the following morning.

Autopsy.—Brain not examined; lungs normal. Heart: slight hypertrophy of the left ventricle; aortic valves slightly thickened. Liver: a little increase of connective tissue. Kidneys: early stage of interstitial nephritis. The aneurismal sac in the abdominal aorta extended from the cœliac axis to a point three-fourths of an inch above the bifurcation of the aorta into the iliacs. The sac was spheroidal, measuring ten and a half inches in circumference. The inner wall of the sac was covered by laminated fibrin. With the exception of one-fourth of an inch on the left side, the entire wall of the aorta was involved in the aneurism. On its anterior surface was a rupture an inch and one-fourth in circumference. To the right of the sac and on its anterior surface was a large mass of coagulated blood. The aorta immediately above the aneurism was atheromatous. Below the aneurism there was a constriction in the aorta, which would not admit the little finger; this constriction was an inch in length, and its lower end was one and one-fourth inch above the bifurcation of the vessel. The ascending vena cava was moderately distended.

FIBROID TUMOR OF THE UTERUS.

Dr. H. C. Coe presented two specimens, which represented two different operations. In the first Hegar's operation was performed, and the ovaries removed close to the tumor. The patient died seven days after the operation from peritonitis. The most interesting feature of the specimen was that, at a point on the anterior surface of the fundus of the uterus, there could be seen a large cicatrix. What it was due to he did not know. There was no history of the patient having been tapped or otherwise operated upon previous to this operation. In the second specimen the entire uterus was removed. There was a fibroid in the posterior wall. It was really the beginning of a fibro-cyst. The patient died on the eighth day after the operation.

The Society then went into executive session.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

CHARCOT'S JOINT DISEASE AND THE DEBATE AT THE CLINICAL SOCIETY—SPEECHES BY MR. MORRANT BAKER, MR. ARTHUR BARKER, DR. DYCE DUCKWORTH, DR. HALE WHITE, DR. BUZZARD, MR. BARWELL, SIR JAMES PAGET, DR. ORD, PROFESSOR HUMPHRY, MR. HUTCHINSON, AND MR. HULKE.

London, December 10, 1884.

The chief topic of interest in the field of scientific medicine just now is "Charcot's disease" and its pathological position and relations. This has been discussed at two meetings of the Clinical Society, and on the last occasion the debate was again adjourned, so it will probably occupy another evening.

Charcot's first case was described by him in 1868, a second in 1873. In this country Dr. Clifford Allbutt recorded a case in the same year in which Charcot's first case appeared. The next one was published by Dr. Buzzard in 1874. Since then several cases have been observed, and papers on the subject have appeared in different journals, but it is only within the last three or four years that the affection has become generally known, even among hospital physicians and surgeons.

Mr. Morrant Baker set the ball rolling by reading a paper on "Three Cases of Joint Disease in Connection with Locomotor Ataxy." In all the symptoms of ataxy were well marked, and in all the joints affected were in a condition apparently typical of Charcot's disease. In two of the patients (both males) the joint most involved was the right knee-joint; in the third patient (a female) the right elbow and both hip-joints, there being also commencing disease in the left elbow-joint. The joints were enlarged, their articular surfaces considerably worn away, and the ligaments weakened or destroyed, so that the joints were loose or "flail-like." In the case of the elbow and knee joints, however, considerable power of voluntary movement was retained. In connection with "Charcot's disease," Mr. Baker thought the following points were worthy of discussion: 1. Was the disease new? 2. What were its alliances, if any, with rheumatoid arthritis? 3. If connected with rheumatoid arthritis, was its occurrence in conjunction with locomotor ataxy a mere coincidence, or did they stand in the relation to one another of cause and effect? 4. If connected pathologically, both with rheumatoid arthritis and locomotor ataxy, should not all cases of rheumatoid arthritis be considered as neurotic in origin, whether accompanied or not by symptoms of locomotor ataxy?

These points were sufficient to lay open a very wide field for discussion, but Mr. Barker remarked before concluding that still another theory was possible, even if Charcot's disease, locomotor ataxy, and rheumatoid arthritis were all connected. He suggested that they might all arise from some antecedent morbid condition, the result of which was seen in pathological changes which occurred, sometimes in the joints, sometimes in the nervous system, sometimes in both.

Mr. Arthur Barker then narrated the case of a porter who suffered from urinary and gastric troubles. Numb-

ness in the feet and "rheumatic" pains in the limbs were complained of. A perforating ulcer of the right foot came on. There were no other symptoms of ataxy. When next seen gastric troubles were again complained of, and the foot was worse. Shooting pains in the left thigh came on. One of the knee-joints soon became completely disorganized. Up to the present time the knee jerks had not been lost, there were no eye symptoms, and none of the ordinary signs of ataxy.

Dr. Duckworth maintained the non-identity of Charcot's disease with rheumatic arthritis. Clinically, they were very different, and he remarked that identity of lesions was by no means a proof of identity of processes leading to the lesions.

Dr. Hale White referred to a case in which he had found on post-mortem examination, changes in the temporo-maxillary articulation indistinguishable from those of Charcot's disease; the other joints were equally unmistakable examples of rheumatic arthritis.

Dr. Buzzard commenced a lengthy speech by stating that, in his opinion, the disease was not new. He had carefully looked through Graves' work and had unearthed a case which was marked by typical gastric crises, and which he considered was without doubt one of locomotor ataxy. This case was observed in 1823. As cases were little recorded formerly, population was smaller, and hospitals had no out-patient departments, it was not strange we should come across more cases in proportion now.

Dr. Buzzard maintained the existence of Charcot's disease distinct from rheumatic changes. He described the osseous changes met with by Lionville in cases of ataxy. There was dilatation of the Haversian canals with thinning and erosion of the bones. Regnard had, on chemical examination, found the inorganic constituents of the bones reduced in amount and replaced by fat. Dr. Buzzard suggested that to distinguish Charcot's disease from rheumatoid arthritis, the specific gravity of the bones should be observed; it would probably be found lessened in the former. He defended Charcot's views, and said that he had never found the knee jerk absent in cases of rheumatoid arthritis.

Mr. Barwell resumed the adjourned debate. He said he could not follow Mr. Baker in his speculations, except so far as to agree that arthritis deformans was associated with some form of nerve-lesion. He maintained the dissimilarity of Charcot's disease and rheumatoid arthritis, both on anatomical and clinical evidence. In the former the processes of repair were very different from those occurring in the latter; false bodies were not met with in the joints, and the fibrous degeneration of cartilage and synovial outgrowths met with in rheumatic arthritis did not occur. Clinically, the sudden, rapid, painless swelling of tabetic joints, the length of time the effused fluid remained, and the excessive amount of false movement were striking distinguishing features. Ataxic conditions never affected small joints of the hand or foot; in rheumatoid arthritis these were specially selected by the disease, and the peculiar deformities of the fingers and the twist to the ulnar side were characteristic.

Sir James Paget said he was able to agree with Mr. Baker in almost every point raised. On the question of the novelty of the affection, he considered that Charcot's disease was a new malady. He was unable to think that the older workers in the field of pathology were likely to have been blind to the occurrence of such examples of injury, had they existed for them to see. The experiences of the older surgeons were derived from the study of diseases among the same classes of patients as now thronged our out-patient departments. It was in infirmaries, workhouses, etc., that Hunter, Howship, Cruveilhier, Stanley, etc., were wont to search for fresh additions to the science they were constantly cultivating. Sir James Paget said he had himself searched in vain for any record of the disease. On the subject of the neurotic connection of the lesions, it was necessary to recollect that it presented an assemblage of numerous relations. While on this point he insisted that the fact of a disease being known by the name of a person or a country was an indication of its pathology being imperfectly understood. As instances he cited the terms "Bright's disease," "Morbus Anglicus" for rickets, "Morbus Gallicus" for syphilis, all of these now nearly obsolete. Sir James Paget regarded Charcot's disease as in effect rheumatoid arthritis modified by conditions associated with ataxy, and the relationship of the two was exhibited by intermediate cases, the shades of which were of such a kind that it might be difficult or impossible to determine whether a given specimen was to be classified under the head of one or the other disease. Syphilis was often associated with locomotor ataxy, so that in the production of the disease under discussion three elements might be concerned. It should also be borne in mind that the course of syphilis might be modified by diathesis running a very different course, for instance, in gouty persons as compared with tuberculous subjects.

Dr. Ord agreed with Mr. Baker, but went further and considered repair might and did occur. In the diseases of the joints under discussion he contended that strong evidence existed to indicate that in them neuroses played an important part.

Professor Humphry agreed with Sir James Paget in regarding the disease as new. He was of opinion that it was compounded of rheumatoid arthritis and locomotor ataxy. Wearing away of the structures, and low inflammatory changes, were apparent in chronic rheumatoid arthritis, but the changes were infinitely more rapid and complete in tabetic arthritis.

Mr. Hutchinson said that at the outset he agreed with Charcot concerning the neurotic origin of the disease, but could not now accept this explanation, preferring to regard it as originating in causes leading to rheumatic gout associated with senile changes. Eburnation and formation of osteophytes occurred almost always in old people, and Mr. Hutchinson regarded locomotor ataxy in some cases as "tumultuous old age" associated with a remarkable loss of sensibility. Sensation was dulled in ataxics, and hence arose retention of urine, and also the perforating ulcers of the foot in them, these being due to continued pressure on the insensitive part, as shown by the ready manner in which such ulcers healed up when pressure was removed. There were well-marked differences between chronic rheumatic arthritis and tabetic joint disease, excessive painless mobility of the joint being peculiar to ataxy. But there were many cases merging into one or other form, and Mr. Hutchinson possessed proof of the occurrence of chronic rheumatic arthritis in tabetic subjects. Insensibility to pain was an important factor in producing tabetic arthritis, for ataxics persisted in moving about because they had no pain in doing so: and thus the condition of joints peculiar to Charcot's disease was set up, being "permitted" by, though not "caused" by, the nervous system.

Sir James Paget (in reply to a question from the President, Sir Andrew Clark) said he was indisposed to think that arthritic changes in ataxy owed their origin to the nervous system further than by its "permitting" disease. The nervous system could *determine* the occurrence of disease (as shown in herpes zoster), but not its mode of evolution.

Mr. Hulke could not agree that Charcot's joint disease was distinct from chronic rheumatic arthritis. He showed specimens of bones obtained from the same subject, some of which showed all the signs of Charcot's disease, and others, of chronic arthritis. Either the two diseases were both present or else they were identical. In reply to Mr. Barwell's statement that only the large joints were affected in tabes, he cited a foot exhibited by Professor Charcot, in which all the small joints were degenerated. He agreed with Sir James Paget that syphilis was a factor in causing the disease.

THE PROGRESS OF MEDICAL SCIENCE AND A NOVEL URINARY ANALYSIS.

To the Editor of The Medical Record.

Sir: A bottle of urine was sent me a few days since with a request for microscopical examination. The gentleman making the request wrote that the urine had been examined by an expert, but it had been done some months since. and he kindly enclosed a copy of the expert's report, which I have again copied *verbatim et literatim*, and send herewith. I do not know as it will contribute anything to the instruction of your readers—though it may amuse them.

"Report. The urine contains excess of phosphates, Epithelium, granular and Hyaline Casts. Albumen hematin Pus corpuscles, Some spermatoza cholestearine biliverdine uric acid in Large quantities.

"the urine is acid sp. G. 1005.

"This shows that you are suffering from Chronic Nephrosis of the Kidneys and Addison disease of the super Renal Capsules with a tendency to Bright's disease or Albuminuria.

"I shall not prescribe as you have your own doctor. I recommend Vichy water pretty freely. ———."

Maurice N. Miller, M.D.

Laboratory Normal Histology,
University Medical College, New York.

A REMEDY FOR THE MANURE NUISANCE.

To the Editor of The Medical Record.

Sir: It does not seem to me that the plan adopted by our Health Board is likely in the near future to rid this city of the manure-dump nuisance. The plan is only the old one called up, which all know *signally* failed, and will fail every time that it is applied. Any of our citizens, who know and can comprehend the difficulties of gathering and shipping this great mass of débris of our city by the present system, can discern that it is not possible, and that places for storage are absolute necessities. In the winter season, when there are at times several miles of ice-floes in the river, and also when heavy gales are blowing, how, I ask, are scows to get to and from the wharfs with safety?

I know that I need not press these interrogatories any further: the reasonable will understand. It is very plain that either another plan must be devised and executed, or we must put up with the present nuisance as the best that can be done, and let our manure gatherers go on in peace. The plan which I think most feasible is the one which I suggested several years ago, and would, in my opinion, if earnestly carried out, relieve our city of all offensiveness connected with this business, which is, to require all this material to be *pressed* into bales *in* the *stables* where it accumulates. This simple process stops fermentation in the substance, and renders it as inoffensive as dried earth, and in a condition to be stored in stable-lofts or adjoining sheds when necessary in considerable quantities. These bales may be made up to weigh about two hundred and fifty or three hundred pounds, or of any other size convenient to handle. The requirements for this are not at all expensive or complicated. The ordinary *hay-press* will answer for both manure pit and press, and can be placed anywhere on the stable-floor; when the box is sufficiently filled the lever can be applied. To hold the bale intact the ordinary bale-stick and wire are all that is necessary.

The advantages of this plan, I think, will be apparent to every one who gives it thought. The dumps can be dispensed with; the article can be either stowed where it is put up, or on the wharf under sheds, ready for shipment. The bulk will be largely reduced; the means for transportation greatly lessened, the manure-pits in the stables, or in many of them under the sidewalks, entirely done away with, and the farmers and gardeners who buy this article have the privilege of composting it on their lands, thereby saving much of the virtues which otherwise are lost. In a sanitary point of view, I do not think we have ever properly investigated the noxious influences of the manure-pit—a necessary appurtenance of every stable. It is a well settled fact that decaying vegetable and animal matter, mixed and in a state of fermentation, is highly deleterious to the health of both men and beasts. Horses become blind from ophthalmia, and succumb to diseases of the air-passages; and human beings, from ailments closely allied to these, both suffer and die when subjected to an atmosphere charged with emanations from decomposing heaps of stable débris for any considerable length of time. How many of the lower and exhausting forms of disease which afflict human beings can be traced to stables where animals are housed in large numbers, has not yet been satisfactorily determined, but that some have been, is too certain to be longer doubted.

Alexander Hadden, M.D.

155 East Fifty-first Street.

THE TREATMENT OF GOITRE.

To the Editor of The Medical Record.

Sir: I have read with interest your editorial concerning the treatment of goitre in The Medical Record of November 29th. The disease is, as you remarked, becoming more common in this country. I think that in the counties along our great lakes the largest proportion of cases will be found, without regard to foreign influence. The climate in those regions seems to be exactly suited for the development of scrofulous diseases, and I have noticed an unusual number of crippled and feeble-minded folks. The general appearance of the natives has attracted my attention more than once—the small chins and weak bone-development suggesting something more than poor nourishment. I have attributed this condition in many, to our lake region climate. This may not be the rule, but certainly I have noticed so many cases in towns and villages along our great lake coast that I have failed to be favorably impressed with any of the lake resorts as *health* resorts. To return to the subject of goitre: we have, then, in this country an increasing number of cases of this dreadful disease. The miserable, unsanitary lives led by many of our poorer classes is one cause. Poor food, unhealthy homes, insufficient clothing, bad drinking-water, filthy living habits, severe, damp, chilly atmosphere, all these are favorable to the development of this disease. While in Switzerland I had repeatedly noticed that in districts where goitre seemed most prevalent these same causes could usually be found present. In summer and in winter I have found these Swiss homes anything but the poetic picture of cleanliness and beauty they are usually represented to be. Of course, goitre is not *confined* to the poor and lowly any more than other diseases are. We have all classes suffering from it. but the great majority are those who live in a very unhealthy, uncared-for way, and on this account it is hardly fair to saddle the blame on the clear, beautiful streamlets rippling down to the villages, bent on missions of life and cleanliness and *not* on disfigurement and death. In the treatment, change of life, a radical change, is imperative; change of climate, usually, sanitary improvements in general. Then change of food, iron tonics, and, best of all local treatments, the use of *electricity*, applied daily for thirty to sixty minutes or longer, until the tumor is actually dissolved; and very often, the preliminary treatment having been faithfully carried out, the local treatment will succeed. Parenchymatous injections of any fluid are never advisable, and cannot be so successful as the course already indicated. As you have said, "Experience has shown that iodides will prove of decided and lasting benefit only in those cases where marked effects quickly follow their first use." In all cases the treatment by iodides, *after* the preliminary tonic course and hygienic improvements necessary, is good practice; but

the use of electricity *locally* will afford remarkable success. The subject is an important one, and its discussion must bring forth some practical results. For the use of electricity I must give Professor W. T. Plant, of Syracuse, N. Y., the full credit. Some years ago he showed me a case doing remarkably well under treatment by electricity. This case suggested some further experiments, and I believe that patient use of the treatment suggested will be very satisfactory. I do not know whether Professor Plant's case recovered or not, or whether it has been reported in our medical journals; but the treatment since then of other cases deserves careful consideration.

Very truly yours,

W. Thornton Parker, M.D.

CONCERNING LARGE DOSES OF IODIDE OF POTASSIUM.

To the Editor of The Medical Record.

Sir: In your issue of December 6th, page 641, there appeared a communication from my friend, Dr. Otis, presenting a contribution to the question of priority in giving large doses of potassium iodide. Not having any personal interest in this question I should be glad to be instructed and corrected; but I must say that Dr. Otis' letter quite fails to do the latter. In the first place, let me say that it is somewhat doubtful if Dr. Otis had read the original paper at the time of penning his communication, for he quite misapprehends the questions at issue, and duplicates one of my quotations. He quotes the misprint as to "large doses," which appeared in your editorial of November 1st, page 492. This states: "By large doses is meant such as make up a total of from two and a half to ten grammes in twenty-four hours." A reference to the opening paragraph of the original (*Archives of Medicine*, xii., p. 115) will show that I wrote "from 3 ijss. to 3 x.," a vastly different amount. This fundamental error leads Dr. Otis to do some unnecessary criticism. He quotes Ricord as having given up to six grammes in twenty-four hours, which is not equal to my minimum "large dose." I had quoted Ricord (from Trousseau and Pidoux) as giving from fifteen to sixty grains a day. Dr. Otis also quotes Lancereaux as against my statements, not noting that I had given the very same quotation from the original; and Dr. Otis is careful to omit stating that Lancereaux condemns the larger doses.

Referring to Hill and Cooper as recommending large doses in 1881 hardly helps the historical inquiry. Dr. Otis writes as if I had made statements as to who first used "large doses" of KI. This was not my object, and I knew very well that some (unknown) physicians had used very large quantities of the drug in syphilis before Van Buren, as is shown by my own quotations from Lancereaux, Nothnagel and Rossbach, and from Fournier. These authorities all make vague and anonymous reference to such dosage, and they all object to the practice. My purpose was to discover who first established, by teaching and by personal influence, the *method* of giving large doses, and in doing this I sought reliable printed and oral testimony. That Dr. Crawcour (and many others) may have used as large doses as Van Buren many years ago I did not and do not deny; but there is no evidence that they succeeded in inducing others to do likewise, or that they publicly taught its necessity.

First.—As to Dr. Otis' own claims. He certainly is to be ranked with those who have for a few years used the large doses of KI, but so are scores of other surgeons and physicians, and I could not burden my essay with such a list of names. I will go further and say that nowhere has Dr. Otis published his teaching on this point. In his various valuable contributions to syphilography in files of The Medical Record and the *Boston Medical and Surgical Journal*, the question never comes up, and he himself can only refer to passages in a work of his appearing in 1883—altogether too late to give the author any special claim to be classed with the promoters of the method. In 1879–80, Dr. Otis published in the *Boston Medical and Surgical Journal* a series of "Clinical Lectures on the Physiological Pathology of Syphilis." The eighth lecture, vol. ciii., p. 317, treats largely of the utility of the iodide of potassium, yet in the three columns devoted to this drug not one word is said of the advisability of using "large doses." The same is true of the republication of these lectures in book form by Putnam, in 1881. Pages 86 to 91 are occupied with remarks about KI and its *modus operandi*, but the author's views about large doses are vainly looked for.

Dr. Otis has doubtless taught this method orally, but he makes a *lapsus calami* in stating how long: "I have for the past twenty-five years taught this plan of treatment for the late lesions of syphilis in my clinic at the College of Physicians and Surgeons;" but the official records of the College show that Dr. Otis was placed in charge of the clinic for venereal diseases in September, 1870, only fourteen years ago.

Prior to that time the clinic was in the hands of the distinguished Dr. F. J. Bumstead; and to show how recent has been the spread of the practice of giving "large doses" of the iodide, I would state that Dr. Bumstead, in 1871 ("Hints on the Treatment of Syphilis," *Am. Practitioner*, cited in New York Medical Record, vol. vi., p. 370, 1871), recommends from thirty to fifty grains three times a day, and states that he has never given more than three drachms in one day.

As regards Dr. Kelly's claim. It has some merit as a claim from private practice, but there is no evidence whatever that he exerted any influence upon his contemporaries or successors; nor has any printed teaching of his been produced. I admit, from Dr. Otis' statements, that he was one of many who employed "large doses" of KI in the treatment of syphilis before Van Buren, Keyes, and Draper, but I decline to go farther. Besides, if Dr. Kelly should be shown to have been the originator of the method, my claim that it is an American method is not shaken.

Second.—If any injustice has been done, it is not to any gentleman yet named, but to Dr. M. H. Henry, of this city; and I am glad that the necessity of writing this note gives me the opportunity to make a correction. Dr. Henry, in 1872, published a paper entitled, "Clinical Observations on the Dementia and the Hemiplegia of Syphilis," in the *Journal of Syphilography and Dermatology*, vol. ii., p. 5. This was two years after Dr. Keyes' paper, and at a time when very few physicians gave "large doses" of KI. I quote Dr. Henry's remarks upon his first case: "I have been somewhat surprised to find that, even at this time, there appears to be some fear shown by our friends on the other side of the Atlantic of the use of the large doses (of KI), such as we are in the habit of using in this country, and this, too, since Sir Henry Thompson published (*Lancet*, December 28, 1867) his own excellent conclusions. To derive the full benefit of the iodide where there is a large amount of gummy deposit, or any of the inveterate and intractable forms of the disease in the tertiary period, it must be given in large doses; indeed, I scarcely know the limit. Little fear need be entertained about producing iodism. I have never seen it in a person suffering from tertiary syphilis. In this case (Case I.) the patient took three hundred grains daily for more than eight weeks, and with the disappearance of the symptoms he gained steadily in his general health and in flesh. To obtain the best results in the use of the iodide it should be taken thoroughly diluted, each dose in a small glass of water." This is very clear and sensible. Surely Dr. Henry should share with the gentlemen I named the credit of being among the first to teach the method of large doses of iodide in syphilis.

Third.—As to the time of administration of the

iodide. I have already taken up so much space that I will only say that this is a question each practitioner can decide for himself. I believe in the correctness of my plan, of giving the drug largely diluted (in an alkaline vehicle if possible), *before meals*, and others are pleased with its results. Still, I recognize exceptions to such a rule, and have met with a very few patients who stated that they could take the iodide more easily after meals.

Yours very truly,

E. C. SEGUIN.

24 WEST FIFTIETH STREET.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from December 21 to December 27, 1884.

MCPARLIN, THOMAS A., Lieutenant-Colonel and Assistant Medical Purveyor. Granted leave of absence for three months, on surgeon's certificate of disability. S. O. 301, A. G. O., December 24, 1884.

JOHNSON, HENRY, Captain and Medical Storekeeper. Directed, in addition to his present duties, to perform the duties of Assistant Medical Purveyor in New York City. S. O. 301, A. G. O., December 24, 1884.

WALES, P. G., First Lieutenant and Assistant Surgeon. Relieved from duty in the Department of Colorado, and ordered to the Department of Arizona. S. O. 128, Division of the Pacific, December 17, 1884.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 27, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
December 20, 1884.....	0	25	106	5	130	64	0	0
December 27, 1884.....	0	12	70	5	81	56	0	0
Deaths.								
December 20, 1884.....	0	10	24	6	28	31	0	0
December 27, 1884.....	0	3	22	3	16	36	0	0

CHLOROFORM TREATMENT OF TAPEWORM.—Dr. F. J. Croner, of Big Rapids, Mich., writes: "My patient was a delicate lady with a specially delicate stomach. I prescribed on November 27th: ℞. Chloroform, ʒ j.; olei tiglii, gtt. ss.; emul. olei ricini, syr. acaciæ, āā ʒ jss. M. This was given after twenty-four hours' fast, and in six hours the worm was expelled. No bad symptoms."

THE CLIMATE OF SOUTH CAROLINA.—Dr. W. H. Geddings, of Aiken, S. C., writes in reply to Dr. Samuel Aug. Fisk's criticism of Dr. Loomis in THE RECORD of November 8th. Dr. Fisk takes Dr. Loomis to task for saying in his "Practical Medicine" that Southern California, Georgia, and California have "a dry, warm atmosphere." Meteorological reports show for Augusta, Ga., 69.2°; Jacksonville, Fla., 69; St. Paul, Minn., 67.3; Denver, Col., 45.8° per cent. of saturation. Dr. Geddings concludes that Dr. Fisk has taken the figures for Augusta, Ga., to represent the climate of Georgia and South Carolina. But Augusta being situated upon a river in what was once a swamp, its records do not fairly represent the atmospheric condition of Thomasville, Ga., and Aiken, S. C., which are situated in the sand hills at a higher elevation away from any water. "But," adds Dr. Geddings, "more important than these physical features are the results of observations with the wet and dry bulb thermometers. The mean annual relative humidity of Aiken, as determined by this instrument, is 58° while that of Augusta, according to Dr. Fisk, is 69.2°, a difference of over eleven degrees. As 55° relative humidity is ranked, by such authorities as Vivenot and Hermann Weber, as EXCESSIVELY DRY, it is difficult to understand how Dr. Fisk arrives at the conclusion that this portion, at least, of South Carolina '*cannot be called dry*,' but the doctor adds, 'certainly not in comparison with the dry air of the Rocky Mountains regions.' No, nor is it subject to the fearful vicissitudes of temperature incidental to all excessively dry climates, nor does it have the annoying sand-storms, of which visitors to Colorado complain so much."

WHEN DOCTORS AGREE.—Dr. John Godfrey, of New Orleans, sends us a poem read at the annual banquet of the New Orleans Medical and Surgical Association. We regret that we only have space for a concluding verse:

> "You all have heard the time-worn plea,
> That no two doctors can agree,
> Through imperfections.
> Let no such thought your mind deceive,
> For doctors one and all believe
> In prompt collections."

THE MODE IN WHICH PATHOGENIC ORGANISMS ARE CULTIVATED IN BERLIN.—As is now well known, courses of demonstrations have been recently given in the Imperial Health Office of cultures of micrococci, and of the methods employed in this department of scientific research. Owing to the want of space the demonstrations were held in separate sections, each section being presided over by some well-known investigator. A short account from an eye-witness of what was seen in the section presided over by Dr. Loeffler, and for which we are indebted to the *Deutsch Med. Zeit.*, will not be without interest at the present time. The speaker first referred to the important part played by solid nutrient soils in the elucidation of the problems connected with micro-organic life. He held that the potato formed the most suitable soil for many forms. The potato is first washed and thoroughly brushed, and then, after the eyes are cut out, it is left for half an hour in 1.1000 solution of sublimate. It is then placed in a sterilizing vessel of tin and copper for half an hour with steam. This kills all forms of germs, even the so-called permanent or resisting spores. The speaker gave an illustration of the inefficiency of dry heat in destroying germs. He at one time received a letter from the Cholera Commission, and upon a piece of paper within the envelope some micrococci from the intestinal canal of an ape. The letter passed the disinfecting station at Brindisi, was then thrust through in several places, and for a length of time exposed to dry heat for the purpose of disinfecting it. After Dr. Loeffler received the letter, he sowed the micro-organisms on a suitable soil, and although some of the micrococci were dead, from the places where they lay more thickly on the paper a rich harvest of cocci developed.

The potato thus sterilized is now cut across with a freshly heated knife, care being taken that the surface does not come into contact with the fingers. By examination with a strong light, the species of micrococci may be recognized by the form and grouping of the colonies. In order to transplant a particular kind of micrococcus, a small portion is taken off the potato surface with a recently heated platinum needle, and implanted upon a fresh potato, which is then placed upon a shallow glass dish moistened with sublimate solution and provided with a cover glass, covered within with filter paper. In this "moist chamber" the pure cultivations develop rapidly at a proper temperature. As a fluid nutrient soil, either the usual gelatine or agar-agar, or Ceylon moss, is made use of.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 2 NEW YORK, JANUARY 10, 1885 Whole No. 740

Original Articles.

ON THE UTILITY TO PATIENTS SUFFERING FROM PULMONARY PHTHISIS OF INTRA-PULMONARY INJECTIONS.[1]

BY BEVERLEY ROBINSON, M.D.,

NEW YORK.

DURING the early part of last spring I was asked by a member of the Council of the Climatological Society to read a paper before that association in Washington, in the month of May, on "The Present Limit of Lung Surgery." I undertook the preparation of this paper, mainly because I was much interested in the different aspects the subject presented, and notwithstanding the fact that my personal experience at the time was very limited, and, indeed, confined to a few cases of phthisis pulmonalis, in which I had made intra-pulmonary injections.

Following the request made of me by the Climatological Society, I read through, and carefully annotated, the literature on the subject which had been assigned me. The paper, however, was not completed in time to read it before the society, and has remained ever since in my drawer, awaiting an opportunity to revise, correct, and bring it up to date. At best, and *in part*, it was and is nothing more than a critical review of what others have written and done. In reference, however, to the subject of intra-pulmonary injections, I have obtained some additional experience, and, although my views are not yet determined in regard to their precise indications and utility, I thought it best (when I was requested by our Secretary to take the place of another member) to read a short paper before you to-night, and to offer any additional views I may hold, and which subsequent discussion may prompt me to bring to your attention. I would here add one word, and it is to crave your extreme indulgence for the incomplete study of my subject and its somewhat discursive presentation.

Remember that I regard my actual observations merely as a kind of preliminary report of future work to be done by myself; and I desire simply, at the present time, such a discussion by you with respect to intra-pulmonary injections as may place the operation itself upon a legitimate basis, and enable us all to recognize clearly our duty in regard to its employment, and precisely under what conditions we should desire to perform it upon phthisical patients.

My purpose, therefore, is not to treat my subject exhaustively, but rather to bring prominently before this Society a theme of great interest and importance; and after refreshing your memories somewhat with the history of what has hitherto been done in this department of lung surgery, to relate my own experience, and to ask for an expression of views from different members, so as to know how you severally regard an operation which to me appears not only advisable, but, under certain circumstances, obligatory. Before laying before you, however, the history and facts strictly pertaining to the matter in hand, permit me to ask what is our ordinary experience of the treatment of pulmonary phthisis by usual methods?

Is it not deplorable and disheartening to the highest degree? Of course, to the relatively fortunate ones of the world, who are surrounded by all the comforts of life, and who can, at the earliest approach of this dread disease, go and dwell in the most suitable climate, this statement is scarcely true. There, with everything that money can purchase, and tender, judicious nursing bestow, and the careful administration of alterative and corroborant drugs, indicated in such cases, under the care of an instructed physician, the results are occasionally encouraging.

But even with these attendant happy circumstances, in the midst of much pain and weariness of body and mind, is it not still true that the patient must absent himself from the inclemency of our northern winters and springs so soon as the undoubted rational and physical signs of pulmonary phthisis are present, if he may fairly hope for permanent improvement in his bodily condition? How hopeless is the transport of such cases to the sunniest, or the clearest, dryest, and most bracing atmosphere, with continuous equable temperatures, and no raw chilling winds, if the disease has already advanced to the stage of softening, or apicial cavities! Turn aside for a moment from the survey of the patient suffering from phthisis under the conditions just referred to, and contemplate in your mind's eye, as you all can do so easily, alas! and note the almost absolute hopelessness of our *former methods of cure* when applied to many frequenters of our dispensaries, and the occupants of numerous beds in our city hospitals.

Does the continued taking of cod-liver oil and the hypophosphites really cure them? Does painting with iodine or repeated blistering make perceptible changes for the better in the local lesions at the apices, that march so surely onward? I believe we must all say frankly, although regretfully, no! Insist as much as we can upon the necessity of good food, dry, well-aërated rooms with sunny outlook, life in the open air when the weather is fine, care in regard to draughts, to dampness, to wet, to cold winds, and what are the results obtained in these cases? How frequently, moreover, can all healthful indications be rigidly enforced by the poorer classes, and if they really could be, would such patients recover? Rarely, or not at all, if the pulmonary lesion be already advanced, and only infrequently, I would again add, if the disease be in its primary stage.

Most happily, therefore, in my judgment, three plans of treatment have been presented to the medical profession during the past few years for pulmonary phthisis, which, if pertinaciously carried out, may become of untold benefit to the great army of sufferers from this disease. They are in importance as I estimate them: 1, Superalimentation; 2, intra-pulmonary injections: 3, continuous dry inhalations. To the second alone of these methods I shall ask your continued attention this evening, reserving for a future occasion the consideration of the first and third, to which, very properly, I also attach great value.

In beginning what I have to say of intra-pulmonary injections, permit me to quote some remarks taken from a lecture delivered by me at the Bellevue Hospital Medical College, October 28, 1884, and reported in the Philadelphia *Medical Times* of November 15th:

It is in regard to a patient affected with pulmonary phthisis, which had reached the stage of softening at the left apex, and whose left lung, at this region, I injected before my class on the day mentioned. This patient had no laryngeal complication, but suffered from distressing and

[1] Read before the Practitioners' Society, December 5, 1884.

most obstinate cough. To relieve this symptom all ordinary means had been tried, and failed to afford even temporary relief. One week previously I injected ten minims of dilute Lugol's solution into the second left intercostal space, in a vertical line with the left nipple, and to the depth of one and a half inch. The effect of this injection was to lessen his cough very much, and to make, as he stated, his breathing somewhat easier. On October 28th a similar injection was repeated in the same region, and the immediate result was noted. It occasioned very trifling pain, and although the patient coughed a few times immediately after the injection, and expectorated some thick yellow sputa, these were not even tinged with blood. This statement is not always true, as will be remarked further on, since the injections sometimes occasion notable immediate pain and are followed by a few sanguinolent sputa and distressing cough.

In reviewing what pertains to the history of the injection of lung cavities, I am happy to state that one of our countrymen, Professor William Pepper, Provost and Professor of the Theory and Practice of Medicine at the University of Pennsylvania, has hitherto given us the most exhaustive work on this subject, first in the October number of the *American Journal of the Medical Sciences*, for 1874, and later in a communication read before the American Medical Association, and presented to the profession as a reprint from the "Transactions" of that body in 1880.

It seems from a careful perusal of these articles that Dr. Pepper, so far back as 1867, was led by the recognition of the importance which a *low grade of inflammation* had in the development and progress of certain phthisical conditions, to consider the best means of modifying it. Reasoning by analogy, with what is known to be true of inflammatory lesions in external tissues, he ultimately concluded that the injection of the affected pulmonary structures, by means of a small canulated needle, pushed through the intercostal spaces, and charged with some suitable modifying fluid, offered the best guarantee of successful results.

In reviewing the history of ancient operations upon the lungs, it can be shown that while the lung may have been occasionally punctured in the treatment of some ill-defined conditions, usually those resulting from empyema, yet no detailed or exact account comes to us of any methodical treatment of lung cavities. During the middle ages, the history of such treatment is quite as meagre and uncertain.

Baglivi (1696) seems to have been the first author who really pointed out in clear language that an operation might be performed upon lung cavities, by which they could be made to communicate with the outer air, and that the purpose of this should be to apply topical modifying agents to their interior. What was a purely speculative idea to Baglivi, was subsequently actually carried out by Barry (London, 1727). In speaking of this subject, Barry writes most judiciously in regard to the anatomical situation of phthisical cavities, and states the fact that over their site the pleurae are usually adherent; that if the operation be well performed it may be followed by success, and in no event can it be attended with any very great danger, or much contribute to hasten the fate of the sufferer.

Later still, Richter (1805), Herff, Ramadge (1836), and Herbert, a pupil of the former (1845), published cases in which either incision or puncture of supposed pulmonary cavities undoubtedly was performed. Later still, and in spite of a tolerably successful case of incision into an apicial phthisical cavity by Hastings and Storks (*London Medical Gazette*, 1845), the operation fell into disrepute. By many, as Trousseau, Walshe, Copland, and Waldenburg, it is not even mentioned. By Canstatt and Bennett it is only criticised to be condemned, the grounds taken for this condemnation being either that it was directed against a mere localization of a constitutional state, or else that the results met with had been too unsatisfactory to justify further attempts.

Attention, however, was again drawn to this subject by Dr. Wilhelm Kock (*Langenbeck's Archiv. f. Clin. Chir.*, Bd. 15, heft 3, 1873), who showed that injections of dilute solutions of iodine might be made with impunity into the lungs of dogs, and suggested their value in the treatment of certain pulmonary affections in man; and by Mosler (*Berl. Klin. Wochenschr.*, October 27, 1873), of Greifswald, who in two cases introduced a canula into the lung and allowed it to remain, and in a third case made an incision along the upper border of the third rib down almost to the lung, enlarged the cavity by a suitable pair of forceps, and subsequently through the drainage-tube or canula, in all these cases, made repeated injections of different detergent fluids. In no instance did any evil consequences follow, either from the operation or the injections. In the third case, and though the patient died three months after the operation from albuminoid kidneys and spleen and extension of tubercular infiltration into the other lung, the cavity had been favorably modified by the repeated injections of a solution of permanganate of potash or of iodine and carbolic acid. Among the indications which preside prominently in the opening and drainage of lung cavities are: first, to give relative rest to the cavity itself, and thus to promote its contraction and cicatrization. This is done when the cavity is opened and a canula introduced, owing to the fact that as a free exit is given to its contents, cough is immediately lessened in frequency and severity. The second indication, to be carried out by the injection of different detergent fluids through the canula in situ, is evidently the disinfection of the contents of the cavity, at least, such is the idea of Mosler, and of many of those who have followed his lead. Pepper's suggestion is a different one. By *his* system of intra-pulmonary injections, by means of a small canulated needle attached to a Pravaz syringe and filled with a dilute solution of iodine, he does *not* in any way change the relations of the interior of the cavity with the external air. What he proposes to do, and what, indeed, he considers of most importance to effect, is, if possible, the modification of the internal surface of the walls of the cavity, as well as that of the tissues surrounding it. Of course, in those instances where the cavity itself, as well as the change in the surrounding lung tissue, is connected with a marked constitutional condition, as well as with the physical evidence of diffuse pulmonary disease due to tuberculous deposit, local treatment after this manner can scarcely be expected to be of much value. But these are not the only cases. Some there are, where the cavity in the lung is more or less isolated. It is surrounded by a certain amount of fibro-cellular tissue, or cheesy deposit, and the general condition is relatively good while the remaining portions of the lungs are not the seat of any considerable degree of disease. Under these circumstances the cavity itself is a source of constant danger. There is danger of the ulcerative process becoming more extensive, there is risk of profuse hemorrhage, there is great liability of auto-infection, by aspiration of purulent fluid into healthy bronchi of the same or the adjacent tolerably healthy lung. Now, then, what attempt, if such be the case, could be more justifiable than to endeavor, by some method of treatment, to modify this local *state*. And especially is this true if the treatment adopted be free from danger or suffering. By intra-pulmonary injections we should hope to modify the granular surface, the pyogenic membrane, which lines the interior of the pulmonary cavity in such a degree that little by little less pus will be produced, cough and expectoration, in consequence of this, less frequent and abundant, and the cavity tend to contract and cicatrize. Certainly, analogy with what occurs in instances of spontaneous cure will confirm this assumption, since we know that it is only when the walls of the cavity have secreted less abundantly, and the paroxysms of cough have been more moderate and fewer, that the healing process has obviously taken place. Invariably this is connected with

increase of the neighboring fibro-cellular tissue, so that finally the apex of the lung is contracted, the chest-walls become depressed, and ultimately there are complete pleural adhesions over the pulmonary apices.

The method of injection is superior to opening and drainage, as done by Mosler and Storks, first, because by it we are able to introduce any suitable modifying agent directly into contact with any particular portion of the secreting surface of the cavity, or with the tissues surrounding it. It is true, we do not by this method give free exit to the purulent contents, nor, indeed, afford as complete rest to the cavity. In compensation, however, of these advantages, there remains the favorable fact, that a permanent canula and the mechanical irritation caused by its presence is wholly avoided. The method adopted by Dr. Pepper is briefly as follows: A small steel canulated needle, three inches long, attached to a syringe containing twenty-five minims, is employed. Dilute solutions of liq. iodinii comp., at first in the proportion of one part to fifteen parts, later of one part to five parts, were alone used. Pain from puncture was avoided by freezing the surface. The injections were made in the first, second, and third interspaces on a line with the nipple. When the cavities contracted, sometimes the injections were made half an inch inside, or outside this line. The needle was introduced one and a half to two inches, depending somewhat on the emaciation or embonpoint of the patient. The injections were made in the sitting posture, and the patient was ordered to take a long breath and retain it while the injection lasted, which was about thirty seconds. The quantity of fluid injected varied from ℥. iv., the initial quantity, to ℥. xxv. Even the latter quantity never caused any appreciable irritation. The injections were made on an average once a week, and during their continuance the previous general treatment and attention to diet and surroundings were carefully observed. Usually the cavities injected have been superficial ones, and the layer of tissue separating them from the chest-wall quite thin. This layer is made up of a hard fibro-cellular tissue, or indeed of cheesy infiltration. In neither of them do the injections cause any degree of irritation. Indeed, it may be asked whether, in view of the slight reaction and rapid absorption of fluid by the latter, these injections may not be usefully employed, even though no cavity exists. Supposing that a thin layer of healthy lung were interposed between the cavity and the pleura, would the injection prove hurtful or occasion hemorrhage? Judging by clinical experience of acupuncture, chest wounds with pointed instruments, and numerous experiments on animals, the reply should be negative. In one case only, very slight hemorrhage occurred after puncture, and then it was apparently due to the use of the aspirator. Ordinarily, it must be borne in mind, first, that in the superficial layers of the lung there are no large vessels, and second, that many of the vessels existing in healthy lungs become obliterated by the morbid changes, so that there is little or no risk of hemorrhage if the puncture be properly made. The danger of a pneumo-thorax or pleurisy being caused by the puncture is certainly very slight. Usually, as we know, over a chronic circumscribed, superficial, phthisical cavity, the pleuræ are completely adherent, but even if they are not, the amount, if any, of fluid which could pass from the lungs by the way made by the puncture into the pleural cavity would be too small to occasion any injury. It is possible, if attention be not paid to the distribution of the vessels and nerves in the chest-walls, to cause either slight hemorrhage or pain by the puncture. Care should be observed, especially in the portions of the chest outside the nipple-line, to approximate the lower border of the intercostal space, always having in mind the presence of the artery.

In regard to the curative value of this method of treatment it may be said, first, that it unquestionably diminishes considerably the cough, expectoration, and dyspnœa of the patient, as well as the local soreness over the cavity. During the continuance of the injections the patients increase in flesh and strength. Further, reliable clinical evidence shows that the physical signs of a cavity improve during their use. The cavity diminishes in size, and judging by the increased difficulty of making injections after a while, owing to greater development of fibro-cellular tissue, it seems as if the injections occasioned this change. Instead of being irritating these injections are better tolerated when repeated several times. Thus, a severe paroxysm of cough is usually produced by the first injection of a small quantity of a much-diluted fluid. Later, a much larger injection of a stronger solution occasions no cough. Certainly, if by means of intra-pulmonary injections the contents of pulmonary cavities can be disinfected and the walls so modified as to secrete a less quantity of purulent fluid, the secondary evil effects of these cavities, as hectic, constitutional infection, and generalized tuberculosis, will be much less dreaded. Fortunately, later experiences are more than confirmatory of these first well-studied views. There are some differences, however, in later practice which it is well to note. It has been found that at times as much as ℥. i. of dilute Lugol's solution could be injected without producing irritative effects, and that the strength of this solution may be gradually increased until twenty-five per cent. of its full strength is employed, while, with carbolic acid solution, the strength has been between two and three per cent., and the amount from ℥. xx. to ℥. xxx. The latter has been employed only during the time that expectoration was fetid.

In one case of extreme fibroid change in the lungs, and in which repeated hemorrhages occurred in spite of usual remedies, two injections of dilute Monsell's solution were made with great difficulty. In Case No. 11 "the most careful and judicious treatment, including various forms of inhalation, having failed to relieve the terrible paroxysms of cough, which very frequently caused vomiting," intra-pulmonary injections were tried, with excellent results. The expectoration lessened and the paroxysms of cough diminished greatly in frequency and severity. ". . . In consequence of the greatly lessened frequency of vomiting, nutrition improved, and there was some gain in flesh and strength."

This patient subsequently died, and yet "undoubtedly the use of intra-pulmonary injections both prolonged life and greatly increased comfort, while they exerted a beneficial effect on the lesions at the spot to which they were directed."

The injection should be introduced at varying depths, from three-fourths inch to two inches, according to the differences in thickness of the chest-walls and the relatively superficial or deep position of the cavity. Two hundred and ninety-one injections were made in all in seventeen distinct cases very varied in character. Continued observations only prove that dangers from hemorrhage are imaginary; escape of fluid into the pleural cavity does not occur, and frequent passage of a needle through the healthy or diseased lung tissue overlying the cavity causes no irritative disturbance. The paroxysms of cough produced by the first injections can always be allayed by ice dissolved in the mouth, chlorodyne, or denarcotized laudanum taken internally. The pain caused by the puncture rarely requires any treatment. If it does, a moderate hypodermic injection of morphine allays it completely. The most important additional conclusions arrived at seem to be that in diffuse consolidation of a large portion of one lung, intra-pulmonary injections are of no value. Whenever the consolidation is limited to one apex, as it often is in the first stage of pulmonary phthisis, and yet shows no tendency to disappear under usual methods of treatment, but rather to become extensive, intra-pulmonary injections should be carefully tried, with the hope of causing favorable changes in the affected tissues.

Although other modifying liquids may be perhaps employed with advantage, Dr. Pepper's experience is lim-

ited to those I have mentioned. Other experimenters than he have had somewhat different, and not altogether as favorable, results. Thus Sokolowski (*Deutsche Med. Woch.*, No. 29, 1882; *Archives Gén. de Médecine*, vol. i., 1883. pp. 106–108) reports a case of pulmonary phthisis in which there was a cavity on the right side anteriorly. Into this cavity four injections of a one per cent. solution were injected, and two injections of a five per cent. solution of tincture of iodine at different intervals from two to nine days. The operations occasioned cyanosis, cough, dyspnœa, and rise of temperature. Especially was this true when carbolic acid was employed. A short arrest in the march of the morbid process could not fairly be attributed to them (L. Gaillard, Rep).

Fraenkel, on the other hand, reports the case of one patient affected with putrid bronchitis, and in whom he made six injections, using latterly three grammes of a five per cent. watery solution of carbolic acid; not the slightest reaction, not even a single cough, followed this little operation, but there remains the fact that the odor of the sputum was not in the least degree modified (*Glasgow Medical Journal*, 1882). Fraenkel regards the progressive chronic forms of phthisis, particularly in their catarrhal and infiltrative period, as well adapted to the use of antiseptic remedies by means of parenchymatous injections. He hopes in this manner to modify the *parts of lung in which* morbid deposit is made and to increase the tendency of the healthy surrounding parts to throw out a protecting barrier of inflammatory material. In numerous experiments in regard to the effects of the injection of various medicated substances into the lungs of rabbits, Fraenkel noticed very little reaction. Some of the rabbits gained in weight, and physical examination gave no evidence of extension of the pulmonary affection. Slight hemorrhage occurred in the lung and pleura but was usually absorbed. As secondary pathological results, local infiltrations and cellular proliferation in the lung-tissue were noted, but these remained local and showed a tendency toward healing.[1]

The following substances were employed by him; carbolic acid (one to five per cent.); four per cent. watery solution of boracic acid; five per cent. of iodoform in olive oil; two to five per cent. solutions of acetate of alumina. The number of injections was from one to six daily, and the amount of liquid employed was always the same, viz., one gramme. The injections were made during several successive days, or at times a few days interval was left between the injections.

In June, 1884, my own experience in regard to the treatment of phthisical pulmonary cavities by this method was limited to seven patients and nine injections; since June last to the present date, December 5, 1884, I have made twenty additional injections in eleven new patients. The total makes eighteen patients and twenty-nine injections. In my first series of patients the following are the facts remarked subsequently: In five patients I only made one injection in each, in the two others I made two or more injections in each, but I do not now remember the precise number and have lost the record of them. On two occasions I made use of dilute solution of carbolic acid, the other times I employed dilute Lugol's solution. I did not freeze the chest locally on five occasions, to diminish pain; on two occasions I produced local anæsthesia with a spray of rhigolene. On one occasion cough was so severe after the injection as to necessitate a mild opiate internally; on one occasion the pain in the left arm caused by the puncture was very intense. On two occasions the patients complained of pain in one or both shoulders. In two or three instances the patients said they felt better for several days after the injection as regards the cough, expectoration, and general condition. In the other cases no appreciable good effects were noted. In one case there was moderate hæmoptysis after the injection.

[1] London Medical Record, July 15, 1882. Deutsche Medicinische Wochenschrift, No. 4, 1882.

An analysis of my second series of cases shows the following immediate results:

Number of patients, injections, and results, second series.—New York Hospital: total, 4 patients, 6 injections; 2 patients had each 2 injections, 2 patients had each 1 injection. St. Luke's Hospital: total, 5 patients, 11 injections; 1 patient had 4 injections, 3 patients each 2 injections, 1 patient had 1 injection. Charity Hospital: total, 2 patients, 3 injections: 1 patient had 2 injections, 1 patient had 1 injection. In all 11 patients and 20 injections.[1]

The pulmonary condition in these patients was as follows: In two there were cavities, in six there was softening, in two consolidation, in one the physical condition is not stated. On fifteen occasions *no mention* is made of any *pain* immediately following the injection, or it was *distinctly* stated that *no pain* did follow the injection. Inasmuch as every patient injected was questioned closely in regard to this symptom, it is presumable if *mention* of it has been omitted in the histories of the cases that it not *not* occur.

On five occasions considerable pain followed the injection. In one the location of the pain is not mentioned, nor its duration; in one the pain was localized over the region injected, and lasted a few moments. In one, the *pain*, immediately following the injection, was felt "deep down," and lasted during the afternoon and night. It was situated over the seat of puncture, and also extended over the side of the chest where the puncture had been made. In the fourth case the *pain* was felt *intensely* over the upper portion of the scapula of the side injected, and lasted fifteen minutes. In the fifth case the pain was felt in the *left* shoulder, the left being the side injected. The duration and intensity of this pain are not mentioned.

In regard to the *cough* an analysis of my second series of cases shows: *No cough mentioned* on *five occasions; distinct affirmation* that no *immediate* cough occurred on six occasions. On nine occasions there was more or less intense cough following the injection. In seven instances the cough followed the injection immediately, or within a few seconds. In one case cough occurred five minutes after the injection, and in another, twenty minutes afterward. In the seven instances of *instantaneous* cough, its *intensity* is not mentioned in two, but, on this account, was probably slight. In three other instances of immediate cough, it is noted as *slight*, or *moderate*. On two occasions it is referred to as *severe;* on one of these it is stated to have lasted some time, but its precise duration is not written down; on the other no mention is made of the duration. The latter was a case (S——) in whom (November 1st). after the first injection, the cough began in five minutes from the time of injection, and lasted during the remainder of the afternoon, requiring the use of anodynes that night to give him relief. This man had, prior to his injections, suffered from the most distressing cough, that I had endeavored in every way, although unsuccessfully, to allay. His cough, subsequently to the two injections, was perhaps somewhat worse for a day or two, but later was neither better nor worse than it was previous to the injections. The patient himself had, evidently, a very irritable, querulous disposition. In the instance in which the cough began twenty minutes after the injection, it was not very severe. In two cases *moderate* immediate cough lasted about ten minutes, and in one of these, after the paroxysm, the patient stated that he *felt easier*, and his lungs were *more comfortable*. On nine occasions there was *not* the slightest hæmoptysis after the injection. On seven occasions *no mention* is made of hæmoptysis, and presumably it did not occur. On one occasion there was slight *external* bleeding at the site of puncture. In two cases there was some blood-streaked sputa, and in one case only the hæmoptysis was at all notable, and stopped spontaneously at the end of twenty minutes.

[1] Since this report was written I have made three more injections.

Among the other *immediate* results of the injection we should note the following: In one instance the patient had an attack of syncope which lasted a few moments, and from which he recovered easily. In one case there was complaint of an exhausted feeling. On three occasions the patient complained of painful sensations in the throat —on one it was a feeling of constriction, on another it was one of strangulation, on a third it was a burning sensation. On the two last occasions there was considerable dyspnœa, and the patient tasted, or spat up, *iodine*.

Among the near consequences of the injections we should remark the remarkable one which occurred to the patient J——, who complained, about three hours after the injection, of severe pain in coughing and swallowing, and it was found that there was interstitial emphysema over both sides of the neck and over the pectoralis major muscle of the left side. The emphysema lasted four days, disappearing little by little. At one time the pain in swallowing was so considerable that the house physician felt called upon to administer a small dose of morphine with the hypodermic syringe.

On one occasion, the day following the injection, the temperature curve showed a rise of 1½°. Ten days previous to the injection there had been an equal rise of temperature, but in the interim the temperature had been falling. It was inferred that the injection had caused the augmented temperature, particularly as this symptom was accompanied by localized pain over the chest anteriorly, which was quite intense and lasted three days without diminution (dry pleurisy?).

In regard to the effects of the injections after several days had elapsed, the following were noted: In six instances the patients were *certainly* benefited with respect to their cough and breathing; the cough was less frequent and intense and the breathing notably easier; sleep was better, also, by reason of improvement in the cough. In one case, localized pain, from which the patient had suffered much previously, was diminished. In three cases the expectoration was considerably less, and in one of these the sputa were also favorably modified in appearance. In two cases there was no benefit to cough or other symptoms. In one case the localized pain was apparently increased by the injections. In one case bronchial breathing diminished in intensity, but the râles became more numerous.

In order to determine the precise regions of the chest in which injections could be made with safety, or with greatest advantage, long needles were introduced through the lungs in different interspaces of the thorax, anteriorly, posteriorly, and laterally. These experiments were made by Dr. Satterthwaite and myself in the post-mortem room at St. Luke's Hospital, and in the presence of the house staff. It was determined: A. That the axillary region, high up in the first, second, and third interspaces, with the arm elevated at a right angle to the chest, was the best region from which to make intra-pulmonary injections into apicial cavities. This was believed to be true, first, because the penetration of the needle need not be so deep as elsewhere; second, because the apex cavity was more directly and easily penetrated, and the danger of injury to any important blood-vessel wholly avoided. B. *Posteriorly* intra-pulmonary apicial injections could be made only with great difficulty, risk, and uncertainty, owing to the narrowness of the intercostal spaces, the depth of tissue through which it was necessary to plunge the canulated needle, and the impossibility always of avoiding the puncture of the heart, or great vessels. C. *Anteriorly*, punctures could be made with ease and safety in the first, second, and third interspaces, on a vertical line with or outside of the nipple, but not *inside* of this line. If this were done, it seemed possible, and even probable, unless the limit were only passed by a very short distance, that the needle would almost inevitably be thrust into the heart, pericardium, or one of the great vessels of the chest. The results here reported are, I regret to add, but the remembrance of what was obtained. Careful notes were jotted down by one of my assistants at the time of our experiments, but these were afterward mislaid and lost.

My cases, imperfect though they are, corroborate Pepper's testimony that intra-pulmonary injections in phthisis, when properly made, are not dangerous. They also show that in many cases we may fairly hope that they will relieve symptoms. Among those which have been sensibly ameliorated are cough, dyspnœa, the quantity and character of the sputa. Still there are probably certain cases in which no relief will be obtained, and with our actual knowledge the cough may perhaps be augmented in intensity and frequency during a few days. Further, injections may occasion slight accidents—none of them grave, fortunately. These are slight hæmoptysis, syncope, choking sensations in the throat, localized pain, limited pleuritis, emphysema, rise of temperature. Some of them last but a few days, and afterward disappear entirely; others are mere temporary occurrences, and only last a very short time, and do not return.

It will be remarked that I have not limited my injections to apices where lung cavities were unquestionably present, but have considered it indicated to inject *consolidated tissue* or that which had already reached the stage of softening. It has been asked me what I expected to obtain by such injections, and my reply has been *resorption* of inflammatory processes, or of the results of the same. Do we not obtain very remarkable results, at times, from the injection of infiltrated tissue *in and about* lymphatic ganglia in the neck and elsewhere? Have we not often seen *fibrous goitre* diminish very much in size from intra-parenchymatous injections of iodine? That is true, you reply, but a phthisical lung is a process of very different order, and in no mauner resembles the instances you cite. Pardon me, but this is not correct. Apart from the latest theory of the parasitic origin of tubercular disease of the lung, there is still a *fair basis* for the assumption that many of the local changes we encounter in phthisical lesions are strictly inflammatory in type, and may, and should be treated in such a manner as to bring about profound changes in their growth and development. As a consequence of these changes, resorption may and probably will take place in a certain length of time. Whether it be essential for the apices to become softened before resorption can take place, after intra-pulmonary injections into consolidated tissue, I am not prepared altogether to affirm. I think it *probable* where the infiltration is in great part due to cheesy changes in the pulmonary tissue. When, on the contrary, the local pulmonary changes are largely fibroid in character, I am not unwilling to believe that slow, continuous resorption of this adventitious growth of tissue may take place without of necessity passing through any stage of softening. I do not presume that a weak solution of iodine, such as I have hitherto employed, could have any great effect in preventing the growth of bacilli. Still it is not established what real tolerance a *diseased lung possesses*, and who knows what strength and kind of solutions we may yet be able with almost absolute impunity to inject into its structure. Among these fluids, some may be found that will destroy the main foci of bacilli, and help largely, with the other means indicated already, as strong adjuvants of this treatment, to bring about complete cures.

Even should we ultimately fail in this, to some, Eutopian scheme, is it not, even now, proven that when other therapeutic measures fail to alleviate *cough, dyspnœa, profuse expectoration*, that *all these* symptoms may, at times, be notably diminished by the use of intra-pulmonary injections. In regard to their effects on lung cavities, I am of opinion that, when persisted in, they will disinfect their contents; they will also modify and diminish the secretions from the walls of these cavities; they will tend to effect cicatrization and contraction of these spaces, usually filled with a material which is a constant source of peril to the patient. I have not been convinced, as yet, of the advantage to the patient when bearer of a

phthisical cavity, of a free opening through the chest-wall and complete drainage of it. But this is a very different matter from the little operation we have considered, which may be repeated again and again without risk or shock to the patient, and which promises well to many sufferers if they have the faith to hold out until the good results are acquired. This leads me to make a statement which it is well to recognize. Many patients will object to the treatment through fear. This may usually be quieted if the physician be not interfered with. If, unfortunately, there should be any unwise interference on the part of a short-sighted but kindly layman, the patients will refuse their consent to a continuance of treatment. This difficulty time will overcome when intra-pulmonary injections have become, as I believe they will, a well-recognized and useful addition to our means of battling with that dread destroyer, phthisis pulmonalis.

I have endeavored, gentlemen, in this brief and imperfect manner, to give you a slight *aperçu* of what I esteem to be a real advance in the treatment of pulmonary consumption. We all know, as I have pointed out in the beginning of my paper, what treatment by the old methods means for the vast number of unfortunate beings who crowd our city dispensaries and hospitals. With the three late methods presented to the profession, viz.; super-alimentation, continuous dry inhalations, intra-pulmonary injections, many patients will yet be saved, who, with cod-liver oil and the hypophosphites alone, or added to other resources usually employed, would most certainly die. Nothing prevents us from using all previous means to help our phthisical sufferers, but I would also make a very urgent p'ea for those I have just mentioned.

A CRIME PECULIAR TO A PHYSICIAN.

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One of the most disgraceful crimes which a physician, in his professional capacity, can commit, is the taking advantage of the confidence of a female patient when advice is sought for troubles peculiar to the sex, and by force or fraud making a criminal assault upon her for the purpose of sexual connection. An act of this kind, so peculiarly dishonorable to the physician, and so unfortunate in its possible results to the patient, is not impossible when one considers the passions of men, but it is a matter for congratulation that charges of this sort are so comparatively rare. The general standard of morality and professional honor is so high that the law-books contain few cases on the subject. There are some, however, and it may be well to call attention to several of them. It may be said, in general, that the crime is universally regarded as a most serious one, and in most of the States is declared to be a rape. There has been some discussion in a few of the cases as to the question whether the submission of the female to the act did not lower the grade of the crime, and either make it merely an assault, or else warrant the conclusion that there was consent on her part, and thus take it entirely out of the category of crimes. This view is not generally taken, however, and at the present time perhaps only in those States where the statute requires the element of force to constitute the crime of rape. An instance of this view of the subject will be referred to later.

One of the first cases on the question is Regina's case, an English one, occurring in 1850, and reported in 1 Denison's Crown Cases, 580. Here the patient was a young girl, only fourteen years of age, who had been placed under the physician's care in consequence of illness arising from suppressed menstruation. The treatment adopted did not seem to accomplish the result, and, as the evidence states, he told her that he must try some further means, he then took hold of her and had sexual connection, no resistance being made by her, believing, as she stated, that she was submitting to medical treatment for the ailment under which she labored. Upon the trial, the magistrate said that she was of the age to consent, and if she did, the defendant ought to be acquitted, but if she was ignorant of the nature of the act, and thought it was part of the proper medical treatment, it amounted to an assault.

The jury found the physician guilty, and he was sentenced to eighteen months' imprisonment. The case was then appealed, and the propriety of the conviction came up for review before a higher court, where it was affirmed. The Court said: "The finding of the jury is clear. They are told that if they think she consented to the carnal connection they must acquit, that the girl was competent to consent, and that it is a question for them whether she did or no. The girl is fourteen years of age. She might at that age be ignorant of the nature of the act morally as well as physically, and of its possible consequences. It is said that as she made no resistance she must be viewed as a consenting party. That is a fallacy. . . . The prisoner disarmed her by fraud. She acquiesced under a misrepresentation that what he was doing was with a view to cure and that only, whereas it was solely to gratify the passion of the prisoner. How does this differ from a case of total deception? She consented to one thing, he did another materially different."

In this case the prisoner's counsel suggested that perhaps the act of sexual connection was in reality part of the medical treatment of the case, and that it should have been left to the jury to decide this point. The court with some emphasis said in regard to this defence that it certainly was not left to the jury and need not have been. "The notion that a medical man might lawfully adopt such a mode of treatment is not to be tolerated in a court of justice."

In the case of Regina *vs.* Stanton, 1 C. and K., 415, another English case, there was an indictment for an assault with intent to commit a rape, the physician having obtained access to the person of the woman under pretence of administering an injection, and commenced to have carnal connection with her, when she discovering it got up and ran out of the room. Upon this state of facts a conviction was had for the assault.

In Queen *vs.* Flattery, 2 Q. B. D., 410, decided in 1877, the charge was that of rape, and the defendant was convicted under the following circumstances: The prosecutrix, a girl of nineteen, was "subject to fits," and she and her mother consulted the defendant in regard to her case. He made an examination of her person and advised that a surgical operation be performed, and under the pretence of performing it had carnal connection with her. The Court said in this case: "It is plain that the girl only submitted to the defendant's touching her person in consequence of the fraud and false pretences of the prisoner, and the only thing she consented to was the performance of the surgical operation. Up to the time when she and the prisoner went into the room alone, it is clearly found that the only thing contemplated, either by the girl or her mother, was the operation which had been advised; sexual connection was never thought of by either of them. And after she was in the room alone with the prisoner, what the case expressly states is that the girl made but feeble resistance, believing that she was being treated medically, and that what was taking place was a surgical operation and nothing else. It is said, however, that having regard to the age of the prosecutrix, she must have known the nature of sexual connection. I know of no ground for such a proposition. And even if she had such knowledge she might suppose that penetration was being effected with the hand or with an instrument."

The case of Santiago Don Moran *vs.* The People, 25 Mich., 356, tried in 1872, is an apparent exception to the general rule that submission under the idea that the act is a part of the medical treatment constitutes a rape, but here the decision is based upon the words of the statute, which expressly say that force is necessary to create the crime

of rape, and the court would not stretch the words of the statute so as to cover the case.

The facts of this case were quite peculiar. The defendant was a physician practising in the city of Detroit, and a girl, sixteen years of age, was brought to him to be treated for consumption. He made an examination and then informed her that the "whites" had collected in her stomach, that she was ulcerated, that her uterus was inverted, that to save her life it would be necessary to enlarge the "parts" so that the "whites" might pass off; to break the ulcers and to turn the uterus; that he could do this with instruments, but the operation would probably kill her; that the only way would be for him to have carnal connection with her. When she objected, he told her that it was what he did to all women who came to be treated by him. He said he had told her father that it would be necessary, and he had authorized the defendant to have connection with his daughter. Upon such representations as these she allowed him to have intercourse with her.

When these facts became known the physician was indicted for rape, and convicted, but upon an appeal this verdict was reversed, and a new trial granted, on the ground that no force was used. The Court said: "Upon abstract principles of right and wrong a sexual connection obtained by falsely and fraudulently personating the husband of a woman or by a physician fraudulently enticing a female patient to believe such connection essential to a course of medical treatment must be considered nearly, if not quite, as criminal and prejudicial to society as when obtained by force or any apprehension of violence, and it might, and in my opinion would be, judicious for the Legislature to make some provision for punishment in cases of this kind, but it is not for the judiciary to legislate by straining the existing criminal law to bring such cases within it."

The latest case on the general subject is one just tried in Indiana, and found in the last volume of Reports (Pomeroy *vs.* State, 94 Ind., 96). Here it appeared that the patient was suffering from a disease of the womb, and the physician, while examining her person, had sexual connection with her. He was tried for the offence and found guilty of rape. The Court said: "The evidence tends to show that the appellant, as a physician, informed Rebecca and her mother that the former was suffering from a terrible womb disease and was losing her mind. If the jury believed, as they might well have done from the evidence, that the appellant as physician obtained possession and control of Rebecca's person under her mother's command, for the purpose of making a further examination of her alleged disease of the womb, and not for the purpose of sexual intercourse, and that she never in fact gave her consent, through fraud or otherwise, to the sexual connection, then it seems to us that the appellant was lawfully convicted of the crime of rape." The sentence was therefore affirmed.

These cases will go strongly to show the comparative infrequency of the crime, and also that the courts in general regard it as belonging to the highest grade of crimes of that nature, and punish it severely whenever the guilt of the physician is fairly made out.

THE PROPER CHEMICAL TERM FOR HYDRO-CHLORATE OF COCAINE.—The *Drug News* contains an elaborate article upon this subject, concerning which also Dr. John North, of Keokuk, Ia., sends us a learned letter. The question is too purely a chemical one for our columns. Dr. North contends that the present term is correct. "The salt," he says, "cannot be called a chloride because it has a linking element and is not a binary compound. It cannot be called a chlor*ate* because the term chlorate is used where the linking agent is oxygen. We call it *hydro*chlor*ate* because it has a linking element, and the linking element is hydrogen."

MULTIPLE ŒDEMATOUS SWELLINGS OF THE SKIN, DUE TO RHEUMATIC VASO-MOTOR AFFECTION.

BY A. SEIBERT, M.D.,

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ON July 2, 1884, a gentleman, aged forty, came to my office and related that about two hours ago he had jumped from the driver's seat of a high wagon, but that he had in no way injured himself by this leap. One hour later, while urinating, the patient noticed a considerable swelling of his penis, therewith no pain or other complaint. On examination the following condition was found:

Strongly built, well-nourished man, with abundant adipose tissue. Had drank considerable quantities of beer all his lifetime, and had been a very moderate eater for the last few years. Furred tongue; quick pulse, but no elevation of temperature. Lungs, heart, liver, and spleen normal. No hernia; no swollen glands; no stricture. The urine is clear and contains no albumen.

The prepuce is in a state of considerable œdematous swelling, while no apparent inflammatory cause exists. No paraphimosis. The swelling is evenly distributed in the prepuce. The upper covering of the penis is not involved.

Directions: Rest in bed; ice-bag on the perineum; iodide of potassium.

July 3d.—The œdema has nearly disappeared.

July 4th.—The swelling is all gone; patient is allowed to get up. Hardly an hour after the patient's rising the swelling appears again. After resting forty-eight hours the œdema again subsides, but only to appear again on the man getting up from his bed. Thus three times the disappearance of this phenomenon follows a rest of two days' duration. From July 11th (being the tenth day of ailment) the œdema does not disappear any more, in spite of continued rest.

July 13th.—A large, well-marked œdema appears on the right side of the abdomen, extending from the vertebral column forward to about the mammillary line, upward to the twelfth rib, and downward to the crista ilei. The skin in this region is very much swollen and tightened, showing a reddish-bluish appearance which is mostly marked in the centre of the patch. No heat in the part whatsoever. On pressure the characteristic dent for œdema is left for quite some time. On percussion the sound over this region is absolutely dull (as was afterward learned, owing to the enormous swelling of the integuments of the skin). Within the next few days œdema of the right ankle region and of the right upper leg appeared, the œdema of the prepuce meanwhile growing in intensity and spreading over the testicles. This state of things remained the same to the beginning of the fourth week, when a light œdema of the left ankle-joint region and of that part of the back corresponding to the affected portion of the right side, appeared. This last œdema does not extend forward above the axillary line, and is not so well marked as that of the other side, but shows the same reddish-bluish appearance.

Meanwhile, the patches of œdema on the right half of the body had grown to an enormous extent, so as to make it appear decidedly larger than the left side. The swelling in the skin of the back and abdomen now extended upward to the mammilla, downward to the knee, covering the gluteal region as well as the surface of the whole thigh. The skin of both lower extremities below the knee (with the exception of the ankle-joints) was not swollen in the least. The prepuce had grown to an enormous size, the covering of the testicles being by far less swollen. The right side of the face also showed slight œdematous swelling. There was no ascites present.

During these five weeks the patient had no fever and no pains at any time. His appetite was fair, his digestion normal, and he never was constipated. The exami-

nations of the urine, though daily repeated, revealed no albumen, no sugar, and no abnormal quantities. The microscopic tests proved fruitless. The man was patient, and his humor as good as ever. His sleep was sound and uninterrupted. The only abnormal sign outside of the swellings consisted in an acceleration of the heart's action, for during the full course of this disease the pulse beat ninety-six times per minute. The treatment employed consisted in absolute rest in bed, good nourishment, and of drugs: iodide of potassium, large doses of quinine, digitalis, ergot, and calomel. The result of this treatment was entirely negative, so that not the slightest symptoms mentioned above (as, for example, the quick pulse) changed or disappeared.

Before reporting the further history of this case we might as well try and diagnosticate. At the end of the second week, when the prepuce and a circumscript portion of the back and abdominal wall of the right side, together with the skin covering the right ankle-joint were swollen, it appeared rational to refer these isolated, œdematous swellings of skin to some pressure most likely exercised upon that region of the abdominal cavity partly transversed by the internal iliac artery. The dull sound on percussion, the unconquerable difficulty to palpation, together with the peculiar mode of appearing and disappearing in the beginning of this affection, as well as the location of the most extensive swelling, gave great probability to the idea of some malignant tumor within the abdomen. The right kidney and the abdominal lymphatic glands might have been thought of. True that no cachexia existed, and no abnormal substances were noticeable in the urine, but both may be wanting for a long time, and still the kidney, for example, may be degenerated totally into cancerous tissue, as I lately was able to demonstrate in the case of a child aged ten months (*Jahrbuch für Kinderheilk.*, vol. xxi., Heft 3. Leipzig, 1884).

Later, when the right thigh, the covering of the testicles, and the dorsum of the right foot were also implicated, ascending thrombosis might have covered the picture thus presented, provided the beginning and the course of this case were not known. This assumption, therefore, could not hold—1. Because the œdema had appeared at the prepuce, the abdomen, and the back, long before the swelling over the extremity; and 2. Because the œdematous places in the skin were not located next to each other and following the ascending course of one or more veins, but presented isolated patches surrounded by normal skin. Thus the preputial and abdominal swellings were isolated from each other and from that of the thigh, that of the foot from the swollen upper leg by the not swollen lower leg. 3. No cause for a possible thrombosis could be discovered.

The last resource for diagnosis in this case was presented by the central nervous system. Syphilis was positively denied, and the want of swollen glands, as well as the negative result of continued large doses of iodide of potassium, verified this statement. Though during the progress of this case I was continually pressed to assume some affection of the vaso-motor nerves, either peripheric or central, I freely confess that a diagnosis of this kind did not satisfy me at that time, partly because the text-books did not speak of such disease, and partly because I could not find one case similar to this in literature, though the experience of Professor Jacobi, who saw the patient in about the third week with me, was at my command.

At the end of the fifth week, when the symptoms described above were at their height, the patient one morning complained of soreness in the joints of the right big toe. Redness and swelling were wanting. As I had treated the man about a year previous for arthritis rheumatica, I suspected that a new attack of this malady was threatening, and therefore ordered salicylate of soda, one gramme to be used every hour. On visiting the patient the next day I not only found that the pain in the toe had disappeared, but also that the œdema of the skin had decreased in intensity to a remarkable degree. All œdematous patches were less swollen; in the face only a slight swelling below the eyelid remained; the left foot and the left side of the back had completely lost their œdema, while the great swelling of the prepuce, the right side of the abdomen and back, as well as the right thigh, had diminished considerably.

To be brief about it, the treatment with salicylic soda was continued, and within six days after the beginning of this treatment the patient was discharged cured. The œdematous swellings disappeared in the same order in which they made their appearance, and according to their intensity, those least marked first and those most developed last.

Ranvier (in his work on "Experimental Œdema," Paris, 1869) proved that it did not suffice to ligate a vein; for example, the largest one of an extremity, to produce œdema, but that the vaso-motor innervation of the district supplied by this vessel had to be interrupted by either ligation or section. He even proved that in these experiments the œdema was due solely and alone to vaso-motor disturbance, for after severing the root of the ischiatic nerve within the spinal channel (in which locality the filaments of the sympathetic do not accompany the ischiatic so numerously as in the latter's course outside of this channel) the expected œdema, before easily produced, did not appear.

Boddart ("Notes sur la pathogénie du goitre exophthalmique," 1872) reports a local œdema of the neck in consequence of the ligation of filaments of the sympathetic supplying the head.

Mitchell ("Des lesions des nerfs et de leurs consequences," Traduction, Paris, 1874) has seen œdema appear in one hundred and six cases of neuralgia, either before or during the attacks.

Schwimmer (in his monograph, "Die Neuropathischen Dermatonosen," 1883), while speaking of œdema, relates a case of carcinoma of the mediastinum, in the course of which attacks of intense neuralgia of the right face and chest appeared with œdema. On suppressing the pain with morphia the œdema vanished with it, to again appear when pain set in.

C. Gerhardt ("Ueber einige Angioneurosen," Saml. klin. Vortraege, Volkmann, 1881) not only makes mention of one-sided vaso-motor facial paralysis, but also as counterpart of cutaneous gangrene consequent upon poisoning by secale cornutum, to show the importance of the vaso motor nerves.

Eulenberg reports a case of Mauthner (*Deutsch. Archiv f. klin. Med.*, ii., 2) where a young chlorotic girl was frequently attacked by contractions of the cutaneous vessels of the hands and feet, lasting several hours and followed by reactionary paralysis of the vaso-motors, with œdema. These attacks disappeared together with the chlorosis.

Negel (*Progrès Medical*, 1884, p. 846) reports the case of a woman, forty years old, who was similarly afflicted, the contractions of blood-vessels setting in regularly upon the patient's washing her hands with cold water. The pains during the attacks in the afflicted parts were intense in this case, redness and swelling accompanying them. Duration about five minutes. Treatment with salicylic acid internally removed the disposition for these attacks quickly and thoroughly.

Symmetric gangrene, first spoken of in detail by Raynaud and lately by Weiss (*Wien. Klinik.*, Hft. x., 1882), also belongs in the class of vaso-motor disturbances.

These examples necessarily prove the existence of vaso-motor nerves and their liability to disease. The affections of these nerves seem to produce two distinct conditions of the organs they innervate: spasmodic contraction and paralytic expansion of the blood-vessels.

In studying the history of the above cases the following ideas occur to me: The diseases of the vaso-motor nerves can be classified into

1. Local affections. The cases of Mitchell, Schwimmer, and Negel are to be looked upon as neuralgic affections of cutaneous nerves in which, through various causes, an irritation not alone causes paroxysms of pain in the one, but also contractions of blood-vessels, by means of the vaso-motor fibres. The attacks of neuralgia, *i.e.*, the irritation, keeping up longer than the spasmodic contraction of the muscular fibres of the arteries can hold on—paralytic relaxation consequent upon this exhaustion sets in, and thus, even while neuralgia continues, œdema appears.

2. Vaso-motor affections of central origin. Symmetric gangrene, cutaneous gangrene, produced by poisoning with ergot (Gerhardt, *loc. cit.*), and the case of Mauthner are to be classified under this heading. The very fact that in symmetric gangrene the affection manifests itself on both sides of the body, equally distributed, leaves no doubt as to the central origin. In giving ergot we well know that the action of the drug is not a local, but a general one, therefore caused by the latter acting upon that nerve-centre, controlling the contraction of the muscle-fibres of arteries. In the case of Mauthner the existing chlorosis proved to be the cause of the irritability of the vaso-motors.

Our case differs in various important points from those just related.

1. There was no pain at all, which proves that no local inflammatory irritant was present (as in those cases connected with neuralgia), and also that no contraction of arteries preceded their dilatation (as in symmetric gangrene, etc.). As therefore only the vaso-motor nerves could have been affected, and as this affection was manifested only by paralytic dilatation of blood vessels producing œdema, it follows that the irritant most likely was located centrally.

2. The large surface covered by the œdema is unusual. This as well as the peculiar mode of appearing (at first all on one side, then on the same points of the other side, and then in isolated patches), seems to point toward central lesion.

3. The long duration of the swellings, their gradual development, and their steady increase in intensity and circumference—showing that the cause not alone persisted in remaining, but also in growing more and more manifest.

4. The abnormal rapid action of the heart, always remaining unaltered and not in the least influenced by large doses of digitalis (a symptom which Gerhardt, *loc. cit.*, pronounces pathognostic for paralysis of the vagus), presents an interesting complication of diagnostic value, also pointing to central disturbance. The centre for retarding the action of the heart, as well as the main one for the vaso-motor nerves, is located in the medulla. Many of the vaso-motors partly run with spinal, others with sympathetic nerves, all those for the lower half of the trunk and the lower extremities being intermingled with communicating fibres of the sympathetic.

Keeping these facts in mind we have two alternatives left, either (1) the phenomena in this case were due to some change (rheumatic?) in or near the medulla, depressing the tonus of the exciting centre for contraction of the cutaneous arteries and at the same time producing partial paralysis of the vagus (with subsequent abnormal heart action); or (2) a rheumatic affection of parts of the sympathetic, producing by means of contact with trunk-fibres of the vaso-motors at the same point or points depressed innervation of the latter. The choice between these two explanations is left to the reader.

One of the Large Hearts.—Dr. F. A. Rice, of Bridgeport, Conn., writes: "A cabinet-maker, aged forty-nine, had an attack of acute inflammatory rheumatism at the age of twenty. He subsequently suffered from symptoms of mitral disease, and eventually died therefrom. On autopsy the heart, emptied of blood, was found to weigh exactly forty-four ounces. The cavities would hold from eight to ten ounces."

CONTRIBUTION TO THE PATHOLOGY OF NOMA.

By WILLARD H. MORSE, M.D.,

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As the result of an extended study of the subject, it was my pleasure some seven or eight years ago to give, through the Louisville *Medical News*, some notes on noma, in which I laid down the expression of an opinion that it was quite possible that in cases of the disease moving bodies might be observed in the blood during life. Much to my alarm and surprise, my opinion was severely criticised, and I was most solemnly assured through the columns of our leading medical journals that such a thing was quite an impossibility. The cold water thrown on the idea was of such conclusive frigidity that it was not until lately that I presumed to seek for substantiation of the fact. As the outcome of this further observation I have to report the following illustrative and interesting case:

The patient was a little boy, eleven years of age, the child of healthy German parents of faultless family history, and himself a lad of good constitution and excellent hygienic surroundings. On or about October 13th the mother came to my office with the patient, who was complaining of a pain in the right side of his face. There was apparent evidence of neuralgia, the inception of the difficulty having been remarkably sudden. There was, however, no sign of dead teeth in the jaws, and no history of exposure to cold; and though the ambiguous nature of the symptoms left much to exclude and more to admit, I found no difficulty in diagnosing noma. The disease had commenced three days before, and there were absolutely no other symptoms than the pain, which was constant, lancinating, and intense. Prostration had begun, and became very great before the week had passed. Great tenderness of the cheek supervened, and sloughing took place. A copious hemorrhage ensued on the afternoon of the 21st, and on the following day I found the cheek completely perforated. As a matter of course, the inferior maxilla became necrosed, and more hemorrhage occurred. On the 29th the child died. The autopsy showed a very extensive and complete necrosis of both the superior and inferior maxillæ of the affected side, as well as a general destruction of the tissues surrounding the right cheek and right side of the tongue.

The microscopic examinations of the blood were frequent and thorough during the time that the patient was in my charge. Previous to the primary hemorrhage, there had been a very notable excess of the white elements, the colorless corpuscles numbering one to three of the red corpuscles, and existing in a broken and ragged condition. Examination by a high power revealed a large number of minute colorless bodies, highly refractile and of apparent crystalline consistency, in active and irregular movement. At several subsequent times the number of these bodies varied, but their motility never showed change. After the occurrence of hemorrhage and fall of temperature they were found in diminished numbers, but when the temperature was much accelerated they were in greater abundance. When numerous they were always found in zoöglœate groups. I made a careful series of experiments with reagents, and watched the responses of the degenerate white corpuscles with much interest. I regret that the report of these experiments has been accidentally destroyed, and I can only refer to them in a general way. By the way of summary: they were stimulated by solutions of potash and sulphuric acid, and were arrested by solutions of quinia sulphas and carbolic acid. The corpuscles averaged a size equal to one-tenth of that of a red corpuscle.

Much to my delight, I found on the second day before death the presence of a goodly number of ordinary bacteria in the blood with the white corpuscles. They were also observed in the urine, and were seen in

the fæces. The matter discharged from the wound contained them in a mass in abundance.

The autopsy was held twenty-one hours after death, and on that occasion I obtained for experimental purposes some blood from the right auricle, fluid from the seat of the noma, and specimens of necrosed osseous tissue. The fluids were kept hermetically sealed in capillary tubes, and were carefully preserved. My subsequent investigations were undertaken with the purpose of studying the infective character of both the blood and secretions, and were performed in the week that followed the termination of the case.

1. A young rabbit, inoculated with auricular blood, survived the operation three days. An examination of its fresh blood showed a vast number of the translucent corpuscles. 2. A second rabbit, similarly treated, died on the following day. On post-mortem examination there was distinct peritonitis, and the bases of both lungs were consolidated. The peritoneal exudation showed vast numbers of the white corpuscles, resembling exactly those found in the blood. 3. A young rat, killed twelve hours after inoculation, manifested an abundance of the motile bodies in the warm-drawn blood. 4. The fluid from the wound was injected into the veins of a rabbit and two cats. In each case the animals died in a few hours, and though there was peritonitis, there was no presence of the white bodies in their blood.

In no case were bacteria propagated. No evidence of the existence of these organisms was given, though the child died with its blood swarming with them. The white globules, when reproduced, were of the same character as primarily. I also deduced that inoculation of the fluids derived from the seat of the noma produced no alteration of the blood, though causing peritonitis, while inoculation of the diseased blood induced septicæmic change, with the manifestation in the blood of the characteristic motile corpuscles observable during the course of the original disease.

Clinical Department.

A GOITRE SUCCESSFULLY TREATED WITH IODINE INTERNALLY AND BY INJECTIONS.

Dr. G. W. McCaskey, of Fort Wayne, Ind., was consulted on July 2, 1884, by a young woman, unmarried, aged twenty-five, on account of a small goitre. It measured three and one-half inches from side to side and from one and one-half to two and one-half inches vertically, being larger on the right side. It was firm and non-cystic.

The treatment consisted of Lugol's solution, gtt. vj., three times per day. From once to twice each week the tumor was injected with tr. iodine, gtt. iv.–vj., the length of time between injections depending upon the persistence of the swelling. About twice each week the galvanic current (twelve cells), with the cathode over the tumor, was used for twenty to thirty minutes.

The result of three months' treatment was to cause the entire disappearance of the enlargement upon the left side, leaving what seemed to be a slight thickening and induration of the tissues on the right side. This thickening had remained up to the date of last examination, some two months after the cessation of active treatment. The neck was reduced in size from thirteen and one-half to eleven inches.

The patient lost fifteen pounds in weight, about one-seventh her entire weight. When the debility became very marked, Lugol's solution was suspended for a week. This was necessary twice during the treatment. When the treatment was discontinued the patient regained her original weight in less than a month, without any recurrence of the tumor.

The troublesome dysphonia, which led the patient to consult me disappeared in about one month after the commencement of treatment. The pressure seemed to be removed from the larynx before any obvious diminution had occurred in the bulk of the tumor.

TYPHOID FEVER WITH PERFORATION FOLLOWED BY COMPLETE RECOVERY—NOTES ON TREATMENT.

The very rare occurrence of recovery after perforation of the bowel in typhoid fever lends interest to the following case, carefully recorded by Dr. Lloyd Norris Horwitz, of Philadelphia, late Resident Physician to the Philadelphia Almshouse Hospital :

The patient, a man aged thirty-four, was brought to the hospital on about the eighth day of the fever. He showed the characteristic symptoms : Rose-colored eruption, loose bowels, temperature 104° to 105°, low delirium. On about the twelfth day of the fever he was suddenly seized with a violent chill, followed by great prostration : Feeble intermittent pulse, shallow respiration, contracted pupils, temperature 105⅗° F. Three hours later a second chill occurred less violent. It was preceded by a bloody stool. Unmistakable symptoms of peritonitis then set in : Tender, tense, tympanitic abdomen ; small wiry pulse ; shallow, frequent respirations ; temperature 106⅘° F. Another bloody stool was passed.

"One of the peculiar features of the case," writes Dr. Horwitz, "was the total disappearance of the eruption after peritonitis was fully established, nor did it again recur until all symptoms of peritoneal inflammation had entirely passed away.

"This anomalous symptom, if symptom it may be called, has, to the writer's knowledge, been only observed in one other instance, and that was in a patient of one of his colleagues at the same hospital in which his patient was confined. The delirium, also, which had up to the time of peritoneal involvement been well marked, lessened greatly, and oftentimes during the subsequent thirty-six hours, the intellect of the patient was quite clear, thus forming a striking contrast to his previous mental hebetude and hallucinations."

The symptoms next day increased. The abdominal pain was very great, especially over the upper left iliac region. On the second evening after the complication began, symptoms of profound collapse developed.

"Under the use of tablespoonful doses of brandy frequently repeated, along with the employment of the hypodermic injection of ammonia, with mustard plasters and warmth to the extremities, these ominous symptoms gradually subsided, the heart's action slowly gaining in strength, and the respirations increasing in frequency and depth.

"The following morning all of the very grave symptoms of the previous night had subsided, and the patient, although weaker, was pretty much in the same condition as before the occurrence. All the symptoms of peritonitis above detailed lasted with but little amelioration for three days, except the temperature, which, on the fifth morning after the initiatory chill, was but 104⅘°.

"Between five and six days after perforation had occurred the symptoms of peritonitis began to subside, and after a protracted sickness and slow convalescence complete recovery finally resulted.

"*Treatment.*—It has been agreed by all clinicians that in peritonitis, from whatever cause it may be due, the one remedy, *par excellence*, is opium, and it was on this remedy principally that the writer from the onset relied. The drug was administered in large and increasing doses, frequently repeated : beginning the treatment with an equivalent of two and a half grains of opium every three hours, both the amount administered being quickly increased and the interval between doses proportionally diminished.

"The opium was used sometimes in the form of hypodermic injections of morphia, sometimes the deodorized

tincture of opium, and again, but not frequently, in the form of suppositories.

"Monsell's solution and acetate of lead were both employed to control the hemorrhage from the bowels, but there can be no doubt that much more advantage was obtained from the use of twenty minims of fluid extract of ergot hypodermically, which, indeed, was, after the second bloody stool, solely employed as a hæmostatic.

"In the hyperpyrexia, quiniæ sulph. in large doses (ten grains every two hours) frequently repeated was employed, and when the thermometer reached 106° its hypodermic use was also resorted to. The writer was tempted once or twice to resort to the immersion of the patient in a cold bath, but he has seen it so often employed and with so little real benefit and so much decided harm that he was deterred from its use. Sponging the body of the patient, however, every fifteen or twenty minutes thoroughly with vinegar and water was persistently employed. The writer has rarely seen the combined use of large doses of quinine and the sponging system, when judiciously used, fail to reduce even the greatest amount of hyperpyrexia.

"The amount of nourishment allowed the patient was reduced to the minimum consistent with safety, and after the second day of the peritonitis nutrient enemata were as much as practicable substituted for gastric alimentation until the peritoneal symptoms had subsided."

A CASE ILLUSTRATING THE FUTILITY OF TREATMENT IN TRAUMATIC TETANUS.

Most reported cases of tetanus are reported to illustrate successful treatment. The following from Dr. J. G. Stair, of Manteno, Ill., is therefore instructive as showing the other side: "A robust young man stepped on a nail, causing a penetrating wound of the right foot. Tetanic symptoms began one week later: trismus, opisthotonos, profuse sweatings, a temperature not rising above 101° F. at any time, the arms and lower limbs not affected until just before death, which occurred in three days. The medical treatment, which was decidedly heroic, consisted in thorough purgation with calomel at the start. This was followed by large doses of bromide of potassium. First dose two drachms and then one drachm every two hours. Alternated this with twenty minims fluid extract of gelsemium every two hours. This treatment controlled the paroxysms for a short time. Then in place of the gelsemium scruple doses of chloral were given, limiting the amount to eighty grains in twenty-four hours, with milk and beef-tea *ad libitum*. On November 27th, Dr. Scobey, of Kankakee, saw the case with me. He concurred in the diagnosis and treatment, and suggested administering atropine $\frac{1}{25}$ grain and morphine $\frac{1}{4}$ grain, hypodermically. This was carried out with only temporary relief. After this I administered chloroform and ether—equal parts—with some relief from the violent tonic spasm; but as soon as the effect of the anæsthetic had disappeared the paroxysms returned with increased severity. The night of November 27th, Dr. Rouleau, of Manteno, was called to see the case. He agreed with us in the diagnosis, and suggested grain doses of morphine hypodermically. We also decided to give infusion of tobacco by the rectum. These measures were employed with apparently no benefit except to quiet him for a short time. The potassium bromide, gelsemium, chloral, hypodermic injections of atropine and morphine, inhalation of chloroform and ether, and injection of tobacco infusion in rectum, were all administered in large doses, but not beyond the limits of safety.

"Dr. J. R. Beck has collected (*St. Louis Medical and Surgical Journal*, June, 1872) thirty-six cases of traumatic tetanus treated essentially by chloral in which a recovery took place in twenty-one instances. Dr. H. C. Wood has tabulated ('Treatise on Therapeutics,' pp. 292, 293) eighteen cases resulting in nine recoveries and nine deaths, which were treated mainly by chloral. Bartholow states ('Materia Medica,' etc., p. 448) that H. C. Wood tabulated fifteen cases which he has collected in which the bromide of potassium was the chief or only agent, and of these but two died.

"The question arises, would curare, physostigma, cannabis indica, thorough relaxation with lobelia, or complete intoxication with alcoholic liquors have been the means of saving the patient in this instance? I employed the most reputed and well-tried remedies as recommended by such high authorities as I have referred to."

Progress of Medical Science.

Chyliform Ascites.—Milky effusion into the abdominal cavity is of rare occurrence, especially in children. A well-marked case of this kind was observed recently by Dr. Letulle (*Revue de Médecine*, No. 9, 1884). The patient was a boy, aged eight years, who some two years before coming under observation had a first attack of articular rheumatism. A second seizure occurred about a year afterward. Both times the heart was implicated in the rheumatic affection. Œdema, ascites, and dyspnœa soon developed. Intense pains in the lumbar region came on. Anorexia, vomiting, insomnia, and restlessness were added to his sufferings. It was decided to remove some of the fluid from the boy's belly, and on puncture about two quarts of a milky liquid escaped. Microscopical examination showed it to be largely composed of emulsified fat. In commenting upon this and similar cases, the author concludes that, in all cases of chyliform ascites in which an autopsy was obtained, the chief lesion consisted in chronic peritonitis. This was due either to tuberculosis or cancer, or to simple serofibrinous inflammation. A chronic inflammatory element was almost constantly present, and must be held largely responsible for the occurrence of chylosis ascites. The same applies to chylous pleurisy. A granulo-fatty degeneration of the products of inflammation, namely, pus and fibrin, accounts for the milky appearance of the effusion. In the serum of the latter the oily globules and granules are suspended, forming a real emulsion.

Total Extirpation of the Uterus.—Dr. Muller, of Berne, performs total extirpation of the uterus in the following manner (*Deutsche Med. Zeitung*): During the operation the abdominal aorta is compressed, and the uterus turned out through an incision in the posterior wall of the vagina. After securing the broad ligaments and vaginal tissues with provisional ligatures, the uterus is then divided vertically with knife and scissors into a right and a left half, each of which is drawn down and the ligaments secured just as in the treatment of pedicle of uterine polypi, the uterine tissues divided about one centimetre from the ligature. The wound in Douglas' pouch is not closed, nor is drainage employed, the only dressings being dry carbolized gauze, and daily washing with corrosive sublimate. In the four cases in which the author employed this procedure the result was perfectly satisfactory, probably from the very slight loss of blood which this method entails.

Reflex Irritation as a Supposed Cause of Abortion.—Dr. Jamieson, of Melbourne (*The Australian Medical Journal*, October 15, 1884), believes that the influence of reflex irritation in the production of premature confinement is often much overrated. And, though we are getting to have more correct notions about the efficient causes of the spontaneous appearance of premature labor, there is still a good deal of difference of opinion. Among the older writers, what we now consider trifling matters often had great, and quite undue, importance attached to them. Smellie, one of whose marked characteristics was robust common-sense, went so far as to say, "Abortion may be likewise occasioned by uncommon longings for things which cannot be soon or

easily got, or such as the woman is ashamed to ask for, especially in her first child, namely, different kinds of food and drink. . . . These cravings, therefore, though they appear unreasonable and improper, must be satisfied, and the mother ought to shun everything that is disagreeable to the senses, because miscarriage may also proceed from surprise at sight of strange and horrible objects." Accidents of all kinds, operations of even the slightest severity, and peripheral irritations of the most various kinds and degrees, have all been supposed to have a strong tendency to favor the occurrence of abortion. Dr. Jamieson then relates the case of a young married woman, aged twenty, in the seventh month of pregnancy, who was admitted to the Alfred Hospital on May 31st suffering from severe burns. They were of the third degree, and extended over both buttocks and a large part of the backs of both thighs. There was also a patch below the umbilicus, about one inch and a half in diameter, and others on both legs below the knee. Large sloughs separated, and at one time recovery was doubtful. Nevertheless, pregnancy went to the full term, and she was delivered easily of a healthy, well-developed child, on August 9th. At that time there were still large unhealed surfaces on the thighs secreting pus copiously; and yet, though labour occurred, and the puerperal period was gone through, in what might be called an atmosphere of pus, she had no bad symptoms, and, in fact, made an excellent recovery. This case has, therefore, according to the author, a double interest, as showing, not only how completely without effect on the course of pregnancy may be an accident, attended both with intense peripheral irritation, and with severe shock to the nervous system; but also as illustrating very well the need of something more specific than ordinary pus, even in abundance, in the lying-in woman's surroundings, if febrile conditions are to be excited.

Hæmoglobinuria and Syphilis.—The pathogeny of intermittent or paroxysmal hæmoglobinuria is shrouded in obscurity. The notion that it is related to malarial disease is now almost abandoned, at any rate as a universal proposition. Its dependence upon exposure to cold led to the hypothesis that it was due to vascular engorgement of the kidney, and that in that organ the blood-cells were broken up and the hæmoglobin excreted. Such a theory may be called the vaso-motor hypothesis, but it cannot be invoked in many cases. Others have suggested that the corpuscular disintegration was due to the absorption of bile acids into the blood, or to some less manifest change in the fluid. That the syphilitic poison is sometimes a factor, as some allege, is supported in a few cases mainly by the effects of treatment. A case from Professor Rossbach's clinic is recorded where a child of nine years, the subject of inherited syphilis, became liable to the affection on the slightest exposure to cold or even slight changes in temperature. A resort to iodide of potassium, and to mercurial inunctions, was followed by a freedom from liability to the attacks which could but be regarded as a cure; for even immersion in ice-cold water of the extremities, and once of the whole body, failed to reproduce the hæmoglobinuria after this course of treatment.—*London Lancet.*

Aggravated Chorea cured by Conium.—Dr. Sinclair, in the *London Lancet*, November 29, 1884, reports a case of severe acute chorea, occurring in a boy aged twelve. On admission, and when first seen in bed, he was tossing about and did not seem to be able to lie still for a moment. His upper and lower limbs were in constant movement, especially the latter. The head was at times jerked to the one side and at times to the other, and occasionally backward. The whole body was from time to time bent backward like a bow. If asked to protrude the tongue he jerked it out, sometimes to the one side and sometimes to the other. The muscles of expression also participated in the movements, the eyebrows being raised from time to time, but on the whole the face was placid. There was an auriculo-systolic murmur at the apex. In summing up the history of this case, the author remarks that "on both the paternal and maternal side, but especially the former, there was a well-marked rheumatic tendency, although the patient himself never suffered from any rheumatic affection beyond the pains in the limbs complained of before the onset of the attack for which he was under his care. This case was without exception the most aggravated attack of acute chorea he ever saw. The poor boy's sufferings were most painful. Arsenic and bromide of potassium in full doses had been tried before he saw him, but without any effect. It will be observed from the clinical record that although he was so ill as to require the administration of chloroform on the day after admission he immediately improved after four one-drachm doses of conium juice, and he continued to improve steadily under its use. It was not found necessary to resort to the enormous doses recommended by some authors, and derided by others. Ten-minim doses of tincture of belladonna appeared to have no effect on the incontinence of urine, which rapidly ceased on the administration of fifteen-minim doses four times a day. The cardiac murmur also disappeared under treatment. There has been no return of the disease since the boy left the infirmary."

The Heredity of Longevity.—It would be interesting to study more closely, thinks the London *Lancet*, in the case of centenarians and other aged people, the ages of their near relatives and immediate ancestors. It will probably be found not rarely that long-lived persons have not been stronger than those who have been short-lived. They have their "often-infirmities" like other people. It will also frequently be found that their brothers and sisters have been as short-lived, or more so, than others. At the same time an element of heredity may not seldom be traced, or may have to be recognized, for we have not yet sufficient data for dogmatic conclusions. We are able to give to-day some few more particulars of the ages of the immediate family relatives of Sir Moses Montefiore, which we have reason to believe are correct, though in one particular at variance with a statement in a previous number. Thus one parent died at seventy-nine, one at eighty-three, his grandfather at eighty-seven, his grandmother at ninety-three, a brother at seventy-five, another at sixty-nine, a sister at eighty-four, another at seventy-nine, another at eighty-two. These nine ages at death give an average longevity of eighty-one years. The first four—those of the parents and grandparents of Sir Moses—give an average of eighty-five years.

The Relation of Certain Diseases of the Eye to Gout.—The Bowman Lecture for this year was delivered by Dr. Jonathan Hutchinson, who selected the above subject for discussion. The following is a brief summary of the author's views (*Lancet*, November 29, 1884): It has been shown to be probable that there are many different forms of inflammation of the eye, or of parts of it, which are in connection with gout. Some of these are very peculiar and specialized types of disease, and have already been accorded distinctive clinical names; others quite as distinct are not as yet so well known, and of others we may say that they are to be distinguished from other inflammations of the same structures not so much by their features as by their cause. Of all we may assert that they are infrequent; some, if we confine ourselves to well-marked types, are distinctly rare. We have divided these different affections into two groups: 1, those which go with acquired, humoral or renal gout, and 2, those which depend upon the inheritance of structures damaged, or at any rate specialized, by gout in predecessors. It is needless to repeat that in almost all cases of acquired gout there is inheritance also, and that in many in which the disease is chiefly caused by inheritance, some modification or increase may have been derived from personal habits. Still, the difference between the two classes of affections is very marked. In the one, attacks of a tran-

sitory nature are the rule, and these attacks are often acute and attended by much pain. In the second group, although a tendency to temporary recovery and recurrence is often observed, yet there is a great proneness to chronicity and persistence. The invasion is often insidious, but the disease is usually in the end destructive. In the former group we have placed hot eye, sclerotitis, recurrent iritis, and retinitis hæmorrhagica. All these are diseases of adult life. In the second group we have insidious disorganizing iritis, relapsing cyclitis, certain forms of soft cataract, and perhaps some of primary optic neuritis. Not only are there clearly marked clinical differences between the two classes of affections, but the difference in treatment is equally marked. In the first the well-known measures against gout must be taken—a restricted regimen, alkalies, colchicum, and aconite, and liberal counter-irritation. In the second we must use tonics, and although counter-irritants are here also often valuable, we cannot trust to any measure as really curative short of complete change of climate.

Nephrectomy for Calculous Pyelitis.—The dependence of the issue of nephrectomy upon the healthy state of functional activity of the remaining organ is again shown by Dr. E. Sonnenburg, who details a fatal case in which the non-extirpated kidney exhibited no definite structural change. The case was that of a woman, fifty-two years of age, who had suffered for months from pain in the right loin, accompanied by fever, wasting, and polyuria. She came under Dr. Sonnenburg's care in August, 1884, when the presence of a large fluctuating tumor in the right half of the abdomen was ascertained, and on aspiration pus was drawn off from it. Nephrectomy by the abdominal incision was performed on August 25th. The operation was difficult and tedious, the thin wall of the cyst rupturing in the removal. The whole pedicle was secured to the wound, but it was found impossible to suture the peritoneum. The organ was converted into a chambered, pus-containing sac, with numerous thin-walled outlying cysts, and a large branching calculus was lodged in the dilated pelvis. Hardly any renal tissue remained. Collapse followed, terminating in death on the second day, and during the whole interval no urine was secreted. There was no peritonitis; the left kidney weighed a little over six ounces and was anæmic, but histologically almost normal, except for some localized fatty degeneration of the renal cells and slight increase in places of the interstitial tissue. The fatal issue of the case could not, the author thinks, be attributed to the shock of the operation and the collapse alone. But the condition of anuria, the cause of which remains unexplained, was in the main answerable for this result.—*Berliner Klinische Wochenschrift*, November 29, 1884.

Hysterectomy for Uterine Cancer.—In a recent discussion of the treatment of carcinoma uteri by extirpation of the uterus, before the Paris Academy of Surgery (*Bull. Gén. de Thérapeutique*), most of the surgeons agreed with the opinion expressed by Verneuil and Polaillon, that hysterectomy would be a very good operation at the beginning of cancer, if it were less dangerous; but with the progress of surgery its dangers may be lessened. It is, therefore, an operation for the future. But under the present conditions, the mortality being one in three, the surgeon has not the right to resort to it, because fortunate results from it are far from being frequent.

A Case of Transformation of Scirrhus into Encephaloid Cancer.—Dr. Guermonprez, of Lille, has published in the *Gazette des Hôpitaux*, October 11, and November 4, 1884, some observations which confirm the view, that characteristic scirrhus may be at times transformed into true encephaloid. Velpeau pointed out the fact that all scirrhous cancers were not identical, and described an atrophic and a lardaceous form, the latter having a more rapid evolution. In the case cited, a traumatism received two years before death, is supposed to have determined the metamorphosis of the growth. The scirrhus which began in the mammary gland invaded the bony and cartilaginous structure of the fourth rib, and from this point to the tracheo-bronchial ganglionic mass, there was a bridge of new growth following the lymphatic vessels and resembling Gruyère cheese both in consistence and color. The encephaloid character was marked in the principal glands of the tracheo-bronchial group; also in the lower part of the sterno-mastoid, in the axillary and supra-clavicular glands of the same side. A group of the bronchial glands pressing upon the pneumogastric, where it crosses the bronchus, resulted in dyspnœa, cyanosis, and finally death, before the disease had produced a marked degree of cachexia.

Spermatorrhœa and Psychical Impotence.—From an exhaustive study of the subject, Dr. Armangué, of Barcelona, arrives at the following conclusions: 1. Spermatorrhœa and impotence may have as a cause, a distinct derangement of the intellect. 2. In such a case, treatment should be directed especially to the mind. 3. All remedies will be futile unless you succeed in convincing the patient that their administration will be followed by a cure. 4. In the moral treatment, the intelligence, education, and preoccupation of the patient, as well as the idea he has formed concerning his disease, must all be taken into account. 5. These affections are very common, quite distressing, and frequently of long duration. 6. The condition is often aggravated, and may even be produced by reading works on diseases of the genital organs. 7. You may often cure the patient by placing in his hands carefully chosen modern works on the same subject.—*Journal de Médecine*, November 1, 1884.

The Diagnostic Value of Tubercle Bacilli in the Urine.—So difficult is the positive diagnosis of tubercular disease of the kidney and urinary tract, that, where tuberculosis of the lung does not co-exist, it has frequently been regarded as impossible. A further contribution to our knowledge of the subject recently appeared in the *Pester Médico-chirurgicale Presse*, No. 39, 1884. Dr. Arthur Irsai claims that the presence of Koch's bacillus in the urine establishes beyond question the diagnosis of urino-genital-tuberculosis. He gives two cases in illustration of his views, in both of which the bacillus was found in the urine by the method of Ehrlich. The autopsies showed tubercular deposits in some portion of the urinary system. In one case there was also phthisis and bacilli were found in the sputum a month before death. Here the symptoms had pointed to a cysto-pyelitis, but the excessive loss of flesh and strength caused suspicion of a severe disease of the urinary organs. This was confirmed by the discovery of the bacillus in the urine.

White of Egg in Obstinate Diarrhœa.—Celli has recently called attention to the curative properties of the albumen of hen's eggs in severe diarrhœal affections. In a discussion before a medical society in Rome, he advocated its use, and related two cases of chronic enteritis and diarrhœa, which, having resisted all therapy, speedily made complete recoveries under the use of albumen. The same diet is strongly recommended in the diarrhœa accompanying febrile cachexia, and in that of phthisis. In two cases of diarrhœa dependent upon tertiary syphilis, it was found of no avail. On post-mortem examination diffuse amyloid degeneration of the arterioles of the villi was found in these cases. The mode of administration is as follows: The whites of eight or ten eggs are beaten up and made into an emulsion with a pint of water. This is to be taken in divided quantities during the day. More may be given if desired. The insipid taste can be improved with lemon, anise, or sugar. In case of colic a few drops of tincture of opium may be added.—*Allgemeine Medicinische Central Zeitung*, October 8, 1884.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, January 10, 1885.

SANITARY IMPORTANCE OF EPIDEMICS.

THE knowledge of the fact that cholera prevails most severely among the filthy classes of a city makes this scourge a most important factor in securing sanitary cleansing of cities which it threatens. Already has its presence in Europe excited a very salutary agitation in this community, the effect of which is seen in increased activity of the Board of Health, the organization of Sanitary Reform Associations, and a large newspaper discussion of old nuisances against the public health. The current topics which now attract public attention are the streets, the manure-heaps, the slaughter-houses and filthy trades, and the tenement-houses. It is interesting to note the progress of discussion of these sources of ill-health. Until recently we have been assured that the streets were in a state of sanitary cleanliness; now it is discovered that they are very filthy. On the strength of that announcement the shrewd Commissioner puts $25,000 more in his already plethoric estimate. The wise men of the Board of Estimate grant that sum, but allow it to be used only in case of the actual prevalence of the epidemic. So the streets are to remain as in the past, unless we are blessed with an outbreak of cholera, when they are, for the first time, to be well and thoroughly cleaned. The manure question suddenly assumes great importance. For years the people living on the east side of the city have complained to the Board of Health of the suffocating stenches which arise from the enormous collection of manure at the foot of Forty-sixth Street and East River, and envelop a large section of the best part of the city, but their complaints have been unavailing. Under the pressure of public sentiment, the Board of Health annually assaults this gigantic nuisance with paper pellets, but there it has stood, and still stands, unmoved, towering on the river front like a very Gibraltar. But with the rumor of an approaching epidemic, the long-suffering citizens have determined to abate this nuisance against which the health authorities have proved so powerless, and a committee of energetic ladies have gone at once to the Grand Jury and demanded its assistance in bringing this old offender against health and decency to justice.

The result of this flank attack is, that the manure-heap must go. Here let us express the hope, that this organization of women, for sanitary reform, will not disband, but rather enlarge the scope of its work. There are innumerable sources of ill-health in this city which such a society can reform. Again the question begins to be asked, what will be the effect upon the public health of fifty to seventy-five slaughter-houses and offensive trades connected with them, scattered over large areas, if cholera appear? If this inquiry lead to the practical conclusion that all the slaughtering for this city can be done inoffensively in two abattoirs, one upon either river front, the reform would not be dearly purchased by a cholera outbreak. Such a salutary change in the methods of supplying the city with meat, must be largely the result of popular agitation, for a health board rarely has the courage to persistently struggle with such forces as the slaughtering interests command. At one time the Board did adopt an ordinance which would have rid the city forever of this fruitful sources of nuisances, dangerous to life and detrimental to health, but it had not the firmness to enforce it, and finally rescinded its action. Another fruitful topic of discussion in times like these, is the tenement-house. No subject so interests a certain class of reformers as the condition of the poor in tenement buildings. There is a stereotyped style of setting forth the miseries of the poor in these abodes of wretchedness which appeals with great force to the public conscience. The real value of this agitation is the renewed efforts of the Board of Health to improve the homes of the poor. Inspections are more frequent and thorough, and radical defects are remedied. It will be safe to estimate that every cholera agitation effects reforms in tenements, which diminish permanently the sickness and death-rate of the poor fully five per cent.

It thus becomes apparent that great epidemics are by no means unmitigated evils. They teach and enforce lessons as no other master can. It is in vain that we urge sanitary reforms and improvements when there is no existing or threatening epidemic. Filthy streets, unsanitary tenements, garbage-heaps, manure-dumps, and unhealthy trades abound, in spite of protests of citizens. Boards of health, even, become indifferent, and legislative bodies diminish or altogether discontinue appropriations for their work or existence. But when an epidemic, like cholera, looms in the horizon, and tidings of its devastation of communities who are noted for their filthy habits reach us, all is changed. Citizens anxiously inquire, What shall we do to prepare for its reception; health officers assume great apparent activity; the grand jury inquires into the efficiency of the Board of Health; and the Board of Estimate lavish the public money with unstinted hand. For the time the city is placed in good sanitary condition, the general sickness rate rapidly falls, and the mortality is proportionately diminished. The result of this sanitary cleansing proves that if we could always live in the immediate apprehension of an epidemic, New York would be the healthiest city of the world.

ON THE CURABILITY OF PHTHISIS.

IN the early part of the present century phthisis pulmonalis was regarded as almost uniformly fatal. "No fact," says Andrae, "demonstrates that phthisis has ever been cured, for it is not art which operates in the cicatrization of cavities." Louis admits that a cure may rarely take place, but the disease must then be limited, and "the result is fortuitous." In the last thirty years

or more, however, since Professor Hughes Bennett began to advocate the sthenic treatment of the disease, the views as to its course and termination have greatly changed. Now we are told by the last-named author that phthisis is "not considered to be uniformly or even generally fatal," and that treatment can, in the great majority of cases, prolong life, while in many "a complete and permanent cure may be effected." The inference is also drawn from post-mortem examinations that one-fourth to one-half of persons who die after the age of forty have had an apical phthisis which was cured. Dr. Richard Quain and Dr. Jas. Henry Bennett have expressed similar hopeful views.

On this side of the Atlantic, among the optimists, Dr. James R. Leaming states his belief that nine-tenths of all forms of phthisis commence with interpleural exudation, "which is removable, when fresh, by proper management;" from which the inference is to be drawn that nine out of ten of cases of incipient phthisis can be cured. Professor A. L. Loomis states that chronic pulmonary phthisis is not necessarily a fatal disease; its morbid processes may be arrested in a large proportion of cases. Recovery has taken place in one-sixth of Dr. Loomis' recorded cases in the past ten years. The views of other modern authors have a like hopeful character.

Dr. Roberts, whose opinions coincide with those of Dr. James Pollock, in his "Practice of Medicine," states that there is now ample evidence to prove that phthisis may, in certain cases, be completely arrested or cured; while in a large proportion its progress may be greatly delayed by appropriate treatment, and life rendered fairly comfortable.

Niemeyer states that death is the most frequent result of all forms of pulmonary consumption, and is the sole termination of tuberculosis, but that in the forms of the malady which are dependent upon pneumonia, an improvement and approximative recovery are not as rare an occurrence as is usually supposed.

A. Flint states that the prognosis in cases of pulmonary tuberculosis is extremely unfavorable . . . yet the mortality has undoubtedly diminished within the past ten or fifteen years. The same observer has collected a very small number of cases in which the disease ended in recovery spontaneously, *i.e.*, without any hygienic or therapeutic measures having been employed.

Sir Thomas Watson, following Dr. Latham, suggested a similar view, viz., that in certain forms of "unmixed" phthisis a natural cure by the contraction and cicatrization of a vomica may by a possibility take place. He places the average duration of a case of phthisis at two years. Older authorities, such as Louis, Bayle, and Gregory, estimated the ordinary duration at from six to nine months, while Dr. C. J. Williams found the average of 198 cases to be over seven years.

Dr. Wood, in his "Practice of Medicine," announces his belief that phthisis is occasionally cured; and he further believes that each tubercle has a tendency toward health, and if alone would in time end in perfect recovery; so that the great fatality of phthisis is due to the continued predisposition which causes the repeated deposition of new tubercles.

The statistics of the Registrar-General of England how that phthisis does not cause so many deaths proportionally as it did in former years. The reports of the Massachusetts State Board of Health also indicate that up to within a few years there has been a steady decline in the comparative death-rate of phthisis since 1857.

The question may be fairly raised now, however, whether there has not developed a too hopeful view as to the prognosis of phthisis in the minds of the medical profession. It is true, as is stated by Dr. Beverley Robinson in a suggestive paper recently read before the Practitioners' Society, that when a patient is in a position to command all the diagnostic skill and therapeutical resources of the medical profession, much may be done for him. But when we come to the vast mass of humanity which has to earn its living by continual toil, the problem is a different one. Is there a hospital or dispensary in the whole country which can report cases of phthisis cured? If so, their fortune is an unusual one. Perhaps every practitioner has treated or heard of one or two cases of phthisis in which the disease has ceased its course and the patient regained perfect health. But against these are the death-rates showing that from twelve to fifteen per cent. of mortality is from consumption.

It should be borne in mind that the gentlemen who write our text-books and express optimistic views regarding phthisis, are generally physicians in the best practice, who see many patients that are able to go South or go West; patients who are intelligent enough to understand and willing to utilize strictly and carefully every possible measure which will tend to restore them to health. The country doctor who treats the farmer's wife or the small tradesman, and the city doctor who treats the mechanic, the clerk, the domestic, and the laboring man, may have a different story to tell. It is certain that we can control the disease and prolong life more successfully than formerly. But as to absolute cures, perhaps Louis saw as many as we do to-day.

SOME NEW FACTS AND A NEW THEORY AS TO THE ASSIMILATION OF IRON.

In Hoppe-Seyler's *Zeitschrift für Physiologische Chemie*, ix. B. 1 Heft., Professor G. Bunge has contributed a thoroughly original article upon the subject of the assimilation of iron; and he presents some new facts which may prove to have an important practical bearing. For in these days of sthenic therapeutics, few drugs are more frequently and perhaps indiscriminately administered.

The first question propounded by Bunge was: in what form is iron normally absorbed and assimilated? Out of what compound is hæmoglobin built? Necessarily in such a substance as the yolk of eggs, iron exists in the form in which the blood takes it up and uses it, since we have hæmoglobin before there is any digestive apparatus. By careful analysis there was obtained from two hundred yolks, thirty-four grammes, or about one ounce, of a natural iron compound. This compound was split out from a more complex proteid by a certain ferment action. Bunge showed by several tests that the new compound was not an iron salt or an iron albuminate. It was very complex in composition, containing even more atoms than hæmoglobin. Believing that hæmoglobin is formed by a splitting up of this body after it is absorbed into the blood, Bunge gives it the name of

hæmaglobinogen or hæmatogen. Analyses showed it to be composed as follows :—

$$C_{42\cdot11}\ H_{6\cdot08}\ N_{14\cdot73}\ S_{0\cdot85}\ P_{6\cdot19}\ Fe_{0\cdot29}\ O_{21\cdot95}$$

Compared with hæmoglobin it has less C, H, and N, but it has one-third more oxygen and ferrum, and about seven times as much phosphorus.

Believing, then, that out of the protoplasm is split up by a ferment hæmatoglobin, and out of this, hæmoglobin, Bunge contends that our natural foods contain no inorganic iron compounds, that *inorganic iron salts are never absorbed and assimilated*, and that iron takes part in our nourishment only in the form of complicated organic compounds which are the result of the life-processes of plants. The vegetable world caters to us for our iron as well as for the other elements.

Naturally the question at once arises, How is it that inorganic iron salts do undoubtedly relieve anæmia and assist hæmatosis. The answer is that these salts in some way prevent the organic iron compounds from being decomposed and made unassimilable. There is always enough iron in a natural diet for the wants of the system, but this natural supply may be injured by abnormal fermentations in the stomach or intestines. Hæmatoglobin is very easily decomposed, especially by the alkaline sulphates, which are liable to appear when there are butyric and other fermentations. Hence, in prolonged gastro-intestinal disturbances sufficient of the natural iron compound fails to reach the blood. The anæmia resulting can be corrected by protecting the hæmatoglobin with large doses of iron or by treating the gastro-intestinal troubles directly. The hydrochloric acid of the stomach is a natural antiseptic and protector of the food iron. In chlorosis, Zander has shown (*Virchow's Archives*, Bd. 84, 1881), that large doses of this acid will produce more favorable results than iron itself. The high estimate placed upon the muriated tincture of iron may be explained upon some such theory as Bunge has offered.

The practical inference to be drawn is that the ordinary albuminates, malates, lactates, etc., of iron are no better, no more likely to be assimilated than the inorganic salts. The former may be given for special reasons, but the muriated tincture is after all the best form to use, when the stomach will allow.

IS PNEUMONIA AN INFECTIOUS DISEASE?

Within a comparatively short time the literature on the infectious nature of pneumonia has grown to considerable dimensions. Most of these recent communications are of French or German origin. In England, but quite especially in our own country, original contributions to the subject continue to appear rather tardily, and, as it were, with considerable hesitancy of conviction. There can be no doubt, however, that the current drift of the most competent opinion in the profession is toward an acceptance of the specific and infectious nature of the malady. The October number of the *Revue des Sciences Médicales*, contains a good *résumé* of the entire subject in its various aspects, theoretical, clinical, and experimental. It must be confessed at the outset, that some confusion has been created by the mingling of cases well-observed and equally well-recorded, with those of a decidedly contrary kind. One point is quite incontestable, namely, the fact that lobar pneumonia may assume the proportions of a quickly-spreading epidemic.

Moreover, such epidemics are by no means of quite infrequent occurrence. Now, it is impossible to explain them through the sole agency of meteorological influences. Nor is "taking cold" an adequate explanation of the origin of single cases of pneumonia. If, therefore, we can dismiss cold, if we accord to hygienic conditions, acclimatization, and general surroundings only their proper share in the etiology of the disease, which is the production of predisposition, then we must seek for other causative agents. Something outside of the body must, after entering the organism, be capable of suddenly setting up a typical disease, with a well-marked natural history. The assumption of a specific microbe is a very natural one, and the discovery of the same and its repeated observation by competent physicians are already matters of record. When the question is put, Is pneumonia directly transmissible from man to man? clinical experience answers that the contagion of the disease must be a feeble one. In this respect the pneumonia microbe would seem to resemble the supposed germ of malaria in manifesting the properties of a telluric poison.

This part of the question is still quite obscure, which is due in no small measure, perhaps, to insufficient knowledge concerning the micrococcus of pneumonia. Friedländer, Talamon, and Fränkel each claim that their particular bacterium is the true pneumonia producer.

But it is well to remember in all such contentions, that it has yet to be shown that pneumonia may not arise from various kinds of microbes. This brings us to the question of the unity of the disease. And here again we are met by strongly opposing views. Thus, at the recent German Medical Congress, Jürgensen and Fränkel upheld it, Friedländer doubted it, while Rühle, Bäumler, and Rosenstein emphatically denied it. Secondary inflammation of the lungs should certainly be distinguished from the primary variety. For the acute lobar pneumonia of asthenic type can hardly be considered to be identical with those asthenic forms that so frequently complicate typhoid fever, chronic nephritis, or cerebral disease.

Again, the unicist view is not upheld by the clinical history of the disease as well as it might be. The physical signs may be the same in all cases of pneumonia. Yet that merely shows that there is fibrinous inflammation in the lungs. Now, it seems that the pulmonary parenchyma responds to irritation in a certain way, just as mucous tissue does. But we should not, therefore, conclude that there is only one cause which sets up this reaction.

Pathological identity of lesion should not be used as an argument in favor of identity as regards etiology. There are pneumonias and pneumonias, just as there are different kinds of catarrh. For the present, therefore, it seems best to distinguish two principal varieties of pneumonia, and to call one simple, the other, specific pneumonia.

THE MAYOR'S MESSAGE AND THE BOARD OF HEALTH.

The message of Mayor Grace was sent to the Board of Aldermen on the 5th inst. It contains some suggestions in reference to matters of public health which are both

timely and creditable. Appreciating the fact that any moneys spent in rendering our city more healthful and decreasing the death-rate is a real economy, he urges the strengthening of the Health Department, as well as increased appropriations, that would afford it the necessary means of placing the city in the best possible sanitary condition. Undoubtedly there is much to be done in this direction, and much money will be required, especially in the matter of purifying our shamefully crowded districts. Public opinion will certainly uphold Mayor Grace in the stand he has taken, and the community will bear willingly their part of the burden. The business men, more than any other class, know only too well the loss that would fall upon their interests should the cholera come upon us, and find a filthy city ready to welcome it. Public health is even more necessary to public wealth and happiness than is the health of the individual.

Let the Mayor's suggestions then be heeded, and may the Health Board so co-operate with the Street Cleaning and Police Departments that the coming spring shall find us, enjoying as we do great natural advantages, a city the cleanest, healthiest, and safest in the country. The feeling of safety from pestilence would alone be worth thousands of dollars. For nothing is more certain than that anxiety and apprehension are potent predisposing causes toward the acquisition of disease liable to assume the dimensions of a wide-spread epidemic.

THE SUCCESSFUL REMOVAL OF A TUMOR FROM THE BRAIN.

Another triumph has been added to medicine and another tribute made to the practical value of physiological and experimental science. For the first time in history a tumor of the brain, having been precisely located by the symptoms produced, has been successfully removed by a surgical operation.

The patient was an inmate of the Hospital for Epilepsy and Paralysis at Regent's Park, and was under the care of Dr. Hughes Bennett and Mr. R. J. Godlee. He was a farmer, aged twenty-five, who had been in good health until three years before. He then began to suffer from paroxysms of twitchings in the left side of the face and tongue. Attacks of general convulsions with loss of consciousness supervened, and for two and a half years he continued to suffer from the local spasms and epilepsy. Then spasmodic twitchings of the left arm appeared, and the general convulsions ceased. After several months the arm became paretic and the left leg began to twitch. The patient suffered from violent headaches, attacks of vomiting, and had a double optic neuritis.

The conclusions drawn by Dr. Bennett were: first, that there was a tumor in the brain; second, that this growth involved the cortical substance; third, that it was probably of limited size, as it had destroyed the centres presiding over the hand, and only caused irritation without paralysis of the centres of the leg, face, and eyelids which surround it; and fourth, that it was situated in the neighborhood of the upper third of the fissure of Rolando.

It was decided to attempt its removal. Accordingly, on November 25th, Mr. Godlee trephined the skull, and removed a triangular piece of bone over the region corresponding with the upper part of the fissure of Rolando. After the bone was removed, the dura mater slit up, and the cortex of the brain exposed, no tumor was visible. The ascending frontal convolution, however, seemed to be somewhat distended. An incision about an inch long was therefore made into the gray matter in the direction of the blood-vessels, and one-fourth of an inch below the surface a morbid growth was found. This was carefully removed, and proved to be a hard glioma about the size of a walnut. The superficial part of this was distinct from the brain-matter and was easily enucleated. The hemorrhage was arrested by means of the galvano-cautery and the wound brought together by sutures.

Since the operation the condition of the patient has been satisfactory. The temperature did not rise above 100° F. The mind has been clear, the lancinating pains, vomiting, and convulsions have ceased. A hernia cerebri has formed, however, and the paresis of the left leg has increased. The outcome of the case will be watched with the greatest interest, as opening up a new field for the display of diagnostic acumen and surgical skill. We say this while fully aware that the case in question is really alike in some respects to others that have been operated upon for traumatic epilepsy.

THE ACCUSERS AND THE ACCUSED.

The two communications bearing upon the ridiculous charges against the distinguished President of the Academy of Medicine are presented in this issue in response to a widespread demand for the detailed facts in the case. They can safely be allowed to speak for themselves, explaining an endorsement of the very just verdict of the Academy in unanimously vindicating the accused.

This action is final, and from the decision of the tribunal there is no appeal. The profession, with perhaps the exception of the accusers, has but one opinion concerning the outcome of this miserable business, and is more ready than ever to offset the value of a good name, an upright of character, and a well-earned scientific reputation, against the spirit which so plainly manifested itself, in making the charges and in zealously pressing them to their issue. Few medical scandals can afford a better lesson than does this one to such as seek by like means to elevate the character of the medical profession.

Disappearance of a Physician.—Some time ago Dr. Richard C. Brandeis, of this city, suddenly and mysteriously disappeared. He has not been seen since, and it is feared that he has committed suicide while insane. Dr. Brandeis enjoyed a high reputation as a laryngologist, and had acquired an excellent practice. We learn, however, that he was subject to severe attacks of neuralgia and of mental depression.

An Important Literary Event.—With the present year is begun the publication of the first encyclopædic work on medicine which the American medical profession has ever produced. Wood's "Hand-book of the Medical Sciences" is to be a comprehensive and complete presentation of the present status of medical science by American physicians.

News of the Week.

Demonstration of Koch's Cholera-Bacilli.—Dr. E. C. Wendt writes that he has received from Dr. Koch, of Berlin, a specimen of his cholera-bacilli. In order to give those physicians who may care to examine the specimen, an opportunity to do so, he has arranged to show it at the New York Post-Graduate Medical School, 224 East Twentieth street, on Wednesday, January 14th, and Friday, January 16th, from 5 to 6 P.M. The specimen was prepared by Koch himself from a pure culture, and shows well the the characteristic curved shape of the so-called comma-bacillus.

Unequal Justice.—Mr. G. W. Sparke states that Dr. G. T. Gadsby, of Mansfield, England, died on February 3, 1882, of diphtheria, contracted in precisely the same manner as that of Dr. Rabbeth. No notice was taken of the fact beyond a brief mention of the mode of death in the obituary notice. We are quite sure that other doctors have contracted diphtheria in this way, but have either recovered or died unnoticed.

New York State Medical Society.—The following are the titles of papers so far received, which will be offered at the Seventy-ninth Annual Meeting of the New York State Medical Society, February 3, 1885: Pelvic Abscess, Dr. W. W. Potter, Buffalo; Jequirity as a Remedy for Granulated Lids with Pannus, Dr. David Webster, New York City; Some Diseases of the Ear, Dr. D. B. St. John Roosa, New York City; Some of the Tests for Unilateral Deafness, Dr. O. D. Pomeroy, New York City; An Analysis and Refutation of the Theory of the Germinal Origin and Propagation of Disease, Dr. J. B. Graves, Corning; Meningitis as a Sequel of Pott's Disease, Dr. G. G. Monroe, Crary's Mills; Sane or Insane, Dr. E. H. Parker, Poughkeepsie; Uses and Limitations of Hydrochlorate of Cocaine, Dr. C. R. Agnew, New York City; Catalepsy in Very Young Children (8 m.), Digitalis, its many Indications (12 m.), Typhoid Fever in Infancy and Childhood (25 m.), Dr. A. Jacobi, New York City; Trichina and Trichiniasis, Dr. Harvey Jewett, Canandaigua; Treatment of Pelvic Abscess, Dr. Paul F. Mundé; Culture Experiments of Bacteria, Dr. William Hales, Albany; Senile Hypertrophy of the Prostate, Dr. A. C. Post, New York City; The Elements of Perturbation in Uterine Therapeutics, Dr. Frank P. Foster, New York City; Some Observations on the Use of Hydrochlorate of Cocaine, Dr. Thomas R. Pooley, New York City; Arteritis or Phlebitis the Sequelæ of Enteric Fever, Dr. Robert K. Tuthill, Poughkeepsie; Some Practical Points on the Treatment of Granular Lids, Dr. W. F. Mittendorf, New York City. A number of other papers are promised.

Sanitary Bureau Statistics.—During the year ending December 31, 1884, there were 30,527 births, 11,805 marriages, and 35,044 deaths. In 1883 there were 28,972 births, 11,566 marriages, and 33,982 deaths. Of the births 15,498 were those of boys. There were 292 twins. Of women over forty-five years of age 102 became mothers, and one woman over fifty years of age gave birth to a child. Of men over fifty years of age, 550 were fathers. Of the mothers, 429 had their tenth child, 200 their eleventh, 117 their twelfth, 76 their thirteenth, 32 their fourteenth, 15 their fifteenth, 8 their sixteenth, 1 her seventeenth, 2 their eighteenth, 1 her nineteenth, 2 their twentieth, and 1 her twenty-first.

The mortuary record shows for 1884, 9,194 deaths from zymotic diseases, 7,955 from constitutional diseases, 14,278 from local diseases, 2,267 from developmental diseases, and 1,350 from violence. During the entire year there was not a single death from small-pox. Fifty-four persons who died were more than seventy years of age.

Two hundred and twenty-six persons killed themselves, of whom 39 were women. The ages were—fifteen to twenty, 5; twenty to thirty, 52; thirty to forty, 60; forty to fifty, 41; fifty to sixty, 36; sixty to seventy, 20; seventy to eighty, 9; more than eighty years of age, 3. Fifty-four homicides were committed. One hundred and twenty-one persons, of whom 98 were women, lived beyond threescore years and ten. There were thirteen centenarians whose deaths were recorded.

Human vs. Bovine Vaccine Lymph.—The German Commission appointed to inquire into the subject of vaccination has, with the exception of the three members opposed to vaccination, unanimously declared for vaccination with humanized lymph rather than with that from the calf.

A New Disease, Gastritis Favosa.—Professor Kundrat, of Vienna, has recently reported a case of universal favus, in which the fungus finally reached the stomach and intestines and developed there. This is the first recorded instance in which the mucorineæ have been the cause of death, as it is the first of favus of the stomach and intestines. Indeed, the naked-eye appearance of the tumors in the stomach closely resembled the favus cups on the skin, and the fact that but little of the fungus was found in the intestine was explained by Professor Kaposi by their having undergone decomposition.

Attempted Suicide of Dr. Rudolf Tauszky.—Medical circles have been somewhat excited recently over the attempted suicide of Dr. Rudolf Tauszky. Early on the morning of January 4th Dr. Tauszky, who had been sitting up in his office, called to his wife to come into the room. She found him sitting in the dark, and after a few words a pistol was fired. Mrs. Tauszky ran out, and after help was secured the doctor was found lying unconscious on the floor, a bullet wound in his forehead and a five-chambered revolver on the floor near him. He was taken to the hospital, where it was found that his injuries were not severe, and he is now, we learn, convalescent.

Typhus Fever in the City.—A nest of typhus fever has been discovered in a West Side slum. Thirteen cases have been diagnosticated at date of writing. There have been isolated cases of typhus fever during the fall, but no outbreak since last winter.

Measures for Preventing Cholera.—The Board of Estimate and Apportionment has not seen fit to enable the Health Department, by an increased appropriation, to prepare for prospective cholera by thoroughly cleaning the town. The Health Department can have $50,000 in addition to the ordinary appropriation, but it cannot have it until the cholera shall have appeared here. The Street Cleaning Commissioner asks for an additional appropriation of $25,000 a month from April to October,

to be expended in keeping the streets absolutely clean in the tenement districts and plague-spots. Concerning this subject Mayor Grace says, in his message : "The hands of the Health Department should be strengthened in every way. While its expenditure, if the cholera should visit this city, will necessarily be increased in order that no preventive measure may be left incomplete, there should nevertheless be no wasteful, extravagant, or ill-considered use of the public moneys simply because the people are willing to spend liberally in order to avert a dreaded pestilence."

Sanitary Supervision of the Public Schools.—Concerning this subject Mayor Grace, in his message, recommends that the Board of Education institute a systematic and thorough examination into the sanitary condition of all school buildings.

The Cholera Bacilli Question.—Professors Ant. Ceci and E. Klebs, who have been studying the cholera question at Genoa, give a preliminary communication in *La Revista Internazionale di Medicina e Chirurgia.* They state that comma bacilli are not invariably present in the fæces of cholera patients, or in the intestinal contents of the cadavers of those who have rapidly succumbed to the disease. They also failed to discover the comma bacillus in the air expired by patients in the algide stage of cholera. In perfectly fresh cases, in which epithelium still existed *in situ*, no comma bacilli were found in the glands of Lieberkühn, although lymphatic cells abounded in the mucous membrane. So far as concerns their morphological characters, the comma bacilli and spirilli of Asiatic cholera proved identical with the comma bacilli and spirilli obtained by Finkler and Prior of Bonn, from the culture of the fæces of cholera nostras patients. The same forms of spirilli were found by Klebs in the diarrhœa of an individual suffering from pneumonia. In a later communication of Professor Klebs to the *Correspondenzblatt für Schweizer Aerzte* of December 7th and 15th, views more in harmony with those of Koch are expressed. The writer states that in the dejections of cholera nostras, bacilli similar to true cholera bacilli are seen, but that close study reveals some differences. Cultures must always be necessary for a positive diagnosis.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World :

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—The Medical Record, New York.

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Reviews and Notices.

A Manual of Diseases of the Throat and Nose, including the Pharynx, Larynx, Trachea, Œsophagus, Nose, and Naso-Pharynx. By Morell Mackenzie, M.D. Vol. II., Diseases of the Œsophagus, Nose, and Naso-Pharynx. Pp. 400. New York: William Wood & Co. 1884.

Diseases of the Throat and Nose, including the Pharynx, Larynx, Trachea, Œsophagus, Nose, and Naso-Pharynx. By Morell Mackenzie, M.D. Vol. II., Diseases of the Œsophagus, Nose, and Naso-Pharynx. Illustrated, pp. 550. Philadelphia: P. Blakiston, Son & Co. 1884.

This volume completes the work of Dr. Mackenzie, the first volume having appeared in this county from the press of the same publishers four years ago. The present issue constitutes the August number of Wood's Library of Standard Medical Authors for 1880.

The Record's notice of the first volume, in its issue of November 13, 1880, applies to the second volume, just published in this country, as regards the author's style and manner of dealing with the subject in general, and we can but repeat here the opinion then also advanced, that the work as a whole is a valuable contribution to the literature of medicine, and especially of the department of which it treats.

The author informs us in the preface of the second volume that he has been for twelve years engaged in the preparation of the work, a statement that no one can for a moment doubt who takes the trouble to examine the work itself, the painstaking details of which may with advantage be studied by those who nowadays write books by contract in the space of a few months' time.

We learn from the table of contents that two hundred and thirty-four pages of this volume are devoted to the consideration of the anatomy, examination, and treatment of the diseases of the gullet; two hundred and thirty-eight pages to the nose; fifty-two pages to the naso-pharynx; and ten pages to an appendix of special formulæ for topical remedies. The œsophagus usually being considered somewhat superficially by writers on the throat, we may regard the very considerable space given up to its consideration here as commendable.

The practitioner will be somewhat abashed when he turns to the subject of the diseases of the nose and finds that the author's armamentarium for rhinoscopy and treatment includes fifty instruments, of which wood-cuts are given, and as many more to which allusion is made in the text; but it will be found that many of these are not actually required, the author having a good-natured way of mentioning the contributions of his colleagues, whether of service or not. In respect to the somewhat thaumaturgical employment of spray producers in this country, the author says, "owing to the prevalence of catarrh of the naso-pharynx in America, and the necessity of thoroughly cleansing that cavity when diseased, great attention has been given by physicians in the United States to the subject of spray-producers, and both the air-pump and water-power have been brought into requisition to give force and steadiness to spray." The author might have truthfully added that steam-power had also been employed for this purpose. We feel like protesting against this implication respecting the greater prevalence of catarrhal affections in this country, since we are not aware that such a state of things has been shown to exist.

In regard to the treatment of acute nasal catarrh, not much has been added to our knowledge by the observations of the author. For the early stage of the disease he recommends five or seven drops of laudanum, which would seem to be a very inadequate treatment for the beginning of a severe cold in the head. Unfortunately our clients seldom consult us for colds in the early stage, and our experience in treatment is confined, for the most part, to permanently seated disorder.

In looking over the chapter on hay fever we must confess to experiencing disappointment; not but that the chapter is exceedingly full and complete, but that in respect to the causes of the trouble we are but little better informed than before. In respect to the etiology of hay fever the author says that the predisposing cause depends on a peculiar idiosyncrasy; had he paused just here it would have been well, but when he adopts the theory first advanced by Elliotson, in 1839, that the exciting cause is the inhalation of some pollen, we are, while not disposed in the least to cavil about the matter, quite convinced that it has been found more convenient to follow in this easy and well-trodden path, which has been so generally accepted without sufficient and conclusive evidence, than to pursue research in other directions. The author in reference to the treatment of hypertrophied mucous membrane of chronic nasal catarrh, of which much has been said of late, recommends the daily use of gum-elastic bougies, before attempting a surgical operation with cautery or écraseur, and somewhat facetiously remarks: "For though the introduction of the elastic cautery and the wire écraseur permits some relaxation of the rule under which surgeons were taught 'to cut through everything soft, to saw through everything hard, and to tie everything that bleeds,' the spirit of this simple instruction has, I fear, in recent years, sometimes influenced the young practitioner, and the nasal passages have occasionally been 'cleared' with a zeal and energy worthy of the industrious backwoodsman." And further, "I would also warn some of my younger *confrères* that as the appearance of the interior of the nose varies immensely in healthy persons, it is unnecessary, where no inconvenience is felt, to restore geometrical symmetry to the turbinated bodies, or to invest the lining membrane of the nose with artistic merit." We could add that in view of the energetic, and, perhaps, sometimes maladroit and inconsiderate, demolition of the interior structures of this useful organ the advice given seems not untimely. Mackenzie, moreover, does not regard operations for the correction of septal deflections as justifiable, except in the more extreme cases.

Hæmatoma of the nasal septum is described; the treatment laid down, however, is based on the experience of one case only. It is surprising that this affection is not seen more frequently, since blows upon the nose are of constant occurrence.

The author calls attention to the fact that "when the fifth nerve or its nasal branches are injured or diseased, the mucous membrane of the nasal fossæ loses its sensibility." It is unaccountable that he has not availed himself in this connection of the opportunity to draw attention to the probability of more profound disease arising from reflected nervous influences on the nasal cavity than would be implied in the mere loss of sensibility referred to.

The author takes a plunge into the field of otology in respect to "throat deafness," before quite ending his work. Otologists cannot but be gratified that so competent an observer has given his own experience in nasal affections, so many of which are known to frequently affect the ear; but the chapter on "Throat Deafness" consists entirely of citations from the writings of persons conversant with the hearing organ, and the effort to thus place the cart before the horse, so to speak, does not add to the value of Dr. Mackenzie's book. Correctly speaking, "deafness" cannot be regarded as "throat" with any more propriety than uterine reflexes influencing the ear can be said to constitute "uterine deafness." The most important influence of nasal disease and deformities on the organ of hearing are not alluded to, namely, the interference with tympanal aeration. The recommendations in the way of treatment of the ear itself are exceedingly crude, and are mostly at variance with the practice of otologists of the present day.

Reports of Societies.

PRACTITIONER'S SOCIETY OF THE CITY OF NEW YORK.

Stated Meeting, December 5, 1884.

A. B. Ball, M.D., President, in the Chair.

FUNCTIONAL HEMIANÆSTHESIA.

Dr. C. L. Dana presented a patient with functional hemianæsthesia of one upper extremity, and hemiataxia of the lower extremity of the same side. The patient had been referred to him for examination by Dr. S. M. Roberts. Until 1876 he was a perfectly well man, without the history of any specific disease. At that time he was taken, without special cause, with great feebleness in all of the extremities, general paresis. He laid in bed several weeks, without symptoms of organic disease of the spine, and as he gradually recovered symptoms of paræsthesia and anæsthesia developed, and probably some ataxic symptoms, as well as some paresis in the arms and legs, especially affecting the left side. He reached his worst condition in 1878, when he had almost complete hemianæsthesia affecting the left side, affecting the gustatory nerve, but it did not seem to affect any other special sense to any great extent. Concerning the gustatory sense, the chorda tympani only was affected, as the patient was unable to taste anything on the left side of the tongue on its anterior two-thirds, while at the back part of the tongue the taste was unimpaired. Under the use of tonics and the Faradic brush these symptoms nearly all disappeared. The patient had never exhibited any hysterical symptoms. There was no evidence that he had ever indulged in sexual excess, nor had there been evidence of any organic disease. Another attack, similar in character, occurred in 1881, and from that also he was nearly relieved in a few months.

About one year ago the same symptoms returned, and had continued. When Dr. Dana first saw him, two or three days ago, the patient had lost the tactile sense affecting the left hand along the distribution of the median nerve, but not in the line of distribution of the ulnar nerve, and there was paræsthesia also, or a sensation of numbness. There was no ataxia in the hand at all, and he had no loss of pain or temperature sense—simply loss of tactile sense. His left leg showed symptoms of ataxia, and not of anæsthesia. The patient can now distinguish between heat and cold, and feels perfectly the sensation of touch, but he has a peculiar gait, ataxic in character, and exhibited all the tests of the presence of ataxia. His gait was somewhat peculiar, resembling that of spastic paresis in the left leg; that is, he walked with a rigid leg, and dragged the foot somewhat. At the same time, there was no loss of power in the leg. He walked better sometimes than he did at others. Dr. Dana attributed the symptoms to a certain amount of ataxia. The patient had also had exaggerated reflexes and ankle clonus, symptoms which suggested lateral sclerosis, but there were no other symptoms of organic disease.

Dr. Dana regarded the case as one of hysterical hemianæsthesia and hemiataxia, without any symptom of hysteria, and therefore he thought it better to designate the affection as functional hemianæsthesia and hemiataxia.

The patient had been treated by metallotherapy with the use of gold, but without success. He regarded the prognosis as very favorable, so far as nearly complete recovery was concerned.

Dr. Beverley Robinson then read a paper (see page 29) entitled

ON THE UTILITY TO PATIENTS SUFFERING FROM PULMONARY PHTHISIS OF INTRA-PULMONARY INJECTIONS.

Dr. Sexton said that while the paper was being read it occurred to him that the question of hemorrhage was an interesting one, and he recalled to mind several gunshot wounds of the chest which he saw during the late war, and in which, although hemorrhage was great, it seemed that the patients recovered from such wounds better than from wounds of similar gravity in any other part of the body.

Dr. T. E. Satterthwaite said that he had had no experience in the use of intra-pulmonary injections, and therefore his remarks would be simply theoretical. He did not suppose that any definite conclusions could be reached until a much larger clinical experience had been obtained; and even with increased clinical data not very much could be done toward solving the problem, because phthisis pulmonalis tended toward a fatal issue, and but little was known of the natural history of the affection. Dr. Satterthwaite thought, however, that we could reason somewhat by analogy, and was unable to see why the ordinary rules of surgery could not be applied to the treatment of a pulmonary cavity. For, in the first place, there was a certain tendency in pulmonary tissue to cicatrization, and in the walls of a cicatrized cavity miliary tubercles were found. If, therefore, in tuberculous cavities there was a tendency toward cure in that manner, why might not such cavities be treated by processes which tended toward the bringing about of cicatrization. It had been claimed that injections of an infusion of oak-bark into the inguinal canal would produce fibrous induration to the extent of causing a radical cure of hernia, and doubtless there were several substances which would accomplish the same result. It was also well known that by injecting an irritating substance into the tissue of the lower animals fibrous induration of tissue could be produced artificially. If that could be accomplished, why could not something be accomplished in the way of aiding in closing pulmonary cavities? At all events, by injecting certain substances such cavities could be disinfected, and the general condition of the patient might thereby be improved. Whether the putrefying material be removed with the aspirator or disinfected in position was not a question of very much consequence. The cavities in the lungs were real cavities lined with pseudo-membrane, and he was unable to see why granulations might not be stimulated in such cavities, and in that manner the danger from hemorrhage be overcome, because it checked the ulcerative process.

More than that, acute tuberculosis was due to an ulcerative process extending into the lymphatics and veins, and so throughout the general system. He therefore believed that pulmonary cavities, from a theoretical standpoint, could be treated in this manner for the amelioration of symptoms, if for nothing else.

But he would not think so seriously of injecting infiltrated pulmonary tissue, at a period previous to the formation of cavities; for he was unable to see any reason for the use of the injections. However, there might be good reasons for resorting to them, perhaps, and it might be shown that no harm would result; and further, it might be determined, possibly, that the softening process would be favorably affected by their use. He should be inclined to think, however, that it would not be favorably affected.

The quality of the injections was an important consideration. Such substances should be used as did not produce coagulation or granular deposit of any kind. A watery solution of iodine would produce a granular deposit, and this granular deposit would produce miliary tuberculosis. The use of Lugol's solution, as indicated by Dr. Robinson, would overcome this objection. Dr. Satterthwaite simply wished to call attention to the use of substances which would not decompose in any way, and give rise to a granular deposit.

Dr. Kinnicutt had listened to the paper of the evening with much interest. He confessed that the treatment of circumscribed pulmonary *infiltrations* by intra-pulmonary injections was a wholly new one to him. Dr. Robinson had apparently shown that such injections were harmless; much more extended clinical experience was

necessary to demonstrate their *usefulness*. The theoretical arguments against their exerting any curative influence in the lesions described above seemed to him very strong.

The treatment of phthisical *cavities* by intra-pulmonary injections had been shown to apparently produce an amelioration in certain symptoms, viz., cough and excessive secretion; a temporary corresponding improvement in the general condition of the patient apparently followed, and hence such injections might be of service. Dr. Kinnicutt was inclined to believe that more pronounced benefit might be obtained by means of incision and paracentesis, or puncture and free drainage of such cavities. Recent clinical reports had shown that such operative interference was attended with more or less benefit in three classes of cases, viz.: 1, in large phthisical cavities; 2, in bronchiectatic cavities; 3, in abscess and gangrene of the lung.

In the first and second classes many of the worst symptoms were due to septic poisoning, the result of the absorption of residual secretion, which could only be removed by free drainage. In the third class, operative interference was followed in many cases by complete recovery.

Dr. C. L. Dana had taken a great deal of interest in the paper, because he belonged to a phthisical family, and thought that possibly Dr. Robinson might have an opportunity to perform an injection upon him. He desired, however, to impress one particular point alluded to by Dr. Robinson, and that was the lack of success with which so many ordinary cases of phthisis were treated. Under present therapeutical methods phthisis was almost inevitably fatal, and he would be glad to see any method tried which offered new chances for the patient. Perhaps the greatest objection was that it could be only applied in the third or last stage of phthisis, as at that time the prognosis was exceedingly bad, and probably the procedure would not do very much good.

The President thought that Dr. Robinson's paper was virtually a contribution on injection of consolidated pulmonary tissue rather than the treatment of pulmonary cavities, and he would ask Dr. Robinson if any attempt was made in his cases to estimate the size of the consolidated mass.

Dr. Robinson replied that, up to a certain point such an estimate was made; that is, so far as it was practicable.

The President remarked further that his point was that, by resorting to injections of this kind into the consolidated pulmonary mass, the influence which the injection exerted must be very limited, because, if the consolidated mass was very extensive it was hardly probable that the influence of each injection, whatever the substance might be, could extend to any considerable distance beyond the seat of puncture; so that, unless repeated injections were made, he was unable to see how very much effect could be obtained from such a procedure. So far as he had understood Dr. Robinson, the injections were not made repeatedly; that is, not more than an average of two injections in each case. He had had no experience in the use of the remedial measure, and was perfectly willing to accept the results; but at the same time was rather sceptical with regard to the ability to modify a large consolidated mass of pulmonary tissue by injecting it in the manner referred to.

With reference to modifying the condition of pulmonary cavities, that was an entirely different thing. But even there the subject was one of very great difficulty. How we could always guide a needle into a cavity in the lung was a question which the President confessed perplexed him very much. Still further, with a comparatively infrequent injection of disinfected fluid into a large cavity, curative changes would be less likely to be induced than they would be by a more radical procedure.

It should be recollected, therefore, that in the paper there were two problems: one related to the treatment of pulmonary cavities, and the other to the treatment of consolidated or softened pulmonary tissue, and the two problems were entirely distinct from each other. It seemed to him that the burthen of the paper was with regard to the treatment of consolidated or softening tissue, and not chiefly with regard to the treatment of pulmonary cavities; and it was that which distinguished the paper from any contribution which had ever been presented, and also the feature which made it one of very great interest.

Dr. Robinson, in closing the discussion, said with regard to incision and drainage of phthisical cavities, Dr. Kinnicutt had stated that, within some months or years past, certain cavities involving more or less pulmonary tissue had been opened and drained with cure. With these cases he was familiar, and it was to the credit of surgery that the operation had been performed. But he had not read of cases in which a cavity, large or small, in a non-phthisical subject, had been opened and drained with beneficial effects to the patient, and he would not expect this operation, which was one of considerable importance, performed in a phthisical patient in whom a large cavity had already formed, to yield very much benefit. He would also say that after reading Dr. Pepper's contributions he had not been very favorably impressed with the benefits which were likely to follow the injection of pulmonary cavities in an individual who was nearly dead. The object of the method of treatment to which he had resorted was practically to see what could be done without harm in a patient already advanced in phthisis, and it seemed to him that we were authorized to use intra-pulmonary injections where we might reasonably hope to produce some beneficial effect. Practically, he did not believe that cicatrization of the cavities would be produced. In a certain number of cases considerable progress in this direction, perhaps, might be secured; but, as a rule, the abscesses would not be obliterated. Therefore he was not so much convinced of the utility of injecting pulmonary cavities, as of the attempt to try and see what the lung tissue would permit in the way of the use of such measures; and he assumed that, if we could simply relieve symptoms, we should be doing good if it could be done without pain or danger, as it had been proven that it could be. In a certain number of cases symptoms could be alleviated, which was beneficial.

He agreed with Dr. Dana in the statement that he did not see phthisical patients get well, except in rare instances. Personally, he did not believe that cures were of such frequent occurrence as had been claimed. In a few instances when the lung was in the first stage of phthisis, and the patient was so situated that the benefits of treatment and climatic changes could be secured, the patients had recovered, but such cases were only few in number as compared with the great number of fatal cases. Where the softening process had already begun, or cavities had already formed, the great rule was that the patients were not cured, and recovery took place only in exceptional instances. Practically, he regarded all cases of phthisis in which cavities existed as absolutely hopeless. With regard to treatment in these cases, therefore, not very much could be hoped for; but in the method which he had described there was perhaps a grain of hope, at least for the alleviation of symptoms.

With regard to the injection of consolidated pulmonary tissue, he had nothing very much to guide him. He had injected glandular enlargements, goitrous swellings, etc., with considerable beneficial effect, and, reasoning by analogy, he simply believed that if we could inject consolidated pulmonary tissue without manifest harm to the patient, so far as the injections were concerned, we were justified in resorting to these measures whenever that condition existed which would probably go on from bad to worse unless arrested. Dr. Robinson then read the history of one or two cases.

Dr. Kinnicutt begged to offer a single criticism on

the analogy which Dr. Robinson had drawn between goitrous tumors, glandular enlargements, and phthisical infiltrations. Dr. Robinson had apparently wholly overlooked the very different etiology of these affections. If we accept Koch's theory of phthisis, that the tubercle bacilli precede in time and place all the pathological changes peculiar to tuberculosis; and that their number, appearance, and disappearance stand in direct relation to the course of the tuberculosis, it was quite impossible to believe that these bacilli could be destroyed, and the pathological changes thereby be effected, by the injection of such solutions as Dr. Robinson had employed.

Dr. Robinson was not aware that the etiology mentioned by Dr. Kinnicutt, as such, had been accepted by general admission. He had simply hoped that by some procedure we might reach ultimately definite conclusions concerning the benefit to be derived from this method of treatment.

The Society then adjourned.

Correspondence.

STATEMENT OF THE SIGNERS OF A CHARGE AGAINST A FELLOW OF THE NEW YORK ACADEMY OF MEDICINE.

On November 20, 1884, a document, of which the following is a copy, was sent to the New York Academy of Medicine:

We hereby transmit to the "New York Academy of Medicine," in accordance with Article XIV. of the by-laws of the Academy, the following charge and specifications against Fordyce Barker, a Fellow of the Academy:

Charge.—That Fordyce Barker, Fellow of the New York Academy of Medicine, has violated section 3 of Article XIV. of the by-laws of the Academy, which reads:

"It shall be a chargeable offence . . . or to commit any act which unfavorably affects the character of the medical profession."

Specification 1.—On or about January 4, 1854, or at some date later than January 4, 1854, the said Fordyce Barker did, with his own hand, inscribe in the Signature Book of the Academy the statement that he was a graduate in medicine of Paris, of the date of 1844, the said Fordyce Barker not being at that time or at any subsequent time a graduate of Paris.

Specification 2.—On or about October 4, 1880, the said Fordyce Barker did register in the book of registry for physicians, in the office of the Clerk of the city and county of New York, that he was a graduate in medicine of Paris of the date of 1844, the said Fordyce Barker not being at that time or at any subsequent time a graduate of Paris.

Specification 3.—That on divers occasions and in divers places in the State of New York the said Fordyce Barker has practised medicine in violation of chapter 513 of the laws of 1880 of the State of New York.

Specification 4.—That on or about October 4, 1880, the said Fordyce Barker did appear before one C. M. Smyth, Commissioner of Deeds, and did make an affidavit that he, Fordyce Barker, in the year 1844, received a diploma granted by the École de Médecine, Paris, France. And deponent further says, that by authority of said diploma he has been practising medicine since the year 1844, and that in making such affidavit the said Fordyce Barker has violated that portion of section 2, chapter 513, of the Laws of 1880, which reads as follows:

"The person so registering shall subscribe and verify by oath or affirmation, before a person duly qualified to administer oaths under the laws of the State, an affidavit containing such facts, and whether such authority is by diploma or license, and the date of the same and by whom granted, which, if wilfully false, shall subject the affiant to conviction and punishment for perjury." . . .

The subscribers pray that the above charge and specifications shall be referred by the Academy to the Committee on Medical Ethics, according to the provisions of Article XIV. of the by-laws, and that the said committee shall duly investigate the said charge and specifications, and shall report the decision thereon to the Academy at a stated meeting.

The subscribers also pray that they be allowed to appear before the Committee on Medical Ethics to support the charge and specifications made by them against Fordyce Barker, together with papers, documents, and witnesses.

Edmund S. F. Arnold, M.D.
Nathan Bozeman, M.D.
Austin Flint, Jr., M.D.
S. S. Purple, M.D.
C. S. Wood, M.D.
William Young, M.D.

In due time, the accusers, signers of this document, were cited to appear before the Committee on Medical Ethics, of the Academy, and did so appear, with Dr. William T. White as a witness, on Wednesday, December 3, 1884, the accused not appearing either personally or by representative.

In support of Specification 1 the accusers presented a transcript from the signature-book of the Academy, of which the following is a copy:

Autograph Registry in the Signature Book, New York Academy of Medicine.

Name ..... Fordyce Barker.
Number ..... 332.
Date of signing ..... January 4, 1854.
Graduate of ..... Bowd. Coll., 1841, Paris, 1844.
Nativity ..... Maine.

In support of Specification 2 the accusers presented a copy of "Registered Physicians in the County of New York," showing the following:

Barker Fordyce, 24 East 38th, École. de Méd., Paris, France, 1844.

In support of Specification 3 the accusers stated the well-known fact that Dr. Fordyce Barker is and has been for many years a practitioner of medicine in the city of New York.

In support of Specification 4, the accusers presented a certified copy of an affidavit reading as follows:

State of New York, City and County of New York, ss.:

Fordyce Barker, being duly sworn, deposes and says that he resides at No. 24 East Thirty-eighth Street, in the city of New York, and was born in the State of Maine. And that in the year 1844 he received a diploma granted by the École de Médecine, Paris, France. And deponent further says that by authority of said diploma he has been practising medicine since the year 1844.

Fordyce Barker.

Sworn to before me, this 4th day of October, 1880.
C. M. Smyth, Commissioner of Deeds, N. Y. C.

Affidavit of F. Barker, practising medicine. Filed October 4, 1880:

State of New York, City and County of New York, ss.:

I, Patrick Keenan, Clerk of the said city and county, and Clerk of the Supreme Court of said State for said county, do certify that I have compared the preceding with the original physician's affidavit on file in my office, and that the same is a correct transcript therefrom and the whole of such original.

In witness whereof I have hereunto subscribed my name and affixed my official seal, this fourteenth day of January, 1884.

(Seal.) Patrick Keenan, Clerk.

In further support of specification 4, the accusers presented documents, of which the following are true translations, the translations being verified, as read, by the Chairman of the Committee on Medical Ethics, from the original documents:

(A.)

Chamber of Deputies. Paris, December 24, 1883.

Sir: M. Clemenceau, who is prevented at this time by many occupations, has requested me to transmit to you the three accompanying papers, which answer the inquiry of your letter of the month of May last.

As you can judge, the investigations concerning M. Fordyce Barker, and made by M. Ch. Robin, Professor at the Faculty of Medicine of Paris, have given only a negative result.

The name of M. Barker does not appear upon the registers of the Faculty of Paris.

Be pleased to receive, sir, the assurance of my most distinguished consideration.

Secretary of M. Clemenceau.
(Signature.)

(B.)

Faculty of Medicine of Paris.

Request to the keeper of the archives to please to communicate to me the following documents:

The register of Mr. Fordyce Barker, or B. Fordyce Barker, or Benjamin Fordyce Barker.

Secretary of the Faculty.
(Signature.)
Paris, June 16, 1883.

Not in the archives.

C. Chevallier.

(C.)

The tables of theses from 1840 to 1845, inclusive, have been looked through; all the papers complete and incomplete of doctors and even of officers of health of these six years have been examined and the name asked for has not been found, neither Barker, nor Fordyce, nor Benjamin. C. CHEVALLIER.

In the letter marked (A) were inclosed the documents (B) and (C). The third inclosure mentioned was simply a personal card from Professor Robin to M. Clemenceau, which was shown to the Committee, and recognized by the Committee as unimportant.

Translation of a letter (D) from Professor Charles Robin, Member of the Institute (Academy of Sciences), Professor of Histology at the Faculty of Medicine of Paris, and the Academy of Medicine, and Life Senator of France:

(D.)

[Senate.] PARIS, February 10, 1884.

MY DEAR FLINT: I address you with this, the result of the investigations made at our Faculty. We find no trace of examinations undergone or of a thesis defended. It could have been obtained by equivalence of previous studies, not to undergo an examination, which is, indeed, very rare, but then it would be an indication of a defence of a thesis, and this should be in the *Collection of Theses* under its number of order. There is no trace of this. It would be very astonishing, on the other hand, that M. Barker has not preserved, and is not able to show to his compatriots, a copy of this thesis; for there is no doctorate here without a thesis, and in the absence of a certificate of defence of the thesis, the putting in evidence before whom it was that the *brochure* in quarto, in which form it is printed and defended, is the only proof that it really has been defended. If one cannot present this printed thesis, or at least a certificate of defence, with a stamp like that which is added here, or finally the *diploma* printed on parchment, one is not a doctor of Paris.

In the case in which a foreign doctor obtains the authorization to practise in Paris, he would be able to show the certificate of authorization, and the archives of the school would preserve the mention of this authorization, of which there is not a trace.

Receive, I beg, the expression of my best and devoted remembrances and of my most cordial friendship. C. ROBIN.

In the letter marked (D) the following was inclosed:

(E.)

FACULTY OF MEDICINE OF PARIS,
[Seal.] PARIS, February 7, 1884.

It results from the prescribed investigations of the archives and at the library of the Faculty that no trace exists of the medical studies that have been made in Paris by Mr. Barker or Fordyce or Benjamin from 1840 to 1870.

It is not possible that a foreigner should have received a diploma of doctor of medicine unless his name be inscribed in the archives.

The accusers also presented in evidence a copy of Chapter 513 of the Laws of 1880.

Dr. William T. White, who was presented as a witness, testified before the Committee that, in the spring of 1884, he had written to the Secretary of the Faculty of Medicine of Paris, giving a list of names of certain persons registered in the office of the County Clerk in New York City, who claimed to be graduates of Paris, and asking a report thereon. He exhibited this report, which was signed by C. Chevallier, which report showed a note opposite the name of Fordyce Barker, indicating that the said Fordyce Barker was not a graduate of Paris. Certain of the persons whose names had been sent to Paris by Dr. White were acknowledged as graduates of Paris, and others were indicated as not graduates of Paris. Among those marked as not graduates of Paris, was the name of Fordyce Barker.

In answer to a question by the Committee Dr. White testified that, shortly after he had received the report from Paris he had called upon Dr. Barker, as a committee from the New York Medico Histological Society, and had inquired with regard to his alleged graduation at Paris. Dr. Barker, in this interview, did not present any documentary evidence of his graduation at Paris, and told Dr. White, in substance, that he might put his name in the "Medical Register" as a graduate of Paris, or not, as he saw fit.

In answer to questions by the Committee, one of the accusers gave a full account of the procuring of the documents from Paris. He also stated that a personal and professional friend of the accused had written to him while he, the accused, was in Europe, in April, 1884, inclosing copies of documents (B), (C), and (E), urging him to go at once to Paris and obtain written vindication, and then to return home as soon as possible and set himself right; that he had seen an acknowledgment of the receipt of this letter from the accused, but had not heard of any explanation or vindication presented by him.

The accusers, after this meeting, made a written demand on the Committee, that they have the right to appear at any and all of their meetings at which the accused was cited to appear.

The accusers, with the exception of Dr. C. S. Wood, again appeared before the Committee, on December 10, 1884.

The Committee then read a written defence sent by the accused, with letters from Dr. E. H. Davis, and Dr. R. Ogden Doremus. Copies of these documents were not furnished to the accusers. The following is an abstract of the report of the Committee to the Academy, presented December 18, 1884, taken from the *New York Daily Tribune* of December 19, 1884:

REPORT OF THE COMMITTEE ON ETHICS.—Dr. Smith's reading of the report of the Committee on Ethics was punctuated with applause at every place favorable to the Academy's chief officer, and it showed increased fervor each time. The report took up the charges and specifications in detail and found the sole evidence against the claim of Dr. Barker to a Paris diploma, rested on the fact that the proper Paris records were silent on the subject. It declared that the statement in the signature book of the Academy of 1854 was evidently written in, and called attention to the fact that Dr. Barker applied for fellowship in the Academy as a graduate of Bowdoin College. The report then presented Dr. Barker's explanation of how he obtained the Paris diploma. In brief, it showed that he had studied at the École de Médecine in 1845, was called home by illness in his family before receiving a diploma, visited Paris in 1861, and through a conversation at a dinner with Professor Trousseau, of Paris, and the Minister of Public Instruction, learned that the school had issued him a diploma, which he received a few days afterward from M. Trousseau.

Dr. Barker was unable to produce his diploma, as he lost it among others when he removed from his home in Union Place to Madison Avenue in 1862.

TESTIMONY OF DRS. DAVIS AND DOREMUS.—In corroboration of his statement, the Committee's report continued, Dr. Barker produced letters from Dr. Edwin H. Davis and Professor R. Ogden Doremus, who were present, among others, at a gathering of friends who greeted Dr. Barker upon his return from Paris in 1861, and to whom he showed the diploma of the École de Médecine. The reading of these letters, which were dated last November, and which recalled the occasion by a dozen incidents and features, set all the physicians to clapping their hands vigorously. In conclusion the Committee reported that they could not offset the testimony of Dr. Barker and these two other witnesses with the defectiveness of public records, and they accordingly found the charges not sustained.

The Committee before whom these proceedings were held was constituted as follows: Dr. A. H. Smith, *Chairman;* Dr. C. D. Varley, *Secretary;* Dr. V. P. Gibney, Dr. H. E. Crampton, and Dr. C. A. Leale.

At a meeting of the New York Academy of Medicine, held December 18, 1884, the report of the Committee was adopted.

The signers of the charge and specifications desire to place before the profession, without comment, the proceedings of the Committee as fully as they are able to present them. At neither of the two meetings of the Committee, at which they were present, did Dr. Barker or Drs. Davis and Doremus personally appear. It is proper to add, also, that at no time during either of the two sessions of the Committee did the members thereof call in question the authenticity of the French documents or the accuracy of the translations. At the close of the second meeting the members of the Committee all stated to the undersigned that they admitted that the documents presented by them were genuine.

EDMD. S. F. ARNOLD, M.D. S. S. PURPLE, M.D.
NATHAN BOZEMAN, M.D. C. S. WOOD, M.D.
AUSTIN FLINT, JR., M.D. WILLIAM YOUNG, M.D.

NEW YORK CITY, December 29, 1884.

A STATEMENT FROM THE COMMITTEE ON ETHICS OF THE ACADEMY.

To the Editor of The Medical Record.

Sir: As the report of the proceedings of the Academy of Medicine at the session of December 18th, as contained in The Record (the only report given by the medical press), does not show the character of the evidence upon which the Committee on Ethics based their decision in the case of Dr. Barker, it is only just that the following extracts from the Committee's report should be given to the profession through your columns, although it appeared in the New York *Tribune* of December 19th:

"The defence of Dr. Barker consists in a clear and dispassionate statement, in which the following points are maintained:

"That in 1845, at the suggestion of friends in Paris who were members of the Faculty, he underwent examinations in a number of departments with the intention of taking a degree from the School of Medicine.

"That his studies and examinations were interrupted by his being called home on account of the alarming illness of his wife's mother.

"That while awaiting a steamer in which to return he received a letter from Professor Orfila, Dean of the Faculty, informing him that a diploma would be granted him at some date in the near future, and that he replied to this note, stating the necessity for his immediate return home, and relinquishing his claim to the diploma, as he could not comply with the necessary conditions.

"That sixteen years after, in 1861, not having in the meantime heard anything further about the diploma, he was dining in Paris with M. Trousseau in company with the Minister of Public Instruction, when Trousseau publicly referred to his (Dr. Barker's) being a graduate of Paris. That he immediately disclaimed the title, and related the facts above stated, upon which Trousseau affirmed that he knew that a diploma had been made out for Dr. Barker, as he himself had taken a special interest in it, and that the diploma must be somewhere in the Department of the Minister of Public Instruction, and appealed to that officer, who was then present, to have it searched for.

"That a few days later, returning from a temporary absence from Paris, he found at his hotel a roll addressed to M. Trousseau, and marked as coming from the Minister of Public Instruction, and which contained his diploma from the School of Medicine in Paris, dated in 1845.

"That on his return home, on the evening of his arrival in New York, he showed this diploma to a number of his friends gathered at his house to welcome him, two of whom are still living and remember the occurrence.

"That some years later it was discovered that this diploma, with all his diplomas received prior to 1862, was lost, presumably on the occasion of his removal from Union Place to his house in Madison Avenue.

"This statement from a man of the high character of Dr. Barker, coupled with the fact that he did not claim that he had a Paris degree until his return from Paris in 1861, and when he had already been twenty years in practice, during sixteen of which he had been a professor, and when he had been the recipient of many professional honors, among them the vice-presidency of the Academy and the presidency of the Medical Society of the State of New York, and when a Paris degree could add nothing to his reputation, might well be deemed a sufficient answer to mere negative evidence depending for its validity upon the assumption that a record cannot be incomplete.

"But in addition to this there is the evidence of two well known gentlemen who remember seeing and examining the Paris diploma, and who recall different incidents in connection with the occasion which place the accuracy of their recollection beyond a possibility of doubt. Both these letters show that the writers not only remember the diploma, but that their attention was arrested by the difference between its date and the time of its reception. The committee thus finds itself called upon to weigh the negative evidence of the records whose general accuracy and completeness they have no means of estimating against the positive testimony of three unimpeachable witnesses.

"It is the unanimous decision of the committee that the witnesses must be believed as against the negative inference from the records, and that the charge and specifications are not sustained."

The following are the letters referred to above:

November 28, 1884, Tuesday evening late.

My Dear Doremus: Will you kindly answer for me within a day or two as a personal favor, the following questions: 1. Do you remember to have ever seen a diploma of Doctor of Medicine for myself, which I brought from Paris? 2. Can you recall what year you saw this, and any circumstances in connection with my showing it to you which fixes the time in your mind? 3. Do you recall the date of the diploma, and if so whether it was the same year that the diploma was shown to you? 4. If it was not the same year, can you remember any explanation given by me why I had not before received it? 5. Do you chance to remember any of the signatures of the diploma or anything in connection with its general appearance? 6. If you recall any of the above points, do you remember of any conversation with me since you saw my diploma from Paris either in regard to this or any other diploma of mine? Will you kindly send back this note with your reply.

Ever faithfully,

Fordyce Barker.

Answer.

My Dear Doctor: Although it is many years since and we both have seen many changes, I remember the diploma you refer to, and will answer your questions seriatim.

I fix in my mind the year 1861 by the following associations: in the spring your health was such as to cause great anxiety on the part of all those who loved you. You left early in May, I think, for Europe. During your absence we learned that by the advice of your medical friends you were passing the summer at Ems While you were away our daughter was born, the only child that we have that we had not had the comfort of your presence at the birth. The battle of Bull Run occurred while you were away, in which General Tyler had so prominent a part, and I remember how we talked and thought of what your interest would be in reading about it. The evening of your landing there was a merry gathering of friends at your house, to welcome you home, but I only especially recall Mr. Osborn and Chas. Budd, the latter by his funny suggestion as to your diploma. You told us of your summer, and the kindness to you on the part of your medical friends, especially Sir Joseph Olliffe and M. Trousseau. Through your cordial introduction to both of these distinguished men my wife and myself were favored with their acquaintance in 1862 and 1863 while residing in Paris, and both of them were most generous in their medical advice to her. It was in connection with M. Trousseau you showed us your diploma. My impression is, you said that he had got it for you, and you pointed out that it was dated in 1845. I remember that you explained that you were to receive it in the year of its date, but you were called back to this country by the dangerous illness of cousin Lizzie's mother. I do not remember the particulars as to how Professor Trousseau then got the diploma for you. I remember that Charlie Budd suggested that you should have it framed and hung in glass on the gate of your yard, and I proposed in addition that you should also have your Greek diploma with its golden printing and the translation by Dr. Hawks hung up—then it now strikes me that Dr. Hawks was present at the time. I do not recall any special feature of the diploma, except the name of Orfila-Doyen, for I was familiar with his toxicological works. I do not remember that we have had any conversation about your diploma since that time, except that I have a vague recollection of having heard you say that some way you had lost all your diplomas. I think it was when you moved from 70 Union place, as my wife lost a trunk of valuable letters some years later, through a careless or wicked cartman. Your particular regret was the loss of the Greek diploma, as it would have been a unique curiosity as an heir-loom in the family of your descendants. I am sorry if my memory fails me in other details which you may wish to have, but my dear old friend in twenty-three years many things pass out of our minds which greatly interest us at the time of their occurrence.

Yours most cordially,

R. Ogden Doremus.

Tuesday Evening.

Dear Doctor Davis: You live so far from me and I am worked so hard that it is difficult for me to make the time to visit you. I therefore write you on a matter that may be of some personal interest to me. Do you chance to remember of my showing you some twenty or more years ago, a diploma of Doctor of Medicine for myself from the Faculty of Medicine of Paris, which I had just brought home from Europe, although the diploma was dated fifteen or sixteen years before. If so, will you do me the kindness to write me a few lines to tell me what you recollect about it, when it was, who were present at the time, and any other incidents in connection with this, that on reflection may come back to your mind. Of course, after such a lapse of time, it is not to be supposed that you can recall minute details, general facts is all that I wish, and I will ask you to return note with your reply.

Ever faithfully yours,

Fordyce Barker.

Answer.

New York, November 28, 1884.

Dear Doctor: I reply with pleasure to your note. I do recollect that you showed to several of your friends a diploma of Doctor of Medicine, which you had brought from Paris and which was dated in 1844 or 1845. Several friends had called to welcome you home from Europe, the only ones I now recall were Dr. Doremus and Dr. Charles Budd. I think it must have been in 1861, because I am quite sure that you described your feelings in coming up from the steamer and meeting on Broadway a regiment marching down and singing "John Brown." I remember examining the diploma with some care, because for more than ten years I had a good deal to do with the getting up of diplomas for our old college. I only remem-

ber Orfila as one of the signers, because his name was familiar to me, and also that it was signed by the Minister of Public Instruction, but I have forgotten his name. I remember also that you gave an explanation of the reason why you had not received it at its date, but I have forgotten what this explanation was. I also recall the fact that the name of Trousseau was written on the back, and that you said that Trousseau had got it for you. I also recall the fact that Doremus and Budd made some joking suggestions as to what you ought to do with the diploma, but that you seemed to think the diploma of M.D., dated so far back, would not be of much value in making practice or reputation, as you had received several others since from learned societies. I am sorry that I cannot remember more of the particulars. I wish we could see more of each other as in old times.

I remain ever your friend,
EDWIN H. DAVIS, M.D.

I would call attention to the language of Professor Robin in his letter to Dr. Flint (read before the Academy), in which he enumerates the evidences of the possession of a degree from Paris, any one of which he would consider conclusive. He says: "If one cannot present this printed thesis, or at least a certificate of defence, with a stamp like that which is added here, *or finally*, the diploma printed on parchment, one is not a doctor of Paris."

Now the *finality* accepted by Professor Robin is exactly what these letters of Drs. Doremus and Davis prove that Dr. Barker did actually present.

In the light of the evidence no fair-minded person can affect to doubt that a diploma was prepared for Dr. Barker in 1845, but not then registered as it was not then called for; and that in 1861 this old diploma, whose requirements had now become obsolete in view of the position Dr. Barker had attained, was, as a matter of compliment, simply passed over to him, without the formality of registration, or perhaps failed of registration through remissness of the registrar.

It is unnecessary to remark that the full report of the Committee, including all the documents presented by the accusers, is copied into the minutes of the Academy, and is open to the inspection of any Fellow who may not be satisfied with the published statements.

ANDREW H. SMITH, M.D.,
Chairman Committee on Ethics.

CANADA CORRESPONDENCE.

(From our Special Correspondent.)

DOMINION HEALTH BUREAU — ONTARIO MEDICAL ASSOCIATION — COLLEGE OF PHYSICIANS AND SURGEONS, ONTARIO—ACTINOMYCOSIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: For some months past there has been some agitation to establish a Department of Health for the Dominion. The scheme is not yet matured, and what shape it may finally take is uncertain. It is proposed to place this new departure under the control of the Minister of Agriculture, who shall have cognizance of quarantine, statistics, and other questions that may come under Federal control. It is proposed that there be a Deputy Minister of Health, and a secretary, both of whom are to be medical men. There is some fear that this Dominion Board of Health may conflict in its working with the provincial boards already established, or such as may yet be organized. There need be no real fear on this ground, however, as there is abundance of local and general health matters to deal with to open up a wide field of usefulness for both the local and central boards. This sanitary committee is to be associated with the Minister of Agriculture, and give advice on matters of public health. The members are to be appointed by the Government so as to represent the different provinces. The chairmen of the provincial boards, and, in cases where there is no provincial board, the chairman of the principal city board will probably be *ex officio* members of this Sanitary Committee.

The Ontario Medical Association held its annual meeting in Hamilton on the 4th and 5th of June, under the presidency of Dr. Daniel Clark, Superintendent of the Asylum for the Insane, Toronto. In his address he dwelt ably and eloquently on the great progress that medical education had been making during the past years in this country, and on the much more efficient state of the medical colleges. He then referred to certain kinds of advertisements in both religious and secular papers. He thought that these have a very degrading influence on the young, and are misleading in the highest degree to persons of weak mind. Many of the advertisements were positively criminal; and it was to be hoped that the day had come when at least the religious press would see its way clear to the sacrificing of a small portion of its income from these sources for a higher standard of morals and honor. Your correspondent would suggest that no higher and nobler work could be undertaken by medical societies than that of arousing public attention to such questions.

The College of Physicians and Surgeons, Ontario, is the real licensing body for the province, as without its diploma practice is illegal. A university degree does not entitle the holder to registration. British degrees and diplomas are only recognized in the event of their being registered in Britain, and it is this certificate of registration that is admitted here. The council of this college is representative of and elected by the qualified physicians of Ontario. During the session, held early in June, it was enacted that every student must attend lectures for a period of four winter sessions of six months each. It was agreed to ask the Legislature for power to appoint a medical practitioner in each electoral division, who shall have a right to tax all medical bills that may be under dispute, and referred for his decision; and that such decision have the same authority as the taxation of bills by the master of the legal profession.

Actinomycosis has been carefully investigated by Dr. Duncan, of the Veterinary College, in Toronto. The disease is produced by a vegetable parasite or fungus, known as the actinomyces. The peculiarity of this fungus is the constantly radiating character of its filaments. The disease exists both in man and the lower animals, being due to the fungus in both cases. The true nature of this disease was first recognized by a veterinary surgeon in 1868. In 1878 Israel discovered it in man. In the ox the lower jaw is principally affected, tumors of various sizes showing themselves, which ultimately break down and discharge. A little of this discharge, without staining, placed upon a slide, and examined with a low power, will usually reveal the radiating fungus in great abundance. In man, in place of the tumors, there are foci of suppuration, in various regions, as dental and iliac abscesses, purulent pleurisy, etc. About fifty per cent., under proper treatment, recover. This consists in opening the abscesses, removing the fungus, and cauterizing the part. As occurring in man, there are twenty-eight cases on record; none in England or America. The disease is comparatively common among cattle. Dr. Duncan first described it among Ontario cattle last November, and pointed out its possible communicability to man.

NORTH CAROLINA CLIMATE FOR CONSUMPTIVES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Since the publication of a communication on the climate of this region in THE MEDICAL RECORD for September 27, 1884, so many letters have been received from physicians having patients in need of such a climate that this means is taken to give further information on the subject. In the published letter referred to above, the reader will find a statement, in tabular form, of the mean temperature at Asheville as compared with resorts in Europe noted for their mild and healthful climate.

One of the most desirable features of this climate is the dryness of the atmosphere. The rainfall for the year

is small, and the distribution throughout the year is all that could be desired; the proportion of rain falling in the various seasons could hardly have been arranged better for the growth of vegetation and the health and comfort of the residents. An important fact regarding the rainfall, and one noted by no other writer to my knowledge, is that of the forty and two-tenths inches for the entire year, but nine and five-tenths inches of water is precipitated during the winter months; while during the summer months, when the evaporation is greater, and when it is needed most to prevent dust and promote the growth of vegetation, there is a fall of thirteen and five-tenths inches. And this is a fact of no little importance to the phthisical or asthmatic invalid.

In the table given below it will be seen that Asheville compares most favorably with the resorts in the south-eastern portion of the United States. The figures for Aiken, Atlanta, and Jacksonville are from Parkes' "Manual of Practical Hygiene" (Wm. Wood & Co.), and it is to be hoped that in the next edition of that very valuable work the climate of Western North Carolina will receive the mention which it deserves. Atlanta being but seventeen miles from Aiken, the statistics of temperature and rainfall of that city are given, since those of the latter place are not at hand.

	Temperature.	Rainfall.			
	Year.	Jan.	Feb.	March.	Year.
		Inches.	Inches.	Inches.	Inches.
Asheville	55.3	2.4	4.4	3.8	40.2
Aiken	62.1	....	....	....	....
Atlanta	....	8.35	10.41	10.98	62.7
Jacksonville	70.1	....	....	....	65.51

The rainfall for the winter months in Asheville is but 13.5 inches, while that of Jacksonville, Fla., is 29.74 inches.

It is worthy of note that the atmosphere in this region, before and after a shower, feels perfectly dry; indeed, the absorbing powers of the soil are so great, and the drainage so perfect, that one can sometimes go for a walk very soon after a heavy shower without muddying his shoes at all.

Physicians do not, as a rule, sufficiently impress upon patients, whom they recommend to the mountain regions, the importance of taking daily exercise in the open air; which is the only way they may obtain the full benefit of the climate. Such advice before they leave home is very important, because the patients possess more confidence in their home physician than they can possibly have in a stranger; and because, without such advice, they too often go to a health resort to wear uncomfortable, fashionable clothing, and in many instances attending balls and parties, becoming over-fatigued and injured by inhaling the hot, impure air of the ball-room. Some sit in the lobby of the hotel much of the time, thinking about their condition or comparing notes with others suffering similarly. This is all true, it has been witnessed repeatedly by the writer.

Cases of incipient phthisis are of course referred to, for those in the last stage should not be sent away from home at all.

It is undoubtedly true that almost any patient in the early stage, who will come to this region and take every possible advantage of the climate, may recover entirely. The best plan is for the patient to bring a loose, comfortable, woollen suit, one which will not be injured by riding horseback, walking, or climbing the hills; and these several forms of exercise should be indulged in daily according to the strength of the patient.

Patients are too apt to over-do at the outset, they feel the stimulation of the mountain air and mistake it for strength, and consequently suffer from becoming over-fatigued. The amount of exercise should be prescribed definitely by the physician, just as he would prescribe the quantity of cod-liver oil, syrup of hypophosphites, or what not.

In advising exercise much stress should be placed upon cumulative exercise, beginning with moderation and very gradually increasing the amount. The patient will improve more steadily, and the gain will be more permanent if he will walk, for instance, three hundred feet the first day, four hundred feet the second, five hundred the third, and so on, until he is able to walk several miles. It is on the principle of the boy lifting the calf every day until it becomes an ox.

As illustrating what has been accomplished in this climate, the following case may be of interest to the profession. The main points will be stated briefly.

In September, 1878, Mr. H——, of Michigan, suffered from hemorrhages from the lungs, and they continued for three months; so frequent and profuse were they that he was reduced in weight from 185 to 103 pounds. He went to Colorado and travelled through the mountains, with the effect of growing worse instead of better. He then came to Asheville, and by riding in the saddle daily, rain or shine, gained rapidly in flesh, was relieved of the cough, night-sweats, and loss of voice. In three months, after having gained twenty-four pounds in weight, he returned to his northern home. But he soon saw that he was growing worse, and, though so weak from renewed hemorrhage that he had to be helped into the saddle, he started to ride the one thousand miles or more on a mustang pony. He accomplished the journey in thirty days, gaining ten pounds of flesh on the way. After reaching Asheville again he was in the saddle every day in all weather, gaining steadily and permanently. So complete and permanent was his recovery that, in the military tournament held in Raleigh not long since, he marched eight miles through the hot dusty streets, and at night slept on the ground rolled in a blanket, without injury.

This case is probably, in some respects, without parallel; especially as regards the excessive hemorrhages, the great and rapid loss of flesh, such persistent exercise on horseback, and rapid and permanent recovery.

Edward A. Gatchell, M.D.

Asheville, N. C.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from December 28, 1884, to January 3, 1885.

Girard, A. C., Captain and Assistant Surgeon. Ordered from Department of the Missouri to the Department of the East. S. O. 304, A. G. O., December 29, 1884.

Ewing, Charles B., First Lieutenant and Assistant Surgeon (Fort Stanton, N. M.). Granted leave of absence for two months. S. O. 304, A. G. O., December 29, 1884.

The Administration of Alcohol to Parturient Women.—Dr. Heywood Smith, in the *Medical Press*, December 3, 1884, objects to the too frequent use of alcohol in pregnancy, parturition, and childbed. He considers its indiscriminate employment an unmitigated evil, fraught with grave results both near and remote. He admits, however, that in particular instances alcoholic beverages may be used for medicinal purposes. The picture he draws of British women who, during the parturient stage, are more or less under the influence of liquor in some form or other, is a rather sad and repulsive one. Fortunately it has but a very limited applicability in our own country, where the bad habit of excessive alcoholic indulgence in parturient women is seemingly much less prevalent than in Great Britain.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 3, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
December 27, 1884.....	0	12	70	5	81	56	0	0
January 3, 1885.....	0	10	71	4	166	50	0	0
Deaths.								
December 27, 1884.....	0	3	22	3	16	36	0	0
January 3, 1885.....	0	5	14	3	22	28	0	0

FORCING WITHOUT FEEDING.—In the *British Medical Journal* there are some timely words on this topic, that are applicable to our own country in almost the same measure as to England. Mental power is brain-function as truly as manual power is muscle-function. The brain is as much part of the body as the hand. If the body be weak from lack of feeding, the strength of the limb fails. If the body be weak from lack of feeding, the strength of the brain fails. In the one case manual power is lessened; in the other, mental power is reduced. The underfed can neither lift a heavy weight nor perform a relatively difficult or energetic act of cerebration. All this seems wonderfully simple; but, strangely enough, the authorities concerned in education appear to forget it. Attempts are made to cultivate the brains of growing children by instruction, while their little bodies are insufficiently fed, or, more accurately, half-starved. Surely the great and persistent efforts which have been made to inform public opinion on this initial principle in the physiology of life and activity have not been wholly wasted; and yet it seems as though they had been, when we find the State and the community committed to a policy of forcing without feeding. We are bound by every consideration of duty and interest to undertake the education of the lower orders of the rising population, but it is folly to carry out the enterprise at the expense of the stock we are seeking to cultivate. What would be thought of the gardener who busied himself with the top of a plant, budding and training, without taking the trouble to see that its root was firmly bedded in good soil, and that it had an ample supply of nutriment? The first thing that his master would do on becoming aware of his neglect or imbecility, would probably be to expel him from the nursery. He would be judged unfit for his task. This, however, is precisely what we are running the risk of doing with the young of our nation. We are cultivating their heads, while the organic necessity of eating and drinking is largely disregarded. If the little brain can be brought under the operation of the educator, the body of which that brain is a part may, many people seem to think, be left to take its chance. What makes the matter worse than it might otherwise be, is the fact that we are not simply or solely spending our thought for nought, because good mental work can never be got out of half-starved brains, but we are robbing the other parts of the body by drawing what little energy there may be to a single organ, that of the mind. Only one issue is possible; unfortunately for our race, it cannot be demonstrated until the next generation; then, however, the fatuity of a policy which under-estimates physical needs will stand confessed. The children of the children we are now forcing without feeding, must inevitably be deficient in muscular and general power and vitality. It is needless to write warmly on this point. We are plainly stating a proposition founded on inexorable laws of life and development. Setting aside all questions of immediate consequences, such as the breakdown of overtaught children in board-schools, as to which there is probably much exaggeration in particular cases, we have to face the fact that, by and by, when we are dead, the effects of our economic blunder will begin to make themselves apparent. This consideration should not be wholly disregarded. Meanwhile, although Mrs. Partington could not sweep back the Atlantic with a mop, it is within the reach of everybody to do something toward the mitigation of the mischief in progress. Let a determined endeavor be made to feed the poor little children who are subjected to an unwise and short-sighted policy of starvation and education. It would be difficult to name a more excellent enterprise in the interests of domestic life, now and in the future, than that of the organizations which have been formed to provide the children of the poor with good dinners. Money expended in this way will do more real good than is generally accomplished by indiscriminate charity. The New York Diet Kitchen Association is making some praiseworthy efforts in the direction indicated. But the membership of that young society is far too limited to insure adequate funds for carrying out its objects on a large scale.

WHAT IS THE SOURCE OF UREA.—A correspondent from Washington, D. C., writes us regarding this subject and quotes a statement made by Dr. James Tyson to the effect that "We *now know* that urea is derived almost entirely from the food which is eaten. The old view was that it was the result of the wear and tear on the tissues. But just as the ashes of a steam-engine are derived from the fuel put into the fire-box, so is the urea derived from the food placed into the stomach." Our correspondent doubts the correctness of this statement and asks what are the most recent views. [To this we would say that the most recent views regarding the origin of urea are that it is not formed in the kidneys to any extent; that in fevers and in fasting animals most or all of the urea is the product of tissue waste; that in health the larger part of urea comes from the decomposition of proteid food, the process taking place chiefly in the liver and spleen. The excretion of urea is affected much more by diet than by exercise or other agencies.—ED.]

A CASE OF ECHINOCOCCUS OF THE NECK.—The patient had noticed an enlargement of the neck, principally on the left side, from his earliest youth. About ten years ago, after forced yawning it increased rapidly in size, so that a considerable tumor developed behind the sterno-cleido-mastoid muscle, which caused difficulty of breathing, and was diagnosed by various physicians as struma. On August 20, 1882, Dr. Lindpainter, of Munich, was called to perform the operation of tracheotomy on account of the difficulty of breathing. He found on the left side of the neck a tumor the size of a man's fist, reaching from the clavicle to the ear. The trachea was forced over to the right, and flexed so that respiration was exceedingly difficult, and the œsophagus was also so much compressed that fluids even could only be swallowed with difficulty. Dr. Lindpainter took the tumor for a solid struma, calling for tracheotomy, but upon examining more closely he discovered in a small spot above the clavicle distinct fluctuation. After puncture and the evacuation of about 3 c.c. of clear watery fluid, fluctuation was noticed in another part; he punctured this also, and let out about 5 c.c. of similar fluid, after which the trachea straightened itself, and the breathing at once became easy. Examination of the escaped fluid showed the presence of hooklets, and the only further question was the extirpation of the echinococcus. He determined upon incision and drainage. He accordingly incised and inserted a drain on September 2d, and in the beginning of December, as no more cysts by that time appeared, the drainage tube was removed, and in a day or two the wound healed, and at the date of the report the neck appeared quite normal.—*Medical Press*, November 5, 1884.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 3 — New York, January 17, 1885 — Whole No. 741

Original Articles.

ANTISEPTIC TREATMENT OF PULMONARY DISEASE BY MEANS OF PNEUMATIC DIFFERENTIATION.

By HERBERT F. WILLIAMS, M.D.,

ASSOCIATE SURGEON ST. MARY'S GENERAL HOSPITAL, BROOKLYN, N. Y.; CONSULTING PHYSICIAN TO BUSHWICK AND EAST BROOKLYN DISPENSARY.

In the spring of 1876 the author read a paper "On the Treatment of Chronic Pulmonary Affections" before the Medical Society of the County of Kings, which closed with these words: "I hope the time will come when the cure of lung affections can be traced to the topical application of appropriate remedial agents."

It is my present purpose to present to the profession the result of my labors in this direction for the last nineteen months. The term "topical application" is replaced by that of my title, antiseptic treatment of pulmonary disease by means of pneumatic differentiation.

While pursuing the study of the effect of altitude upon the lungs, and diseased lungs in particular, I called to my assistance the ripe scientific knowledge of my friend, Mr. Joseph Ketchum, of this city, to whom we are indebted for the mechanical invention known as the pneumatic differentiator or pneumatic cabinet, and in its application I am pleased to acknowledge his able assistance in many important particulars. I further acknowledge the able assistance of Drs. W. A. De Watteville, of New York, and Sidney A. Fox, of this city, who have been energetic colaborers in many of the results thus far attained.

It would be wearisome to recite the terrible statistics of the ravages of the different forms of pulmonary consumption, indeed, it would not be just to the subject, for I am not ready to assert that the statistics in cases of advanced degeneration can be materially changed.

In these investigations I claim the indulgence due a pioneer, for, however fortunate my efforts may have been, subsequent study of the forces I shall presently describe will show wider application and certainly better results.

Pneumatic differentiation may be thus described: It consists in immersing a patient in a partial vacuum, thereby removing to a sufficient degree the external pressure of the atmosphere, and at the same time supplying the lungs with air at its normal pressure, and to a greater or less extent impregnated with the substance which it is desired to administer.

The degree of rarefaction to which it is desired to subject the patient is usually that represented by the fall of from one-tenth of an inch to two inches of mercury of the barometer. The method preferably employed in rarefying the air in the cabinet is to produce high vacuum in an air-chamber made to communicate with the cabinet, and to allow a sufficient quantity of its air to pass from the latter into the exhausted chamber. The patient is thus relieved from the successive impulses to which he would be subjected by the use of an ordinary air-pump. This is also preferable on account of the celerity and exactness with which the desired rarefaction can be governed. The decrease in the external pressure upon the body, coupled with the normal atmospheric pressure exerted internally, causes an inflation of the lungs and a dilatation of their cells, the extent of which is primarily dependent upon the difference in pressure. The portions of the lungs which may have become inactive and irresponsive to voluntary respiration are thus forced to expand. It is necessary to control the posterior pharynx by a muscular effort, or a suitable clamp must be applied to the nose to prevent the air from escaping through this channel, thereby decreasing rarefaction, and more especially precluding the possibility of forcing the air into the lungs and impinging its contents upon the interpulmonary tissues. Such escape would, moreover, defeat the forcible expiratory effort which is intended to be produced.

This can again be defeated by the patient resisting the external pressure with his mouth, inspiring and expiring through his nose when not clamped, breathing the air of the cabinet. When properly conducted, a calisthenic action is produced, in itself beneficial.

The great advantage is the fact that under given conditions of temperature, air at normal density affords its best vapor-carrying capacity. Antiseptic air thus administered must condense at the instant of increased pressure due to the active expiratory effort. Thus it will be seen that air charged to its utmost limit with remedial agents can be made to deposit its contents in cavities or other diseased portions of the lungs. The removal of the external pressure has, moreover, the beneficial effect of causing a corresponding expansion of air which may be imprisoned behind obstructions in the bronchi, thus serving to forcibly expel such substances. When there are evidences of lung collapse from infarctions, it is well to request the patient to take as full an inspiration as possible before the air about him is rarefied, maintaining himself in this act until sufficient vacuum is produced. The larger quantity of air thus imprisoned becomes expanded, and may facilitate the expulsion of the offending foreign matter. This same expansion takes place in the eustachian canals, and necessitates the advice to frequently swallow, while the air is being removed, thus equalizing the air-pressure and relieving the tympani. When breathing the external air, should the patient become fatigued, communication with the external air can be cut off and he can respire the air of the cabinet until treatment is resumed.

The study of the influence of this process upon the circulation is very interesting, but will occupy too much space at this writing. Both in theory and practice it is found that when respiration is once established in the differentiator at a pressure say of 6 to 10, the effects on the healthy lung, proven as they are by well-known physiological data, and on a series of careful experiments made in conjunction with Drs. De Watteville and Tiegel, show that when respiration is conducted slowly the increased air-pressure from without puts the thorax into a condition known as forced inspiration. This inspiration differs from the ordinary one by being nearly passive. It is followed by an exceedingly active expiration which brings the thorax nearly into the condition of ordinary expiration. The active and passive movements of the respiratory act thus becoming reversed, the breathing takes place not only with the ordinary respiratory air, but with the complemental air.

We know that during ordinary inspiration the blood-pressure rises in the arterial system of the body because the blood finds less resistance in its passage through the lungs, and that during expiration the blood-pressure sinks accordingly.

This inspiratory effect is very much increased by the differentiator, and in such a manner that the difference in

blood-pressure in inspiration and expiration is also increased and the main arterial pressure of the body becomes inevitably greater, consequently we have, while breathing in the cabinet, a lowering of the capillary blood-pressure of the lungs which is sufficient to stop or diminish serious pulmonary hæmorrhages, as clinical experience gained up to this time amply shows.

The proofs of these statements and detailed description of the experiments pursued in conjunction with Drs. De Watteville and Tiegel will be made the subject of a special essay by the latter.

The following table will show the number and character of cases and the result in each case to date.

The lower table shows approximate barometric equivalents.

	Total cases.	Recoveries.	Improvements.	Non-improvements.	Deaths.
Nervous cough	2	..	..	2	
Bronchitis	20	20			
Unresolved pneumonia	3	3			
Primary infiltration	7	6	1		
Acute catarrhal phthisis	9	4	1	2	2
Chronic catarrhal phthisis	2	..	..	..	2
Chronic fibrous phthisis	9	..	8	1	
Chronic tubercular phthisis	5	..	..	..	5
Tubercular pleurisy	1	..	..	1	
Laryngeal phthisis	1	..	..	1	
Hemorrhagic phthisis	1	..	..	..	1
Abscess of lung	1	1			
Atrophy of lung	1	..	..	..	1
Total	62	34	10	7	11

Approximate Equivalents of Fall of Barometric Column in Tenths of Inches.

Fall of barometer	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.
Equivalent in parts of an atmosphere	1-300	1-150	1-100	1-75	1-60	1-50	7-300	2-75	3-100	1-30
Equivalent in pressure per square inch	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5
Equivalent in altitude in feet.	100	200	300	400	500	600	700	800	900	1000
Equivalent in inflating pressure (lbs.)[1].	10	20	30	40	50	60	70	80	90	100
Equivalent in energy developed in expiration (lbs.)	10	20	30	40	50	60	70	80	90	100

The rarefaction used varied from one-tenth of an inch to one inch fall of the barometric column.

The time occupied in treatment ranged from ten to thirty minutes.

In the majority of cases daily applications were made. The greatest number of applications given a single case was one hundred and five. This was a case of recovery from acute catarrhal phthisis, and will be fully detailed further on.

The smallest number of applications was two each to three cases of acute bronchitis, all of which recovered.

The cases reported in the death column were all advanced. Two were greatly benefited. The first was a case of chronic tuberculosis of three years' standing, unable to lie down in bed for nine months previous, to comb her hair, to go up or down stairs unassisted. Her only open-air exercise for three months previous to treatment, September 20, 1883, was in an invalid's chair, and in this manner it was necessary to convey her to my office, one-fourth mile in distance. At this time her morning temperature was subnormal; in the afternoon it averaged 103° F. Extensive degeneration had taken place in anterior portion of left lung; the inferior lobe of the right lung was bound down by pleuritic attachment. This so compromised her breathing capacity that the slightest exertion was intolerable. She was placed in position in the cabinet, and with frequent interruptions breathed against one-tenth inch fall of the barometer for seven minutes, inhaling a one to one thousand solution mercuric bichloride and one to one hundred carbolic acid solution, mixed. Her respirations before beginning treatment were thirty-eight per minute; while breathing in the cabinet they were eighteen.

September 21st.—The difference in pressure was increased to two-tenths, breathing nine minutes. Treatment was thus conducted, gaining each day both in difference of pressure and time, until six-tenth inch and thirty minutes were attained respectively. She soon became able to lie down in bed, to walk about her house with ease, sleeping and eating well, expectorating freely and easily. In due season her invalid's chair was abandoned, and October 29th she rode a distance of a mile and a half in the horse-cars and did some light shopping. She was now walking to and fro to my office.

November 4th, she attended church.

November 10th, after forty-three applications, her respirations outside the cabinet were eighteen, and inside eleven. Her morning and evening temperature was normal. At this date, by advice of her physician, Dr. William Swift, who kindly corroborates these statements, she sailed for Florida, where she remained until May of this year with continued comfort. On her returning voyage she suffered from sea-sickness to such an extent that the captain of the steamer expressed great relief on safely landing her. She was found to be suffering with thrombi, one of which had lodged in her right subclavian or brachial artery. She never regained the full pulsation or warmth of her right arm. She suffered from frequent attacks of dyspnœa for the two weeks following, when she died.

The other case, tubercular phthisis of over two months' standing, with degeneration of apex of left lung and infiltration of right. This case gained ten pounds in weight, which was maintained for three months. Her general condition improved to such an extent that a permanent recovery seemed probable. The patient, failing to report for two weeks, was visited at her home, where she was found to be suffering with acute intercurrent inflammation, due to exposure in returning from an evening's entertainment. After a time treatment was resumed, but no improvement followed. Patient becoming discouraged after fifty applications, treatment was abandoned. Patient died three months after. The other cases, with one exception, were relieved, though no conclusion could be reached with reference to prolongation of life.

The histories of five cases of phthisis that recovered are as follows:

Case 1.—Miss S——, aged twenty-two, weight one hundred and six pounds; mother and paternal grandfather died of consumption. Patient contracted cold in February, eight months previous. She was first seen March 5, 1883, when evidence of consolidation was obtained. From this date she continued under the treatment usually adopted in like cases. In July she was sent to the mountains, where for the first four weeks she improved, but, to use her own words, for the last two weeks it was her daily prayer "to live until she could reach home." She returned August 1st, when her symptoms became greatly aggravated—hectic, temperature reaching 104° daily, excessive night-sweating, constant cough, unable to eat or sleep, expectorating less than in the mountains, losing flesh and strength rapidly, menses absent for two months. A cabinet involving the principles of the differentiator was rapidly constructed and treatment commenced September 5, 1883. Physical examination in conjunction with Dr. George R. Fowler.

Inspection.—Shows depression in supra- and infra-clavicular spaces, most marked on right side, respiratory movements of right side somewhat restricted, respiration thirty-two per minute.

Percussion.—Right side, anteriorly: Dulness in superior portion, very high-pitched note in second intercostal space one and one-half inch from sternum. Left side: No marked deviation from health.

[1] This is calculated on superficial area presented by a ten inch square front and rear.

Auscultation.—Right side, anteriorly: Marked respiratory murmur, accompanied with large rhoncus, which begins at about one-half of expiratory act and continues to end; cogwheel respiration throughout the frontal aspect, with exception of region of sternum clavicular angle where the respiratory sounds are feeble. Left side: Cogwheel respiration and prolonged expiratory murmur, rather bronchial in character, numerous bronchial râles.

Diagnosis.—Acute catarrhal phthisis, stage of softening. At this time, and for several days previous, she refused medicinal treatment, and could only be induced to take eight grains of quinine daily, which was continued for a short time, when all treatment but the daily resort to the cabinet and the medicine thus administered was abandoned. At the first treatment one-tenth inch pressure for ten minutes was maintained, inhaling a one to one-thousandth mercuric bichloride solution. September 6, 1883, at the second treatment, two-tenths pressure was reached, which the patient controlled perfectly. On her way home, accompanied by her mother, she was seized with a paroxysm of coughing, and ejected upon the sidewalk what her mother described as a piece of maccaroni; this was probably a bronchial cast; easy expectoration followed, and after reaching home the amount expectorated during the day, as estimated by her mother, was a pint.

Daily increase in pressure was made, and from twenty to thirty minutes was spent in the cabinet. The expectoration and cough gradually diminished, the fever subsided, and on September 25th menses returned.

December 18, 1883, was re-examined in conjunction with Dr. George R. Fowler, and it is agreed that there is an entire absence of the previous condition. The only abnormality remaining is a slightly high-pitched percussion note in the right lung.

Patient now came once a week, gaining in every particular and continuing until this spring, taking in all one hundred and five applications.

Iodine was sometimes substituted for the bichloride solution and at others the combination was used.

She took one bottle of Gardner's syrup of the hypophosphites after treatment had commenced. On two or three occasions she has caught severe colds. At such times she hastens to the cabinet and in one or two applications relief is afforded. She is now in perfect health, weighing one hundred and twenty six pounds, the life of the household, and an expectant bride.

Case II.—Mr. W——, aged twenty; weight one hundred and eight pounds; unmarried; machinist; no hereditary history of phthisis; physical examination made in conjunction with Dr. Charles Jewett.

History.—The patient has been suffering for eight weeks with hacking cough, high fever, pain in right side, raising very little for first month. One week since had a copious expectoration, appetite better since; excessive night-sweats.

Inspection.—General signs of emaciation. Slight flattening in right sub clavicular space.

Palpation.—Fremitus increased right side anteriorly and posteriorly.

Percussion.—Right side anteriorly: Gentle percussion reveals high pitched note from supra-clavicular space to fourth intercostal; forcible percussion shows tympanitic quality in sub-clavicular region. Posteriorly there is dulness. Left lung shows slight extra resonance anteriorly.

Auscultation.—Right lung shows marked amphoric respiration in superior mammary region, greatest intensity about fourth intercostal space, forcible expiratory effort producing gurgles in great profusion.

Diagnosis.—Consolidation of upper lobe of right lung, with large cavity in centre of consolidation.

This patient, like the others, was subjected to gently increased pressure, using principally the mercuric bichloride mixed either with carbolic acid or iodine. Eighty treatments in all were given. General symptoms gradually improved, weight increased to one hundred and sixteen pounds. Re-examination in conjunction with Dr. Jewett disclosed absence of moisture and activity in the cavity described. Patient resumed occupation as machinist in Brooklyn Navy Yard last March, where he is still employed.

Case III.—Mr. M——, aged twenty-six; clerk; married; weight one hundred and eleven and a half pounds; family history negative. Used to outside life till two years ago; occupation keeps him sitting. Slight cough commenced a year ago; first hemorrhage two weeks since. Has lost thirty pounds in last year. Gradually increasing weakness.

Inspection.—General appearance anæmic. Depression in clavicular regions, right side. Respiration, 24.

Palpation.—Vocal fremitus increased right side superiorly.

Percussion.—Right side, anteriorly: Dull percussion note in clavicular regions, extending to third intercostal space. Other portions normal.

Auscultation.—Right lung anteriorly: Prolonged expiratory murmur, wavy in character; expiratory sounds lacking in vesicular element; sibilant and sonorous râles are detected. Left lung: The respiratory murmur is somewhat exaggerated.

Diagnosis.—Primary infiltration at apex of right lung.

Treatment commenced October 31, 1883. Thirty applications given, when the infiltration cleared up, and all the other symptoms disappeared.

Patient remained well till July, 1884, when, sitting in Central Park, he was seized with hæmoptysis. Treatment was immediately resumed and continued for some time. He is unafflicted at present. Now weighs one hundred and sixteen pounds.

Case IV.—Mr. M——, aged twenty. The history and progress of this case show that eighteen months previous to my examination (November 23, 1883), he was sick with what his attendant called pneumonia. Surviving the acuteness of the attack, his condition was critical for several weeks. After a time profuse expectoration took place and slight improvement followed, nature doing her best, with little assistance from art. Patient has been raising half a pint daily for several months, coughing so violently that food is vomited.

Inspection.—Shows general emaciation, swelling of right leg and ankle.

Palpation.—Right side, vocal fremitus normal; left, anteriorly weak, posteriorly absent.

Percussion.—Right side normal, except high-pitched note in mammary region; left, absolute dulness, with exception of slight vesicular resonance in sub-clavicular and supra-scapular regions.

Auscultation.—Right side: Puerile respiration posteriorly and anteriorly, with the exception of inner mammary region, which presents the following—the heart is tilted over so that the intensity of its apex-beat is at a point one half-inch below right nipple; apex-beat is diffused, but the general displacement is from five to six inches. The left lung shows a vesicular element in the sub-clavicular space; the respiration becomes bronchial in the mammary and upper axillary and superior scapular regions; there are no respiratory sounds below these points.

Diagnosis.—Necrosis of left lung, caused by pressure of pleuritic fluid; enormous thickening of left pleura with complete obliteration of lower pleural cavity of this side; large pus-cavity connecting with bronchus and displacing heart.

The day following examination I inserted the aspiratory needle over the point of greatest dulness, puncturing the chest to the depth of four inches. High vacuum was connected with the needle, but no pus followed. After some deliberation, on account of the malposition of the heart, it was decided to try the influence of the differential air-pressure, and on December 3, 1883, the first trial was made. He respired against two-tenths of an inch fall of the barometer for eight minutes, inhaling a one to one-thousandth solution mercuric bichloride.

With few exceptions, daily applications were made, and, at the fourteenth, seven-tenths pressure was reached. The patient began to show improvement and appetite. Cough was still severe, expectoration increased. From the twenty-ninth to the thirty-ninth treatment he complained of pain in the left mammary region while breathing in cabinet. At this time a peculiar sound of air and fluid could be detected in the sub-cellular tissue in the left superior mammary region. This became so marked that in his forty-second treatment air was compressed about him in the cabinet, and he was allowed to breathe into the normal atmosphere, an act analogous to breathing into partial vacuum. This was subsequently repeated by producing rarefaction in the empty cabinet, and requesting him to breathe from the outside into this partial vacuum.[1]

The swelling increased in spite of these endeavors, and became so urgent that a paracentesis was done on the evening of February 29th. A crescentic incision was made in the most dependent portion of the swelling in the third intercostal space, over the normal position of the heart. A large escape of air and about four ounces of pus followed. An antiseptic pad was applied. The wound was treated antiseptically until March 11th, when the treatment in the cabinet was resumed. A wet starched bandage was placed over the fistula, and a three per cent. solution of iodine was used in the spray. When breathing was fully established the characteristic reaction of iodine upon the starch was demonstrated. Pus collected from the fistula eight hours after an inhalation of the mercuric bichloride gave the mercuric reaction on copper plate. This opportunity to practically demonstrate the theories advanced earlier in this paper was as welcome as its result was absolute.[2]

From this time rapid improvement followed. The fistula discharged freely, especially after treatment. The cough diminished, but would recur when there was an impediment to the escape of pus in the fistula. Any obstruction in the fistula was invariably expelled by increased pressure; on one occasion it being necessary to resort to nine-tenths of an inch.

On June 3, 1884, he expectorated his last mouthful of pus and to-day he has a good vesicular murmur front and back, in the superior portion of his lung. The heart has nearly completed its journey back into position but the enormous thickening of the lower pleura, or other changes produced by the eighteen months of inflammatory action in the lower thorax, will forever prevent a normal relation of the parts. A small fistula remains, due to a necrosis of the third rib. His weight to-day is one hundred and thirty-seven and three-fourths pounds.

Case V.—Mr. H——, aged eighteen, hatter, weight one hundred and twenty pounds. A brother died of consumption. Patient has been coughing for two and a half months, has had slight hemorrhage, described as dark red; his phlegm has been frequently streaked with blood. Of late his cough has been constant and harassing. Has been taking hypophosphites and cod-liver oil under his physician's directions.

Inspection.—Slight restricted respiratory movements on right side. Depression in both sub-clavicular spaces.

Palpation.—Fremitus most marked on the right side.

Percussion.—Slightly high-pitched note in both supra-clavicular spaces, highest on right side; slightly high-pitched note on posteriorly right side.

Auscultation.—Respiration in superior portion of right lung branches vesicular; in outer clavicular angle the respiration is bronchial. The respiratory sounds are harsh in the corresponding region of left side.

Diagnosis.—Infiltration of right lung, peribronchitis with ulceration.

Patient began treatment March 8th, using five-tenths inches vacuum from the first. Mercuric biniodide, or bichloride and iodine separately were the agents sprayed. He continued with the hypophosphites, using one bottle after beginning treatment. He was discharged cured on May 1st, weighing one hundred and thirty-six and a half pounds, a gain of sixteen and a half pounds in less than two months, having taken twenty-four applications.

The other cases of primary infiltration which recovered are six in number. Three of these cases gave evidence of breaking down. The progress in each case was unmistakable and in less than two months objective symptoms of their former trouble were removed. Three cases of unresolved pneumonia made rapid and complete recovery, and merit more notice than can be given them in an already prolonged paper. This is also true of the twenty cases of acute bronchitis which recovered. The improved cases are ten in number. It is difficult to classify these, but the majority were cases of fibrous phthisis. One case of this description had been suffering for six years, being compelled to spend every winter in a suitable climate, which he has sought in the principal resorts of this country and Europe. The tri-weekly applications given him last winter were sufficient to occasion a very complimentary comparison by the patient in favor of the differentiator.

Mrs. A——, a case of fibrous phthisis, with bronchiectasis and extensive pleuritic attachment, authorizes the most comprehensive construction of language and predicts even then the failure to adequately express the relief afforded by this process. Mrs. A—— has been supplied with a cabinet at her home, where an ordinary servant successfully manages the apparatus. Improvement in general nutrition, strength, cough, breathing capacity, are the points to which all these cases bear willing testimony.

The unimproved cases are seven in number, and comprise two cases of acute catarrhal phthisis in the third stage, one of fibrous phthisis advanced stage, one of tubercular pleurisy, one of laryngeal phthisis with primary infiltration, and two cases of nervous cough.

It will be noticed that the principal agents used in the spray were the mercuric bichloride and biniodide, iodine, and carbolic acid, used singly or in combination.

To those who cherish the views of Koch, the results in the eleven recovered cases furnish strong confirmation of his theories.

Mr. Ketchum and Dr. F. A. Jewett have made careful microscopic examinations of the sputa before treatment and during its progress.

While the evidence is strongly presumptive that the use of these germicides diminished the quantity of bacilli in several instances, and obliterated them in others, the opportunity for following out this line of inquiry has not furnished sufficient data to permit an unqualified statement.

1. *The question of reduction of fever.*—In most cases a rapid reduction ensued. It can be safely claimed that where fever is due to the absorption of pus in a cavity accessible to the air-current, disinfection can easily be accomplished and the fever will subside. We know that a persistently high fever yields after a time, generally preceded by a copious expectoration. The pathological condition existing in such a case is that of extensive pu-

[1] These expedients have been resorted to in a few cases where emphysema has been present, and for the relief of gaseous distention of stomach and bowels.

[2] There is no doubt that agents thus administered are carried to the ultimate alveoli. Cinchonism has been produced by inhaling quinine; mydriasis by inhaling a solution of atropia. In using the mercuric solutions we found it necessary to restrict their use, in one case after three treatments specific symptoms appeared. An experiment upon a full-grown rabbit was made as follows: Tracheotomy was done without the use of an anæsthetic. A canula of one-tenth inch inside diameter was introduced and tied; to this a rubber tube one-fifth inch in diameter and eight inches in length, was made to connect with the outside of the cabinet. An assistant held the rabbit in position, and a mixture of China ink and water was sprayed into the tube. The point at which the animal's ability to expire against the normal atmosphere was reached at seven-tenths of an inch; artificial expiration was resorted to, and the rarefaction was increased to nine-tenths of an inch. This was maintained for ten minutes. The spray was shut off, tube disengaged, and the rabbit allowed to run about the floor for ten minutes, which it did with no apparent discomfort. Its spinal cord was now ruptured and the lungs immediately removed. Microscopic examination shows pigmentation more marked at base of lungs, yet deep discoloration is seen at different points in the sub-pleural spaces on the periphery. Microscopic observation of fresh sections cut transversely from without inward from all parts of the lungs, shows abundant pigmentation in the ultimate alveoli. China ink was selected because of its utter insolubility, fineness of its particles, and the length of time which it will remain in suspension.

trefaction in the parenchyma of the lung, unconnected with a bronchus, ulceration and breaking down continuing until a bronchus of sufficient size is reached, when excavation is possible. To introduce antiseptic or germicidal air into freshly made cavities will as certainly reduce temperature as will washing the uterus in puerperal septicæmia. It is true that phthisical patients may have fever dependent upon conditions outside of the lungs; such cases have been met, and beyond the fact of facilitating oxygenation of the blood and increasing its interchange in the tissues, this process did not exert any influence. Where the lesion is primarily pleuritic, while I believe that a gentle force will exert a salutary influence, over-zeal might enhance the danger of increasing the quantity of plastic exudate, when of course the fever would not subside. In febrile cases morning treatment is preferable, for analogy, if nothing else, tells us that quiet and repose are the best febrifuges for these conditions.

2. *The influence upon the cough.*—Experiments have been made upon the same individuals while breathing a strong aqueous solution spray of iodine in and out of the cabinet. While it is extremely rare that one can inhale this solution outside without coughing, it is still more rare to find one who cannot while breathing with a medium pressure in the cabinet. The probable explanation of this is that owing to the stretching of the walls of the larynx and the pharynx the terminal nerves are rendered less sensitive. This is analogous to pinching the integument to relieve the pain of hypodermic procedure.

The effect upon the permanent cough depends upon the lesion. Great ease of expectoration and tendency to sleep after treatment have been noted in most of the cases, the permanent and temporary relief from cough also depends largely upon the selection of medicinal agents, those used thus far having been so limited, the intention being to produce antisepsis. The more emollient remedies have been ignored. The range of possibilities in this direction is so great that future experience will establish the comparative value of agents, not only for the relief of this symptom, but for the cure of the lesion upon which it depends.

Dr. A. S. Houghton, a former assistant, now located in Milwaukee, Wis., has been supplied with a cabinet with which he is getting good results with a different class of remedies. He reports favorable results in five cases of phthisis in which he used a spray of the hypophosphites, also administering these agents internally, selecting a trituration of the dry salt. By the combined use of these agents he claims a speedy arrest of destructive progress by promoting calcification.

3. *Effect upon expansion and respiration.*—The increase in the former in the recovered and improved cases was from twenty-five to one hundred and fifty per cent., and the number of respirations per minute was reduced accordingly. Spirometric tests show an increase in volumetric capacity of from twenty-five to one hundred per cent.

4. *Effect on hemorrhage.*—This properly comes under the head of circulation, and, as before stated, will be discussed in a special paper by Dr. Tiegel. Of the thirty-two cases of phthisis reported, nineteen have suffered from hemorrhage at some time during the course of their disease. Of these three had slight hemorrhage while under observation. One case was submitted to treatment during the attack, and the hemorrhage was checked. Another patient had suffered from repeated attacks within a space of six weeks before taking the treatment. Nineteen applications were made with a maximum pressure of five-tenths of an inch. No hemorrhage occurred while breathing in the cabinet and only one while under treatment, and that after a violent paroxysm of coughing at his home; treatment was continued the following day. The third case had primary infiltration and reported a hemorrhage during the previous evening; treatment was continued daily until recovery. It would seem, therefore, that in this process we have a force not only not calculated to produce pulmonary hemorrhage, but to arrest or prevent it. This does not refer to accidental conditions nor to denuded arteries that may lie athwart cavities or to aneurismal dilatation of pulmonary vessels. Realizing this fact, a constant vigilance has been kept for fatty hearts and atheromatous arteries, for here, if anywhere, hemorrhagic mischief may arise.

5. *Effect on menses.*—In all seventeen cases of phthisical women were treated, two of whom had reached the menopause; of eight in which menstruation had ceased, in four it returned; of seven in which it was scant, six became normal. This is a further proof of the increase of the main arterial pressure produced by this process, these organs responding to the general arterial plethora.

6. It has been urged that where this process is brought to bear upon the attenuated and toneless walls of the bronchioles and alveolar septa, conditions dependent upon the prodromata of phthisis, dilatation and rupture might be produced. It is probably true that even in a healthy condition a reckless resort to the force at our command would produce even worse mischief.

It will be remembered that the limit thus far advised is two inches fall of the barometer, and in the majority of the cases reported one inch has not been reached.

Analyzing an ordinary forcible cough we find that a full inspiration is first necessary. The glottis is now closed, and compression of the lungs and their contents is accomplished by the respiratory muscles. The glottis is then opened and the compressed air escapes with more or less explosive force.

To measure this force it will be necessary to cough against a properly arranged mercurial column, when a displacement of from four to eight inches will be shown. This being a static force must be exerted in all directions and is largely in excess of any thus far advised in this process.

It would seem, then, that higher vacuum could be used with impunity so far as this danger is concerned. I have found cases where the full limit could not be reached on account of overstretching pleural or diaphragmatic adhesions, causing a sharp pleurodynia. When such pain has occurred I have immediately strapped the side down with adhesive plaster, and the trouble has quickly subsided.

The reader who has done me the honor to follow thus far will appreciate the difficulty I have experienced in presenting full data seriatim in each case. Long and intricate tabulated statements are dry reading and seldom engage attention. Work in unexplored fields is necessarily imperfect at first; new suggestions present themselves dependent upon peculiarities in individual cases.

The effect of posture during treatment, of antagonizing the respiratory muscles of the healthy lung, thereby forcing the corresponding muscles of the diseased one to increased effort, the application of chemically dry air, and the study of the personal equation, are questions of interesting inquiry at present, but it takes time to draw rational conclusions.

Thoughtful physicians know that everything depends upon the early recognition of a phthisical departure from health, that the stage of inflammatory infiltration, though considered the primary stage, occasions knitted brows and anxious hearts when those we love are thus afflicted. There must be a time when the treatment I have described is most applicable. There are cases, or perhaps periods in the progress of all cases, when it is inapplicable. From the facts already demonstrated it is safe to conclude that the earlier the full provisions of this treatment are carried out, not only are the chances of recovery better, but the opportunity of meddlesome interference is prevented. It is not intended to supersede the benefit of climate, for arrangements can be made by which these cabinets can be placed in any desirable locality. It certainly cannot interfere with any of the

medicinal and nutritive measures known to be of inestimable value. To all these it is a valuable adjunct, and at times it will assume the position of principal when those who will have observed its power will remember my closing words with forbearance:

Phthisis has been cured by the topical application of appropriate remedial agents.

131 Gates Avenue, Brooklyn,
December 17, 1884.

A CASE OF DIFFUSE ROUND CELLS ARCOMA,

Involving the Posterior Nares, Vault of the Pharynx, Soft Palate, Pillar of the Fauces, Right Tonsil, and Lower Pharynx; Operation; Cure.

By F. H. BOSWORTH, M.D.,

Professor of Diseases of the Throat in the Bellevue Hospital Medical College, New York.

The following case is presented as affording many points of great interest on account of its exceeding gravity, the extent to which the malignant growth had invaded the tissues of the fauces, the somewhat novel method by which it was extirpated, and the complete success attending the operation.

J. T. H——, aged forty-two, a gentleman prominent in public life in one of our Western States, consulted me on June 26, 1882, at the request of Dr. Henry Evans, of Sedalia, Mo., giving the following history: When a child he fell, receiving a blow upon the nose which resulted in a deflection of the septum by which the right nares became almost completely occluded. This caused but little annoyance in early life. But for several years he had been much troubled with an ordinary nasal catarrh. During the spring of 1882 he was under treatment for this, but with no marked relief. About February 15, 1882, his physician discovered a tumor in the vault of the pharynx which he regarded as a glandular hypertrophy. Mr. H——, however, had been conscious of a fulness in this region for some months previously, and had at the same time been conscious of an increasing faucial secretion. Local treatment was applied to this for about two months, until April 13th, when a portion was removed with the forceps, which upon examination was pronounced benign in character.

Mr. H—— went to Missouri about May 1st, remaining six weeks. While in Sedalia, early in June, Dr. Evans saw him, and after a careful examination of the growth pronounced it malignant, and advised him to come immediately to New York. I might mention in this connection, that on his way to New York he saw Dr. William Porter, of St. Louis, and Dr. Cohen, of Philadelphia, who regarded the growth as malignant and gave an unfavorable prognosis.

By this time the discharge from the tumor had become exceedingly fetid and offensive, and considerable in amount. His general health also had become markedly impaired.

On June 26th he came to my office. At this time he was in an exceedingly enfeebled condition, the walk to my house, and the climbing my steps causing him considerable effort. He was noticeably emaciated, the skin of a sallow, unhealthy color, the pulse 120, and temperature 101°. On examination of the fauces there was noticed a brownish, unhealthy-looking discharge from the pharyngeal vault, which gave forth an exceedingly unhealthy odor. The soft palate was of a dark-red, mottled appearance, especially on the right half, and seemed to be crowded forward by a growth behind it. By palpation a hard, dense mass was felt, of a rounded and slightly irregular outline, which seemed to fill the pharyngeal cavity and extend down to the edge of the soft palate. On lifting the velum with a probe the lower edge of the mass was brought into view, of a pale pinkish color and pultaceous aspect. The palato-pharyngeal space was completely blocked up. Protruding between the growth and the palate were a number of blackened shreds of necrosed tissue.

The whole aspect of the case was most discouraging, as I felt convinced that the tumor was malignant. Furthermore, any question of a radical operation was not to be thought of, Mr. H——'s general condition being such that I had little hope of his surviving such a procedure. The plan of treatment that I decided upon was to remove the tumor piecemeal, taking off small masses at a time and in such a manner that all shock to the system should be as far as possible avoided. This was accomplished by means of the wire snare ecraseur, the instrument I used being the curved modification of Jarvis' snare, as adapted by myself for operations on adenoid growths in the vault of the pharynx, and described in a paper published in the New York Medical Record, January 13, 1883. The snare being mounted with a No. 5 piano wire, a small loop was arranged and pressed upon a small portion of the border of the growth, and the screw being turned, the loop would bury itself in the soft tissue, and in this manner a portion perhaps not larger than a split pea would be taken off.

In this manner several small pieces were removed the first day I saw the patient. Immediately on cutting off a piece of the tumor, the parts were showered with a weak solution of borax and carbolic acid until all pain and irritation were allayed. In this manner I operated every day, removing small portions successively until my patient was too much wearied to proceed.

A piece of the growth was sent to Dr. William Welch, who reported on June 30th: "The specimen consists of a number of fragments, the largest the size of a small bean. Their consistency is rather soft. After hardening with alcohol, sections were prepared and examined microscopically. The surface of the specimen is covered with laminated flat epithelium. Beneath this the new growth begins at once. This new tissue is composed of lymphoid cells chiefly, between which is a reticulum of anastomosing fibres. In addition there are some fusiform and branching cells, and here and there giant cells, the nuclei of which are mostly in the centre of the cell. The structure is therefore like that found in lymphatic glands, and called lymphatic or adenoid tissue. There is no alveolar arrangement to be observed. The growth is therefore a sarcoma. The main features are those of lymphosarcoma, but the type is somewhat mixed by the presence of the giant cells."

From June 26th to July 12th I saw him daily and operated as above, removing a number of pieces. His condition at this time became somewhat alarming. His strength was failing and he was suffering much from neuralgia of the face. I therefore sent him to the sea-shore near the city, where I could continue my daily attendance. A few days at the sea-shore seemed to revive him greatly.

By July 16th I had removed a considerable extent of the lower portion of the growth, and now came upon a large necrotic mass embedded in the growth, which I was enabled to remove. This was about the size of a walnut and seemed to be a superficial slough, the result of pressure exerted on the surface of the tumor, the different lobes, as it were, growing from the sides of the pharynx and crowding upon each other. With the removal of the slough, the neuralgic pain was relieved, the fetid discharge and offensive odor disappeared, and in every way his general health improved. He had evidently been suffering all this time with a mild septicæmia, the result of absorption from this necrotic mass.

July 23d.—The parts from which the growth had been extirpated were cauterized with the galvano-cautery, resulting in some inflammatory reaction, which compelled me to desist from operating.

July 30th.—The growth so far cleared away that its extent can be seen involving the whole of the upper pharynx and its lateral walls, surrounding the Eustachian orifices of each side, and forming a fringe, as it were, about each

posterior nares, but not extending into the nasal cavities. There was also found to be a long fusiform mass extending along the upper surface of the soft palate from the right side of the uvula to the junction with the hard palate. His general condition was now everything that could be desired, and rapid progress was made in removing the growth. I might add here that the loop was placed in position in the pharyngeal vault by means of the rhinoscopic mirror, Mr. H—— holding the spatula in one hand and drawing forward his palate by a palate-hook with the other. Galvano-cautery used over the surface operated upon, followed by inflammatory reaction, not very well marked, however.

August 4th.—Galvano-cautery used.

August 8th.—Returned to the city; doing well.

August 15th.—Galvano-cautery; considerable reaction.

August 27th.—Galvano-cautery used; reaction very marked, so much so that the operation had to be given up for several days.

At this time I sent a specimen of the growth removed from the vault of the pharynx to Dr. Charles Heitzman for examination. His report was as follows: "Numerous medullary corpuscles, greatly varying in size and shape, some nucleated, others coarsely, others, again, finely granular, are closely pasted together, and separated from each other by scanty cement-substance, or fibrous basis-substance. The blood-vessels traversing the tissue are very scanty. Diagnosis: round-cell sarcoma, or globo-myeloma of a very malignant type. Tumors of this kind, after extirpation, almost invariably recur, and within a few months or years cause a fatal termination."

September 9th.—Galvano-cautery used, and following this there was a very marked aggravation of all the symptoms; the growth on the soft palate assumed an angry and threatening aspect.

September 12th.—The growth on the soft palate extended through the palate and down on the right tonsil and anterior pillar of the fauces. I now removed a number of pieces from the soft palate and tonsil.

September 20th.—There appeared a new centre of development on the lower pharynx, and on September 25th it had so far extended that it now involved the right half of the pharynx down to the level of the epiglottis, the right tonsil, the right anterior pillar of the fauces and a portion of the soft palate, part of the palate having been removed. There was also a considerable portion of the growth remaining in the pharyngeal vault. The whole aspect of the case was most discouraging.

Dr. Frank H. Hamilton and Dr. Beverley Robinson now saw the patient with me in consultation, and both expressed the opinion which I entertained, that the case was hopeless.

I felt convinced, however, by this time, that the galvano-cautery was responsible in no small degree for the bad turn which the case had taken, and determined to follow out my original plan of procedure, but without the cautery. At each application of the cautery a notable inflammatory reaction had set in, and this had been more marked with each successive application, and finally there were grounds for thinking that the reaction and rapid extension of the tumor were in no small degree due to its use.

Following the plan, then, of removing the growth piecemeal, while at the same time every possible precaution and care was exercised in avoiding any unnecessary irritation of the parts, I dispensed entirely with all caustics or other applications. As each piece was removed the part was showered with the carbolized alkaline spray till all pain was arrested, and after each operation the cut surface was coated with vaseline. In this manner I very soon commenced to make headway again, and from this time on matters commenced to improve, and with no single untoward symptom developing, I finally completely removed the last portion of the growth, and discharged my patient on November 4, 1882.

The successful termination of the case was unquestionably accomplished by the somewhat unusual method of operating, viz.: by piecemeal; and yet I think that the rare pluck and resolute courage which Mr. H—— displayed throughout these months of weakness and discouragement, contributed in no small measure to the favorable result of what I think must be acknowledged to have been a very remarkable case.

The specimen which I present shows the tumor removed in about two hundred pieces, the whole nearly filling a three-ounce bottle.

Generalizations drawn from the study of a single case do not, as a rule, carry much weight, yet it seems to me that there are several suggestions that may be safely based on this one. The first is, may not a neoplasm, not essentially malignant in its origin, be converted into a malignant growth by attempts at extirpation, which are unnecessarily harsh, and in which too great violence is done to heathy tissues. Mr. Butlin in his recent work on "Sarcoma" teaches, as the result of a careful study of seventy-three cases of malignant disease of the upper air-passages, that sarcoma rarely affects the lymphatic glands, and that it is, therefore, amenable to local measures of treatment. His explanation is that sarcoma "arises by the proliferation of the cellular elements of the solid structures of the connective tissue" which compresses the lymphatics.

In the case above narrated the growth was removed in such a manner that there was the least possible shock to the general system, the least possible violence to the tissue itself, and the healthy tissue beyond the neoplasm was uninjured. Indeed, the healthy tissues were virtually not in the least degree encroached upon. As long as the operation was confined to the removal of small pieces by the snare good progress was made, and there was no appreciable extension of the growth; but as was soon learned by unfortunate experience, when the galvano-cautery was used, while a small portion of the growth was destroyed, such violent inflammatory reaction was excited by the cautery that the growth extended rapidly. My only excuse for using it was that it was the orthodox thing to do. It was finally abandoned, and not a moment too soon, with the result that my patient was rescued from a most desperate strait.

This brings us to another suggestion. Is not the galvano-cautery a much overestimated instrument, and is not quite as much, if not more, harm than good often done by its use? All caustics are an evil, but oftentimes a necessary evil. While they are used to destroy morbid tissue there is always set up an inflammatory reaction in the tissues beyond of a more or less severe character. This is in every case harmful. Any caustic which causes destruction with the least reaction is the best to use. Any caustic which sets up the most severe reaction is the worst. I think I am perfectly justified in the assertion that the potential-cautery, whose action depends on the use of heat, causes a far greater reaction than a chemical agent. In the one case we have caustic action with the addition of heat, while in the use of a chemical agent heat is not present. If, then, we can accomplish what is desired without subjecting the diseased part to the action of this intense heat, it seems to me to be our duty to accomplish our end in a manner which entails the least danger of mischief.

The galvano-cautery is an ingenious and an attractive instrument, and carries an amount of moral weight which, it may be, is not to be neglected, for it certainly impresses a patient with a very exalted idea of the resources at our command, and yet, when we reflect for an instant, it is a very cumbrous, very awkward, and often a most exasperating and treacherous device for accomplishing a small result, viz., to develop a red or white heat in a small piece of platinum, often not larger than a few lines in length.

Early in the galvano-cautery craze I supplied myself with a battery, and subsequently purchased others. I

have not used one now for over eighteen months, for I believe that there is no single indication for caustics which cannot be met in a more efficient, more reliable, more safe, and less mischevious way by other and infinitely simpler methods. Certainly in the case narrated the danger of the potential-cautery was repeatedly shown.

NOTE.—The above case was reported at the meeting of the American Medical Association in May of this year, at Washington, and the patient presented and examined by the members of the Section. His general health was good and the pharynx showed not the slightest trace of any return of the tumor. There were some loss of tissue in the soft palate and right faucial pillar with a few bands of cicatricial tissue, but the absence of cicatricial contraction was noticeable. The parts were soft and elastic, and there was no impairment of function whatever. I last heard from Mr. H—— early in August, and he was then perfectly well.

26 WEST FORTY-SIXTH STREET.

CHRONIC CYSTITIS.

EXTERNAL PERINEAL URETHROTOMY—DRAINAGE—RECOVERY.

BY ALEX. W. STEIN, M.D.,

SURGEON TO CHARITY HOSPITAL (GENITO-URINARY DIVISION), ETC.

CHRONIC cystitis is so often intractable to the ordinary remedial resources of the surgeon, that when the treatment is as signal in its result as it proved to be in the following instance, it is worthy of note. Hence I present an abstract of the history of a patient recently under observation at Charity Hospital.

Daniel R——, aged sixty, Irishman, laborer, admitted August 22, 1884. Had gonorrhœa but once in his life, fourteen years ago, which lasted some weeks. His present bladder trouble began, he thinks, about November, 1883, as manifested by frequent and painful micturition.

September 2d.—Saw patient for the first time; he is extremely feeble, anæmic, emaciated, and expression of face denotes considerable suffering. Says he is obliged to micturate about twenty times during the night, and nearly as often during the day. Nurse says "he is almost constantly in the water-closet." He complains of almost incessant pain in the region of the bladder, and at the glans penis, but the latter pain is excruciating at the close of micturition, when the urine too, is thick and yellowish in color. Search was made for stone with negative result. Flexible bulb, 28 F., largest instrument meatus would admit, was passed to the bladder without obstruction. Finger per rectum found prostate normal, both in size and consistence. Urine high colored, alkaline, slimy, containing ammonio-magnesian phosphates, an abundance of pus-corpuscles, epithelium, a few red corpuscles, and, according to House Surgeon Heller, albumen one-tenth by volume. He was ordered ward tonic, inf. triticum repens, together with potass. citrat.

September 15th.—Bladder to be gently washed out with warm water, once or twice daily.

September 23d.—Injections have been made almost daily until to-day. The bladder tolerates but a very small quantity of water, and the injection creates much pain. Patient complains bitterly of the "washings of his bladder," thinks he is worse since they were commenced and begs that we would desist.

September 24th.—All search for the cause of the cystitis, hitherto made, having proved negative, and the patient evidently requiring immediate relief, an exploratory perineal incision was decided upon. Patient was etherized. Staff introduced into urethra. An incision about one and a half inches in length was made on the raphe of the perineum, about one inch anterior to anus, the membranous portion of the urethra was laid open sufficiently to freely admit the index-finger. Digital exploration reveals what appears to be simply a prominent ruga on posterior wall of bladder, the remainder of the mucous surface being covered with a slimy, stringy mucus. A rubber drainage-tube 23 mm. in circumference, smoothly pared off at its open proximal extremity and also perforated at the sides, was introduced just within the vesical neck, while its distal end was connected with a longer rubber tube which reached over the side of the bed into a basin on the floor. A hypodermic of morphia was given, and quinine grs. x., which latter is to be continued night and morning, and partial cinchonism maintained for a few days.

September 25th.—Rested quite well during the night. Pulse, 74. Diet to-day has consisted mainly of milk; some whiskey. Eight ounces of urine collected in basin; some escapes by side of instrument into dressing.

September 26th.—Had good night. Rectal temperature, 99.5°; pulse, 84. Feeling comfortable.

September 27th.—As considerable urine escapes by the side of tube, wetting bed and making patient uncomfortable, the drainage was modified as follows: The distal end of the long india-rubber tube was inserted into a quart bottle, the bottle and tube were filled with carbolized water and attached to the drainage-tube. A siphon-like action was thus established, which aspirated the urine from the bladder as rapidly as it trickled from the ureters, the result being an immediate and a marked increase in the quantity of urine accumulated in the basin, and no escape by the side of the instrument.

September 28th.—Had restless night; complains of pain in region of kidneys; tongue dry and coated; bowels have not moved in several days; drainage excellent; quantity of urine accumulated since yesterday, 38 ounces. P. M.: temperature, 101.4°; pulse, 84. Ordered ol. ricini. Quinine has been continued since operation.

September 29th.—General condition about the same. Quantity of urine last twenty-four hours, 54 ounces. P.M.: temperature, 100.2°; pulse, 88.

October 1st.—No inclination for food; vomits both food and medicine; constant hiccough. Pulse, 100; respiration, 24. (No thermometer on service.) Quantity of urine passed in twenty-four hours, 38 onnces. Nourishment given by enemata to-day.

October 2d.—Extremely feeble; hiccough has continued almost uninterruptedly since yesterday, but stomach is less irritable, and he again takes his milk and whiskey. Pulse, 96, feeble; respiration, 18. Has had slight movement of bowels; 54 ounces of urine has passed, and notwithstanding his otherwise unfavorable condition, the urine has much improved in appearance; there is less sediment and less pus.

October 4th.—Restless night. Pulse, 60, feeble and intermittent; respiration, 14. Hiccough still persists, but much less in frequency; nausea has ceased. Fifty-nine ounces of urine drained in twenty-four hours. Patient pulled out drainage tube during the night; on replacing it this morning about six ounces of urine ran off, indicating great improvement in the retentive power of the bladder. Bowels moved freely in consequence of enema given. (The subsequent notes show, with the exception of a sharp attack of diarrhœa, lasting about thirty hours, the result of indiscretion in diet, a steady improvement in the general condition of the patient.)

October 11.—Pulled tube out of bladder again early this morning, because of the increase of pain in the glans penis, of which he has complained ever since the retention of the tube. Says that the pain always ceases when the tube is removed. On reintroducing tube, five ounces of urine flowed. Meatotomy was performed, and a 21 A. sound passed freely into the bladder.

October 14th—The retentive power of the bladder being so much improved, as is also the condition of the urine, the drainage-tube was removed this evening.

October 15th.—The pain in the glans penis, so con-

stantly complained of since operation, has disappeared. Urine flows both through penis and perineal opening.

October 16th.—Retains urine two and three hours; no pain of any kind; says he has not been as free from pain in a year.

October 19th.—Retains urine sometimes four hours. The quantity of urine passing through penis is steadily on the increase, and the act of micturition is unattended with pain.

October 25th.—Passes water five or six times in twenty-four hours, nearly all through penis.

October 31st.—Wound nearly healed; urine all passes through penis, unless patient strains, when a very small quantity may trickle through minute perineal opening.

January 1, 1885.—Patient is reported as remaining in a much improved and comfortable condition, though it is said he occasionally complains of some pain at the glans penis, and there is still a small quantity of pus discernible in his urine, which is otherwise very pale, almost colorless, acid, specific gravity 1.010, and free from albumen.

In addition to the foregoing history a few points may be noted:

First.—Owing to the extremely feeble and worn-out condition of our patient the operation was undertaken less with the hope of saving his life than with the intention of possibly discovering and removing the cause of his trouble and of mitigating his suffering.

Second.—The drainage was continued twenty days. Let it be noted how effectual was this drainage in keeping bladder empty and the patient dry after the syphon action of the tube was established. It is also remarkable how well the tube was tolerated by the vesical neck; the only pain occasioned thereby was referred to the glans penis; the pain seemed to be constant, though it varied at times in severity, and ceased immediately on the removal of the tube.

Third.—The drainage might have been continued for a longer period, with advantage, perhaps; but the improvement in the condition of the urine and in the retentive power of the bladder was already apparent ten days after the operation. The perineal opening was practically closed in seventeen days after the final removal of the drainage-tube.

Glycerine as an Excipient.—The employment of glycerine in pharmacy is becoming more and more extensive every day, owing in great measure to its property of dissolving various medicinal substances. It is thus very generally used instead of lard or oil in a number of cosmetic preparations. It makes an elegant excipient, but, unfortunately, glycerine will not penetrate the pores of the skin, and prevents also the absorption of any drugs which it may hold in solution. Dr. P. Vigier has recently made some experiments upon himself, which are very simple and may be repeated and verified by anyone, which show in a striking manner the uselessness of employing glycerine as an excipient when absorption of the active ingredient is desired (*Memorabilien*, November 20, 1884). He was never able to detect iodine in the urine after repeated inunctions of a solution of potassium iodide in glycerine (one part to three), but, when the glycerine was replaced by a fatty substance, the presence of iodine in the urine was at once manifest. A five per cent. solution of muriate of morphia in glycerine rubbed into the skin produced not the slightest narcotic effect. A one per cent. solution of sulphate of atropine applied for six hours to the temples caused no dilatation of the pupils. Still more striking was an experiment made with corrosive sublimate. A five per cent. solution of this substance in glycerine was rubbed strongly upon the skin, yet produced not even a reddening of the surface, nor was mercury to be detected in the urine. The result of this experiment leads Dr. Vigier to recommend the employment of a glycerine solution instead of the mercurial ointment as a parasiticide, since with the use of the latter there is always more or less absorption of the drug.

A CASE OF EXTRA-UTERINE PREGNANCY SUCCESSFULLY TREATED WITH GALVANISM.[1]

By D. C. COCKS, A.M., M.D.,

CONSULTING OPHTHALMIC SURGEON TO THE RANDALL'S ISLAND HOSPITALS, AND ASSISTANT SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY.

A remedial agent which can always be depended on to produce a *certain* result in a given class of cases is a desirable addition to our means of treating disease, but when we discover a remedy for a disease or condition which in itself is almost necessarily fatal to life, we can hardly speak too enthusiastically in its praise.

Such a remedy has been given to the profession for the cure of that formerly most dreaded condition, extra-uterine pregnancy, but one now robbed of all its terrors by electricity.

In February, 1883, one of our members, Dr. A. D. Rockwell, read a paper before this Society and subsequently published it in The Medical Record (February 17, 1883), on the successful treatment of extra-uterine pregnancy.

The statements there made were new to me, and made a decided impression on my mind at that time. I had known that electro-puncture had been used in this class of cases, but that electricity applied by the electrodes to the mass, and not into it, would not only stop the progress of the pregnancy, but would destroy the life of the fœtus, and thus allow the fœtal mass to be absorbed, was a revelation to me, as I know it was to many of our members present.

Subsequent reading showed me that Dr. J. G. Allen had used electricity successfully in extra-uterine pregnancy in 1869 and in 1871, and that since that time many other cases had been reported. Nevertheless, it was the reading of the paper by Dr. Rockwell that first drew my attention to this important subject, and if the report of this case serves to keep up the interest which former cases have aroused I shall feel satisfied.

Mrs. H——, twenty-six years of age, had suffered for three years before marriage from ovarian (?) dysmenorrhœa. In December, 1882, I induced premature labor (her first pregnancy) because of placenta prævia. She was last unwell December 13, 1883. In February and March, 1884, she suffered from severe lancinating pain in the left iliac region. On March 10th she had a slight "show," and as these pains continued severe I was sent for.

An examination made March 17th revealed an ovoid, tense growth to the left of and partially in front of the uterus. It was very tender on pressure, and by bimanual examination it was found to be movable independently of the uterus. There was also marked vaginal pulsation on the left side; a subsequent examination showed the same condition still. I then made a diagnosis of extra-uterine pregnancy. On March 27th Dr. T. G. Thomas saw the case in consultation, confirmed the diagnosis, stated that he thought the pregnancy was tubal, that there was imminent danger of rupture, and advised the immediate use of electricity. That same afternoon I applied a strong induced current from a Kidder's battery through the mass. One electrode was placed in the vagina against the growth, the other on the abdomen, thus grasping the tumor between them. The current was passed for about seven minutes, being interrupted every quarter or half minute; at the end of that time a few but rapid interruptions were made. That night the patient suffered some pain, but the electricity was again used on the following day.

March 29th.—The patient stated that she had a "cold sensation" in the left iliac region. The vaginal pulse is less. Electricity again used, and also on the 30th, 31st, and on April 1st, 2d, and 4th. At that time the growth had lost its ovoid form, was less tense, and her breasts were tender. She was seen by Drs. Malcolm McLean and H. T Pierce, who also agreed in the diagnosis.

[1] Read before the Harlem Medical Association, December 11, 1884.

April 9th.—There has been no application of electricity since the 4th inst. The growth has regained its former size; it is more tense. Patient is unwell; breasts are painful and she has slight nausea.

April 15th.—The tumor is growing; it presses the uterus backward and to the right.

April 17th.—Seen again by Dr. Thomas, who states that the uterus is the size of one at the third month of gestation. It is now over four months since the patient last menstruated. He advises the substitution of the galvanic for the faradic battery.

April 19th.—Temperature 101°. With the co-operation of Dr. McCosh I applied a galvanic current (seventeen cells, Kidder, freshly charged); one electrode was placed in the rectum behind the growth, the other in the vagina in front of and pressing on the growth. A constant current was used for a few minutes and was then rapidly interrupted for a like period. The application was very painful.

April 20th.—The *peculiar* pains from which she suffered have diminished in frequency. The sac is less tense.

April 21st.—Twenty cells applied under ether.

April 25th.—No iliac pains for two days. The growth is no smaller, but seems less tense and painful.

April 28th.—We applied thirty cells under ether.

April 29th.—The abdomen was blistered by the electrode used yesterday; there is no pain in the tumor.

May 2d.—The growth is the size of a Politzer's air-bag. The cervix uteri is gaping and pressed back into the hollow of the sacrum.

May 14th.—The tumor *is smaller*. Vaginal pulse *less*.

May 17th.—A flow with all the characteristics of menstruation has appeared.

May 21st.—The flow ceased to-day.

May 25th.—Dr. Thomas examined the patient and found the tumor decreasing.

The patient went to the country and did not return until the latter part of September. She has had neuralgic pains through the abdomen, but different from those felt before. She has menstruated every four or six weeks.

October 1st.—An examination shows the mass to be the size of a small chicken's egg.

December 1st.—Patient still has pain in the left iliac region and pain in defecation; she has passed pieces of membrane (exudation?) from the rectum several times. Careful bimanual examination shows the sac to be still present and to contain "a something," the nature of which I could not make out. I think in six months more all signs of the growth will have disappeared.

This patient suffered for several years with severe dysmenorrhœa. So severe was the pain that at one time the advisability of removal of the ovaries was seriously considered, thus showing that pre-existing uterine disease was associated with, or rather preceded this condition and was the probable cause of it. What relation, if any, can be assigned between the facts of extra-uterine pregnancy and placenta prævia, I leave for you to say and for future observations to determine.

This case clearly shows the superiority of the galvanic to the faradic current. A better opportunity to test their relative merits could not well have been found. It has been fully shown that up to the third month faradism can destroy the fœtus, but in this case, although tried thoroughly, it did not. There is no doubt that the faradic current had a very decided effect, growth was checked, tension diminished, pain lessened; but this effect was only temporary, for on the discontinuance of the treatment evidences of life and growth speedily showed themselves. On the other hand, a moderate galvanic current (of twenty cells) failed to destroy life, and it was not until we used a galvanic current (of thirty cells) sufficient to cause marked contractions of the abdominal and thigh muscles (the patient being profoundly under the influence of ether), both on making and breaking the circuit, that the fœtus was destroyed.

By a rough comparison, then, we may say that a twenty-cell galvanic current is about equal to the full current of a one-cell Kidder faradic battery in the treatment of this condition. The lancinating pains, so peculiar to this condition, ceased at once after this powerful application of electricity. Unlike most of the cases previously reported, the patient has had pains of a neuralgic character in the left side, together with pain in defecation up to the present time (seven months after the last application of electricity).

My object, gentlemen, in bringing this case before you is, first, to impress on your minds the fact that a similar case may present itself to any one of you when most unexpected. One of our members, Dr. Hands, saw in quick succession a case of ruptured uterus and an inverted uterus. These facts should keep us constantly on the alert for these emergencies, and also to be thoroughly prepared for them, so that when confronted by that most merciless of examiners, a case of impending death, we may be able to pass our examination safely, both for ourselves and for our patient. Secondly, to bring out clearly my convictions on the relative values of the faradic and galvanic currents, which, had they been the same and as positive as they are now, would have saved my patient many days of suffering, and myself many days of anxiety, as I believe that, had the galvanic current been used at first, my patient would have been cured, *i.e.*, the fœtus killed in the first or second application.

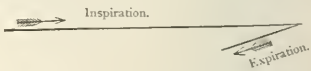
206 East 116th Street.

AN EASY METHOD FOR TEACHING PHYSICAL DIAGNOSIS.

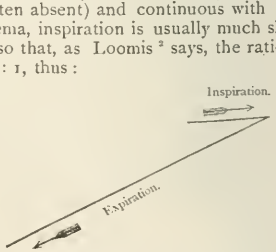
By R. C. M. PAGE, M.D.,

NEW YORK.

After what has been written by Flint, Loomis, Da Costa, and others on the subject of physical diagnosis of the organs of respiration, for me to attempt to say anything in addition appears to be well-nigh superfluous if not presumptuous. And yet there are a few ideas that suggested themselves to me, which, as a student of that subject under Professor Loomis, sixteen years ago, I found to be useful in helping out my fellow-students, and which I propose now to bring forward for the first time. It is the representation of the various kinds of respirations by diagrams. Let us first consider normal respiration. In this case, inspiration (vesicular in quality) is much longer than expiration, which is lower in pitch,[1] and may be represented thus:



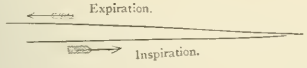
Expiration is merely a short blowing sound when present (it is often absent) and continuous with inspiration. In emphysema, inspiration is usually much shorter than expiration, so that, as Loomis[2] says, the ratio is as 1 : 4 instead of 4 : 1, thus:



According to Flint,[3] the inspiration is less vesicular than normal, raised in pitch, shortened by being *deferred*,

[1] Flint, Respiratory Organs, second edition, 1866, p. 135.
[2] Physical Diagnosis, third edition, 1883, p. 58.
[3] Op. cit., p. 409.

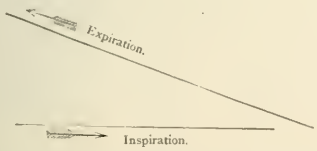
and continuous with expiration, which is lower in pitch. Loomis (op. cit., p. 58) says that the pitch of both sounds is lower than in health. Niemeyer (seventh American from the eighth German edition, vol. i., p. 127) says that at points where there is no catarrh, the respiratory murmur is generally remarkably loud and hissing. Guttman ("Physical Diagnosis," third edition, 1880, p. 109) classes it with *indeterminate* respiratory murmurs. In broncho-vesicular respiration, the inspiration is less vesicular in quality than in health, the pitch is somewhat raised, and, not being quite *finished* (Flint, op. cit., p. 177), is not quite continuous with expiration, which is somewhat higher in pitch, and as long as, or even longer than inspiration, thus:



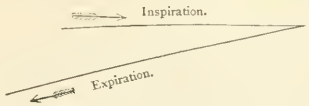
Rude is a short but indefinite (Flint, op. cit., p. 176) term sometimes applied to this variety of respiration. Da Costa ("Medical Diagnosis," fifth edition, 1881, p. 241) terms it *harsh*, and says that "harsh breathing is, in truth, a union of the vesicular and the bronchial sounds." Guttman (op. cit., p. 97) terms *puerile* respiration harsh (rough). Flint (op. cit., p. 409) says the respiratory sound in emphysema, on account of the change in rythm and pitch, and diminution of the vesicular quality, "presents the characters of that abnormal modification distinguished as *roughness*." What, therefore, must be the difficulties in the way of the student, when such distinguished authors apply the same term to such different conditions! The fact is, that harshness (roughness) has nothing to do with the raise in pitch, or the prolongation, or the loudness, of any respiratory sound. Any respiratory sound may possess the character of harshness (roughness), or even be accompanied by râles if the respiratory *mucous membrane* be in proper condition for their production.

Normal respiratory sounds may be harsh (rough), as is often the case in the early stages of acute bronchitis, when the bronchial mucous membrane is tumefied and *roughened* by congestion. They are subsequently obscured by râles. Broncho-vesicular (rude) respiratory sounds are usually harsh, but not necessarily, even in disease. The disease that usually causes this variety of respiratory sound (incipient phthisis) also produces irritation and roughening of the bronchial mucous membrane. On the other hand, in health broncho-vesicular respiration is not infrequently heard at the right apex, and bronchial respiration in the interscapular region (Loomis, op. cit., pp. 34, 35). Both are *smooth* and not harsh or rough. Broncho-vesicular respiration usually depends for its existence upon more or less consolidation of lung tissue; harsh (rough) respiration does not, except secondarily, but upon changes in the bronchial mucous membrane, just as râles do.

In bronchial respiration, the inspiration is still higher in pitch, its quality tubular, and its duration shorter, being unfinished. Expiration is as long or longer, higher in pitch, tubular in quality, and not continuous with inspiration, thus:



In cavernous respiration the pitch of inspiration is usually lower than normal and its quality blowing. In expiration the pitch is still lower and quality blowing, thus:



In the broncho-cavernous variety, the inspiratory sound may be tubular and raised in pitch, and that of expiration low and blowing, or *vice versa*. According to Flint (op. cit., p. 186), "the characters of the bronchial and cavernous respiration may be intermingled in various proportions."

Amphoric respiration (jug-breathing) being frequently only a variety of cavernous respiration, does not need any further mention.

In the same way pulmonary resonance, dulness, and flatness might be indicated by lines giving the ideas of shortness, length and pitch of sound.

Guttman (op. cit., p. 95) says that the characteristic features of the normal vesicular respiratory murmur may be easily reproduced by nearly closing the lips and gently drawing a current of air inwards, etc. The other respiratory sounds, I may add, are readily imitated by arranging the lips as if for *whispering a tune*, and then drawing in and expelling air on the proper key. The diagrams may also be arranged side by side, higher or lower according to the pitch, with normal inspiration as the standard.

31 West Thirty-third Street,
December 26, 1884.

Clinical Department.

DISAGREEABLE EXPERIENCES WITH COCAINE.

As was to be expected, the extensive and almost universal "proving," as we believe our homœopathic friends call it, to which cocaine has been subjected, has shown that success does not invariably attend its use, and also, which is of more importance, that it is not without its dangers. We have received a number of communications from correspondents, relating their more or less disagreeable or alarming experiences with this drug.

Dr. Edward S. Peck, of 53 West Fiftieth Street, writes that he has had an experience similar to that related by Dr. Knapp in The Record of December 13th. A young lad with an internal squint of the right eye was operated on without pain after four instillations of a two per cent. solution of Merck's cocaine. Those who were present at the operation noticed an increasing pallor of the face together with a profuse beady perspiration. It was attributed at the time to apprehension, or perhaps to an effort to control pain when the internal rectus tendon was hooked up. There was, however, not the slightest evidence of pain when the tendon was divided. Dr. Peck further calls attention to the error sometimes made of preparing the solution by the addition of hydrochloric acid. It is thus sometimes irritating to the conjunctiva.

Dr. George T. Stevens, of 33 West Thirty-third Street, writes as follows: "I injected one afternoon, beneath the conjunctiva, and along the course of the internal rectus muscle, exactly four minims of a three and one-half per cent. solution of muriate of cocaine. My patient was a man in the prime of life, six feet tall, strong, but very nervous. Six minutes after the injection, Dr. Featherstonhaugh assisting, the operation, which was for the advancement of the internal rectus, was performed quickly and without complication, but not without pain to the patient. The time occupied in the operation could not have exceeded two minutes. In a short time, estimated at about ten minutes, after the operation, vio-

lent convulsions set in attended with desperate struggles to breathe. The face became livid, consciousness was lost, and the patient became uncontrollable. Attempts to administer stimulants were, during some minutes, unsuccessful. After struggling in an easy chair for some time, the patient arose in a state of frenzy and struck violently about, but was at length controlled.

"As soon as possible stimulants were administered, and the most alarming stage of the paroxysm ceased after a duration of nearly twenty minutes. Fully half an hour, however, passed before we could regard our patient as beyond danger. During the violence of the paroxysm, it was impossible to listen to the action of the heart. As nearly as could be determined by examination at the wrist, the pulse was soft, small, and regular, and beating at the rate of eighty per minute. When the patient was sufficiently quiet to allow an examination of the chest, nothing abnormal was observed about the heart. The gaspings for breath were more suggestive of obstruction about the larynx than of the conditions seen in an attack of angina pectoris; but at the close of the paroxysm, the patient was seized with an extreme pain in the left arm, such as often occurs with angina.

"The pupil of the eye, under the conjunctiva of which the cocaine had been injected, became dilated much more than is usual after the use of atropine, the iris appearing only as a narrow line around the greatly dilated pupil. The other pupil was considerably, though not excessively, dilated. I believe that this paroxysm was the manifestation of the toxic influence of the drug. I had, two hours before, administered hypodermically to a young lady three minims of the same solution, and to another lady, not long before, four minims of the same. Neither in these, nor in others in which equal amounts of the identical solution had been used, were any unpleasant results observed.

"An important suggestion occurs in connection with this case, as with those already reported by Dr. Knapp, whether the danger of these injections is not increased in proportion as they are made in close proximity to the large nervous centres."

Dr. Edmund C. River, of Denver, Col., relates the case of a man into whose eyes, preparatory to operation for strabismus, he instilled twelve drops of a four per cent. solution in the course of fifteen minutes—six drops in each eye. After the completion of the operation the patient complained of nausea and a feeling of faintness. The face was extremely pale, hands cold, and skin covered with a cold perspiration. The pulse was 48 to the minute. In a few minutes these symptoms passed off. The following day, in order to determine whether this faintness were due to the action of the drug, twelve minims were again dropped into the eyes in the same manner. No unpleasant effects were experienced. The patient himself said that his distress was due to the knowledge which he had that he "was being cut," although he experienced no pain. He had fainted on a former occasion while witnessing an operation.

Dr. R. McDonald, of Chelsea, Mass., relates an experience with the drug in his own person which was anything but satisfactory. He states that he has been troubled for several years with chronic conjunctivitis, for which he has been in the habit of using sulphate of copper in crystals. The pain resulting from the application usually lasted from fifteen to thirty minutes, never longer. He recently tried cocaine hydrochlorate, dropping two minims of a two per cent. solution in each eye five minutes before touching the conjunctiva with the copper crystal. For fifteen or twenty minutes no pain was felt, but soon after a smarting and lachrymation began and became excessive, and the conjunctiva was greatly inflamed and secreted an abundant thick yellow fluid. Two drops of the cocaine solution were instilled into each eye every twenty minutes, with the effect of temporarily lessening the pain but increasing the inflammation. The theory which Dr. McDonald offers in explanation of this irritant effect is, that a chemical combination took place resulting in the formation of chloride of copper. It may be that in this case the error alluded to by Dr. Peck was committed, of using an excess of hydrochloric acid in making the solution.

UNSUCCESSFUL EMPLOYMENT OF COCAINE.

Dr. James A. Spalding, of Portland, Me., writes concerning an old lady, eighty-eight years of age, who had been blind for eight years from chronic glaucoma. She had lately suffered intense pain in the left eye, for the relief of which iridectomy was proposed. Cocaine was applied five times at intervals of five minutes (the strength of the solution was not stated), and the operation begun immediately after the last instillation. The patient did not feel the speculum or forceps, but began to shrink as the knife entered the sclera, and by the time that an incision large enough for a broad and extensive iridectomy had been completed, she was suffering such agonizing pain that it was found necessary to complete the operation under ether. On the following day five to ten drops of the same solution were instilled into another patient's eye previous to a cataract extraction, and the individual did not feel any of the steps in the operation. "It appears probable, therefore," Dr. Spalding concludes "that in absolute and painful glaucoma cocaine may disappoint us in its local anæsthetic effect. Perhaps a stronger solution may not, even in these cases, leave us in the lurch. Perhaps a more frequent application is necessary to anæsthetize the inflamed region through which the knife has to pass. Perhaps the disease prevents proper absorption of the cocaine by the parts involved."

Dr. C. H. Hughes, of St. Louis, reports that he has met with signal insuccess in two cases of trifacial neuralgia in which he employed freely a two per cent. solution of cocaine hydrochlorate. He was unable to obtain a stronger preparation. But he thinks it improbable that a solution of any strength will suffice to wholly obtund sensibility of the entire affected area in trifacial neuralgia.

DRY CUPPING IN THE TREATMENT OF ANTHRAX.

Dr. E. I. Thorn, of Yellow Springs, O., claims that this method is far superior to the old treatment of carbuncle. He writes: "Upon the appearance of one or more of the small ulcers at the apex of the tumor, apply the cup after inserting a lighted taper moistened in turpentine. In a moment this will open the cells, and there will exude into the cup a teaspoonful, more or less, of sanious pus. Follow this operation with poultices to keep up the discharge, and in a few days the carbuncle will disappear. In this way we avoid from three to six weeks of suffering, and the constitutional results of the usual protracted illness."

EXTRACTION OF HAIR-PINS FROM THE UTERUS AND RECTUM.

Dr. W. R. Adamson, of 709 Madison Avenue, relates the case of a married woman who had introduced a hair-pin into the uterus for the purpose of inducing abortion. The object remained there eight or ten days, before any attempt at extraction was made. The os having been dilated, a silver catheter was introduced, and, guided by the index finger, its end was slipped over one leg of the hair-pin. The other leg being then seized by a pair of forceps, the body was easily removed. In another case the writer was shown a girl, twelve years of age, who had passed a hair-pin into the rectum a few hours previously. Chloroform having been administered, the sphincter was stretched, and the hair-pin was then found lodged at right angles to the gut, with one leg im-

bedded in the mucous membrane. A catheter was passed over the free leg, as in the former case, and then by pushing on the instrument the other leg was dislodged. This was now grasped by the forceps and extracted. Both patients recovered without any after-symptoms.

LOCAL ANÆSTHESIA OF THE INTEGUMENT PRODUCED BY COCAINE.

Dr. Edward S. Peck, of 53 West Fiftieth Street, writes: "I desire to emphasize the possibility of using strong solutions of pure cocaine superficially when sutures are to be placed under the integument. A single instance will illustrate this: A lady, aged seventy-three years, was operated on by me at St. Elizabeth's Hospital for marked entropion of both lower lids, of over twenty years' existence. Unused to a hospital, among strangers, and never having undergone an operation, she shrank from anything having the element of pain, and was also somewhat sensitive in the presence of the few who witnessed the operation. Merck's solution was painted over the integument of the lid and cheek of each side four times, and after fourteen minutes a quadrilateral Gaillard's stitch was taken on each side—involving four punctures for each entropion—two of entrance and two of exit. Scarcely any pain was felt, and the steps of the operation were taken as if under anæsthesia. There was not the slightest effort at blepharospasm."

COMPOUND COMMINUTED FRACTURE OF THE RADIUS IN A WOMAN SEVENTY YEARS OF AGE—RECOVERY.

Dr. H. H. Cahill, of Jersey City, reports a case of a woman, seventy years of age, who fell down a flight of stairs, sustaining a compound comminuted fracture of the fore-arm. The broken end of the radius protruded an inch and a half from the wound. The splintered portion being removed with the bone-forceps, reduction of the fracture was obtained by extension. The wound was cleansed by a spray of carbolized arnica. four sutures were inserted, and the arm was placed on an inclined plane. For some days there was a slight elevation of temperature together with symptoms of pyæmia. The wound was kept thoroughly clean, all sloughs were removed, and carbonate of ammonia given internally. At the end of the fifth day the temperature was normal. The limb was placed in a retention splint and a Lister dressing applied. The patient continued to improve from this time and made a good recovery.

Chromidrosis.—Dr. L. M. Petrone relates in *Lo Sperimentale*, No. 10, 1884, the case of a young man of healthy antecedents, who stated that he had observed for several months an increased secretion of sweat about the axilla and pubes, and this secretion was of a pungent odor and a red color. Microscopical examination of the hairs in these regions showed vast quantities of round, red-colored micrococci. They were seen along the entire length of the hair, extending even into the follicle. A few drops of perspiration taken from the axilla and placed under the microscope, showed the same micrococci. Red perspiration loses its color gradually in absolute alcohol, but more quickly in a solution of potassa. The patient was relieved by using a five per cent. solution of caustic potash. Chloroform, ether, and carbolic acid were tried without success. From the facts in this case, and from a study of the cases recorded by other observers, Dr. Petrone concludes that the phenomenon of red perspiration is probably due to a dermatomycosis localized principally in the hairy regions of the body, the parasite of which is a red micrococcus. The disease does not appear to be contagious.

Progress of Medical Science.

Ununited Fracture of Both Bones of the Fore-arm.—At a recent meeting of the Pathological Society of Philadelphia, Dr. Charles Meigs Wilson presented a specimen taken from an arm amputated about the middle of the humerus. Eight months previously, the patient, a young girl, had fallen from a window, sustaining an oblique fracture of both ulna and radius, that of the ulna being about an inch and a half, and that of the radius two inches and a half below the elbow-joint. The arm was the seat of several large ulcers, and there were also many sinuses. The probe showed the presence of dead bone. The specimen showed that there had been no attempt at union in the radius, but the comminuted fragments, being attached to periosteum, had not been destroyed. There had been a slight union of the ulna. The cartilages had been destroyed, the joint contained pus, and there was caries of the internal condyle of the humerus. The patient made an excellent recovery after the amputation had been performed.

Death from Chicken-pox.—Dr. I. V. Wichmann relates in the *Nordiskt Medicinskt Arkiv*, vol. 16, No. 3, 1884, the following case: A well-nourished infant, eight months old, was seized, nineteen days after exposure to varicella, with a vesicular eruption limited to the neck and left scapular region. The appearance of the eruption was preceded for a few days by malaise. The mucous surfaces were unaffected. The child was feverish and restless, and after eight or nine days of illness passed into a state of collapse and died. There were no signs of meningitis or of disease of the thoracic or abdominal organs. The autopsy gave negative results, with the exception of a little grayish discoloration of the cortical substance of the kidneys. There could be no doubt of the diagnosis, as there were at the time no cases of small-pox in Copenhagen, and the disease from which the child died was not communicated to any of its adult attendants.

The Presence of Sugar in the Urine of Healthy Individuals after the Ingestion of Carbohydrates.—Dr. Worm Müller writes in the *Nordiskt Medicinskt Arkiv.*, vol. 16, 1884, giving an account of some experiments made by him to determine the influence of the ingestion of carbohydrates upon the presence of sugar in the urine in healthy individuals. With this object he gave to some healthy students, from five to fifteen minutes before breakfast, cooked starch, cane-sugar, milk-sugar, grape-sugar, and honey. The ingestion of starch was never followed by any trace of sugar in the urine. After that of cane-sugar there was found cane-sugar, but neither grape-sugar nor levulose. Sugar-of-milk and grape-sugar gave only the same substances respectively. In one experiment, after three ounces of grape-sugar had been taken, none at all was found in the urine. In the trials made with honey, grape-sugar was found, but not a trace of levulose. There is thus reason for doubting that levulose is excreted by the kidneys of healthy persons after its ingestion. The author observes that these results possess some practical importance as regards the theory of glycosuria and diabetes.

A Test for Sugar in the Urine.—Dr. W. S. Groom, of Britt, Ia., writes: "I send you a test for sugar which I have never seen published, and which, for simplicity and accuracy, is not to be surpassed by Trommer's, Fehling's, or even by the fermentation test. A small portion of the suspected fluid is placed on a piece of bright tin, which is held over a spirit-lamp until the urine is evaporated. If sugar be present, the last portion of the urine will give the characteristic appearance and odor of burnt molasses. The ease with which this test can be made will commend it to the busy practitioner at the bedside."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, January 17, 1885.

RECENT CONTRIBUTIONS TO THE SUBJECT OF GERMICIDES.

THE study of the different characteristics of particular micro-organisms shows that agents which destroy the life of one form may not affect seriously that of another. Consequently the term disinfectant or germicide becomes a very indefinite one. Recent investigation is tending to solve the problem as to what are the best germicides for each pathogenic or putrefactive organism. Those for the ordinary bacteria of putrefaction are quite well known, and we have at different times published results of the investigations into the germicides of the various bacilli. Drs. Schill and Fischer, in a communication to the Imperial Board of Health of Germany, have shown how peculiar is the action of disinfectants upon the phthisical sputa. Carbolic acid, in a five per cent. solution, acts vigorously and destructively upon the bacilli; corrosive sublimate, on the other hand, even in a two per cent. solution, is very untrustworthy. Heat was also found to be a sure method of destroying the bacilli and spores.

Dr. Miquel has published in *l'Annuaire Météorologique de Montsouris* the results of some experiments made to determine the minimum amount of a disinfectant necessary to prevent fermentation in a litre of sterilized beef-broth. His experiments show that the mercurials are the best antiseptics, and that the biniodide is nearly three times as strong as the bichloride. This will be seen by the following table:

	Grammes.		Grammes.
Biiodure de mercure..	0.025	Chlorure de zinc.....	1.90
Iodure d'argent	0.030	Acides azotique, chlorhydrique, phosphorique et sulfurique.	2 à 3.00
Eau oxygénée.....	0.050		
Bichlorure de mercure	0.070	Acide phénique.....	3.00
Acide chromique	0.20	Permanganate de potasse.....	3.50
Chlore.....	0.25		
Iode	0.25	Acide borique.....	7.50
Brome	0.60	Sulfate de fer.....	11.00
Iodoforme	0.60	Borate de soude.....	70.00
Chloroforme	0.80	Sel marin	165.00
Sulfate de cuivre	0.90	Glycerine	225.00
Acide salicylique.....	1.00		
Cyanure de potassium	1.20		

The important fact is thus apparently shown that bacterial life is impossible in a solution containing one forty-thousandth part of biniodide of mercury, or one fourteen-thousandth part of the bichloride.

Mr. Wynter Blyth has just published in the "Proceedings of the Royal Society of Edinburgh" the results of an important research in this same direction. He endeavored to determine the relative power of different disinfectants in arresting the growth and destroying the spores of anthrax bacilli. His conclusions, as given in the *Lancet*, are mainly as follows: A one per cent. solution of pure carbolic acid in water, seemed to have no influence on anthrax spores, not even delaying their growth. Even after soaking for twenty-four hours in a ten per cent. solution of carbolic acid, the anthrax spores inoculated into a guinea-pig killed it in two days, with typical anthrax poisoning. Spores soaked for twenty-four hours in undiluted carbolic acid did not afterward develop, but they did so after six hours' soaking in a twenty-five per cent. solution in alcohol. The sulphates of iron, copper, and zinc, which are reputed disinfectants, in no case exercised any destructive influence on the life of anthrax spores. Of chloride of zinc, Dr. Koch has given a very unfavorable verdict as a disinfectant; and, as a germicide, Dr. Blyth testifies no more favorably of it. He found that anthrax spores grew well, after a month's sojourn in a five per cent. solution of chloride of zinc; and the addition of thymol in no way altered the result. Perchloride of iron was experimented with in watery solutions of various strengths, from one to twenty-five per cent.; but in no single case did a twenty-four hours' steeping of the spores destroy their vitality. Mr. Wynter Blyth's research suggests doubts as to the germicidal power of the antiseptics and disinfectants in ordinary use.

Dr. Sternberg has diligently collected nearly all that has so far been learned regarding germicides, and has added much by his own special investigations. A perusal of his work will show that there prevail a good many delusions regarding antiseptics. Attention has been called to some of these by "Medicus," who says:

"Carbolic acid (1 to 200) kills bacteria in pure fluids, and septic germs in active growth, but a ten per cent. solution will not kill them in putrid fluids. Dissolved in alcohol or oil it is useless, and will not kill germs in a hundred and ten days. It is far less useful than is usually supposed, and is fast losing its once great reputation.

"Ammonia does not destroy virus or germs or spores, and all its salts are useless as germicides; especially is the very impure ammonia of manure heaps, stables, stable and privy pits harmful. Sulphate of copper destroys the virulence of septicæmic blood, 1 to 400; it has the highest average of all the common metallic salts, except mercury, and is vastly more useful than sulphate of iron or so-called copperas, which is so largely depended upon by health officers.

"Sulphate of iron, even in saturated solution, does not kill any germs or spores, and Dr. Sternberg says, 'to use this agent as a disinfectant would evidently be a serious error.' It was first used in 1854, on account of the small portion of sulphuric acid in it. It and carbolic acid have failed again and again and yet again to prevent the spread of yellow and typhoid fevers, cholera, filth dysentery, etc., and at one time came near throwing discredit on all disinfectants. They are still largely used for privy vault disinfection, the smells of which they only cover up for a few days, but the germs in which they do not destroy. Muriated tincture of iron in four per cent. so-

lution failed to kill bacteria, yet it is largely depended upon in the treatment of diphtheria.

"Hyposulphite of soda gives no evidence of germicide power in disease. It prevents the growth of the yeast plant, but not of bacteria. Sulphite of soda is also useless."

THE PATHOLOGY OF CANCER.

MR. W. S. SAVORY'S "Bradshawe Lecture on the Pathology of Cancer" at the College of Surgeons, London, partook more of the nature of a scientific thesis than of a lecture. As might be expected, it bore traces of long thought and patient study.

Referring to the terms "homologous" and "heterologous" he remarked that the latter was commonly employed to signify tumors which do not in their structure resemble any of the normal tissues of the body. For "normal tissues" he would substitute "adult tissues," for heterologous did resemble in structure some of the natural tissues of the body when in an embryonic or immature state.

The power of attaining a high grade of development and the power of reproduction were, both in tissues and individuals, in inverse ratio. Also, the lower the grade of development the greater was the power, not only of reproduction, but of endurance of life. In proportion to the changes through which any individual or tissue passed in development, not only was its subsequent power of reproduction limited but also its maintenance of life dependent on the special conditions under which it existed.

Tumors, however various in structure, invariably consisted of one or more of the simpler tissues. The structure of cancer and its allies was characterized by the presence of the lowest and simplest of living forms. The so-called cancer-cells, the structural elements of cancer, were the very type of the rudimentary or embryonic form of tissue. Beyond this early stage the typical cancer-cell seemed never to pass. Both in positive and negative characters it corresponded with the simple animal or vegetable cell.

Those of us who have been brought up to implicitly believe in the cell-theory, were somewhat taken aback at the ruthless manner in which Mr. Savory cast it aside. He remarked that it had been shown that in the development of muscular fibres cells had no share. The ingenious scheme had been devised of modifying the definition of a cell so as to make it include structures which have no fair claim to the title of cell. The existence of a wall or limitary membrane as an integral part of a cell had been quietly ignored, but, said Mr. Savory, no better reasons could be given for applying to such a structure the term cell than that some such compromise was essential to the maintenance of a cell theory. He maintained that the cell theory, as long understood by us, was no longer tenable, and suggested that the throwing over an exploded doctrine was preferable to the confusion inevitably resulting from a vague and inaccurate use of words.

The changes which the tissues undergo after death were then referred to. It had been too hastily concluded that the characters presented by tissues after death, and even after treatment by powerful reagents, were those natural to them during life. This applied specially to cancer. During life, its elements were not differentiated even into complete cells. When fresh and unaltered, there was no distinction of cell-wall and cell-contents. In the living particle, said the lecturer, he doubted whether there was even a nucleus. In short, the "cancer-cells" were but living particles of protoplasm, equal to, but not higher than, the amœba or white blood-cell, or the utricle of the plant.

We had been taught that cancer, strictly speaking, was the outcome of the epithelial tissues. But mature epithelium was undoubtedly composed of cells showing distinctly both cell-wall and nucleus. Yet even here, development into a complete cell was through the shortest and simplest changes. In contrast, these fragments of cancer protoplasm were but the embryonic or rudimentary form of a cell of epithelium. Their power of individual development did not reach even to this level. Judge then what their power of endurance and multiplication must be.

Seeing that no satisfactory explanation of the clinical facts of cancer could be given by way of the constitution or blood or germ, some had sought to find it in the mobility and dispersion of the cells. But when we studied malignant tumors as a class, and compared them with innocent ones, it could not be affirmed that there was anything like a constant relation between the rate and extent of their distribution and the mobility of their cells.

The phenomena of cancer could not be adequately explained by any reference to the constitution in any of the senses in which the word constitutional had been employed. Neither could the clinical facts of cancer be explained by regarding it as an affection of the mass of the blood. Nor could its malignancy be explained by the mere mobility of its elements, for that was going on everywhere. All fluids and all solids were in continual motion. We might freely grant to cancer great mobility of its elements. But to explain its clinical facts we require much more. Mr. Savory said he believed what was wanting here was to be found in the nature and vital attributes of its so-called cells, or of the formless plasm out of which they come. This matter possessed an ability of living after the fashion of the lowest and simplest forms of life. When we call these structures embryonic, it must never be forgotten or overlooked that this term has reference only to their position in the scale of life, to their grade of development. They resembled embryonic substances in the simplicity of their physical characters, but they differed in the widest possible way from them in their vital attributes and life history, and in the almost, if not quite, complete absence of change of structure or of endowment. The great feature of embryonic tissues was in the advance from a simpler to a more complex state—to the formation of a higher structure with more special functions. Their great vital endowment was the power of development. But the protoplasm and fragments of cancer were just what they were, because they have none others. They could not "rise to higher things," and, according to a law of nature, obstinately retained life, and, in unbroken force, the power of propagation. Their power of growth was inversely to their power of development, and growth here was synonymous with multiplication. Upon their growth followed their dissemination.

THE PROGRESS OF THE METRIC SYSTEM.

A BILL to establish the metric system of weights and measures in the departments of the United States Government was introduced into Congress last June, and will be pressed again during the coming winter. The Committee on the Metric System of the Boston Society of Civil Engineers has recently made a report calling attention to this bill, and presenting various facts showing a continual expansion in the practical use of the metric system. We are told that electrical science now has its units: volt, ohm, ampere, etc., founded on the metric system. Another step preparatory to the free use of the metric system is the publication in metric measure of such reference books and tables of data as are commonly used in various professions and trades.

A further indication in this direction is the frequent use of metric language in the cyclopædias of recent date. This is especially shown in the "British Encyclopædia."

In the medical sciences the adoption of the metric system has become very universal, and there are few standard works on these branches in which metric terms are not used. In medical practice it is different. Very little progress has been made of late, and possibly some ground has been lost. Neither is it to be expected that there will be much change for some time to come. The uniform use of the decimal system in scientific work will eventually, however, tell upon the practical arts. Already the physician must know the metric system, even if he does not employ it in prescription-writing.

THE EXTERNAL USE OF CHLOROFORM IN LABOR.

THE Chicago *Medical Journal and Examiner* calls attention to a peculiar method of using chloroform in labor, which originated, it is said, with Dr. A. Svanberg, of Sweden. This doctor claims to have found that, in severe cases of labor where rigidity of the os has caused an obstacle to delivery, the external use of chloroform is very advantageous. His method consists in applying a piece of flannel soaked in a mixture of chloroform and sweet-oil (one to one or two to one) to the abdomen between the symphysis and navel. Then by light strokes over the cloth he makes sure that it is close to the skin. In severe cases (after five minutes) he pours on more of the mixture. After from five to twenty minutes Dr. Svanberg always finds that the rigidity is so much lessened that any desired manipulations, such as turning, may be performed.

Five cases are reported, illustrating the efficacy of this measure.

In December, 1877, he, with three other doctors, was called to a labor, in a primapara, rachitic, with small pelvis, transverse presentation, with arm protruding. The uterus was firmly contracted around the fœtus, and it was impossible to pass the hand into it, with the view of turning. She was completely anæsthetized, and continued thus for more than an hour without result. A warm bath was given, then again chloroform, but all in vain. At last he proposed to try chloroform externally, and in about fifteen minutes he could proceed with the turning.

This practice of applying chloroform externally in order to relax the parts and permit the introduction of the hand or instruments, is especially recommended to country doctors who have no assistant to give the anæsthetic by inhalation. It is not believed that it will succeed in very severe cases. It is probable that the patient practically gets a good deal of chloroform internally by this method.

THE PREVALENCE OF ARSENIC IN ARTICLES OF DOMESTIC USE.

IN 1872 Dr. F. W. Draper, of Boston, made a most exhaustive investigation of the "Evil Effects of the Use of Arsenic in Certain Green Colors," and published his results in the annual report of the Massachusetts State Board of Health. In a supplement to the last annual report of the same Board, Professor Edward S. Wood takes up the subject again, and adds numerous important facts regarding it.

Professor Wood shows that arsenic is found in many other colors than green, and that poisonous pigments are much more extensively used than has been supposed. Briefly, the principal substances containing arsenic are as follows:

1. Wall-papers. The blue and red contain arsenic oftener than the green, and even the white may have arsenic in the sizing or paste. The amount in thirty-six specimens examined averages about two or three grains (a lethal dose) to the square yard, and ranges from .59 grain to 40.7 grains per square yard.

2. "Glazed and plated" papers, used in wrapping confectionery, covering boxes, in the manufacture of tickets and playing cards, and used by children in kindergarten schools. These papers may contain all the way from one to forty grains of arsenious acid to the square foot.

3. Articles of clothing, such as green tarlatan, Foulard cambric; red, magenta, and brown stockings; green and maroon flannel, bed hangings, and paper collars. A dress examined was found to have 0.291 gramme of arsenious acid to the square metre, and a paper collar had ten grains of the same poison. Cretonnes, lambrequins, and chintz have been found to contain arsenic.

4. Articles of food and domestic use. Confectionery. The only pigment which has caused poisoning here is the green, and there are but rare instances of even this character, owing to the small amount of the substance required to produce the coloring. Bibulous fly-paper contains arsenic, as do certain moth-exterminators, rat-killers, and Paris green and London purple used against potato-bugs.

We regret that Professor Wood has not been able to give some general idea as to the absolute frequency of arsenical poisoning from the sources he has described.

So far as one can judge from facts already collected, it is only wall-paper which practically does much harm, and even here most of the reported cases are from foreign observers. Among forty-two cases cited, thirty-one are those of chronic arsenical poisoning from wall-papers. Cases are also reported illustrating local or general poisoning from playing-cards, gloves, bed-hangings, stockings, dresses, and arsenical paints.

The symptoms produced necessarily vary in severity and character. In the milder forms, there are catarrhal troubles of the eyes, nose, throat, and stomach, with headache and malaise. A condition of nervous prostra-

tion may finally result. In severer types, violent pains in the bowels, diarrhœa, vomiting, chills, and great general weakness are observed. Deaths from poisoning by arsenical wall-papers are reported.

Despite the attention which has been called to the subject, there exist as yet no regulating laws in this country as to the employment of arsenic. Such laws have been enacted, however, in most of the countries of Europe, and our State legislatures would do well to imitate them. Meanwhile, physicians should bear in mind that almost any colored wall-paper may contain a dangerous amount of arsenic.

THE LATEST ANTI-VACCINATION ARGUMENT.

In the *Lyon Médical* of October 26, 1884, Dr. Diday publishes the history of a rather remarkable vaccination. The subject was a female child one year of age. The virus was taken from the calf, and was said to have been quite fresh. It was inserted into the thigh in two different places. The vaccination took, and all went well until about sixty days after the operation, when it was discovered that several complete circles of coarse red hair, resembling that of a cow, and about a quarter of an inch in length, had grown about the cicatrix. Upon examination of the vaccine which had been left over, several very short but distinct hairs were observed, as though caught between the blades of the *porte vaccin*.

The author was eager to have the remnant tried at once upon his bald spot, but was deterred by a brother physician, and possibly by the color of the cow's hair. He kindly leaves to others the honor of founding a new method of capillary regeneration, and asks, "What will the child's fate be?" The possibilities suggested are somewhat appalling. It causes us to fairly shudder when we think of the lengths to which this transmitted bovine tendency may go. It is now evident that we have in the virus, taken directly from the calf, much more to dread than we had in the humanized crust.

To transmit almost all the known diseases of man, his bodily taints, and vicious tendencies, was quite bad enough, but to prick into the limb of an innocent child that which will change its whole nature, and cause it to grow an animal hide, is a much more nefarious form of brutality.

It is to be regretted that we are not informed whether the virus was supplied by a bull-calf or a heifer. The age of puberty of the unfortunate victim will be eagerly awaited to decide various important issues. Dr. Diday will undoubtedly record the earliest appearance of the horns, and give us a full account of the various transitions from the human to the bovine type. At any rate even the most incredulous will now be warned against incurring such tremendous risks as have been here indicated. It may seem hard to part with our old friend, bovine vaccination. But rather than have our innocent children metamorphosed into calves, we will consign this barbarous procedure to eternal oblivion.

THE MEDICAL DEPARTMENT OF THE NAVY.

The annual report of Surgeon-General F. M. Gunnell, of the Navy, is very brief, but contains several items of much interest. Considerable attention has of late been drawn to the Naval Medical Bureau, on account of certain frauds which have been discovered in its accounts. Concerning these the Surgeon-General says that an examination into the accounts instituted February 7, 1884, resulted in the discovery of a large number of fraudulent vouchers, amounting to many thousand dollars. The examination of the business of the office has continued until the present time and is still in progress, and it is not yet possible to state what is the sum of the loss to the Government.

Many of these vouchers, says the Surgeon-General, are evidently and entirely fraudulent, being for articles never needed nor delivered. Others appear to have been raised in amount after passing through the office in regular form of approval for some articles actually ordered for purchase.

From the records of the office it appears that since February, 1880, all purchases have been made directly by the Bureau, and the neglect of the usual precaution of requiring from an inspecting and receiving officer the certificate on the face of public bills, of the delivery of goods, etc., has afforded the principal opportunity for such plunder.

The investigation, we are glad to learn, results in casting no imputation upon the *personnel* or general management of the Medical Bureau.

For several years it has been the policy of this Department to encourage researches in sanitation. One of the results has been the establishment of a Museum of Hygiene, which has already become an institution of much scientific interest and practical importance. During the past year 240 articles for exhibition have been received, making a total of 650 in the collection. The number of bound volumes added to the library during the same time was 1,839, making a total of 7,049. A well-equipped experimental laboratory, with photographic and microscopic apparatus, is connected with the museum.

The Surgeon-General urges the advisability of giving opportunities to the naval medical officers of taking post-graduate courses in the various schools at Boston, New York, and Philadelphia.

The ratio of mortality in the naval service for the year 1883 was 4.55 per thousand of force, the total force afloat being 9,874. The number of admissions for sickness was 8,550.

The Bacillus of Syphilis in Syphilitic Lung Disease. As in a measure confirmatory of the announcement by Dr. Lustgarten of a bacillus of syphilis, Dr. Koeniger, in the *Deutsch. Med. Wochensch.*, No. 50, states that in examining the sputa of certain cases of lung disease, where the tubercle bacilli were absent, he detected groups of long and delicate rod-shaped organisms differing in their staining reactions from the tubercle bacillus, and about twice as long as the latter. Two of the six cases in which these micro-organisms occurred were undoubtedly syphilitic, and further inquiry in two other of the cases showed that they also had been exposed to syphilitic infection. The fifth case was that of a lady, who had the history of having had many abortions, while in the sixth there was no history of syphilis whatever. Dr. Koeniger has not added very much to the subject as yet.

News of the Week.

Dr. Ambrose L. Ranney, Professor of Applied Anatomy in the Post-Graduate Medical School of this city, has been appointed to fill the Chair of Anatomy in the Medical Department of the University of Vermont, rendered vacant by the death of Professor Darling.

New York Pathological Society.—The following officers have been elected for the ensuing year: President, Dr. John A. Wyeth; Vice-President, Dr. George L. Peabody; Secretary, Dr. Wesley M. Carpenter; Treasurer, Dr. John H. Hinton; Editor of Transactions, Dr. John A. Peters; Assistant Editor, Dr. Frank Ferguson.

The Malignancy of Syphilis.—Dr. F. S. Hillbish, of Fremont, O., writes: "Noticing the death of Dr. Atkinson in a recent issue of The Record, and of his death being ascribed to malignant syphilis, the question presents itself to me, whether it is so much due to the malignancy of the disease, as it is due to the susceptibility of the person that is inoculated, or to the great mental or physical exertion one may undergo during the *active stage* of the disease? A case in point: H. L——, forty years of age; weight, 180; a man of great endurance, while away from home in March, 1884, contracted syphilis. His health before that had always been good. The chancre was cauterized, and the patient put upon the use of proto-iodide of mercury by the physician he consulted. He continued at his occupation of lumberman the while. The disease progressed its usual course, though with increased severity in some of its symptoms, such as the eruption of the skin, which showed itself in large, raised, red blotches, one-half to one inch in diameter, that would suppurate slightly and then cicatrize. He came home in July, and worked hard storing his grain during the harvest. On July 27th he became hemiplegic on left side, with a tendency to sleep and some delirium; on the 30th he was comatose, with contracted pupils and stertorous breathing, etc. Under large doses of elaterium he became conscious in thirty-six hours, and under daily inunctions of blue ointment, 3 j. in each rubbing, for twenty days, the paralysis disappeared, the mind was bright, the blotches of the skin had all healed. Oleate of mercury was then substituted, and used at intervals of a day or two. On August 27th he again became semi-comatose and hemiplegic. He was again given a dose or two of elaterium, but without the same effect. He was then daily rubbed with blue ointment, 3 j. each time for five weeks. Since then have allowed an interval of a day or two to intervene, as the gums seemed to get somewhat sore and tender. On November 10th, iodide of potassium was given three times a day in five-grain doses, and gradually increased, so that he is taking now twenty-five grains three times a day, and an inunction of mercury on every third day. I will say that potassium iodide had been tried earlier, but it made his head ache. Under the above course he has gradually improved, so that he can, with the aid of a crutch, get around quite well. The arm is as yet of little use. With the great deal of mercury that has been used in this case his nutrition has not suffered to any appreciable extent."

The British Gynecological Society is the title of a new society recently organized in London. Its first officers are: Honorary President, Dr. R. Barnes; President, Dr. Alfred Meadows; Vice-Presidents, Drs. Aveling, Bantock, Kidd, Routh, Simpson, Pr. Smith and Tait; Secretaries, Drs. F. Barnes and Heywood Smith.

The Deaths from Snake-Bites in British India alone, in the year 1882, were 19,519, a larger number than ever before reported.

Boston Medical Library.—According to the Ninth Annual Report of the Boston Medical Library Association, the collection now embraces 14,699 volumes and 12,289 pamphlets, the increase being at the rate of nearly 1,600 volumes a year; and 328 journals and transactions are received regularly. The entire library is now available for consultation.

The Lacaze Prize of $2,000 has been given to M. Debove for his "Leçons sur la Tuberculose Parasitaire."

Prophylaxis against Phthisical Infection.—The Austrian Minister of the Interior has issued directions to the hospital authorities to the effect that they adopt proper regulations for the prevention of phthisical infection in the hospitals.

Three Odes to the Bacillus have already been written, but none to Koch.

Peripatetic Female Gynecologists.—A correspondent of the *Australasian Medical Gazette*, writing from Northern Queensland, says: "An American lady has been publicly lecturing here on diseases of women, to ladies who can afford to pay five shillings for admission; she also advertised that she could be consulted free of charge, but then she sold uterine supporters at the same time at an exorbitant price. I sent my wife to two lectures from curiosity, but I could not induce her to hear any more. The lectures, two of which were free, were for ladies only, and the lecturess explained to her audience how they could examine themselves to find out if they had any disease of the womb. Girls of from thirteen years upward, only some of whom were accompanied by their mothers, were present to listen to these abominable exhibitions—for such they were, as a great number of models and diagrams of female diseases were shown."

"A Simple Expedient in the Management of Strangulated Hernia."—Dr. C. A. Stewart, of Chicago, writes that he is the author of the above communication, which appeared in The Record recently.

Some Delusions Regarding Disinfectants.—A lecture on "Disease Germs" was delivered in this city last week by Dr. George M. Sternberg, U.S.A., at the College of the City of New York. He criticised certain of the popular modes of disinfection. Some of the measures of disinfecting, he said, still recommended, so far as any real value is concerned, may be classed with the charms and incantations of superstitious savages, or to the solemn processions and religious ceremonies which in some countries are relied upon to arrest the progress of pestilential maladies. The flannel rag saturated with carbolic acid and hung up in the sick-room and the chlorine saucer placed underneath the bed are as impotent as the songs of the savages or the ceremonies of

the heathen. Such measures only do harm by leading people to neglect the far more important measure of admitting an abundance of fresh air, by which the disease germs may be wafted away and finally destroyed. The sulphate of iron, sulphate of zinc, carbolic acid, and numerous proprietary disinfectants in the market, although valuable as antiseptics or as deodorizers, are untrustworthy for the destruction of germs. In their place Dr. Sternberg recommended half a dozen other disinfectants, among them liquor sodæ chlorinata, which he considered far superior to many much-lauded germicides now in the market.

The Medical Department of the University of Nebraska.—Some time ago we made certain criticisms upon the new medical college recently organized at Lincoln, Neb., a city of thirteen thousand inhabitants. We have received a letter from the Chancellor, who desires to correct certain misapprehensions regarding the institution in question. He states that the college is not in the hands of eclectics, but that its Faculty consists of nine regular professors and three lecturers, with three homœopathic and two eclectic professors. The Nebraska *Medical Journal* is not the organ of the college, but its editor happens to hold one of the eclectic professorships. Our correspondent does not explain how it was that this editor, as Dean of said college, distributed circulars begging piteously for students somewhat over a year ago.

A State Board of Medical Examiners of North Carolina, its members appointed by the State Medical Society, has been in existence since 1859. No person can practise medicine or surgery without a license from this Board. Although the law provides no penalties, a recent report states that it has accomplished good results in weeding out quacks and forming a healthy public opinion regarding that class.

Dr. Edward N. Brush, of the Utica Asylum, formerly of Buffalo, has been appointed to the charge of the male department of the Pennsylvania Hospital for the Insane.

Another Medical Centenarian.—Dr. O. S. Taylor, of Auburn, N. Y., completed his one hundredth year on December 17th. He graduated from Dartmouth College in 1809, and from the Medical College in 1813.

The Cholera in Italy.—According to official reports there were 17,300 cases of cholera in Italy during the recent epidemic, with 8,600 deaths, giving a mortality of about 50 per cent. This hardly sustains the view advanced by some that cholera is becoming less malignant.

Another Non-Restraint Asylum.—Dr. Peter Bryce announces in his last biennial report of the Alabama Insane Asylum that for two years the use of mechanical restraint has been abolished in that institution. The results have been favorable beyond expectation, and Dr. Bryce is enthusiastic in advocating the new method. With such testimony continually coming in, what can be said of the dulness and insincerity with which this question is still met at Utica and other American institutions, which are stealthily reducing restraint without having the candor to acknowledge any change of opinion.

Italian Physicians on the Contagiousness of Phthisis.—The Italian Society of Public Hygiene has recently instituted an inquiry as to the contagiousness of phthisis. There were 680 replies received from medical men. Of these 59, or 8.6 per cent., believed in contagion; 124, or 18.2 per cent., denied it, and 497, or 73 per cent., admitted the necessity of other causes, especially heredity.

The Kansas State Medical Society meets at Topeka on January 20th.

Odd Expressions are sometimes made by authors. In the last New York Medical Record a physician mentions that "Dr. Osio lost three eyes by panophthalmitis." Three-eyed medical gentlemen are so scarce in this world that the doctor's mishap takes on the proportions of a public calamity.—*Evening Post.*

Marriage and Cholera.—Some one has discovered that in the recent epidemic of cholera in France marriage furnished a certain amount of protection against the disease. Three times as many unmarried as married men were attacked. The fact is expected to give a great impulse to matrimony, and some of our far-sighted obstetricians have been seen to smile.

The Hospital Saturday and Sunday Collection.—The latest report given by the Treasurer, Mr. Charles Lanier, states that the amount of money collected is $22,655.53.

The Frauds in the Naval Medical Department.—An event which has never before occurred in the history of the navy is the assembling in Washington of fourteen of the fifteen medical directors of the navy as witnesses in the fraudulent voucher cases of the Bureau of Medicine and Surgery of the Navy Department.

The Oldest Disease in the World.—Busk has discovered osteo-arthritic lesions in bones found at Gibraltar, which must have belonged to bears of the glacial period.

Death from a Patent Medicine.—A young woman of Weymouth, England, recently committed suicide by taking three bottles of chlorodyne. The jury recommended that chlorodyne should be placed among the poisons not salable except upon prescription.

Resurrecting Bacilli.—According to *Wratsch*, Professors Iwanonski and Winogradow have discovered comma-bacilli in preparations of cholera-intestine made by the late Professor Rudnew eighteen years ago.

Dr. Richardson's Lethal Chamber.—Dr. Richardson, of London, has devised a chamber for purposes of canine and feline euthanasia. In this apartment, at the Dogs' Home, over six thousand dogs have during the past seven months slept their final sleep. The principal agent used for the narcotic action is carbonic oxide, passing, at summer heat, over a mixture of chloroform and carbon bisulphide into a lethal chamber, in which chamber as many as one hundred dogs can at once receive euthanasia. This is on the large scale; but Dr. Richardson describes also a small apparatus which, after long trials, he has completed, in which from one to six animals can be painlessly killed, and which is so portable that it can be wheeled from a central station to any

house or street ready for immediate use. We very much doubt if Dr. Richardson's lethal chamber is as quick, cheap, and painless as the method of drowning used in this city. But then it is more scientific, and possibly the dog may feel an additional euthanasiac thrill at receiving his quietus *secundum artem*.

A Medical Students' Society has been established in Paris. The number matriculated this year is 3,994, of whom 127 are Americans, and 22 English.

To Abort Facial Erysipelas Professor Da Costa has successfully used hypodermic injections of muriate of pilocarpin (gr. $\frac{1}{4}$ to $\frac{1}{6}$), repeated if necessary.

Reviews and Notices.

The Elements of Pathology. By Edward Rindfleisch, M.D. Translated from the First German Edition by W. A. Mercur, M.D. Revised by James Tyson, M.D. Philadelphia: P. Blakiston, Son & Co. 1884.

The author's aim in the preparation of this little volume has been to establish a "natural ground work" of pathology, and to place that science in as clear a light as possible. It can hardly be said that this task has been successfully accomplished. On the contrary, mooted questions are made, if anything, just a trifle more obscure than they were before the publication of this new work. It is not a volume to be recommended to students or beginners. The physician, however, who is already conversant with pathology in its modern developments, will read Rindfleisch's views with profit quite often, with interest always. But he will probably differ from the distinguished author in more points than one.

A Practical Treatise on Disease in Children. By Eustace Smith, M.D., M.R.C.P., etc. 8vo, pp. 844. New York: William Wood & Co. 1884.

Some books are read because of the celebrity of the author; some on account of their novelty; others for their merit; still others for the attractiveness of their style. The book of Dr. Eustace Smith combines all the reasons for commanding attention; it will therefore be read and, what is more, studied and remembered. It is exactly what the title terms it: a *practical* treatise on disease *in* children. All other works devoted to the special consideration of this branch of practice speak of diseases *of* children, as we speak of diseases of women, just as if children were subject to diseases which were peculiar to them; whereas, they suffer from the same diseases as adults, but deserve especial study, nevertheless, because these diseases assume *in* them different features, owing to their anatomical and physiological idiosyncrasies. The treatise is also practical; it is not burdened with excess of pathology and morbid anatomy, but while giving sufficient to elucidate the nature of the structural changes produced, it devotes the greater portion of the space to diagnosis and treatment.

The work consists of twelve parts: the first three are devoted to the study of the acute infectious diseases, general diseases not infectious, and diathetic diseases respectively, while each of the remaining nine treats of the diseases of some particular organ or group of organs. The work as a whole, and the separate parts, are each, in most instances, introduced by a chapter of introductory remarks, which constitutes by itself a most valuable and useful essay, giving general considerations appertaining to the peculiarities of function, disorder, and treatment of the parts about to be considered. This is followed by an elucidation of the particular group of diseases, which, with few exceptions, for clearness, comprehensiveness, and practicability, leaves little or nothing to be desired. Another characteristic of the author's style is its logical consecutiveness; the chapter devoted to the consideration of a certain disease is not merely a succession of statements joined together by mere juxtaposition, as we too often see in medical or other scientific works, but is a coherent and connected collection of associated and interdependent phenomena properly explained and suggesting the correct mode of combating the disturbance.

The subject is brought down to date. The references, which are incorporated in the text, are not so numerous as to overshadow the main work, and are to the most recent and reliable authors in all languages. It is certainly flattering to our national pride to note the thorough familiarity of Dr. Smith with American literature; thus on one page are references to Gibney, Fruitnight, and J. Lewis Smith. While not disposed to adopt every new remedy offered, the book still supplies the latest reliable treatment for the different diseases, and while not being dogmatic, does not give such a great variety to choose from as to lead to confusion, depending principally upon the results of the author's experience. He has faith in arsenic as a prophylactic against scarlatina; is an advocate of trained nurses, especially in diphtheria; approves of white lead paint in the treatment of erysipelas, and of amyl nitrite in the relief of convulsions. Belladonna is one of his favorite remedies, and he gives it in doses which many of his readers will hesitate to try: thus he gives ten drops of the tincture to the newly-born infant, fifteen drops to one of a year, and a drachm to a child of four years. But it certainly must be a misprint when, in the treatment of intussusception (p. 676) he advises, "for a child of twelve months, one-twentieth of a grain of morphia and a *sixth* of a grain of atropine every half hour." We presume that sixtieth is intended; but if the advice as it stands were to be thoughtlessly followed, the effect would not be brilliant—at any rate in the direction desired.

The book is a model of its kind; and the publishers have given it a dress worthy of the work and of the author. The book is strongly bound, and is printed in large clear type on good paper.

Medical Diagnosis. A Manual of Clinical Methods. By J. Graham Brown, M.D., Fellow of the Royal College of Physicians of Edinburgh; Late Senior President of the Royal Medical Society of Edinburgh. Second Edition, Illustrated. New York: Bermingham & Co. 1884.

In this excellent little manual the author treats very concisely, yet thoroughly, of the various evidences of disease, grouping them under the respiratory, circulatory, digestive, and other systems. It differs from the standard treatise of Da Costa in that it does not approach the subject from the standpoint of individual diseases, but from that of isolated symptoms, showing the value and the significance of these signs, and indicating the diseases to which they point.

Lectures on Diseases of the Rectum. Delivered at the Medical Department of the University of the City of New York. By J. Williston Wright, M.D., Professor of Surgery. New York: Bermingham & Co. 1884.

These lectures were originally delivered to students attending the spring course at the University Medical College. They are now published in book form from stenographic notes, the lecture style having been preserved throughout. This, however, is no detriment to a work of this kind, which is necessarily somewhat elementary and makes no claim to be a treatise of rectal disorders, but rather adds not a little to the pleasure of reading it. All the affections of the rectum which are liable to be met with are here treated of in turn, and in a clear and pleasant manner. Although the lectures were addressed to a class of undergraduates they will be found well worthy of perusal by practitioners whose knowledge of these diseases has grown a little rusty from want of practice.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, December 10, 1884.

R. E. Van Gieson, M.D., Vice-President, in the Chair.

SARCOMA OF THE UTERUS.

Dr. H. C. Coe presented a specimen of sarcoma of the uterus removed at autopsy. It was interesting chiefly on account of the rarity of the disease and the progress of the case. The woman was upward of thirty years of age, married, and entered the Woman's Hospital complaining of severe pain in the lower part of the abdomen, with frequent uterine hemorrhage. The uterus was dilated, and the entire canal curetted, with the result of removing about one ounce of soft, brownish-looking material, which on examination was found to be round celled sarcoma. The patient developed pyæmia, which ran its usual course, and terminated fatally on the eighth day. About twenty-four hours before death metastatic pneumonia developed, and there was found a large abscess in the lower lobe of the right lung, with several smaller abscesses in its immediate neighborhood, infarctions of the liver, kidneys, and spleen. There was no peritonitis. There was a purulent thrombus which extended from the uterine veins on the right side upward into the right iliac vein and lower part of the ascending vena cava, which had given rise to thrombic phlebitis and periphlebitis.

Although the disease was rare, Dr. Coe had seen another specimen of like character about one week previously, in which the entire uterus was removed. Dr. Emmet had still retained the statement, in the last edition of his book, that he has seen only six cases of sarcoma of the uterus, which agreed very well with statements made by other authors. During his term of service in the Woman's Hospital, Dr. Coe had collected five cases, and was of the opinion that the disease was frequently overlooked, and that diffuse sarcoma was frequently diagnosticated as fungous degeneration of the inner surface of the uterus. In the present instance the growth was not recognized before curetting was performed.

Dr. Wyeth presented three specimens of bone removed at different operations. The first illustrated

OSTEITIS OF THE ACROMION PROCESS OF THE SCAPULA,

resulting from traumatism. The only point of interest in the specimen was the fact that the operation was performed under strict antisepsis, with the application of a permanent dressing with a bone-drain, and union took place under the single dressing, the bone-drain having entirely disappeared by absorption.

OSTEITIS OF THE KNEE-JOINT.

The second specimen consisted of several small pieces of bone which Dr. Wyeth had removed seven weeks previously from a patient thirty-six years of age, who had received an injury of the tibia in the neighborhood of the knee-joint, and which terminated in periosteitis and osteitis. After trying various methods of treatment, he cut down upon the tibia seven weeks ago and performed the operation of gouging, an operation which he favored. In performing the operation it was necessary, in order to remove all the diseased bone, to enter the knee-joint. As soon as the dead bone was removed, a piece of iodoform gauze was stuffed into the opening, and remained in position until the operation was completed. The limb was then dressed antiseptically, and the patient recovered without a single unfavorable symptom, not even a symptom of synovitis developing.

OSTEITIS OF THE UPPER EXTREMITY OF THE FEMUR.

The third specimen was all that remained of the femur above the small trochanter. It was a case of hip-joint disease from osteitis of two years' standing, and there was shortening of two inches when Dr. Wyeth first saw the patient. There was a sinus below the trochanter in the usual position, one on the inner side of the thigh, between the femoral vein and the gracilis muscle, which discharged fetid pus. Dr. Wyeth placed the patient on a tonic plan of treatment, and after improving his general condition, he removed, on the second of October last, by ordinary excision, all the diseased bone, using for that purpose the exsector which he had already exhibited to the Society. On opening into the joint he found that the epiphysis of the femur had disappeared entirely. The patient made a good recovery, and now walked on the lame foot. When the femur was pushed up into the acetabulum there was about one inch of shortening, so that new bone had formed to the extent of one inch, as there were two inches shortening before the operation was performed.

The point in the surgery of the case which Dr. Wyeth wished to make especially prominent was, that the operation for exsection of the hip-joint for hip disease was not specially dangerous. Although he had performed it but three times, all the patients had recovered from the operation. In one case death occurred four to six months afterward, and was due to other causes than to the hip-joint disease. He thought it was not surgical to delay this operation as long as was generally done, and believed that, as soon as it could be determined there was osteitis in the cancellated structure of the head of the femur, we should open into the joint and remove the diseased tissue, and by so doing he believed that the surgeon could not only prevent permanent lameness, but preserve the life of the patient and relieve him of many years of suffering.

Dr. Gibney thought that the second specimen presented by Dr. Wyeth belonged to the class of affections commonly known as tibial abscess, or osteitis of the upper epiphysis of the tibia, which was formerly, and at the present time by some operators, treated by trephining. He believed, however, that the treatment adopted by Dr. Wyeth was certainly very commendable, and it showed how by a little timely interference, by relieving swollen periosteum and bone by free incision, the joint might be saved from being disastrously diseased.

Recently he had had a case of osteitis of the tibia which ran its usual course without surgical interference, and with but little mechanical interference, because the joint did not appear to be diseased. An immense cold abscess, however, developed, and finally, about the time it was ready to open spontaneously, it had produced inflammation of the lower epiphysis of the femur, which continued, and quite recently the patient had developed osteitis of the upper part of the opposite thigh-bone. Dr. Gibney's conviction was that, had the case been treated as Dr. Wyeth had treated his, even after the abscess at the upper portion of the tibia had formed, not only would the knee-joint have been saved, but the caseous foci also would have been lessened which had probably served as a source for the development of tubercular osteitis in the opposite hip-joint.

That case led him to refer to the third specimen presented by Dr. Wyeth, and he asked whether it would not have been rational, when he first recognized the osteitis of the head of the bone, to have performed osteotomy, or igno-puncture, or some operation of like character, for the purpose of converting a chronic into an acute affection, rather than to have resorted to a radical operation of chiselling.

Dr. Wyeth replied that it was difficult to answer why not. The only objection apparent was that the hip-joint was a very deep joint. At the knee-joint gouging could be done easily, while without a free incision over the hip-joint he feared that removal of all the diseased bone by gouging could be only rarely accomplished. When the joint was laid open freely, and the diseased bone removed with the saw, the exact condition of the bone remaining

could usually be determined without difficulty. Besides, it was rare that disease of the neck of the femur extended below the trochanteric line, although it might do so, and if he had simply gouged he probably would have left foci of the disease remaining.

Dr. Wyeth fully endorsed Dr. Gibney's view concerning the gouge, or treatment with Volkmann's iron spoon, or similar operation for diseased bones about joints, and he would not say that the same methods should not be used in treatment of disease of the hip-joint.

Dr. Ripley thought it exceedingly rare for a case, such as alluded to by Dr. Gibney, one in which there was multiple disease of the joints, to occur except in a patient in whom there was a marked constitutional taint, either tubercular or syphilitic; and his position was against the idea that if the joint first diseased was operated upon at once, all subsequent trouble would probably be avoided. In such children as the one in Dr. Gibney's case, there was a predisposition to joint disease, and even if the arthritis in one joint was cured, it was likely to develop in another joint.

Dr. Garrish asked Dr. Wyeth if he would operate before suppuration had taken place.

Dr. Wyeth replied in the negative, and said that the formation of pus was an indication for the performance of the operation.

CASE OF SACRAL SPINA BIFIDA CURED AFTER INCISION OF OVERLYING PHLEGMON (?), WITH SUBSEQUENT CHRONIC HYDROCEPHALUS TREATED BY FREQUENT ASPIRATIONS.

Dr. Gibney presented a tumor from a bifid spine and the brain of a hydrocephalic spine, with the following history: A male child, seven days of age, was brought to his clinic on July 11, 1884, presenting a sacral tumor, sessile, the size of a split lemon. The skin was normal except at lower portion of tumor, where was seen a scabbed ulcer, the size of a one-cent piece. Perfect translucency in every portion. Lower limbs not deformed or paralyzed, and the child seemed normal in every other respect. Family history furnished nothing pertinent to case. Treatment was deferred for a fortnight, when he prepared to aspirate and inject the Morton solution of iodine and glycerine. Found pus, and did not inject.

Three days later patellar tendon reflexes much exaggerated, though muscular reaction to faradism in both limbs good. Temperature not elevated. Base of tumor phlegmonous.

On July 29th, under chloroform, introduced bistoury, giving exit to about a drachm or two of sero-pus, the point of bistoury striking a tumor within the one already opened. Did not open inner tumor, but dressed parts antiseptically.

Within a few days wound healed, but scattered over back was a rich crop of furunculi. Reflexes about normal. Rectum prolapsed, but was normal within a month.

August 16th, the head was observed for first time to be enlarged, and by the 23d hydrocephalus pretty well established. The bromide and the iodide, at first separately, then conjointly, failed to afford any relief.

On September 9th, aspirated the head, introducing needle in anterior fontanelle to left of longitudinal sinus, and drawing off about one ounce of clear serum. No untoward symptoms at the time observed, but three days later the lower limbs were observed to be in rigid extension. The spina bifida seemed to be cured, and indeed this gave no further anxiety. Aspirated again on October 2d, the needle this time being introduced deeply into fontanelle to right of longitudinal sinus. Amount withdrawn ʒ iij. On the 7th, five days later, aspirated, removing ʒ iij. The head was increasing slowly, despite the aspirations. On the 14th the amount withdrawn was ʒ ivss.; on the 27th, ʒ v.; on November 3d, ʒ v.; on the 8th, ʒ v.; on the 15th, ʒ vj.; on the 28th, ʒ viijss.; and on December 4th, ʒ vj. At no tapping were any alarming symptoms produced, and it was not until the 6th that the child died. It then died of asthenia. The limbs were rigid after the first tapping and so continued till death. The head had no impression apparently made upon it by the many tappings.

At the autopsy Drs. Holt and Amidon assisted. The tumor consisted of a mass of cicatricial tissue, in the bottom of which was a small cavity without fluid, but communicating through a small opening with the spinal canal. A probe passed through this between dura and arachnoid up to the beginning of the cauda equina. The laminæ of the sacral vertebræ were absent. On section of spinal column no evidence macroscopic of any inflammatory lesion within canal. Central cavity of cord not open. No evidence of myelitis.

Very little fluid—not more than three drachms—found without the cerebral mass. Convolutions much flattened. Lateral ventricles greatly distended, only the cortex of brain remaining. Three pints of fluid removed. Ependyma markedly roughened. No evidence at any point, either in brain or membranes, that any acute inflammatory process had existed. Other organs not examined.

Dr. Amidon asked Dr. Gibney if the commencement of the hydrocephalus and the appearance of the exaggerated reflexes were synchronous.

Dr. Gibney did not know. His attention was not called to the head during the two or three weeks immediately following the diminution of the reflexes.

Dr. Ripley asked whether or not there was a steady increase in the size of the head while the tappings were being performed.

Dr. Gibney replied that the size increased steadily from week to week. For a day or so after the tapping, the head seemed to be smaller, and then it would increase in size.

Dr. Ripley thought that the tapping might have been performed too often, and referred to a case reported by Bennett, in which the head was tapped three times and the child died, and the fatal result was attributed to the fact that the tapping was performed too frequently. At the same time, Bennett referred to Dr. Conquest's contribution on the subject, who published nineteen cases which he had treated by tapping, with ten recoveries. Dr. Conquests's plan was to tap not oftener than once in two weeks, and he always strapped the head after the operation. Those cases were the most successful on record. The operation of tapping for chronic hydrocephalus had not met with large success, the cases having, as a rule, terminated as had Dr. Gibney's.

Dr. Amidon asked Dr. Ripley what he regarded as recovery after tapping.

Dr. Ripley thought recovery in these children might take place to such an extent that they had a fair degree of intelligence. As to whether or not any fluid remained in the cranial cavity, it was difficult to say. He had two cases in mind, in which the patients recovered. They were treated by hyper-nutrition, and tapping was not performed. Three years had already elapsed since the children were under treatment, and one of them he saw about a week ago, when it was as bright as children ordinarily were at that age, and stood quite firmly upon its feet. In the other child the peculiar appearance of the fontanelle had disappeared and it had diminished in size, and the cranial sutures had united. In both these children there was the characteristic appearance of the eyeball, namely, rotation downward and outward.

MISSED ABORTION.

Dr. Kucher presented a placenta and fœtus, for which he was indebted to Dr. Glück. It was expelled by a woman twenty-eight years of age, the mother of two children. Menstruation ceased three months previously, and she developed the ordinary symptoms of pregnancy. At the end of six weeks there was notable increase in the size of the lower portion of the abdomen, which again markedly

diminished in size ; the increase in the size of the uterus at first corresponded to the fifth month of pregnancy, and finally to about the third month of pregnancy. The woman complained of loss of appetite and general uneasiness, and at the end of the term, with regular pains, the mass presented was expelled, which consisted of a very large placenta with an extremely small fœtal development.

The Society then went into executive session.

HARLEM MEDICAL ASSOCIATION, NEW YORK CITY.

Stated Meeting, December 11, 1884.

MALCOLM MCLEAN, M.D., PRESIDENT, IN THE CHAIR.

DR. D. C. COCKS read a paper (see page 65), entitled

A CASE OF EXTRA-UTERINE PREGNANCY, SUCCESSFULLY TREATED WITH GALVANISM.

Upon invitation, DR. A. D. ROCKWELL opened the discussion by remarking that another case of extra-uterine pregnancy, successfully treated by electricity, calls renewed attention to a method of procedure, the importance of which cannot be overestimated.

Knowledge or ignorance of its use and the methods of its application in these cases, means simply life or death to the unfortunate woman, and if this physiological accident, so to speak, could be numbered among the more common occurrences in medicine, there can be no question that such proofs as have been given of the specific character of the remedy would be heralded throughout the civilized world. On the contrary, however, the impressions upon the professional mind that have been made by the various well-authenticated published statements, reinforced by many of the most distinguished names in gynecology, such as Thomas, Emmet, Sims, and others, have been strangely restricted and incomplete. A notable illustration of this occurred but a short time since. While on my way to see a case of this character, I met a physician justly distinguished for his learning and ability, and upon mentioning the subject to him found, to my astonishment, that it was entirely new. This gentleman, to be sure, has no special interest in midwifery, but if, in one of the centres of medical progress and learning, accounts of such cases had escaped even an observant mind, how much more would they be likely to pass unnoticed by, or even fail to reach the eye of the remote thousands. Every well-authenticated case should then be given as wide a publicity as possible, the methods of diagnosis made clear, the kind of electricity used mentioned, and the character of the treatment detailed.

The author of the paper has dwelt quite fully upon the former points, and it only remains for me to speak of the treatment, and the case in hand illustrates very forcibly one point, and that is as regards the kind of electricity that is most effective.

I cannot doubt but that galvanism is preferable to faradism, and this belief is based on the teaching of experience as well as upon physical and physiological grounds. In the various cases where I have had the opportunity to operate the galvanic current has always been used, and always with speedy and complete success.

The faradic current has also been used successfully, but in the case under consideration its action seems ineffectual, and only after galvanism was resorted to did the results prove satisfactory.

There may be a tendency sometimes to use too strong currents, and as it is impossible to estimate the susceptibility of a patient at first sight, the secondary effects of such treatment may prove unpleasant. Few cases, I imagine, would ever call for more than eighteen or twenty cells, and more frequently twelve or fourteen prove sufficient. The shocks should be sharp and quick and the negative pole applied directly to the fœtal mass. Very little pain, as a rule, is caused, and only in one case did I ever observe any persistent soreness, or suggestions of inflammatory action, and these subsided in a few days.

How much of danger lies in the possibility of rupturing the already distended tube by shocks too strong and rapid it is impossible to say, but that such an accident might occur it is reasonable to suppose ; hence another and a still graver reason for moderation in the number of cells used.

When suspicions are aroused as to the existence of tubal pregnancy, the diagnosis does not seem to be so difficult as might be supposed. Almost always a suspicious enlargement can be felt per vaginam or rectum, and this, conjoined with pain over the left side and irregular discharges of blood, is sufficiently suggestive. In any event, and most fortunately, the treatment is not likely to do harm, and therefore it would seem that the thing of primary importance is that a knowledge of the efficacy of this treatment be widespread, so that every practitioner be on the alert in all cases of pregnancy, and when a case of this kind occurs, not allow his patient to die through ignorance of a simple and effective method.

In reply to Dr. Harris, Dr. Rockwell said that he preferred to use the short and sharp interrupted galvanic current, but in one case, beginning with fifteen cells with a rheostat, he had rapidly pushed up to thirty cells.

Dr. Carman asked how many applications Dr. Rockwell was accustomed to make, and was answered that he had never made above four. It was possible to kill the fœtus with one application. He had made applications every day, and could not understand why there was so great pain in the case reported. He had never been obliged to use ether.

Dr. Van Santvoord desired to know where Dr. Rockwell placed the electrodes, and was told they were placed in the rectum and vagina. It was a prevailing impression that this was a difficult surgical method, yet it was simply placing metallic balls to the growth itself.

DR. ABERNDORFER thought that it was dangerous to give ether, as it might produce sufficient vomiting and straining to rupture the sac.

DR. SANDERS said that although he was in favor of using electricity in these cases, yet it most often happened that when seen for the first time the sac had ruptured and it was a question what to do then. Tait was in favor of making an abdominal section, and had reported a number of cases in which he had performed laparotomy. He regarded all cases of extra-uterine pregnancy as tubal in the beginning, that all others had ruptured and passed into that state. Dr. Sanders had seen cases of pyosalpinx that had disappeared, and these might have been confounded with extra-uterine pregnancy. They were not rare cases, as various large reports had been made recently, but they mostly occurred in consultation practice.

DR. RICHARD remarked that the condition was not so rare, as a report of two hundred cases in four years had been made.

DR. HILLS said, I am rejoiced to know that such a remedy has been discovered. Recently I have seen the skeleton of a case that occurred many years since. The patient had gone on to full term, and there had been an attempt at expulsion. During a period of twelve years bones had been discharged, and after the patient's death more were collected.

The point to be noticed was that the case had progressed without a correct diagnosis having been made by the physician.

DR. CAMPBELL thought this was one of the gigantic steps that had been made in medical practice during the past twenty-five years. It showed that physicians needed to keep abreast of the advance that had been made.

DR. MALCOLM MCLEAN remarked that the subject of extra-uterine pregnancy must be considered as the condition exists in its several forms or stages, as the treat-

ment must be essentially different in the different conditions or stages of development. We have to deal mainly with three forms, or rather three implantations, of the ovum: 1, The tubal form; 2, the ovarian form; 3, the abdominal form.

These varieties may, of course, be divided up pathologically into several other subvarieties, such as the tubo-interstitial, etc., but practically we are interested in the three implantations mentioned. In the tubal form of this accident the ovum and tube develop together for about four weeks usually, when the tube-walls seem not to keep pace with the development of the ovum, and consequently they are stretched until they become very thin, and rupture is liable to occur in the great majority of cases about the third or fourth month. Discharge of blood and other contents of the ovum into the peritoneal cavity is the rule, and consequently violent pain, shock, and, where life is prolonged, peritonitis is the result. To avoid development of the early ovum, then, is the foundation of all good treatment, and nothing has given such brilliant results as a properly applied current of electricity. It has been shown that the galvanic current of about eighteen or twenty cells is the best form of electricity for this purpose. The experience of many physicians has proven that in this remedy we have a safe and sure means of cutting short these dangerous cases, and all other operations must fall almost out of consideration in connection with extra-uterine pregnancy of under four months. Should any other operation or remedy, with so little risk attached to it, accomplish such flattering results in any disease or condition so dangerous to life, it would have been heralded abroad, so that the profession throughout the world would be of one mind in regard to its value.

In those forms of extra-uterine development which allow the fœtus to live and grow to full term, or even beyond the fifth month, we would hardly be justified in destroying the fœtus and leaving nature to attempt to absorb so great a mass. A living fœtus beyond four and a half or five months had better be left to grow to a viable age and then be delivered by laparotomy, as Dr. Thomas has done successfully. The attachments to abdominal viscera would make it impossible to remove the ovum completely from its bed. Then, again, in cases where long development has gone on and the death of the fœtus occurs, we must be guided by the condition of the mother in our conduct of the case. Infection of the system would justify us in performing laparotomy to give the mother a chance by antiseptic treatment. In cases of rupture of the ovum in the early stages we should be prepared to operate, if necessary, to secure bleeding vessels and remove foreign substances from the peritoneal sac.

Dr. Cocks, in closing the discussion, observed that after a careful examination and he had made the diagnosis, he had written to Dr. Thomas, who advised an operation.

On the day of the operation the case seemed so urgent that rather than lose any time by going for his own galvanic battery, he had used a faradic battery that was in the house. This, he believed, held the patient over, so to speak, until he could procure and use the galvanic. This, he thought, could be done in the country, where it was difficult sometimes to get a galvanic battery at once, and would save time. He had used electrodes covered with cotton, and did not understand why there had been so much pain with both batteries used. The patient had a temperature of 101°, and that may have accounted for the pain. The number of cells used would have done as much harm as the vomiting from the ether.

It is said that the reason more physicians in France did not use the *Kochsalz infusion* as a treatment for cholera, was because they thought it had something to do with the discoverer of the cholera bacillus.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

SIR ANDREW CLARK ON RELAPSING PNEUMONIA—A NEW TEACHING UNIVERSITY FOR LONDON—ARMY MEDICAL OFFICERS' PROMOTION EXAMINATION—SHOOTING FOR LUNATIC ASYLUMS—THE DEBATE ON CHARCOT'S DISEASE—THE BROWN INSTITUTION—MR. HORSLEY'S LECTURES—EXPERIMENTAL THYROIDECTOMY AND ITS RELATION TO MYXŒDEMA AND CRETINISM.

London, December 20, 1884.

Last Monday the Medical Society of London was again to the front. The event of the evening was the reading of a striking paper by Sir Andrew Clark on "A Case of Relapsing, or Intermitting Pneumonia, occurring in an Aged Man." The patient was a gentleman of active habits, aged eighty-two years. He had had an attack of pneumonia in 1877. He was first seen by Sir Andrew Clark in March last. He had then been unwell for five days, suffering from aching pains, feverishness, disordered digestion, and general feeling of malaise. On the day following that on which Sir Andrew first saw him he had a distinct rigor, and his temperature rose to 103°. The breath-sounds were feeble at the right base. A severe rigor occurred on each of the following days (March 27th and 28th) and the physical signs became more marked. On the 29th there was no rigor. There was then marked dulness at the right posterior base, increased vocal fremitus, and tubular breathing with broncophony. On the 30th there was general improvement, but on the 31st another rigor occurred, and the patient rapidly became ill again, the temperature, which had fallen to 100°, again rising to 103°. On April 2d the patient expressed himself as feeling well. His skin was moist, and there were moist crepitations over right base at back. Within a few hours the pulse and temperature again rose and there were signs of another relapse. Further consolidation was detected on examination. Cough set in for the first time and the face became bluish. He was again better on the 3d, but worse on the evening of April 5th, and severe rigors occurred on April 6th, 7th, 8th, 9th, and 10th respectively. Another occurred on the 13th. The patient was then much exhausted. He had a severe rigor on the 14th. The pulse was small and weak, and he had the appearance of a patient in the cold stage of cholera. He remained thus for four hours and then amendment set in. He improved from this date and was fully convalescent by May 6th. In the course of seven weeks he had passed through nine or ten severe rigors and six pneumonic consolidations, and this in spite of being under energetic treatment the whole time.

Sir Andrew Clark justly remarked that the case was one of great rarity. The question of whether pneumonia was really an inflammation or a specific fever was one which had occupied his mind for years. Dr. Sturges had maintained that it was inflammatory, and regarded it as the model of all inflammations. Sir Andrew said he had contested these views at the College of Physicians in 1866. In a consolidated pneumonic lung he failed to find any signs of cell-proliferation, and there were nothing but the signs of regressive change. The number of red disks extravasated in acute pneumonia equalled or exceeded the number of leucocytes; they underwent changes in the fibroid network, just as in blood-clots. In the alveolar septa there were no evidences of any changes except occlusion of some of the vessels. He believed pneumonic consolidation, though it might be an abortive inflammation, was much more like an active congestion in which capillary extravasation took place before the inflammation could be continued to its classical completion.

In the course of the discussion which followed, Dr.

Theodore Williams said he regarded acute croupous pneumonia as a case of blood-poisoning. He had seen similar cases, though the relapses were neither so frequent nor so severe. Dr. Rogers related the case of a gentleman seventy years of age, whom he was attending for rheumatic gout, and in whose family there was a history of gout, who had an attack of pneumonia with six relapses.

I have referred in a former letter to the movement for the formation of a new teaching University of London. Active steps have already been taken in furtherance of this object. A committee has been formed which already consists of over one hundred and sixty members, representing the existing teaching bodies, medical, legal, scientific, and others. An important meeting took place on Monday last, which was presided over by Lord Reay, Governor of Bombay. A lengthy report (drawn up by the sub-committee appointed in November) was read and adopted. It is determined first to approach the existing University with a view to obtain some modifications in its constitution and regulations. Should that prove impracticable the new body will, instead of coalescing with the older University, seek powers to confer degrees itself. The new scheme has a good prospect of being influentially supported both pecuniarily and otherwise.

The first examination for surgeon-majors in the army (previous to promotion) has just been held. A perusal of the questions certainly shows that the examination has been shorn of many of its anticipatory terrors, as they are all of an eminently practical character. The following are two out of the sixteen set: (6) What are the principal points to be attended to in the medical examination of recruits? (11) State how long you think a camp, whether of huts or tents, may be continuously occupied; why its sanitary condition should gradually deteriorate, and in what way this deterioration might be expected to manifest itself as regards the camp population?

The question as to the advisability of compelling army surgeons who have reached middle age to undergo an examination before they can be promoted to administrative rank is, of course, one still open to discussion.

Shooting is the latest amusement provided for insane patients. The renting of a moor for this purpose by a Scotch asylum has naturally excited considerable alarm. The fear is, very naturally, that the patients should literally "make game" of their keepers.

London, December 26, 1884.

The conclusion of the "Charcot" debate is far from satisfactory. A number of interesting facts have been brought forward, and some instructive cases and specimens shown. Professor Charcot sent over a valuable collection for exhibition, but failed to come over himself to take part in the discussion. It cannot, though, be said, that the recent interchange of opinion has done much to settle the subject. Many eminent authorities have spoken—some of them with no uncertain note—but there is as yet no prospect of any consensus of opinion amongst those who are qualified to express one. Perhaps the best description that can be given of our present standpoint is that embodied in Mr. Page's remark in the course of the discussion, that we are in a condition of "individual belief."

During the third evening devoted to the subject, Dr. Moxon, in proposing a vote of thanks to Professor Charcot, made a long speech, which was listened to with great interest, being most lively and interesting throughout. At the beginning of his speech he gave Sir James Paget a rap by saying he wished Sir James would make more clear what it was that he meant. Dr. Moxon expressed himself as being in accord with Mr. Hulke, and said he could see nothing peculiar in this so-called peculiar disease. He remarked that locomotor ataxy had branches, and he did not think Charcot's disease was a grafted branch. Westphal showed, eight years ago, that in general paralysis of the insane the conditions of locomotor ataxy were present. This statement drove him to St. Luke's, he said, but qualified his statement by explaining that he went "as an observer." He found Westphal's statement correct as regarded one-third of the general paralytics. The same was the case in Bethlehem Hospital, but in the latter no case of Charcot's disease had occurred among the general paralytics. Dr. Moxon said there might be some relation between this absence of joint-disease in paralytic and ataxic cases, and suggested that simple rheumatism might be changed into an exaggerated unrepresentative, irritative, severe, strange, and peculiar disease when occurring in cases of ataxia.

The Brown Lectures this year are of unusual interest. These lectures are delivered annually at the University of London under the terms of the Brown bequest. Mr. Brown was a wealthy gentleman who, by his will, left several thousand pounds for the purpose of founding a hospital for animals. The diseases of the animals were to be medicinally treated and also scientifically studied. Provision was also made for scientific experiments on animals. The institution was, under Mr. Brown's will, placed under the care of the University of London, the Senate of which was to be its governing body. A course of lectures was to be given annually in the University, open free to the public. (I may remark in passing that this is the sole attempt at teaching made by the University.) The first Superintendent was Dr. Sanderson and Dr. Klein was his assistant. The present Professor-Superintendent is Mr. Victor Horsley, M.B., B.S., London.

The first lecture this year was devoted to the subject of experimental thyroidectomy. Kocher has shown that, after removal of the thyroid, man becomes a cretin. Mr. Horsley has found that in monkeys a condition closely resembling myxœdema followed the operation. Several other symptoms also occurred. Muscular tremors came on in five days. Mucin was not a normal constitutent of the blood, but was present after removal of the thyroid. The salivary glands hypertrophied and secreted mucin. Dyspnœa came on but afterward disappeared. The larynx and recurrent laryngeal nerves were healthy.

Mr. Horsley said he came to the conclusion that the processes which occurred in myxœdema, cachexia, strumipriva, and cretinism were identical. He suggested that the thyroid gland consists of two distinct parts: one glandular, secreting mucin, the other lymphoid, and hæmatogenous in function. Excision of the gland was followed by profound blood changes, an increase in the amount of mucin in the tissues, increased activity of the muciparous glands, and the secretion of mucin by glands which usually yielded none, *e.g.*, the parotid. Nervous symptoms also occurred, viz., muscular tremors, rigidity and paresis, imbecility, and ultimately coma followed by death.

Mr. Horsley said he considered myxœdema and its allies was due to the loss—*actual or virtual*—of the thyroid. The removal of one lobe caused the other to enlarge, and if this were also removed, myxœdema followed. This favored the view of its being an excretory organ. Might it not excrete a mucinoid material injurious to the body, and that the loss of this excreting function caused death?

Two lectures were given on the thyroid. Two other lectures have been devoted to the subjects of traumatic and urethral fever respectively.

On Monday last Mr. Horsley gave at the Brown Institution an exposition of the methods adopted and the work carried on there. He also showed numerous pathological specimens prepared from the myxœdematous monkeys.

Young Physicians and Free Treatment.—The young physicians in the neighborhood of the dispensaries and college clinics are complaining bitterly against the managers of these institutions. It is asserted that patients abundantly able to pay are coaxed to accept advice gratis. The only excuse appears to be that the case will be interesting to the class.

OUR VIENNA LETTER.

(From our Special Correspondent.)

TUMOR OF THE BRAIN WITH REMARKABLE SYMPTOMS—AN ERROR OF DIAGNOSIS WITH FATAL RESULTS—ANTISEPSIS IN PROFESSOR BILLROTH'S CLINIC.

This week Professor Nothnagel reported in his clinic the following interesting case of brain disease: The patient, a man over sixty years of age, suddenly lost consciousness and fell in the street. Coma was profound. The attack was not preceded by any symptoms. Patient had been in good health to the date of the attack. There was also almost complete paralysis of the right half of the body. Recovery was rather rapid, but incomplete. He was able to walk with aid of a cane, and the intellectual powers were good. Several months after this loss of consciousness, patient had another apparently apoplectic attack and died. The autopsy showed a soft glioma the size of an orange, in the left hemisphere of the cerebrum. The most careful search showed no trace of a former or recent hemorrhage into the brain-substance or any other pathological condition. Professor Nothnagel said that the case was an extraordinary one, which he was not prepared to explain, especially the gradual recovery from the first attack. It showed that too great caution could not be exercised in making positive diagnosis in affections of the brain.

A somewhat remarkable case of diabetes is the following: Patient a male, forty-five years of age, coachman, in good health till two years ago, when he began to suffer with severe headaches in the occipital region, which continue to present time. Attacks of vertigo on sitting up or walking. Slight difficulty in the co-ordinative powers in walking. General muscular weakness, somewhat more marked on the left side. The left pupil slightly dilated and slowly responsive to light, also slight paralysis of the left vocal cord. Patient's general condition otherwise good. The patient passed at present 1,300 to 1,500 grammes of urine in twenty-four hours, and in the entire history of the case the quantity of urine per diem had never been over the normal amount. The specific gravity averaged for the past two months 1.014, and at no time had it been above 1.025. The particular specimen of urine exhibited with the case had a specific gravity of 1.010, and contained thirteen per cent. of sugar. This amount of sugar, or somewhat higher amount, had been found in the urine since the case had been under observation. Dr. Nothnagel considered the case as one of simple melituria and of great diagnostic value. Principally upon this symptom, taken with the others, he was able to make with great certainty as to the localization a diagnosis of tumor in the pons pressing upon the fourth ventricle. The case is also a very instructive one, as a case of sugar in the urine without polyuria, and what is more remarkable, with urine of a continual low specific gravity. Here is an instance of the value of the thoroughness of the German methods of examination before making a diagnosis. With such a low specific gravity the presence of sugar in the urine would certainly have been overlooked by an American physician, and thus an important aid in diagnosis, and a valuable symptom for treatment have been lost.

So common has gastrotomy become in Europe that at Professor Billroth's last operation of this nature, though it was announced beforehand in a crowded clinic, but few spectators, mostly foreigners, were present. The patient, a man of forty-two years of age, in apparently fair health, walked into the operating room unaided; he was fairly well nourished. Professor Billroth stated that it was a case of cicatrix from a simple ulcer of the stomach, which had contracted until it caused serious obstruction at the pyloric orifice, which would soon become complete, and he proposed to cut down upon the stomach, remove the cicatrized portion, and resect the pylorus. The abdominal wall was then laid open in the usual manner, and the stomach found to be adherent in various directions, in front and behind, to the surrounding tissues, and very much thickened with an abnormal growth. The duodenum was in a similar condition for several inches about its pyloric end. A diagnosis of infiltrated carcinoma was now made, an opening made in the anterior wall of the stomach, a similar opening made in the duodenum below the diseased portion, these two openings brought in apposition, and stomach and duodenum stitched together at the circumference of these openings, thus leaving free communication between stomach and intestinal tract. The abdomen was then carefully closed. The patient died from shock eight hours after the operation, and the autopsy at this writing had not yet been made.

Antisepsis in Professor Billroth's operations is most rigidly carried out. The bichloride of mercury solution has been tried, but not very thoroughly, and discarded. At present in the Billroth clinic are used carbolic acid in one per cent. and two and one-half per cent. solutions. Permanganate of potash, oxalic acid in weak solution, with always the use of soap and water in large quantities and repeatedly. The most scrupulous cleanliness with regard to instruments and the hands of the operator and all his assistants is insisted upon. Fresh wounds and all operative cases are always dressed immediately next to the skin with iodoform gauze. The results are striking; healing is almost invariably by first intention, and rarely does suppuration follow any of the operations in this clinic. In the other surgical clinics, and in the obstetrical and gynecological wards, a somewhat different method of antisepsis is followed. Everywhere, however, is iodoform used in large quantities. This is the iodoform era of antiseptics in Vienna. In a future letter I shall take occasion to describe more minutely the antiseptic precautions in use here, more especially those of the obstetrical and gynecological services.

CONCERNING THE SO-CALLED AMERICAN PLAN OF THE TREATMENT OF THE LATE LESIONS OF SYPHILIS BY LARGE DOSES OF IODIDE OF POTASSIUM.

To the Editor of The Medical Record.

Sir: Dr. E. C. Seguin, in an article in the *Archives of Medicine*, a bi-monthly journal, of which he is the editor, distinctly claimed the "method of giving the iodide of potassium in very large doses for the late lesions of syphilis" as an American method. He stated that "after considerable search, and by means of personal inquiries, I have satisfied myself that this plan is originally *American*, and that reliable tradition indicates that the promoter and prophet of it was the late Dr. William H. Van Buren." The article in question was made the subject of editorial comment in a recent issue of The Medical Record.

The claim that this plan of treatment was of American origin was not editorially considered. But in a subsequent number of The Record, November 22d, this was disputed by Dr. Crawcour, of New Orleans, and was claimed by him to be an English method, antedating the figures named by Dr. Seguin at least a year or two, Dr. Seguin having assumed on oral testimony that Dr. Van Buren was entitled to priority by prescribing it in this manner in 1861.

The asserted value of this treatment, as claimed by Dr. Seguin, and warmly supported by the editor of The Record, was fully appreciated and accepted by me. Being, however, personally cognizant of the fact that it was not originated by Dr. Van Buren in 1861, but had been well known, practised, and taught many years previously, I was satisfied that there was no good reason for claiming it as an American method. In order, therefore, to shield the medical profession in America from ridicule abroad, already foreshadowed by Dr. Crawcour's article, I wrote the article on the treatment of the late lesions of syphilis by large doses of the potassium iodide, which ap-

peared in THE RECORD of December 6, 1884. In this article I quoted from the case-book of Dr. William Kelly, Physician-in-Chief of the Charity Hospital on Blackwell's Island, cases of late lesions of syphilis, treated by drachm doses of the iodide of potassium in 1851, thus antedating Dr. Seguin's claims by ten years, and Dr. Crawcour's by eight. I also proved that this plan was publicly taught at that early period, by showing that Dr. Kelly was at that time the Lecturer on Venereal Diseases in the College of Physicians and Surgeons of New York. My own acquaintance with that plan of treatment was assumed to date from the time when, as I stated, I was an interne in Charity Hospital in 1851 and 1852, and might thus be presumed to be personally cognizant of the views and practices of Dr. Kelly in such cases.

Dr. Seguin replied to my article in THE RECORD of January 3, 1885. He opened by stating that "not having any personal interest in the question, I should be glad to be instructed and corrected; but I must say that Dr. Otis' letter quite fails to do the latter." He further says, "As regards Dr. Kelly's claim, it has some merit as a claim from private practice, but *there is no evidence that he exerted any influence upon his contemporaries or successors*, nor has any *printed* teaching of his been produced."[1]

Dr. Seguin based his claim for Dr. Van Buren's priority on the *oral statement* of Dr. William H. Draper, that in consultation with Dr. Van Buren in 1861, "the iodide of potassium was given in large doses (ninety grains a day to half a drachm every two hours)." And yet the written statement of Dr. Kelly, the Physician-in-Chief of the great venereal hospital of New York, taken from his own case-book, in which important cases in Charity Hospital were recorded at the time of their occurrence, is claimed by Dr. Seguin as not worthy of consideration. Dr. Kelly is shown to have been at that time the Lecturer on Venereal Diseases at the College of Physicians and Surgeons, and had a public clinic at Charity Hospital, and yet Dr. Seguin says, "*there is no evidence whatever that he exerted any influence upon his contemporaries or successors.*" And further he says, "*nor has any* printed teaching of his been produced."[1]

I confess that it is easier to produce Dr. Seguin's printed teaching than that of Dr. Kelly. I fail, however, to see that it is any more valuable than a similar statement made over his own signature.

If Dr. Seguin insists upon thus claiming, as valueless, all clinical and didactic teaching that has not found its way into print, he must retire from his claim of priority for Dr. Van Buren, and if Dr. Seguin's plan of dealing with prior well-authenticated written evidence is carried to its legitimate logical sequences he must retire also from the claim which he makes in his reply, that I have committed a "*slip of the pen*," in stating that I had taught the plan of treatment of the late lesions of syphilis by very large doses of the iodide of potassium in my clinic at the College of Physicians and Surgeons "for the past twenty-five years."

He says, "but the official records of the College show that Dr. Otis was placed in charge of the Clinic for Venereal Diseases in September, 1870, only fourteen years ago." I might thus, consistently with Dr. Seguin's position, claim that there was no evidence of the truth of the College records, because they had never been put into print, but I decline to take advantage of this. On the contrary, I admit the validity of the records. I must, however, also insist that the previous records of the College show that I was appointed Lecturer on Venereal Diseases in the College of Physicians and Surgeons in the spring of 1863, thus nearly twenty-three years ago.

It was my misfortune when writing the article in question not to have had the College records at my elbow. I did not make the statement referred to in order to establish any claim to priority in giving very large doses of the iodide of potassium for the late lesions of syphilis, nor in publicly teaching the same. (This credit I had already formally accorded, for America, to Dr. William Kelly, Physician-in-Chief to the Charity Hospital, New York, from 1848 to 1853.) I intended simply to show my own early appreciation of its value in my practice and in my teaching. I had shown that I was cognizant of the plan when I was an interne in Charity Hospital, in 1851. I was under the impression that I began to teach the subject of venereal diseases in the College of Physicians and Surgeons in 1860. It proves to have been in 1863. Assuming that in this early period of my life as a teacher, I had need of all the knowledge I then possessed on this subject, I naturally concluded that I did not neglect to make an early use of my knowledge on this important point. I am not even now able to state with certainty at what precise period I did begin to teach the plan of giving large doses of potassium iodide in syphilis. Having thus explained the grounds on which I made the statement in regard to the length of time I had taught the plan in question in the College, I wish now to say that all this is irrelevant to the questions at issue, viz.: First, as to the real originator of the plan of treating the late lesions of syphilis by administration of very large doses of the iodide of potassium. Second, as to the right and propriety of claiming it as an "American method." With the facts laid before the profession by me in THE RECORD of December 6th, and simply repeated in this article, I leave it to those interested, to decide as to whether or not we are entitled to claim the administration of very large doses of potassium iodide as an "American plan." My criticism in THE RECORD of December 6th was based solely on the previous *résumé* of Dr. Seguin's article, and Dr. Crawcour's letter in THE RECORD, and I had not then, as Dr. Seguin suggests, read his article. Having since done so with interest and profit, I found myself in complete accord with him in regard to the general excellence and efficacy of the plan. I have, in my previous article, expressed my views on the time and mode of administration of the drug, to which it is not necessary for me again to refer. I found that I had received an excellent *résumé* of the main features of the article from the editorial remarks in THE RECORD. Recalling Dr. Seguin's statement in his rejoinder, that "if Dr. Kelly *should be shown* to have been the originator of the method, my claim that it is an American method, is not shaken," I confess to considerable surprise when I observed in Dr. Seguin's original article a long quotation taken from Buzzard (page 120 of the *Archives of Medicine*), containing the following statement: "Forty years ago the late Dr. Elliotson used to give as much as ʒij. (8) three times a day and with remarkably good results." This referred to the potassium iodide in its relation to the late lesions of syphilis.

In view of a statement like this, I am unable to understand how Dr. Seguin could have laid claim to an American origin for the method of giving very large doses of the iodide of potassium in the treatment of the late lesions of syphilis.

The statement of Buzzard, if capable of substantiation, fully supports the claim of Dr. Crawcour as to the method being originally an English one; but Professor Ricord, has been shown by myself, in THE RECORD of December 6th, to have stated it as his practice to give the iodide of potassium under the circumstances in question as high as ninety grains a day. THE RECORD, in explanation of what constituted large doses of potassium iodide, stated them to be such as make up a total of from two and a half to ten grammes in twenty-four hours. I quoted Ricord as coming up to this standard. Dr. Seguin, however, shows that there was a misprint in THE RECORD, and it should have read drachms instead of grammes. Ricord gave ninety grains a day previous to 1835, and stated that he "had rarely gone beyond." This was over fifty years ago.

Dr. Kelly, formerly the Physician-in-Chief of the great

[1] Italics my own.—F. N. O.

venereal hospital of New York was claimed as an ardent disciple of Ricord, and is shown to have given the iodide of potassium in drachm doses (sixty grains) three times a day in 1851, thus thirty-four years ago, and made no mention of originality.

In summing up the whole matter, I think we must, in all fairness give whatever honor attaches to this valued discovery to M. Ricord, and admit that the increase in dosage was in no way entitled to be credited with originality. It was simply the natural and gradual outcome of subsequent experience with the plan originally taught by Ricord.

Very truly yours,

F. N. Otis.

103 West Thirty-Fourth Street, January 10, 1885.

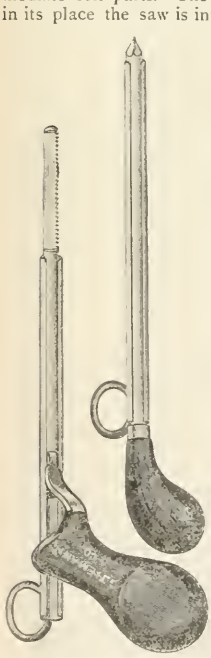
New Instruments.

THE SUBCUTANEOUS SAW AND KNIFE.

By GEORGE F. SHRADY, M.D.,

NEW YORK.

The subcutaneous saw, of which an illustration is herewith given, is believed to be an improvement on the one presented by me to the profession some time ago. The principle is essentially the same, but its application as compared with the former instrument much wider, and its construction much less complicated. It is now made in three parts: 1, a long, strong, blunt-pointed instrument, with limited saw-edge and fixed handle; 2, a trocar and handle; and 3, a canula or sheath open on one side throughout its entire length, and made to fit both saw and trocar. The trocar and canula are used as guides for the saw. They are first introduced to the bone to be divided by thrusting them through the skin and intermediate soft parts. The trocar is then withdrawn and in its place the saw is introduced, guided by the canula. The canula is in its turn withdrawn, leaving only the saw with its teeth in contact with the bone. The bayonet-bend of the saw near its handle allows the canula or sheath to slide back and forth over the saw-blade and past the deflected handle with the greatest ease. After the saw has done its work, and while it is still in the wound, the canula is slipped over its blade and the latter withdrawn in its turn. Finally, the canula itself is removed, leaving only the wound caused by the original track of trocar and canula.



By these means it will be seen that the introduction and withdrawal of the saw are effected without the possibility of any tearing of the soft parts by the teeth of the saw.

In many forms of subcutaneous osteotomy it will doubtless serve a useful purpose. In fact, the principle of construction of this instrument will adapt itself to any method of operation which demands the safe guidance of a saw or knife to deep, dangerous, or otherwise inaccessible points. In place of the saw, a knife or rasp blade can be used with the same ends in view.

The instrument is exceedingly simple in construction, easily kept clean, and not liable to break or get out of order. The figures represent respectively the trocar and canula ready for use, and the saw with the sheath in the act of withdrawal from the saw-blade.

The instrument has been constructed in a very satisfactory manner by Geo. Tiemann & Co., of this city.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from January 4, 1885, to January 10, 1885.

McKee, J. C., Major and Surgeon. Ordinary leave of absence still further extended four months, on Surgeon's Certificate of Disability. S. O. 6, A. G. O., January 8, 1885.

Shannon, William C., Captain and Assistant Surgeon. Relieved from duty at Fort Bridger, Wyoming, and assigned as Attending Surgeon at Headquarters, Department of the Platte. S. O. 2, Department of the Platte, January 5, 1885.

Robinson, S. Q., Captain and Assistant Surgeon. Assigned to temporary duty at Portland, Oregon, from December 17, 1884. S. O. 206, Department of Colorado, December 22, 1884.

Appel, A. H., Captain and Assistant Surgeon. Granted leave of absence for one month, to take effect on or about January 7, 1885 (Madison Barracks, New York). S. O. 268, Department of the East, December 31, 1884.

Wales, P. G., First Lieutenant and Assistant Surgeon. Relieved from duty at Vancouver Barracks, W. T., and ordered to return to his proper station, Fort Cœur d'Alene, Idaho. S. O. 204, Department of Colorado, December 19, 1884.

Official List of Changes in the Medical Corps of the U. S. Navy, during the week ending January 10, 1885.

Ross, J. W., Surgeon. Detached from the Monongahela, for treatment at Naval Hospital, New York.

Wells, Howard, Passed Assistant Surgeon. Detached from Naval Hospital, Philadelphia, Pa., to the Monongahela.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 10, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
January 3, 1885.....	0	10	71	4	166	50	0	0
January 10, 1885.....	17	10	82	6	164	69	0	0
Deaths.								
January 3, 1885.....	0	5	14	3	22	28	0	0
January 10, 1885.....	0	2	18	5	26	35	0	0

Abortion Mistaken for Menorrhagia in a Woman aged Forty-two.—Dr. E. B. Ward, of Greensboro, Ala., writes: "A multipara, aged forty-two, had been flowing continuously for over seven weeks. She did not know that she was pregnant, and was treated for menorrhagia by another physician." Dr. Ward was finally called in just in time to find a fœtus and membranes of about two and a half months which had been expelled in toto. The patient recovered.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 4 NEW YORK, JANUARY 24, 1885 Whole No. 742

Original Articles.

DISEASES OF THE FALLOPIAN TUBES.[1]

BY W. GILL WYLIE, M.D.,

PROFESSOR OF GYNECOLOGY IN THE NEW YORK POLYCLINIC; GYNECOLOGIST TO BELLEVUE HOSPITAL, NEW YORK, ETC.

IN looking up the literature of salpingitis, minute descriptions of the pathological anatomy will be found in the writings of Kiwisch, Förster, Rokitansky, and later Martin Klob, Schroder, Henning, and other German writers; but little advance was made in the treatment until a few years ago, when Mr. Lawson Tait made known his wonderful success in removing diseased tubes. The writings of Battey and Hegar on removal of ovaries also had an influence in developing the proper plan of treating diseases of the uterine appendages.[2]

Dr. J. Marion Sims, for several years before his death, was much interested in the subject, and, as his assistant, I helped him in a number of cases. But it was not until I was appointed one of the gynecologists to Bellevue Hospital and began my clinics at the New York Polyclinic, in 1882, that I had an opportunity to study clinically a large number of cases. Since then I have made a careful study of the subject, and since May, 1883, when I did my first operation for removal of diseased tubes, I have operated upon fourteen cases for diseased uterine appendages, not including operations for ovarian or uterine tumors. Each of the fourteen cases were under my observation and treatment several weeks before the operation, and many had been kept in my ward at Bellevue three, six, and one or two even nine months beforehand. By a careful study of each case and by the use of preparatory treatment to soften and relax the adhesions, I was able, in almost every case, to make a more or less exact diagnosis before operating. Of these, nine were operated upon in either the Sturges or the Marquand pavilion at Bellevue Hospital, the remaining five were in private practice. Twelve recovered and two died of septicæmia on the fifth day; the latter were hospital cases. Eight were cases of pyo-salpinx; two hydro-salpinx, and four catarrhal tubes with peritoneal adhesions. With one or two exceptions, there were extensive adhesions from local peritonitis and the ovaries were either diseased or more or less covered with adhesions, and, in three instances, abscesses were found involving the extremities of the tubes and the ovaries. Short histories of each case were read, and twelve of the fourteen specimens, with a report on the specimens by Dr. H. C. Coe, Pathologist to the Woman's Hospital of the State of New York, were shown last night at the New York Pathological Society. Many other cases were kept under observation and clearly diagnosed, but either because the patients objected to the operation, or the subjective symptoms did not justify it, they were not operated upon.

I am satisfied that a careful study of the diseases of the Fallopian tubes will not only clear up most of those numerous and once incurable cases of local peritonitis (in this country commonly called cellulitis), but also most of the cases of retroversion, retroflexion, and lateral flexions with adhesions, and that their proper treatment will make plain the uselessness and danger of using pessaries in such cases. I do not mean to say that every case of local peritonitis will be found due to salpingitis, but that, in the large majority of cases, salpingitis precedes the local peritonitis, and that repeated attacks of local peritonitis are, as a rule, caused by salpingitis.

In my opinion when the frequency and the great importance of diseases of the Fallopian tubes is generally understood, the fascinating teaching of the mechanical pathologist, namely, that most of the ills of women are due to uterine displacements, that the real disease is the version or flexion, and when this is corrected and the uterus is held by a pessary in an ideal normal position that all will be well, will fade to small proportions and the relatively few lines now to be found in our text-books on salpingitis will increase rapidly, and there will not be so many hundred pages on cellulitis, displacements, and pessaries.

Etiology.—Anything which causes endometritis may induce disease of the Fallopian tubes, and it is probable that in most cases salpingitis is due to an extension of disease from the lining membrane of the uterus directly to that of the tubes. In virgins it is comparatively rare, except from catarrhal disease. In imperfectly developed and delicate girls and women, the degenerate state of the mucous lining makes it an easy prey to catarrhal disease, and an endometritis may be extended to the tubes. Tubercular disease may also attack the Fallopian tubes.

Many of the profession, especially those who treat genito-urinary disease in the male, look upon gonorrhœa in women as a very trivial disease, probably because it does not produce urethral strictures. When Dr. Noeggerath read a paper on this subject before the American Gynecological Society, in 1876, his views on gonorrhœa may have been extreme, but on salpingitis they were well in advance of the general knowledge on this subject at that time, and now, if the gonococci causes the disease and he can find the gonococci in all, or in most of his cases of latent gonorrhœa, his theory will be proven to be true. There is no doubt but that gonorrhœa is a very frequent and in many instances an unsuspected cause of salpingitis. Among prostitutes this disease and septic endometritis following abortions, by causing salpingitis, accounts for the incurable sterility so universal among this class, even though they return to the paths of virtue. Early in its course, before the poison has reached the deep-seated glands of the vagina, or the lining membrane of the uterus, it may be checked in its course by repeated applications of a solution of a mercuric bichloride or some other antiseptic, but when once it enters the uterus it cannot safely be treated locally until it has become subacute, for any attempt to introduce even a small probe may cause uterine contractions and pains which are pretty certain to be followed by local peritonitis within the next twenty-four hours, and the probability is, that this is caused by the tube becoming infected by the contractions forcing the poison in from the uterus. Even when treated with the greatest care, specific endometritis will in many instances cause salpingitis and local peritonitis. I have selected several well-marked cases and put them to bed, and watched the course of the disease from the vagina to the uterus, from the uterus to the tube and peritoneum. Salpingitis from gonorrhœa may result in active pyo-salpinx with a thick yellowish or greenish pus, or it may

[1] Read before the New York Academy of Medicine, January 15, 1885.

[2] The author does not desire to discuss the claims of Tait, Battey, and Hegar, but there can be little question that, among the English speaking profession, Battey first made plain that we should operate upon certain forms of ovarian trouble besides ovarian tumors, and Lawson Tait first taught us that we should and could remove diseased Fallopian tubes in many cases. Hegar may have done the same thing in Germany.

become chronic and the discharge gleety and thin in character. The tubes may close at the fimbriated extremity, and after the first attack of local peritonitis drain into the uterus, but frequently after a time the tube becomes distended on account of a stricture of the proximal end, and the patient may have repeated attacks of local peritonitis, indicating that the adhesions which nearly always seal up the fimbriated extremity have yielded or the poison in some way has reached the surrounding tissues.

Syphilis may cause salpingitis, just as it does otitis or ozæna. Some of the most obstinate cases of endometritis that I have ever seen have been in syphilitic subjects.

Septic poisonings after labor and abortions, especially after the latter, is a frequent cause of salpingitis. After abortions the cervix uteri is not so patulous as after full term labor, the cervix being more irritable and likely to contract and obstruct drainage, and any effete matter may be not only retained in the cavity of the uterus, but when the uterus contracts it may be forced into the Fallopian tubes.

It may be a disease that induces the abortion, and this extends to the tubes. Besides, after an abortion, neither the patient nor the doctor are as likely to keep up the usual precautions and give time for involution to take place. Sub-involution and endometritis are much more common after abortions than after normal labor. It is my opinion that in most instances it is through the tubes that septic poison causes local peritonitis. Septic material is, of course, often absorbed directly from the uterine tissues by the blood-vessels and lymphatics, but the poison is carried into the circulation, and does not directly enter the peritoneal cavity. Local peritonitis is much more common on the posterior surface of the broad ligament than on the anterior surface, for the tube opens on the posterior surface of the broad ligament. My experience leads me to attach much more importance to local peritonitis than local cellulitis, for, except after septicæmia, where the poison has become localized in the cellular tissue, producing a phlegmon, the cellular tissue is, as a rule, merely affected by contiguity with the inflamed peritoneal tissue, and I do not believe in so-called "chronic cellulitis." Hydro-salpinx may be due to other causes than venereal or catarrhal disease, but in what way it has not been made clear to me, although I must admit that I have seen some cases not satisfactorily explained by saying that it is the sequel of catarrhal disease or subacute inflammation. Small thin cysts may be found on the outside of the tube, but these more properly belong to the broad ligament. Diseased tubes are very commonly associated with diseased ovaries, and I think in most instances the disease of the tubes precedes that of the ovaries, and the diseased ovaries are but the result of an extension of the disease from the tubes to the ovaries and peritoneum. But certain diseases of the ovaries may cause disease of the tubes, such as cancer.

In several cases I have found cystic disease of the ovaries associated with catarrhal disease of the tubes, and it is this combination which I have noticed in the worst cases of hystero-epilepsy. In fact, if I have a well marked case of hystero-epilepsy or hysterical patient to operate upon, I expect to find cystic or atrophied ovaries with catarrhal disease of the tubes.

Hemorrhages into the tube may result in more or less permanent distention, and anything which stops up or diminishes the size of the lumen of the tube may obstruct drainage and result in disease and distention.

Symptoms and diagnosis.—The subjective symptoms are very variable. A peculiar burning pain over the seat of the tube affected is, perhaps, more characteristic than any other symptom, but many patients have no such pain, and local sensitiveness and a dull pain over the tubes and ovaries is about the only constant symptom; sometimes a dragging pain or sensation will be present when the patient stands, or there will be backache and headache, such as is supposed to be due to displacement, which are so commonly associated with, and are often due to the diseased tubes.

Dysmenorrhœa is a common symptom in these cases, but in some the flow gives relief by lessening the congestion, and I am inclined to believe that the pain is often caused by the endometritis, or the result of the endometritis in producing contraction and hyperæsthesia of the mucous membrane, for in those cases where all stenosis and endometritis is cured by treatment, as a rule, the dismenorrhœa disappears. Menorrhagia or metrorrhagia is often associated with salpingitis, but I think it will most frequently be found to be due to vascular changes in the lining membrane of the uterus, and a thorough curetting with a good instrument may effect a cure, although great care must be exercised in preparing the case for operation lest the salpingitis be so disturbed as to start up peritonitis.

Sterility is the rule in salpingitis, and when both tubes are affected, which is usually the case, it is incurable, but when only one side is affected and the proximal end of the tube of the diseased side is closed, pregnancy is possible and may go to full term, but as the uterus enlarges there may be severe local pain, and abortion is likely to occur.

Perhaps the most reliable indication of severe salpingitis is the occurrence of repeated attacks of local peritonitis, or active pelvic congestion without other evident good reasons for such attacks. Wet feet and exposure to cold may be an exciting cause and induce a catarrhal attack, and thus bring on endometritis, etc., but when exposure is followed by peritonitis, I would always look for a latent salpingitis or some such real cause.

Objective symptoms.—In acute cases there is usually so much swelling and tenderness that about all we can make out is a fulness or thickening of one or both broad ligaments, associated with more or less fixation of the uterus. Take such a case and keep her in bed until the painful symptoms completely subside. Then place thin pledgets of cotton saturated in pure glycerine against the cervix uteri two or three times a week, and, as the case becomes subacute, add alum to the glycerine and continue the pledgets for from three to eight weeks, and the inflammatory products will be so much absorbed or stretched that the uterus will become movable, and an expert may be able to define an enlarged tube or a mass that he can make out to contain a diseased tube or ovary more or less prolapsed and adherent in one or both broad ligaments. In subacute cases a diagnosis may be more easily made, but often a doubtful case can be cleared up by the same treatment recommended for acute cases. A diagnosis is especially easy when only one side is affected and the uterus is not retroverted. By the prolonged use of pledgets of cotton, soaked in a mixture of alum and glycerine, a distended tube can be readily defined by bimanual examination. Of course much will depend upon the thinness and laxity of the abdominal walls, and now and then a case will be found that, to get a clear diagnosis, it is necessary to examine the patient under ether. In some cases the floor of the pelvis is so fixed by adhesions, and there is so much venous congestion or enlargement of the pampiniform plexus, especially of the left side, that a certain diagnosis cannot be made; a prolapsus of, or adhesions to the sigmoid flexure may complicate and make a diagnosis more difficult. In some cases of catarrhal tubes they are not distended, but feel like a thin band of adhesions. The ovaries are apt to be more or less cystic, or are often infiltrated and enlarged by inflammatory products, and are nearly always prolapsed with and folded under the tubes on either side.

Sometimes, when the proximal end of the tube is patulous, the discharge will enter the uterus, and I have seen one or two cases where, from an accurate knowledge of the state of the uterus and vagina, it could be made plain that the gleety discharge has come from the distended tube; after cleaning the vagina and uterus, fresh

pus could be made to appear in the vagina by slowly pressing upon the distended tube. The fluid may escape intermittently into the uterus, and, if irritating, may set up each time an acute endometritis. Now and then a tube distended with fluid will empty a large amount of fluid into the uterus at once, which, for the time, flows freely from the vagina, and the tube will refill and again discharge.

Pathology.—In the literature of salpingitis comparatively little is to be found in English on the subject, and until very recently it was hardly mentioned in our text-books. We are compelled to go to German writers, where, as before mentioned, we will find full and accurate accounts of the pathology. I will not attempt here to give the microscopical appearances, but to bring out more especially what may be called the surgical pathology. As has been before stated, salpingitis is nearly always caused by the extension of disease from the endometrium to the lining membrane of the tubes. Now, aside from the different character of the mucous membrane of the uterus from that lining the tube, the different shape, size, and position of the tubes from that of the uterus also makes a marked change in the results of the same disease.

Inflammation of the endometrium causing enlargement of the uterus may result in displacement, imperfect drainage and parametritis, but this is not the rule; besides, the uterus is accessible and directly amenable to local treatment, while inflammation of the lining membrane of the tube which causes swelling is almost certain to result in prolapse of the tube and obstruction of the naturally small lumen, and thus cause imperfect drainage, and almost always induces peri-salpingitis on account of the open extremity emptying its contents into the peritoneal cavity. The tube cannot be directly treated; the lumen cannot be dilated, and perfect drainage secured as in endometritis. Hence salpingitis nearly always becomes chronic, in many instances lasting as long as the patient.

The first effect of disease reaching a tube, is to cause it to become engorged with blood; as it is loosely attached to the upper border of the broad ligament, it sinks lower in the pelvis covering or folding over the ovary, and as the beginning of salpingitis, after labor or an abortion, is so often associated with an enlarged uterus, this organ sinks lower, and as the patient during the acute stage is, as a rule, on her back, the fundus inclines backward. Now, suppose the uterus is enlarged, lying backward, and the disease affecting the uterus extends to the tubes, they swell, sag backward and downward, covering the ovaries, and as soon as the discharge or the disease reaches the peritoneum through the open end of the tube the peritoneum becomes inflamed, lymph is thrown out, gluing the different organs together. As the acute stage subsides, the lymph contracts, bands of adhesion draw and distort the organs, and the folded, twisted, and adherent broad ligament holds the uterus in its backward displacement. As a rule, the peritoneal tissue covering the fundus is not adherent to the tissues behind the uterus, although this seems to be the case when an examination per vaginam is made. The uterus may sink lower, being drawn down by contraction of the adhesions, and it may become retroflexed when the adhesions are extensive and the contraction great. Again, the tube being smaller and displaced, the lumen is stopped, the discharge accumulates, distends, and leaks into the peritoneal cavity, a fresh attack of peritonitis sets in, more lymph is exuded, and as the acute stage subsides the tubes and broad ligaments are rolled back and folded in more and more; as the contraction goes on, the tissues harden and the tubes may form strong cords, which, being adherent to the floor of the pelvis, fix the uterus in its retroflexed and retroverted position. Thus we have cases of retroversion with adhesions, and it is the rolled up ligaments and the tubes which fix the uterus backward; and it is the imbedded ovary and diseased tube in the hardened tissues of the broad ligament which makes it next to impossible to insert a pessary and hold the uterus up without causing pain and running the risk of bursting or tearing a tube distended with septic or irritating fluid. By great patience and time, in many cases we can stretch the ligaments, and by force get the fundus uteri into that ideal normal position, but to keep it there is the rub; the rolled up broad ligaments won't unroll, and when put on the stretch by the uterus being held up by force, they soon begin to ache, inflame, and may cause local peritonitis.

Now suppose only one tube is affected, the retroversion will be less, and if the other side is not affected the uterus may be even a little anteverted, unless the inflamed tube drops to the floor of the pelvis. If the ovary and the tube of the affected side are prolapsed and inflamed, as contraction takes place the broad ligament is shortened, especially on its lower side, and unless the tube and ovary are very much distended, so as to displace the uterus bodily, the cervix is drawn to the affected side, the fundus being tipped toward the healthy or less affected side, which is usually the right side, and the swollen ovary and tube may be forced backward somewhat behind the uterus. When one side only is affected, it is usually the left; the circulation on this side, from the formation of the veins and the proximity of the often-distended intestine to the left broad ligament, seems to make it more susceptible to congestion, prolapses, and disease than the right side. When both tubes are involved, the left is probably the first to become affected, this, together with the natural position of the uterus being that with the fundus inclining slightly to the right of the centre, accounts for the fact that where both tubes are affected and the uterus is not retroverted, the cervix is drawn to the left and the fundus to the right, the left ovary and tube being prolapsed, and the right usually much less prolapsed. In nulliparous women, especially in those cases where the uterus is anteverted or anteflexed, and where the disease is gradual in its progress, this condition of right lateral flexion with the fundus forward is most likely to be found, whereas, after labor and abortions salpingitis is more frequently associated with retroversion. Sometimes the prolapsed tube, especially on the left side, is adherent to the sigmoid flexure or to the small intestine, and the omentum may have slipped down, especially when the uterus is retroverted, and become adherent over and in front of all the pelvic organs, when it has been thickened and the blood-vessels greatly enlarged by repeated attacks of local peritonitis or general peritonitis. To the inexperienced it is a formidable barrier; years ago I saw even Dr. Sims close the abdomen rather than run the risk of going through it to reach the ovaries beneath it. These are the cases where eminent men will tell you that they opened the abdomen, but could not find the ovaries and tubes, therefore closed it. When describing the operation, I think I can make it plain that by a simple procedure this apron of blood-vessels can be safely removed. It has enabled me to complete the operation of removal in even the worst cases. Where the local peritonitis is limited, as the tubes open near the ovaries which protrude through the posterior surface, the adhesions are, as a rule, confined to the posterior layer of the broad ligament, this accounts for the rarity with which the bladder is affected by the adhesions. The ureters are not uncommonly affected by the adhesions, especially when the adhesions are low on the floor of the pelvis, and in tearing up very old and firm adhesions the ureter may be lifted up (on one occasion it would have been tied had I not recognized it as it was lifted up by the operator).

Now, as to the tubes themselves, in cases of simple catarrh, especially those associated with cystic ovaries—a combination which seems to be the most certain to produce hystero-epilepsy, hysteria, and all kinds of reflex disturbances—the tubes may be very little enlarged, but very vascular and adherent, with the lining membrane in

a mild catarrhal state. Later in the disease, more commonly the tube is distended by fluid and enlarged from the size of a lead-pencil to enormous dimensions, with the fimbriæ turned in and the end of the tube closed, or the fimbriæ may be spread out and adherent to the surface of the ovary, the latter acting as a plug to the mouth of the tube. The end of the distended tube may be adherent to the side of the pelvis, or the floor of the pelvis, to an intestine, or even to the other tube. The distended tube may be, and when large is, more or less convoluted, sometimes constricted at one or more parts, and usually with the outer end much larger than the proximal end. The fluid distending the tube may be clear, transparent, watery fluid, or milky or gleety, or thick greenish colored pus, or thin broken down pus. Ciliated epithelium is the chief microscopical characteristic of the clear fluids. When the tube is greatly distended and the adhesions slight, it is usually a hydro-salpinx, but when large with many adhesions it is likely to be pus that distends the tube. In my cases, in the majority of instances the tubes were infiltrated with pus and serum, and degenerated rather than distended. In those where abscesses were found formed in the substance of the ovaries and tubes, the tissues were so rotten that in tying them off the ligatures cut through the degenerated stump, and I was compelled to pick up the arteries and tie them one by one. These might fairly be called cases of pelvic abscesses. In old cases the tissues may have atrophied and contracted down so that it is difficult to remove all of the ovary and have a stump long enough to hold the ligature. In most cases the ovaries are covered with the inflamed tube and shreds of adhesions, and in pyo-salpinx they may be inflamed and filled with small abscesses or infiltrated with pus, and are sometimes so degenerated that they are torn to pieces in being removed. Sometimes the interstitial tissue of the ovary is affected, and may be hardened and contracted, or the ovary may be found abnormally small and atrophied, but the most common condition of the ovaries, if affected by an independent disease at all, is that of cystic degeneration; usually the cysts are numerous—small ones filled with a gummy, translucent fluid. Superficial cysts with thin fluid are very commonly found, but deep-seated central cysts may fairly be called cystic degeneration, and it is to this class I refer when speaking of cystic degeneration of the ovaries.

In some cases, the cellular tissue may be infiltrated and thickened by lymph, but the preparatory treatment almost always, more or less, completely removes this lymph, and the real adhesions that bind and twist the organs out of place will be found to be peritoneal.

Prevention.—When the etiology of any disease is well understood the prevention is plainly indicated. It is important that the general health and strength of girls while developing into women should be kept up, so that the generative organs will fully develop and resist catarrhal disease. When there are symptoms of catarrhal disease, such as leucorrhœa and dysmenorrhœa they should be treated early, before it has reached the Fallopian tubes, and if the endometrium is affected by disease the uterine canal should be kept patulous so as secure perfect drainage, and thus lessen the chance of the disease entering the Fallopian tubes. The serious nature and the almost certain consequences of venereal diseases should be explained to and impressed upon all young persons, and definite instructions should be given, especially to all male patients suffering with gonorrhœa, to avoid intercourse until complete cure is affected. No doubt many of the cases supposed to be due to septic poisons after labor are really caused by gonorrhœa contracted from husbands who have been led astray while deprived of their usual indulgence during the confinement of their wives. The serious consequences of even a slight septic endometritis in causing a salpingitis makes more forcible the great importance of cleanliness and the use of antiseptics or any other means that may lessen the chance of puerperal septicæmia. We know that subinvolution rarely exists without, sooner or later, the development of endometritis, and instead of taking it for granted that when a woman has passed the ninth day after labor that the doctor's responsibility in the case is at an end, every lying-in woman should be examined locally before she is allowed to go about her usual duties, and it is safer to keep the woman under observation until the uterus is normal in size, position, and condition, before dismissing her. If treatment is needed, it is better to begin it not later than the end of the second week after labor. A few stimulating applications of glycerine and alum made twice a week during the third, fourth, fifth, and sixth week after labor will prevent subinvolution, retroversion, endometritis, and a salpingitis in a delicate or weak woman that without it would be pretty certain to be affected with one or more of these serious affections.

When we have an endometritis it is especially important that we should secure perfect drainage from the uterus. After abortions the greatest care should be taken to prevent septic infection and insure removal of all the placenta and membranes. Especial care should be taken to secure perfect involution and drainage of the uterus, for after labor nature generally accomplishes this without help, but not so in abortions. Labor is normal, but abortions are abnormal, and must be regarded as almost certain to result in disease.

Treatment.—During the acute stage complete rest in bed is the best treatment; anodynes and counter-irritants may be used; as the active symptoms subside, I begin the application of thin pledgets of cotton saturated in pure glycerine and applied to the cervix and vagina; they are left in place twenty-four hours, then removed and a douche of hot water given; on the third day another pledget is put in, and this is kept up for a week or two; and later a solution of one part of boro-glyceride, one of alum, and fourteen of pure glycerine is used to saturate the cotton in place of pure glycerine. After a week or so this softens out the products of inflammation and renders the uterus more movable, and enables one to make a more accurate diagnosis. It improves the circulation, and often gives, for the time, more or less complete relief to all the local symptoms. While this simple local treatment is given, close attention should be paid to the general health, and the condition of digestion, and especially the bowels, should be carefully regulated, for impacted fecal matter in the lower end of the descending colon or rectum may materially add to the pain and the effects of the disease by pressing directly on the left broad ligament.

After getting the uterus movable, so that it can be pulled pretty well down with the tenaculum without causing much pain, it will be safe to sound the uterus, and, if the canal is contracted and hyperæsthetic, it should be gently dilated so as to secure good drainage and enable applications to be made to the mucous lining. If there is a history of excessive hemorrhage, and it is not corrected by tincture cannabis indica, twenty gtts. given twice a day, if the uterus can be gotten movable by the use of the medicated pledgets, it will be safe to curette the uterus for the removal of granulations. I would always give the above treatment as preparatory to operation, except in those cases where the diagnosis was plain and indicated immediate action to prevent rupture of a painful cyst, or to prevent septic poison and death after rupture. In these cases I would resort at once to the operation for removal. Aspiration through either the abdominal wall or vagina can give only temporary relief by evacuating the contents of a cystic tube or ovary, but there is some risk and little or no permanent good attained. Where a large amount of pus had accumulated in three cases, and abdominal section would not be permitted, I have resorted to a simple method of opening and draining. With a long and curved trocar I punctured the walls of the abscess, being careful to pass the trocar directly behind the cervix so as to avoid large blood-vessels and the ureters. After passing the trocar the canula

was withdrawn and the pus evacuated, and the cavity repeatedly washed out with solution 1 to 5,000 mrc. bichl. With canula still in place, I turned patient on her side in Sims' position, and introduced Sims' speculum in the vagina; then I passed through the canula a small probe without a handle, and slipped the canula out over the probe, using the probe as a guide; with Sims' uterine dilator I dilated the opening so that I could pass my finger into the abscess. By means of a pair of slender forceps I carried into the abscess a large-sized drainage tube of soft rubber; in this way I avoided the use of a knife and the risk of cutting a blood-vessel or the ureter. To prevent the tube from slipping or being forced out as the cavity of the abscess contracts I passed a silver suture through the posterior lip of the cervix and the wall of the drainage-tube and tied the tube to the cervix. The cavity was washed out with an antiseptic solution as was indicated by the discharge and temperature of the patient; as the discharge diminished, the large tube was replaced by a smaller one, and the opening kept dilated until all drainage ceased.

One of the three cases seemed to be permanently cured and all were helped, but I would not advise this treatment, except in those cases where abdominal section is not allowed, or where there seems to be only one large cyst, such as is sometimes found following a broken-down hæmatocele. In most cases the abscess or distended tube is too small to be reached safely in this way. If, after opening the abdomen and finding a large pus cavity, I wished to make a counter-opening through the vagina, I would make a small opening with a trocar and then dilate it with dilators. In case of a large pelvic abscess pointing toward Poupart's ligament, I would open by an incision in the groin and would not enter the peritoneal cavity above the abscess, except to secure complete removal or to get perfect drainage.

When diseased tubes are plainly made out and the patient is bedridden, or suffers to such an extent that after being clearly informed as to the effect and danger of the operation and consents, then we consider complete removal of both tubes and ovaries, if both sides are affected, to be justifiable. By softening the indurated tissue and improving the circulation of the pelvis we can help but not cure. By atrophy and absorption nature may cure, but chronic invalidism usually comes before nature has effected a cure. Or, by the bursting of a distended tube, general peritonitis and death may follow instead of the usual attack of local peritonitis. Many a case of so-called idiopathic peritonitis has been caused by the bursting of a diseased Fallopian tube, and the patient might have been saved by a bold surgeon even after the peritonitis set in.

Operation for removal.—I do not expect to improve upon Mr. Tait's work as an operator, but I think I can make the operation easier to others by describing a methodical way of doing the operation for removal of the tubes and ovaries, in cases where the adhesions are extensive.

After giving the preparatory treatment with glycerine and alum pledgets as described, and having decided that an operation is proper, I have the patient's bowels well emptied and put her on pancreatized milk diet with very little other plain food for three or four days previous to the operation, the object being to remove all impacted fecal matter, and to lessen the amount of gas in the intestines, for the latter may be very troublesome by crowding down around the pelvic organs and out through the incision in the abdominal wall during the operation. When well prepared, there will be little or no gas in the intestines, and they will be found to be like so many slippery ribbons. The day of the operation the bowels should be well moved, but not excessively.

In all surgical practice I would place cleanliness first, drainage second, rest third, and antiseptics fourth. If we could be perfect in cleanliness, antiseptics would be useless. Some of us are willing to be considered fallible and use antiseptics to make up for it. Before Lister made perfectly plain the necessity of cleanliness and proved the value of antiseptics, not many of us were so particular about cleanliness, nor did we know how important it was to success in surgery. Cleanliness is better than antiseptics, just as prevention is better than cure. Before Lister's teachings, what surgeon spent hours in cleaning instruments and sponges, and placed over wounds a thick layer of absorbent cotton-wool? Cotton-wool is known to be the best thing to prevent the passage of germs and their spores, and he who uses it for dressing wounds carries out the principles taught by Lister.

Before operating, my patient is thoroughly bathed and clean clothing for her body and bed ordered; just before being etherized, one quarter to one-third of a grain of morphine is given hypodermically. When under ether, the abdomen is shaved well down to the pubic bone, and thoroughly washed with soap and water, and before the skin is cut, again well washed with a solution of one to five thousand of mercuric bichloride. Instruments are all kept in solutions of one to twenty No. 1 Calvert's acid. carbol., and sponges in a solution of one to ten thousand of mercuric bichloride. Besides the operator, only four assistants are needed: one to give ether, one to handle instruments, one to clean sponges, and one to stand opposite the operator and sponge. Ordinarily the man to hand instruments can be dispensed with, and I do not use any one for this purpose except in my hospital clinics, for of course the number of persons helping adds to the danger of infection. All assistants are required to wash as clean as possible, and use solution of bichloride afterward.

In putting the patient on the operating table, I place a soft pillow under the shoulders and one under the head, and have the feet so fixed as to keep the knees about level with the abdomen. This relaxes the abdominal wall to some extent. The bladder is emptied, and the abdominal incision is made just above the pubes. The length of incision in the skin being from two and one-half to three inches, according to the amount of fat in the abdominal walls, the opening in the peritoneum being only large enough to allow the free use of my index and middle fingers at the same time. This opening is rarely made larger, unless the size of the distended tube or ovary makes it absolutely necessary in extracting them. A larger opening is avoided, because it adds to the risk of septic poisoning, and makes ventral hernia more likely to follow. When ovarian and other large tumors are removed, the abdominal walls are relaxed, and there is less tension on the sutures and perfect union is more readily secured than in those cases where the abdominal pressure is normal.

When the subperitoneal fat is reached, it may be troublesome to get through it, for there is no distended tumor directly underneath it to keep away intestines and hold the many layers of the peritoneum together, and where gas is in the intestines this difficulty is increased. Where the omentum is free from adhesion, it can be pushed up as one would the end of an apron. When it is adherent, as it often is, to the broad ligament and anterior wall or top of the uterus, it cannot easily be separated by pulling it from below upwards, but by passing the two fingers well to one side and getting them underneath, and separating the adhesions, many formidable looking cases can be easily managed. As the adhesions separate, they should be lifted through the opening and any bleeding points tied. The principal vessels in adhesions of the omentum come from those of the omentum, and not from the pelvic organ; therefore, the end of the omentum is the part to be tied. If the adhesions are strong and vascular, as they may be in those cases where there have been repeated attacks of local peritonitis, then the omental adhesion can be tied off, tied first as low as possible, and then a little above this, and cut between the ligatures. By pulling the sides of the abdominal opening laterally with

retractors, we can do this without enlarging the opening in most cases. In handling and tying the omentum, care should be taken not to split or tear it, for it will invariably bleed up in the angle of the split, and may be very troublesome. Where the uterus is retroverted, the removal of the omentum, as a rule, frees the anterior part of the fundus and the anterior face of the broad ligaments; often the small intestines will have to be separated, but are not often firmly adherent. The next step is to elevate the uterus by placing the fingers behind it. The back of the fundus may be adherent, but, as a rule, it is free and is held back by the twisted and rolled up state of the broad ligaments. The ovary will be found folded under the tube and broad ligament, and to get it up we must go down through the broad ligament, or we must unroll the broad ligament. I have seen the former done several times, and it always adds greatly to the length of the operation, and necessitates tearing or tying off the outer attachments of the broad ligament before the tube can be gotten up and tied off with the ovary. Now, by putting both fingers directly down behind the uterus, and running the fingers laterally, guided by the Fallopian tubes, as it is given off from the uterus, and gradually separating the adhesions and unrolling till we get under the ovary, the tube and ovary can be gotten up easily in the worst cases; where the adhesions are very firm, an assistant's finger in the vagina as a guide may be useful, for in scratching loose the adhesions the ureter may be lifted up, and the sigmoid flexure or rectum may be torn up, for it may be adherent to the tube or ovary on the left side. When both sides are adherent it may be well to lift up both sides before tying either; although in some cases, where the bleeding is free, it may be better to tie the first one lifted up. In three cases I found the tissues so degenerated that my ligature cut through, and compelled me to slightly enlarge the abdominal opening and tie the arteries after picking them up with a bull-dog forceps. Where the tissues are frail and ligatures inclined to cut easily, it is safer to remove the tissues and tie the arteries separately. Two or three arteries will usually be found. Where the broad ligament is much enlarged, we may tie with two ligatures, one double ligature including the ovarian ligament and the tube within half an inch of the fundus, the other single and tying off the outer end of the broad ligament. The pampiniform plexus may give trouble, but I have seen it so degenerated as to pull to pieces in being tied. I use firmly twisted Chinese silk, and prefer to pass the ligature with a needle something like an aneurism needle, with a sharper point and longer handle than those found in the shops, to carry a double thread.

In tying, except in cases where one double ligature will suffice, I do not use Mr. Tait's Staffordshire knot, but I cross and interlock the two loops of all my double ligatures, and so far I have never had a ligature slip after the operation. After tying, before cutting off the tube and ovary, I catch the tissue with pressure-forceps close to the ligature, so that I can cut off my ligatures and not be tempted to use them to lift up the pedicle after being once tied. Besides enabling me to keep the pedicle in sight, these forceps act as guides in cutting away the tube and ovary. Often the ovarian ligament is so short that it is not easy to get a satisfactory stump left and cut off all the ovary. I like to have a Paquelin cautery on hand, so as to touch any suppurating end of a tube in a stump or ovarian tissue that may be left on it after tying. The tubes and ovaries of both sides should be removed if there is the least sign of salpingitis; but in two cases I found only the left side affected, the right tube and ovary being free from even a single adhesion, and I removed only those of the diseased side.

The cavity should be thoroughly dried with sponges and time given for hemorrhage to make itself manifest before the wound is closed. Where there are extensive adhesions or any pus cavity disturbed, or especially where there is any ascites, a drainage-tube should be put into the pelvic cavity. I prefer a large-sized tube of glass with some small holes in the sides besides the ends being open, and I use a large-sized catheter attached to an ordinary syringe for washing out the tube when needed. If there is no drainage I remove the large tube in thirty-six hours and slip a small rubber drainage-tube in its place, and the next day a still shorter and smaller one, each day until about the seventh day, when the opening will usually be filled up from the bottom. In introducing the sutures in the abdominal wall, I am careful to secure not only perfect coaptation of the peritoneal coats, but also of the deep and thick abdominal fascia, for if good union of this is secured the risk of ventral hernia is very much lessened; for it is this tissue and not the muscles, which are longitudinal, that gives strength to the abdominal wall in the median line. For thirty-six to forty-eight hours nothing is allowed to be taken except teaspoonful doses of water or broken ice, and enough morphine is used to prevent pain and restlessness, for several days. An enema is usually given on the sixth day to move the bowels, and sutures are removed on the eighth day. Either medium silk or silver wire is used in sutures for the abdominal walls.

If the abdominal walls are thick from adipose tissue, as a rule, the peritoneum will be found tense, and require more than usual care in closing properly. In such a case, after putting in from three to six silk sutures through the skin, fascia lata and peritoneum, the peritoneum should be carefully closed with catgut sutures, and the fascia lata also separately closed in the same way. Then the first silk sutures should be closed, leaving room between them, in two or more spaces, for short drainage-tubes placed upright so as to drain the adipose tissue between the fascia and the skin. Or if the walls are closed by silk sutures in the usual way, the skin, a little to the side of the cut, should be punctured so as to give vent to the grease that is certain to escape from the more or less bruised adipose tissue. I have seen mural abscess caused by this free fat, and it might enter the peritoneum and cause greater trouble. After sewing up and cleaning the wound, it should be freely sprinkled with iodoform and covered with a layer of absorbent cotton that has been squeezed out in one to five thousand mercuric bichloride, and over this several layers more of dry absorbent cotton, so that the whole abdomen will be evenly compressed when the adhesive straps and bandage are put on. Over the cotton a folded towel and mackintosh are placed, and firmly compressed by adhesive straps and a bandage. Except where a drainage-tube is inserted, this dressing can remain until the eighth or ninth day, when the sutures are removed, unless oozing appears through the dressing, or a rise of temperature takes place indicating septic poisoning, etc. In cases with extensive adhesions or in pyo-salpinx, especially where the tissues are infiltrated, we must expect a moderate rise of temperature during the first two or three days, caused by the small amount of septic material left in the pelvis; but this is readily absorbed and the local peritonitis caused by it soon subsides, and on the fourth or fifth day the temperature falls. When the case fails to rally well, and has a temperature at or below normal, or in some cases where all symptoms are favorable and temperature low until the afternoon of the third or on the fourth day, the temperature makes a steady rise, you have, as a rule, a fatal case of septicæmia to deal with, that death alone will stop—which it usually does inside of two or three days. Sometimes a case begins as a local peritonitis and gradually spreads to general peritonitis, vomiting, and death. Still, I think the proper name for such a case is septicæmia.

Complications.—As endometritis nearly always precedes salpingitis, it is necessarily a frequent complication. It is rare to find salpingitis uncomplicated by local peritonitis, and this, by the formation and contraction of bands of adhesions, distorts and displaces the pelvic organs and makes more or less permanent any displacement that

may have previously existed. This was fully brought out in describing the treatment. The most serious and dangerous complication is the rupture of a tube distended with septic fluid, causing general peritonitis and septicæmia. Should this happen and be diagnosed, or be indicated as the probable cause of peritonitis, it would be proper to open the abdominal cavity, remove the tube, and wash out and drain the peritoneum. The inflammatory process may become so intense in or about the tube as to cause the tissues to break down, and form so large an abscess that the surrounding tissues lose the power to protect themselves, and a perforation takes place into the rectum, vagina, abdominal wall, or through one of the openings in the pelvis, or into the bladder. This necessitates enlarging the opening to secure drainage, and often before a cure can be effected counter-openings are necessary, and if these fail, an operation for removal must be resorted to.

THE HISTORY OF MYXŒDEMA,

With the Report of a Case.

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In 1873 Sir William Gull directed the attention of the Clinical Society of London to this disease, and called his cases examples of a "cretinoid state supervening in adult life in women." Dr. Ord, of St. Thomas' Hospital, next drew attention to this disease in a very able paper read by him at a meeting of the Royal Medical and Chirurgical Society of London in 1877. During the past ten years many cases of this disease have been reported, both at the English medical societies and in the medical journals.

During the past five years attention has been called to the disease in France, particularly by M. Charcot, who is credited with being the first to record a male example of this disease, and who disagreed somewhat with the teachings of Dr. Ord, as well as with the view of the relation of this disease to cretinism, put forth by Sir William Gull. M. Charcot, on account of the condition of the skin and the anæmia manifested by the disease, gave to it the term "cachexie pachydermique."

The causes of myxœdema are not very well understood. The great majority of cases have occurred in females, generally commencing at or about the climacteric, and frequently after confinement (Dr. Ord). Recently several cases of a typical kind, in which males were the subjects, have been fully described. In Dr. Andrew Clark's experience males have been the more frequent sufferers, in about the proportion of seven to three. Recent observations point to the central organs of the nervous system as being affected. Bulbar paralysis has been noticed in a few cases. From the histories of several cases collected by Dr. Ord, syphilis, alcoholism, and fevers do not play any important part in the causation of this disease. He found the disease more frequent in married than in single women. Pregnancy is supposed to be the cause in some cases. The majority of the cases observed by Dr. Bristowe were females; he considers the cause to be unknown. Dr. Ord's first case followed upon the fatal illness of a husband. In Dr. Cavafy's first case it followed a shock; in his second, a bad time at childbirth. In Dr. Duckworth's second case the patient said it came on after her husband had kicked and ill-treated her. In Dr. Semon's case the patient had fourteen children and many miscarriages in a short while. In Dr. Tom Robinson's case the cause is put down as pregnancy.

Dr. Mahomed has advocated the view that myxœdema is a form of chronic Bright's disease, but his views are at present disputed. A single typical example of this disease presents symptoms which are clinically very different from those of Bright's disease. Fatal cases have been reported which have terminated with albuminuria and coma, and in which, on post-mortem examination, the kidneys have presented an appearance very like that of chronic interstitial nephritis. But Dr. Ord says albuminuria rarely appears earlier than the last few months of the disease, and the patient may be entirely free from it for five or even ten years, although manifesting all the symptoms of myxœdema in a marked form. One case was shown me where the patient had been the subject of the affection for ten years. Charcot, as previously mentioned, has referred to this disease as the "cachexie pachydermique," and claims to have recognized it independently, although not the first to call attention to this disease. On becoming aware of Dr. Ord's previous investigations he adopted the name of myxœdema, yet some French writers still speak of the disease as the "cachexie pachydermique."

In the fatal case, successively under the care of Dr. Mahomed and Dr. Goodhart, there was no excess of mucin found after death, although the clinical symptoms during life were those of myxœdema. But there was found a small amount of jelly-like material among the muscular fibres. A few cases occurring in early life have been reported. Charcot showed one such case, but would not decide whether it was a case of late development of cretinism or early supervention of myxœdema.

At the Twelfth Congress of German Surgeons, held at Berlin in April, 1883, Professor Kocher, of Berne, the professor of surgery to the University of that town, read a paper on "Extirpation of Goitre and its Consequences." His personal experience was based on one hundred cases of total or partial extirpation of goitres, and was second to that of Professor Billroth. His attention was drawn to the after-condition of his patients by the report of the medical adviser of one of his patients, upon whom he had operated in 1874. Professor Kocher having seen this patient himself, was so much surprised to see the changes which had taken place, that he requested all his patients upon whom he had performed that operation, to present themselves for re-examination. The number who presented themselves was reduced to thirty-four.

In sixteen of these cases only partial extirpation had been done, one lobe, with or without the isthmus, having been removed. In all these cases the result of the operation had been very good, the dyspnœa, for which the partial extirpation had been performed, had disappeared, and the general health improved.

With regard to the other eighteen patients, on whom total extirpation had been performed, only two showed an improved state of health. In one of these two cases a small accessory thyroid gland had become hypertrophied, and in the other case the goitre had returned. The other sixteen cases showed a more or less poor condition of their general health, this condition being most marked in the cases earliest operated upon. Professor Kocher, speaking of the changes, says: "A few months after the operation early fatigue, weakness and sensation of heaviness in the limbs were complained of. In many cases these were preceded by pains in different parts of the body. Soon afterward a sensation of coldness, especially in the extremities, was superadded. In winter time the hands and legs swelled, became bluish-red and cold, and the patient suffered from chilblains. The mental activity decreased; thought, speech, and movements became slower."

At the same time the patients themselves were aware of these facts. Simultaneously there appeared swellings of the face and body, being at first only transitory, but soon became lasting features. The parts most and earliest affected were, as a rule, the infra-ocular region and the eyelids, which showed a somewhat transparent swelling. Later on the nose became thick, the lips coarse, hands and feet swollen, and the waist stouter; the skin became dry, desquamated a little, and its elasticity was lost; it could only be lifted in thick folds; the hair fell

out. A more marked symptom in the more progressed cases was anæmia. The blood showed a richness of leucocytes, and a great diminution of the red blood-corpuscles. In cases in which the patients at the time of the operation were still growing, the development became arrested after the operation. Rarer symptoms were: slight dysphagia, giddiness, and headache. Ophthalmoscopic examination, made in a number of cases by Professor Pflüger, revealed nothing abnormal beyond an abnormality of the arteries. Being at that time unaware of the existence of myxœdema, he proposed for the affection he described the name of cachexia strumapriva.

Observations similar to these had been made by Professor Reverdin, of Geneva. Dr. Semon relates a case in which Professor Lister removed the whole of the thyroid body, when a set of symptoms similar to those described by Professor Kocher followed a few years after the operation. In the three conditions, viz., cretinism, myxœdema, and the state supervening after total removal of the thyroid body, certain conditions of arrested development of mind and body were met with, which, looked upon in the light thrown upon the subject by Professof Kocher's observations, could hardly be attributed to anything else than the loss of the thyroid body common to them all. The theories as to how these changes are brought about, and the influence of the thyroid body upon the composition of the blood and other tissues are at present contradictory and inadequate. One hypothesis has been put forth, viz., if the absence of the thyroid gland would lead to arrested development of mind and body, it might also lead to arrested development of the higher forms of organized tissue—the fetal tissue—and that then mucin would mainly be formed. Hence the presence of an excess of mucin in the tissues, which had been supposed to be the essential feature of myxœdema, might perhaps find its explanation.

The symptoms of myxœdema are various and numerous. One of the chief features of this disease is the peculiar physiognomy manifested by the patient. The face is swollen, so as to suggest the existence of renal disease, with which cases of myxœdema were confounded before the disease was well understood and recognized. As a rule the œdema is general, but is most marked in the hands and face, especially the lower eyelids. Pressure on the œdematous parts does not produce pitting. The lips are thick and enlarged, the alæ nasi are similarly affected. The tissue around the eyes appear swollen, puffy, and colorless. The skin is waxy-looking and anæmic, the lips present a faint pinkish tint, and the cheeks are marked by a dull pink flush, which shades away toward the orbits. This flush on the cheek is circumscribed and persistent. The hands are large and thick, their shape altered, and, as Sir William Gull describes them, "spade-like." This condition of the hands is probably due to the fact that the fingers become thickened and flattened by pressure against each other. The conditions of the body generally are similar in appearance to those of the face.

The skin is dry and rough to the touch, and is thicker than the skin in health; in some cases the skin is smooth and delicate looking. The speech is slow and thick, resembling that of a person affected with quinsy. The tongue appears enlarged, and this condition may in part explain the peculiar speech. The inside of the cheeks is thickened and of an œdematous condition. The movements of the limbs are slow, the gait uncertain, the legs sometimes give way and the patient falls down; an effort is required to maintain a fixed position. The patient is slow in thinking; a distinct hesitation is noticed before answering questions. Much longer time is required in doing work, whether mental or bodily, than is required for the performance of the same in health, the patient also seems to lose all interest in what is going on around her. She oftentimes expresses herself well in both speaking and writing, but at other times appears to be at a loss what to say. The special organs are not affected, and the muscles appear normal. The internal organs are not necessarily affected.

The urine does not contain either sugar or albumen; specific gravity is lowered. There is sometimes a slight, at other times great, difference in the amount of urea passed in the twenty-four hours. As a rule the urea is largely increased. Authorities differ as to the amount of urea eliminated in the twenty-four hours, some reporting cases where the urea was subnormal, others where it was greatly increased. Cases are reported in which the amount of urea passed in the twenty-four hours was from ninety to one hundred and eighty grains, as estimated by the ureaometer.

The patient complains of feeling cold, and the bodily heat is often lower than normal, the temperature in the axilla varying from 96° to 98° Fahr.

In the cases reported by Dr. Ord, as the disease advanced the viscera became affected, and albumen was present in the urine in the last stages of the disease. Late in the disease the mind becomes affected. The patient is irritable and fretful; finally coma supervenes. In cases observed by Ord and Bristowe death terminated in coma or symptoms of uræmic poisoning.

In the two fatal cases observed by Dr. Ord, albuminuria was present before death, and may have been connected with the cause of the death of the patient.

The chief morbid condition discovered by Dr. Ord was general œdema of the connective tissue, including that of the lungs, heart, and kidneys. Mucin was found in very large quantities in the tissues, and it was the presence of this peculiar substance in them which led Dr. Ord to give to this disease the name myxœdema.

The thyroid body has been noticed to atrophy in the course of the disease. Dr. Kocher, of Berne, had noticed that after the total extirpation of the thyroid gland in numerous cases, a number of symptoms had developed in these cases very like those of myxœdema. It had also been noticed by Professor Kocher, that in those cases in which the operation had been performed when the development in the length of the body had not yet been completed, the development had become arrested.

Dr. Felix Semon, about two years ago, directed the attention of the Clinical Society of London to Professor Kocher's cases, and suggested that myxœdema might be more closely allied to cretinism than was supposed, and that myxœdema and cretinism might represent different stages of the same affection, cretinism arising either during the period of intrafetal or intellectual development, myxœdema, on the other hand, being essentially a disease of adult life.

Kocher's cases, however, did not seem to strengthen these views of Dr. Semon. Recently Professor Paul Bruns, of Tübingen, called attention to a paper of his "On the Present State of the Treatment of Goitre," in which he communicated the case of an individual, now twenty-eight years old, whose thyroid gland had been removed eighteen years previous on account of goitrous degeneration. One year after the operation, Dr. Sick, of Stuttgart, had drawn attention to the fact that a marked physical change had taken place in the boy; he had become unusually quiet and retired, having previously been a bright and lively child. Professor Bruns having looked up the patient, found him still living, but he had become a dwarfy cretin. The development in the length of the trunk and limbs had entirely become arrested since the operation, and only the dimensions of the head were those of a man of his age. The total length of the body was five feet two inches.

The expression of the face was that of an idiot; the face was much swollen, especially the lips and lower eyelids; the skin and visible mucous membrane was pale. The skin over the whole body was dry and brittle; the hair was scarce and thin on the head; no trace of a beard, and but few pubic hairs; genital organs were well developed.

Partial extirpation of the thyroid body is said to be not

followed by myxœdematous symptoms. These facts seem to point out that it was the loss of the function of the thyroid gland which caused both cretinism and myxœdema.

The prognosis is unfavorable, the period of life varying from five years and upward.

Regarding the treatment, Dr. Bristowe says it can only be palliative. Dr. Ord has found benefit from vapor-baths, and still greater success from the use or jaborandi, and in a few cases he treated by this drug he found the signs of the disease had very much disappeared. The dose of jaborandi generally given is ten, twenty, or thirty drops of the tincture (B. P.). Pilocarpine subcutaneously may be used, commencing with one-twelfth of a grain and increase until the required diaphoresis is produced. When hot-air baths fail to produce diaphoresis trial should be made either of jaborandi or pilocarpine. Nitro-glycerine is also recommended and given with the object of diminishing arterial tension. Dr. Mahomed used this drug in a case under his care attended with albuminuria, but the improvement was only temporary. Charcot relates a case that so much improved under the prolonged use of milk diet, as to lose some of the marked features of the disease. Dr. Andrew Clark regards the disease as greatly benefited by care in diet, and use of arsenic, iron, baths, and friction. Iodide of potassium, strychnine, phosphorus, have been tried. Cases have been reported where the patients showed improvement independent of drug treatment.

The following case I saw at the London Hospital, under the care of Dr. Stephen McKenzie: J. A——, an unmarried woman, aged thirty-five, came to Moorfields Eye Hospital in February, 1884, as an out-patient, under the care of Mr. Gunn. She complained of swelling of her eyelids, which had gradually increased for nine years. She was one of a family of nine, none of whom had shown symptoms resembling hers, her four sisters, all older than herself, being in perfect health.

Her father died in old age; her mother at fifty-seven years with hemorrhage from stomach. No history of hæmophilia in the family. The patient was always well-cared for. For the first twenty-three years of life she had enjoyed very good health, when seventeen years ago she had two teeth extracted, the bleeding after the operation lasted twenty-four hours and was very copious. She said she had never been well since. No marked symptoms were noticed till twelve years ago, since which time tney had steadily increased with occasional slight remissions. The patient presented the characteristic facies of myxœdema as described by Dr. Ord. The loose, baggy, almost translucent lids; the dry, brawny cheeks and thick blue lips, with the swollen, red, expressionless hands, and deliberate speech and volition made a group of symptoms which once seen could not be forgotten. Her heart and lungs were sound, her digestion somewhat affected. Her molar teeth had broken off bit by bit, her gums were extremely vascular and bled freely, so that her mouth was frequently filled with blood in the morning. Her extremities were always cold, and her axillary temperature always subnormal. Her urine varied much in quantity; but scanty or copious the total amount of urea was invariably deficient, only rising to half the normal amount, and frequently being as low as one-fourth. It contained neither sugar nor albumen. She began to menstruate at the age of fourteen, and had menstruated regularly; the amount had always been copious, but sometimes the flow might last for three weeks, leaving her very exhausted. With the exception of deliberate speech, thought, and volition, there were but one or two points to be noted in connection with her nervous system. One was the constant recurrence of a nervous restlessness, so that she was afraid when the night came, as she could not lie still

As regards treatment the usual tonics seemed to have no effect. A short while after her admission she was put upon half-drachm doses of tincture jaborandi, which she continued for three weeks, at the end of which she left the hospital. The patient said she felt better while taking the jaborandi, and this treatment increased the amount of urea excreted until it was double the normal amount.

IMPRESSIONS OF THE CHOLERA AND ITS TREATMENT DURING THE RECENT EPIDEMIC IN FRANCE.

By BENJAMIN D. HOWARD, A.M., M.D., F.R.C.S.E.,

LONDON, ENGLAND.

THE general statistics of the recent epidemic, fortunately so limited and brief, are now as undisputed and as unattractive as a last year's almanac.

The impressions and lessons from a prolonged personal experience, however, in that epidemic may have an interest still fresh, and which unfortunately may increase as the winter recedes and the summer approaches.

The nature of the epidemic. In the rough its Asiatic character has, as we all know, been long accepted universally as beyond dispute. Regarding its exact type in comparison with that which prevailed in Paris in 1865, and in New York in 1866—both of which epidemics I happened also to have a personal acquaintance with—the recent epidemic in Paris was, I think, more malignant. Premonitory diarrhœa was more infrequent; collapse occurred earlier; death quicker. In case of recovery, the symptoms generally assumed a typhoid character, delaying greatly the completeness of the recovery. Literally struck with the disease—seized at once with the symptoms of approaching collapse—I saw more than one patient die within six hours of the commencement of the attack, no sign of possible reaction having once appeared from the beginning to the end. One man I saw taken in this manner while he was promenading on the Boulevard, in whom the symptoms were so conspicuous, even to the cabmen, that of eight or ten called, not one would take him or his fare.

The question now most conspicuous and pertinent is, What has this epidemic yielded in the way of improved treatment? There are three remedies, the value of which have been more or less taught or confirmed: Inhalation of oxygen, transfusion of saline solutions, and the spinal ice-bag.

Inhalation of oxygen.—The Hospital St. Antoine, which had by far the larger number of cholera patients, was equally notable for the enterprise and enthusiasm in their treatment. Professor Hayem, the physician-in-chief of the contagious diseases service, with M. Bufflorg, his *chef-de-service*, concluded that as Professor Hayem had found such utility in the vomiting of pregnancy from the inhalation of oxygen, it might be well to try it in the cases of most persistent vomiting in cholera. When any ordinary internal remedy would have been at once rejected, the inhalation of oxygen, which is without risk or inconvenience, seemed in almost every case to diminish the retching and vomiting, and at the same time somewhat diminish the sense of coldness. When ice pellets, sinapisms, Badejon phenicæ blistering fail, it is worth knowing that the inhalation of oxygen may stop the vomiting quickly and entirely.

Transfusion.—In collapse with complete pulselessness this remedy, particularly at St. Antoine, was largely employed, and with great skill and enthusiasm. This operation was generally preceded and followed by a hypodermic injection of ether. The apparatus used was Rousel's. The solution generally used consisted of sodæ sulph., 10 parts; sodæ chlorid., 5 parts; and distilled water, 1,000 parts, at a temperature of 39° C., two or three litres being transfused in adults at one operation, this being repeated in some cases three times at intervals as seemed expedient. The results of this operation were nearly always very striking, and in one respect curious.

After twenty or thirty strokes, each stroke injecting twenty-six grammes, the lost pulse would return, followed by an almost startling brilliance of the eyes, partial restoration of the voice, and a general appearance of improvement in other particulars, with one exception. Curiously enough, after the fiftieth or sixtieth stroke, the patient would usually complain of feeling colder; this complaint would often be corroborated by severe chills, which would sometimes be so persistent as to reach their height not till half an hour after the operation.

The urine, on its reappearance after transfusion, was apt to be for a time slightly albuminous.

The spinal ice-bag treatment.—This, I am glad to say, my friend, Dr. Chapman, had an opportunity of trying at La Charité, with a limited and small number of patients. From Dr. Chapman's experience with this treatment in a previous epidemic in Southampton, Professor Peter was induced to invite Dr. Chapman to try his method as I have stated. I did not see the patients while thus treated, but Professor Peter has expressed his satisfaction with the results. The extent and elaborateness of the system constructed by Dr. Chapman, upon the hypothesis of vaso-motor regulation and control by means of given temperatures applied to the spinal column, have doubtless hindered its acceptance. While nobody can deny the ingenuity of the theory, many hesitate to accept conclusions so extensive. By the recent experience at La Charité one practical point in connection with Dr. Chapman's theory has, so far, doubtless received demonstration.

The difference between the treatment here in 1865 *and* 1884.—This, with the above-mentioned exceptions, is slight. Bismuth is used as before, but in grave cases in the form of the salicylate; for cognac have been largely substituted wine and water, eau de seltz and water, with bicarbonate of soda; for opium, laudanum; and for friction, hot flannels.

The progress made in the early treatment.—This cannot be said to be very great, and is too well illustrated by the following fact: A friend of mine, of the Faculty of Paris, who has greatly distinguished himself in his microscopical and other investigations in connection with cholera, was complaining of very troublesome borborygm and diarrhœa after unusual exposure in the cholera wards. In response to my anxious questions he informed me it was all right, that he had taken five grains of bismuth, and in answer to "Why bismuth?" "Well, you see, bismuth is innocuous; it acts mechanically, it coats and protects the diseased part." How five grains of bismuth could be so directed as just to cover the diseased part, and that only, implies a skill beyond my comprehension.

The practical lessons from this recent experience respecting treatment.—The general tendency to the adoption by preference of one method of procedure, and that alone, is for the patients a great misfortune. Should it become my duty to direct the treatment of cholera patients hereafter, without now pretending to state all I would do or avoid, I am quite sure I should use what in Paris I have never seen employed, *i.e.*, hot-air bath, the tube from the ordinary spirit-lamp apparatus projecting under the bedclothes in every case. While this maintained the general heat of the bed, hot bottles, hot flannels, and friction should be duly employed also according to symptoms. The supply of eau de seltz or other saline agreeable drink should be limited only by the desire of the patient to swallow it.

Oxygen for inhalation should be constantly available, to be used in conjunction with or without ice pellets and sinapisms, as might or might not be expedient.

Transfusion appliances should be always ready; but for the chills supervening I would supply extra applications of hot air, hot flannels, friction, and hot drinks, if the latter could be borne.

Typhoid tendencies I would meet as in any other case, but with extreme delicacy and caution.

In a certain proportion of cases, not very severe, I should be tempted to try the spinal-ice bag, holding myself ready to relinquish it and to combine or substitute other measures at any moment.

The pathology of cholera.—As regards general lesions there has been nothing to remark; in only one instance did I observe any ecchymosis of the intestines. The microscopical conditions are too familiar for remark, each of the particular phenomena has of course been seen in the laboratories, and should others be described, doubtless they would be seen also.

The communicability of the cholera is a question upon which unanimity can scarcely be expected. To assume that the coma or any other bacillus is the one and only essential germ of cholera, and that this must reproduce itself or nothing, is doubtless premature. Practically our concern regards the soil as much as the seed, and the means of sowing are many. During this recent epidemic it is said not one hospitable physician or interne has had cholera. Admitting this to be true, the same may have been said many times concerning typhoid fever, scarlet fever, and small-pox. Further, while none of these fortunate individuals had typical cholera, I do not know one interne who had much work in the cholera wards but who, during the greater part of the time suffered from borborygm, colic, diarrhœa, and in a manner unknown to him under ordinary circumstances.

Mr. McNamara relates how, in 1872, having in the morning been engaged in a close laboratory examining some monkeys to whom he had given cholera dejecta, before four o'clock of the same day both he and his assistant were attacked with cholera, extending afterward to collapse. In connection with the point I have mentioned, that many of those visiting cholera patients, though continuing free from typical cholera are victims of very disagreeable intestinal disorder, I may mention one fact which came immediately under my notice. A medical friend, in robust health, the day of his arrival in Paris from the seaboard, was with me for about two hours in some rather close single cholera wards. Within one hour of his leaving the hospital he had involuntary diarrhœa, and for the several remaining days of his attendance in cholera wards, borborygm, colic, and offensive diarrhœa persisted in spite of treatment, and continued four or five days after his return home. The day after his return his wife, from whom he had kept his hospital visits secret, was affected, and continued precisely the same way for five or six days; neither the one nor the other had what could be called cholera, but what both of them had could be traced to no other cause than the attendance of my friend upon patients who did have it. This is but one of several similar facts which have come recently under my observation, showing, as I think, that the essential element of cholera may have many varieties and infinite degrees of effect, according to the condition of the respective individuals, the most perfect adaptation and susceptibility existing only in a small minority of those who have been gradually prepared by continuously bad hygiene or pernicious habits.

Toulouse being the only city on the European continent to this moment having a single accident horse-ambulance, patients going to hospital went there as best they could, usually, of course, in the first public cab that would take them, the few ambulance wagons for contagious cases having been used chiefly for returning these patients to their homes after they were considered sufficiently recovered. So that while something was done to limit the spread of the disease, enough was left undone to allow it to extend itself, if it could do so, to any or all of the immense cab-hiring community of Paris.

The Medico-Legal Society held its annual meeting on Wednesday evening, January 21st, at which the President-elect, Dr. R. Ogden Doremus, gave his inaugural address. The members then attended the annual banquet at the Murray Hill Hotel.

HORSE-HAIR SUTURES AND DRAINAGE.

By DANIEL LEWIS, M.D.,
NEW YORK.

In a short paper on the advantages of horse-hair for sutures and drainage, presented before the Medical Society of the State of New York at its last meeting, I mentioned the fact that Mr. Purcell, of London, often leaves such sutures in the wound for ten days without the slightest detriment. This has been so well exemplified in a recent case in my service at the New York Skin and Cancer Hospital, that a brief note of it may be interesting. The patient had recurrent cancer in the cicatrix of the former breast amputation, as well as in the axilla. An incision was made from the sternum to a point behind and below the axillary space, and a vertical incision to the armpit. All the axillary glands were removed, and, of course, the operation was a tedious one. Something of a pocket remained in the dependent portion of the flap, in the bottom of which a puncture was made of sufficient size to pass a bundle of horse-hair (about the size of the ordinary rubber drainage-tube), which bundle extended the entire length of the wound, about eleven inches. Black carbolized horse-hair sutures were then used to close the incisions, by the continuous stitch. Drainage was as perfect as could be desired. A small portion of the sutures was removed on the seventh day, because union was complete at the sternal end, and the remainder was removed on the tenth day. *No* suppuration around the sutures had occurred, a result which we would hardly expect with the use of any other material. The drainage had been gradually removed, hair by hair, and the last dispensed with on the tenth day also.

I have never seen such a satisfactory result in the same length of time in so difficult an operation, and there can be no doubt that the material used was the most important contributor to this end.

Some care should be taken to select good hair—if too fine it may not be strong enough—if very coarse it is sometimes brittle and may break in tying. Black hairs are more readily seen, a great advantage when you come to remove them, and they should be carefully washed and disinfected. During the past year I have continued the use of these sutures, and in a large variety of cases, the results being so satisfactory that silk and wire have been almost discarded.

It seems fair to class these uses of horse-hair among the minor improvements in surgical dressings, which, taken together, are the chief factors in securing success, and for this reason I have taken the liberty of again calling attention to the subject.

147 East Forty-fifth Street, December 26, 1884.

"Carbonate of Titanium."—A writer in *The Medical World* recently recommended in the strongest language a certain pill "used by the French women to produce barrenness," as a remedy for amenorrhœa. A married woman using this pill, says the writer, does not become pregnant. The formula is as follows:

"℞. Pulv. aloes (soc.),
Carb. titan.....āā 3 j.
Fiant pilulæ No. xxx.
Sig.—One pill three times daily.

No particular nicety need be paid in regard to dose; from one to three pills may be taken *ter die*." Dr. A. B. Lyons, of Detroit, Mich., suspecting some crookedness, sent for some of the carbonate of lithium. On examining an alleged specimen he found that it consisted of about equal parts of sulphate and subcarbonate of iron, with a little bloodroot. The vaunted pill, therefore, is nothing more than the ordinary pil. ferri et aloes.

THE CURE OF ASTHMA.

By RICHARD B. FAULKNER, M.D.,
PITTSBURG, PA.

I understand by the term asthma the condition of spasm of the bronchial tubes of both lungs, with hyperæmia approaching or amounting to inflammation, accompanied by râles upon both inspiration and expiration, with great difficulty of breathing. And the term is applied to the paroxysm alone, which returns at regular or irregular periods. Disturbance of function or disease of structure of the pneumogastric nerve is always present. And without detailing its anatomy, I advise close reference to Gray, in all instances of the affection in which the cause is obscure. Generally symptomatic, yet often independent asthma finds place in the nosologies of Niemeyer, Salter, Watson, Trousseau. An evolution of the neurotic constitution, it is generic with neuralgia and the spasmodic cerebro-spinal neurosis. Trousseau considered his own case inherited. He saw asthma, neuralgia, gout, rheumatism, cutaneous irritations, and hæmorrhoids, alternate one with the other. Indigestion, imperfect nutrition, anæmia, chlorosis, syphilis, occasionally cause it. It is frequent in the spring through association with respiratory diseases. I have never known phthisis to be the cause or associate of asthma. Thousands of cases of naso-pharyngeal catarrh exist without causing it. Nothing tends more to asthma than disorder of the skin. In fact, I have not known of a case in which the action of the skin was normal. With no desire to magnify its importance I must refer to its delicate anatomy, and speak of its wonderful vascularity, exquisite nerve-supply, and of its vast sudoriferous and sebaceous systems, and then of its important functions—sensation, absorption, and secretion. When the skin has lost its tone, every slight exposure is apt to excite abnormal impressions, occasion vaso-motory disturbance with internal congestion and reflexive irritation of the bronchial nerves.

Asthma prevails mostly in the fall, because of the enervation of the nervous system wrought by the long-continued summer's heat. Its prevalence can be approximated by the amount of its mortality. By a table I have formulated, I have shown, first, the actual leath-rate in many cities, and by inference, its prevalence; second, that the mortality is maximum in warm climates; third, that its origin is independent of consumption, pneumonia, and bronchitis.

I heard the venerable Alonzo Clark tell his class, to which I belonged, that the climate of Pittsburg was thought to be especially salubrious for asthmatics on account of the smoky condition of its atmosphere. Indeed the enormous quantities of smoke generated by her immense rolling-mills, blast-furnaces, and glass-houses, render the atmosphere so hazy that the sun often resembles the moon until the morning is half over. Carbonaceous collections are seen in the inner canthus of every eye, in every nostril, and are coughed from every throat. Dr. Hyde Salter wrote, in Reynolds's "System of Medicine," vol. ii., p. 107, American edition, that, "in the great majority of cases, an urban residence is best for asthma, and especially that part of the city in which the air is densest and smokiest. As a rule the air of a low situation is better than that of a high one, and a relaxing air than one that is bracing." My observation condemn his teachings. What is smoke? Finely divided carbon. But an atmosphere of smoke contains also the noxious gases generated by combustion, namely, sulphurous acid, carbonic acid, nitrogen, and hydrogen. These gases are very irritating to the mucous membranes. The grate in my consultation-room smoked once when asthmatics were present, and caused immediate dyspnœa. Smoke greatly influences the air; attracts and condenses moisture; produces fog and rain. This is emphasized by the fact, pointed out to me by the distinguished astronomer, Professor Samuel P. Langley, Director of Allegheny Observatory, that "in Pittsburg there is

little rain on Sundays, because the mills are then shut down, and the atmosphere is clear. Sundays are generally clear and dry. If it were not for the smoke in this city there would be much less rain. Considering altitude alone the air of Pittsburg should be light and dry." When Salter and others refer to the air of certain parts of a city as being "*denser* and smokier" than other parts, they speak only seemingly to the senses, not literally.

"SIGNAL OFFICE, WAR DEPARTMENT,
WASHINGTON CITY.

"SIR: Relative to the effect of the smoke of Pittsburg on local barometic pressure, I have the honor to say that the mere smoke of a city cannot have any appreciable effect upon barometic pressure.

"Your obedient servant,

"W. B. HAZEN, Brig. and Bvt. Maj.-Gen.,
"Chief Signal Officer, U.S.A."

The influence of smoke upon temperature is not known. Pittsburg has sudden and extreme changes in temperature. Smoke is very diffusible and soon affects the atmosphere for miles around.

"ALLEGHENY OBSERVATORY,
ALLEGHENY, PA., January 12, 1884.

"DR. R. B. FAULKNER—*Dear Sir:* I have been informed by Mr. Clarence King, Director of the United States Geological Surveys, that the smoke of the Chicago fire was seen on the Pacific coast.

"Yours truly, S. P. LANGLEY."

The prognosis of asthma turns upon its complications. The malady sometimes persists through the force of habit.

To cure the paroxysms I originated a method of treatment nearly five years ago; and repeated observation has confirmed its great utility. When called to a case of asthma, with a camel's-hair brush I make a streak of Churchill's iodine *over each pneumogastric nerve, in its course in the neck, from the upper part of the thyroid cartilage to the upper borders of the clavicles.* By counter-irritation thus applied, the capricious and abnormal exercise of nerve-force by the pulmonary filaments is controlled, and bronchial spasm promptly relinquished. Such is my original method—simple, certain, quick. Churchill's tincture is the best counter-irritant, because, first, it is convenient; second, its action is easily controlled; third, it does the work. To permanently cure the paroxysms, it is usually necessary to remove the underlying morbid condition upon which they depend or are associated. Remove bronchitis, correct emphysema, strengthen weak cardiac impulse, attend to indigestion, etc. It is cardinal doctrine to keep the skin active. With it dry, harsh, sallow, insensitive to healthy impression, incapable of proper transudation, it is no wonder that many do not recover. Soap! water! friction! Daily salt water baths. Respiration is somewhat assisted by Politzer's inflator, or Waldenburg's machine. An elastic rubber tube, two feet long, is excellent for ladies to exercise with, and strengthen flabby muscles. Dumb-bells; Indian clubs. Away from low, damp parts of a city; seek the *suburbs*. *Suburban residence* is best. Away from the enervating South to the cool and bracing North. Go to New England, Canada, Eastern Colorado, Utah, Northeastern Montana, Minnesota, Oregon, Southern California coast. San Diego, Los Angeles, Salt Lake City are desirable. Go where the atmosphere is light, cool, and clear. As that keen philosopher and sound pathologist, the great Niemeyer, said, "It is desirable that all asthmatics should reside in a pure, dry atmosphere; and avoid dusty, smoky, and windy localities."

36 NORTH DIAMOND STREET.

SOME OF OUR DENTISTS are using muriate of cocaine in their practice, claiming to be able to fill cavities and to use the dental engine without causing pain.

Progress of Medical Science.

UNILATERAL SPASM OF THE TONGUE.—Dr. E. C. Wendt reports, in the January number of *The American Journal of the Medical Sciences*, a case of unilateral lingual spasm. Symptomatic spasm of the tongue has been frequently observed in a great variety of diseases of the nervous system, but the idiopathic occurrence of such a disturbance is quite rare. Dr. Wendt's case was that of a man, aged thirty-six. He was of excellent physique and good antecedents. The right side of his tongue was alone affected by paroxysms of spasm, lasting from one-half to several minutes. The intervals were free from morbid manifestations of a decided character, although he complained of some soreness about the right tonsil. There was found by a specialist some deviation of the nasal septum, hypertrophy of turbinated tissue anteriorly, and chronic irritative hyperæmia of the larynx. The patient's sense of taste was perfect, as were also the other special senses. The lingual twitchings were not painful, but at times interfered with speech. Various remedies having proved useless, a cure was finally effected by the daily application of galvanism to the tongue, in a period of two weeks

THE USE OF THE ASPIRATOR AFTER TRACHEOTOMY.—So frequently does it happen that disease and death follow the removal of secretions from the trachea by suction, that, before resorting to it, a thorough trial of all other means at our command should be made. Dr. Dupuis cites a case in the Canada *Lancet*, December, 1884, in which two of his assistants contracted diphtheria in this way. He has used, and recommends, the aspirator in similar cases. A small tube, about eighteen inches in length, is attached to the instrument in place of the needle. This is introduced through the tracheal wound as often as accumulated secretion causes trouble. A writer in the London *Lancet*, November 8, 1884, after claiming to have used the aspirator in this way during the past nine years, alludes to the defects in the apparatus owing to the air being drawn into the trachea by the side of the suction-tube, and recommends the addition of a piece of wash-leather about 6 x 6 to the tube. A piece of vulcanite tube is passed through a small hole in the centre of the wash-leather, which is tied firmly. The suction-tube is then passed through this and into the trachea. The wash-leather is moistened and spread over the neck of the patient, and effectually prevents the entrance of air alongside the tube.

SULPHATE OF COPPER IN OBSTETRICS.—Dr. Charpentier, of Paris, has proposed the use of copper as a local application in obstetric practice. *L'Abeille Médicale*, November 17, 1884, gives the following as his conclusions: Sulphate of copper employed in solution of one to one hundred is an antiseptic of the first order, which can render great service in obstetrics. Absolutely inoffensive to the patient, of a very moderate price, and easy management, it joins to the advantages of being a very powerful antiseptic that of being an almost instantaneous disinfectant. Whether it be employed as intra-vaginal or intra-uterine injection, it is absolutely innocuous. It possesses astringent and coagulating properties to such a degree that it can be substituted as a hæmostatic for the perchloride of iron, over which it has the advantage of not leaving a foreign substance in the wound. The solution should be heated to 100° F. Its use can be continued during the first eight or ten days, several times in the twenty-four hours, without other effect than lowering the temperature and diminishing the frequency of the pulse. The author has had excellent results with the copper solution in large thrombus of the vulva, fetid abscess of the urethro-vaginal fold, and similar conditions, cutting short the general symptoms resulting from the putrid infection, and bringing about rapid healing, where phenic acid solutions had failed.

Bilateral Spinal Sclerosis Consecutive to a Unilateral Lesion of the Brain.—From a careful study of ten cases Dr. A. Pitser arrives at the following conclusions: 1. Consecutive to unilateral lesions of the brain, it is not rare to find secondary sclerosis of the spinal cord involving symmetrically the two lateral columns. In these cases the sclerosis follows the course of the pyramidal fibres through the cerebral peduncle, the pons, and the anterior pyramid of the affected side, but below the point of decussation the sclerosis suddenly becomes bilateral. 2. The medullary lesions below this point are sometimes perfectly symmetrical, that is, of equal intensity and extent, and at other times are more marked on the side of the hemiplegia. The columns of Türck are generally unaffected or involved but slightly and partially. The other portions of the cord are normal. 3. This bilateral sclerosis of the cord secondary to unilateral lesions of the brain, is due in all probability to some anomaly of decussation of the pyramids. 4. All the bilateral symptoms in hemiplegia of cerebral origin are not necessarily dependent upon the secondary cord lesions here described. Loss of power in the limbs of the non paralyzed side is a common symptom in all cases of hemiplegia, due to a destructive lesion of the brain. Bilateral exaggeration of the patellar tendon, reflex and bilateral contractures of the lower extremities may be met with in cases in which the secondary sclerosis is confined to one side; and may again be absent when the secondary sclerosis involves both lateral columns. But the disturbances of equilibrium and of locomotion seem to be more permanent and more marked in cases in which both columns are affected than when the sclerosis is unilateral. —*Rivista Clinica*, November, 1884.

Hot Water in Constipation.—Water at a temperature of 140° F., taken in moderate amount at intervals of fifteen to twenty minutes, and drunk slowly, is said to be a powerful exciter of peristaltic action and a diuretic. It frees the stomach and intestines very promptly of acetic and butyric acids, of lactic acid in excess, and of ammoniacal products. The stools become frequent and bilious in character.—*Memorabilien*, November 20, 1884.

Unsuccessful Excision of the Initial Sore in the Prevention of Syphilis.—Dr. Rason reports the case of a healthy lawyer, twenty-eight years of age, who came to him with the request that he would examine a woman with whom he had had connection two days previously. She was found to have mucous patches on the genitalia, evidences of an old chancre, and also roseola. A month passed during which the man observed the greatest cleanliness, and was also frequently examined for the first signs of a sore. On the morning of the twenty-eighth day after coitus the patient presented himself with a bluish red spot scarcely at all raised, about the size of a hemp-seed, on the inner side of the prepuce. Dr. Rason advised excision and performed it at once with scissors. The sore suppurated a little, and after twenty-five days became indurated about the edges. In forty-eight days after the excision, seventy-six after coitus, roseola appeared with mucous patches in the throat. Professor Ördmannson, of Stockholm, has had a similar want of success, though he believes that the subsequent course of the disease is lighter after excision of the chancre.—*Norsk Magazin for Laegevidenskaben*, No. 10, 1884.

Progressive Ossifying Myositis.—Kümmel regards this affection not as a pathological curiosity, but as a well-defined disease, in regard to the nature and etiology of which, however, there are still many points requiring elucidation. He has found twenty-seven cases recorded in the literature, and relates another coming under his own observation. The child presented from birth a marked deformity of the back with limited motion in several joints. At the age of two years he had an attack of fever which was followed by the appearance of several tumors on the back, at first soft, and later hard. From this time the disease progressed slowly up to the twelfth year, the osseous tumors became more numerous, and motion was limited in a progressively larger number of articulations. All the affected muscles showed a diminished sensibility to the induced current. Kümmel believes that the disease is congenital in its origin. In general it may be said that the affection begins in a simple infiltration of the intermuscular connective tissue, at the commencement of which there is a feeling of semi-fluctuation. Later there occurs a fibrous induration, that is, a hyperplasia with consecutive diminution in the volume of the muscle, and soon after ossification begins. The author was able to determine by microscopical examination that the process consists not in a simple calcification of the muscular mass, but in the formation of a true osseous tissue covered with a layer of cartilage. Some of the tumors seem to be true exostoses, being attached to some part of the bony framework, while others are isolated and due to a metaplasia of the connective tissue. The disease may attack symmetrically most of the muscles of the body, commencing with the dorsal muscles. The fingers are rarely the seat of the affection. As regards treatment the author advises baths, mercurials, and iodide of potassium, remedies which are at least palliative, even if not curative of the disease.—*Rivista Clinica*, No. 10, 1884.

Law of Heredity of Cataract.—In a reprint from the *Revista de Ciencias Médicas*, Dr. D. Luis Carreras-Aragó gives a table showing a remarkable instance of the hereditary transmission of cataract through several generations. In two branches of the family, extending through three generations, seven of the children suffered from cataract, and of these seven every one was a female. None of the boys of the family were afflicted. From a study of these cases, and of others recorded in the literature of the subject, Dr. Aragó concludes that hereditary cataract is transmitted by preference to the individuals belonging to the sex of the original ancestor. He expresses the hope that others will record their observations on this point, in order that, if the law of heredity be as he believes, the fact may be established.

Is Herpes Zoster Contagious?—Dr. Klamann relates the following case: A boy one year old suffered from herpes zoster on the left cheek. When the vesicles began to dry up there appeared a similar eruption on the mother's right cheek, against which the child had usually rested its head while it was sick.—*Norsk Magazin for Laegevidenskaben*, November 15, 1884.

A Liniment for Earache.—Dr. Carlos Pavesi recommends a liniment composed of camphorated chloral, 2½ parts, pure glycerine, 16½ parts, and oil of sweet almonds, 10 parts. This is to be well mixed and preserved in an hermetically closed bottle. A pledget of very soft cotton is to be soaked in the liniment and then introduced as far as possible into the affected ear, two applications being made daily. Frictions may also be made each day with the preparation behind the ear. It is claimed that the pain is almost immediately relieved, and even in many cases the inflammation is subdued.—*El Sentido Católico en las Ciencias Médicas.*

Collodion in the Chest Pains in Phthisis.—Dr. Rigaud believes that the intercostal muscles, as well as the nerves, are the seat of the severe pains so often experienced during the course of phthisis. The pain caused by deep inspiration or a paroxysm of coughing is very different from the intercostal neuralgia of beginning tuberculosis. For the relief of these pains the author recommends painting the affected side of the chest with a thick layer of collodion in order to immobilize it as far as possible. In a number of cases in which this was tried in the Hôpital Laennec it was very successful. A writer in the *Norsk Magazin for Laegevidenskaben* states that it has been tried extensively in the Rigshospital, in some cases with relief to the pain, but in the majority with but indifferent success.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, January 24, 1885.

CONGRESS AND CHOLERA.

As the short session of Congress rapidly wanes, it becomes apparent that there will be no new health legislation. The Bill of the Conference of State Boards of Health lingers in the Committee on Public Health, and is the subject of much criticism by sanitarians in different parts of the country. To add to the complication of affairs, a new health bill has been presented in the Senate, of formidable proportions, which it would require a long session of Congress to reduce to any practicable form. Both bills are very crude, and require, as they would receive before their passage by either House, a large amount of consideration and discussion. It is idle, therefore, for the country to expect any such legislation as these bills contemplate. Meantime, the known existence of cholera in European capitals, and the approach of spring, are beginning to excite popular alarm among all classes. And well it may, if we are to estimate our liability to an invasion of that pestilence by its past history, and the measures thus far adopted to prevent its introduction into this country. At the present time mere distance does not protect us from cholera. That disease in Paris threatens us as much as it does London. Indeed, it is probable that, considering the immense number of poor people who are constantly *en route* from all quarters of Europe to this country with their household goods in hand, New York is quite as much exposed to cholera as any continental city. Therefore the question now earnestly asked by citizens, is pertinent, and demands an answer, viz., Can anything be done to prevent the introduction of this epidemic into the United States? In our opinion, as we have before stated, this is a question which should be pressed upon every member of Congress. In view of the failure of general health legislation the question recurs, What is most practicable?

To us the solution of the problem is self-evident. Cholera must be warded off with the means at the command of the Government, without further delay for the action of Congress creating a new Board of Health. There is now no hope of such action, and, even if there was, we are very doubtful whether there would or could be any improvement upon the present organization. However that may be, it is plainly the part of wisdom for Congress and the Government to utilize every available resource at hand in averting a cholera epidemic. Believing, as we do, in the efficacy of proper preventive measures, intelligently executed by Government, we do not hesitate to affirm that, if the present National Board of Health were clothed with adequate powers, it could prevent the introduction of foreign pestilences into our seaports. Nor would the judicious exercise of such powers materially interfere with the travelling public, nor with commerce. Cholera is not an epidemic, in the ancient sense, which falls upon the people from the clouds or skies, but is a portable entity which must be carried from place to place by persons or luggage. As the Customs' officer knows well how to intercept those articles of commerce which are endeavoring to evade duties, so the qualified health officer can intercept the cholera contagion. With cholera three thousand miles away, and approaching us only along the great thoroughfares of commerce, it would not be difficult at once to inaugurate *a system of sanitary inspection* of travellers and luggage along those routes, which would effectually prevent the germs of the scourge from reaching the mainland.

What, then, are difficulties in the way of the immediate organization of preventive measures and their execution by governmental authority? Nothing whatever but conferring suitable powers upon, and the appropriation of adequate means to, the present constituted authority. Here is a National Board of Health, already organized and prepared to perform the very duties required by the present emergency. This board has in the past proved itself fully competent to meet and determine all health questions, and to execute all needful sanitary duties. In its organization it has all the efficiency of a single officer, with the advice and counsel of four expert sanitary officers. Why, then, should Congress waste precious time in endeavoring to create a new board? Must pressing sanitary duties, like those now awaiting the action of Congress, be fatally postponed while it considers the crude and ill-digested bills which will daily accummulate in its committees? We trust not. Congress should at once confer on the present National Board of Health adequate powers and authority, and provide it with ample means to enforce all necessary measures of prevention. There is no time to be lost if any steps are to be taken by the general Government to prevent the introduction of cholera into the United States during the coming season. The National Board should meet at once, and continue in session until all of its plans of operation are fully matured. The Public Health Committees of both Houses of Congress, instead of wasting time and effort in considering the wholly irrelevant matter of forming a new Board of Health, should be in daily communication and consultation with the present board in advising and perfecting measures which may require the action of Congress.

In the preceding suggestions and reflections we may seem to be unnecessarily anxious about the adoption and enforcement of preventive measures against cholera by the Government, but we are not, as time will prove. We have strong and positive convictions of the power of modern sanitary science, when intelligently applied, to control perfectly the diffusion of portable contagion. Full in this faith and conviction, we do not doubt that, if Congress would at once fully equip the present Board of Health, and if that body should at once meet and organize its methods of procedure and begin their execu-

tion, we should be saved a widespread epidemic of cholera with all its attendant loss of business and of life. Failing in such preparation, cholera is inevitable, and on Congress must rest the responsibility of a national visitation of the cholera-pestilence.

THE LATEST STAGE OF THE CHOLERA BACILLUS QUESTION.

THE preliminary report of Drs. Klein and Gibbes, regarding their investigations into cholera, carried on at Bombay and Calcutta, has been published in the *Gazette of India*, and is as follows:

"1. The statement of Koch, that 'comma-bacilli' are present only in the intestines of persons suffering from, or dead of, cholera, is not in accordance with the facts, since 'comma-bacilli' occur also in other diseases of the intestines, for example, epidemic diarrhœa, dysentery, and in intestinal catarrh associated with phthisis.

"2. The 'comma-bacilli,' in acute typical cases of cholera, are by no means present in such numbers and with such frequency as to justify Koch's statement that 'the ileum contains almost a pure cultivation of comma-bacilli.'

"3. The 'comma-bacilli' are not present in the tissue of the intestine or elsewhere.

"4. The 'comma-bacilli,' in artificial cultivations carried out by one of us (E. K.), do not behave in any way differently from other putrefactive organisms.

"5. Mucus-flakes of the ileum, taken out soon after death from typical acute cholera, contain numerous mucus-corpuscles, many of them filled with peculiar minute straight bacilli. The same bacilli occur also outside the mucus-corpuscles. They are never missed, even when the 'comma-bacilli' are.

"6. These small bacilli have been cultivated by one of us (E. K.), and they do not behave differently from putrefactive organisms.

"These small bacilli are not present in the tissues of the intestine or any other tissue.

"7. No bacteria of any kind, and no organisms of known form and character, occur in the blood or any other tissue.

"8. A good many experiments have been carried out by one of us (E. K.), with the following results:

"(*a*) Mice, rats, cats, and monkeys were fed with rice-water stools, with vomit, with mucus-flakes of the ileum, fresh and after having been kept from twenty four to forty-eight hours. The animals remained normal.

"(*b*) Inoculations with recent and old cultivations of 'comma-bacilli,' and the small straight bacilli, as well as with mucus-flakes, were made into the subcutaneous tissue, into the peritoneal cavity, into the jugular vein, and into the cavity of the small and large intestine of rabbits, cats, and monkeys; but the animals remained perfectly well and normal.

"9. The material which we have had hitherto at our disposal has been very good and abundant; and, as far as the microscopic work goes, we do not think we shall require any more material.

"We therefore propose concluding our inquiry by the beginning of December, and hope soon after to return to England."

The above report, being only one of conclusions without the data on which they are based, cannot be criticised at present. It is, however, unquestionably the severest blow against the comma-cholera-bacillus which has yet been struck.

The points made by Klein and Gibbes are that the Koch cholera bacillus is neither the specific organism of Asiatic cholera, nor is it practically of any diagnostic importance. It remains to be seen, however, whether they have proved, by cultures, the identity of dysenteric and other bacilli with those of cholera. It is to be remembered also, that a single positive inoculation experiment is more valuable than all the negative evidence; and it must be proved by Klein and Gibbes that the inoculations of pure cultures by Koch, and by Nicati and Rietsch did not, as claimed, produce genuine cholera.

We regret to observe that the question as to the existence of a cholera bacillus is becoming latterly one more of politics than science. A foolish and ill-advised letter, written by Professor Ray Lankester (who is no expert on such matters) to a London daily, charged Koch with having gone to India under a pressure to find a bacillus. This view seems to have been taken up by the English papers, and some of our New York dailies have obediently followed them.

AN AMERICAN TREATMENT OF ACUTE CROUPOUS PNEUMONIA.

So much criticism has been occasioned by our calling attention to the "American method" of using iodide of potassium in syphilis, that we have hesitated to apply any national qualification to a method of giving calomel in pneumonia, now employed by physicians in New York and perhaps elsewhere. It is, however, well known here that a considerable number of our physicians in large practice have for a long time been using calomel in enormous doses (gr. xx., gr. xxx., ʒ j.) in acute lobar pneumonia. These amounts are given, we believe, not always at the outset, but often in the second stage, with the view of checking the progress of the disease and promoting rapid resolution. Very positive views exist as to the frequent and marvellous efficacy of this treatment.

Calomel is one of the drugs which of late years has almost lost its place in the therapeutics of pneumonia. In most text-books it is either not referred to at all or is passed over with words of condemnation. In the English collective investigation of acute pneumonia, only ten among over a thousand reported using calomel in the disease.

Its great utility in large doses in acute pneumonia, however, was claimed by Hamilton in the latter part of the last century. Later it was recommended by Vogel, and in 1837 by Gobée. The last named author gave from gr. viii. to gr. xxiii. in twenty-four hours, but the administration of the medicine was preceded in his practice, as well as in that of his predecessors, by bleeding and tartar emetic. Dr. Graves, in his "System of Clinical Medicine," 1843, strongly recommends a speedy mercurialization at the onset of acute inflammation, and Dr. G. P. Cammann of this city, thirty years ago, used large doses of calomel in acute pneumonia. In this city, of late years, it is Dr. James R. Leaming, if we mistake not, who has

employed and advocated the heroic, or as they are sometimes called, the sedative doses of calomel in acute lobar pneumonia. A chapter on the "Therapeusis of Mercury" in his work on "Diseases of the Heart and Lungs," contains some most glowing eulogiums upon the drug in question, which to his mind contains a therapeutic potentiality beyond the dreams of wildest hope. Speaking of sedative doses of calomel in pleuro-pneumonia, he says that this disease is in some cases controllable only by that agency, "which is the shears that may clip the locks of the destructive Samson, and render it a mild disease." He adds later the curious statement that "it is not absorbed. It acts upon the organic life of the body, and may strengthen the heart's action, lower the temperature a few minutes after being placed upon the tongue!" . . . "Placed dry upon the tongue of the patient, like the touch of the wand of the magician, it instantly changes the conditions of life to those of death." These statements appear somewhat rhapsodical, but they come from an experienced and esteemed physician, and we are aware that others share more or less his view and follow his practice.

Heroic or "sedative" doses of calomel have been shown by Dr. Putnam-Jacobi, the late Dr. Lente, and others, to have apparently, at times, a powerful and beneficial effect upon the course of acute disease. For this, and on account of the testimony above referred to, it seems to be a matter of importance that the profession learn more regarding the reputed high value of this agent in acute pneumonia. We believe that, at present at least, the use of sedative doses of calomel in croupous pneumonia is a distinctively American practice.

QUACKERY AND MEDICAL WOMEN.

THERE are some indications that the sentiment in favor of the medical education of women has swung over almost too far, and that those ambitious to become lady medicals are in some quarters getting an amount of encouragement and pushing which is neither healthful nor just. Lately, we have beheld again the spectacle of a venerable medical institution assailed because it refuses to accept women as students. We believe that when a woman feels strongly and imperatively that she has the capacity to do a physician's work, good opportunities for her instruction should be offered. Such opportunities do now most abundantly exist, and, in general, peace reigns.

But we have been pained to notice that the women who take advantage of the present numerous and easy avenues into the medical profession are not, in a large proportion of cases, of the kind likely to reflect credit upon our art or do any service to society. We are quite safe in saying that a considerable minority of present medical women are quacks, that there is a great proportional tendency to seek irregular schools and adopt irregular professional methods. Looking over the personal medical advertisements in the public press, we have been surprised at the frequent appearance of advertising medical women.

There are at present, in the United States and Canada, seven medical colleges for women only, of which two are homœopathic, being a ratio of 2 to 5. Among the other colleges, the ratio of homœopathic to regular schools is as 1 to 8. A number of medical colleges now admit women as well as men. The total number of these in the United States is 35, out of a total number of 119 medical colleges. Of these 35, 7 are homœopathic, 7 eclectic, and 2 are "physio-medical," making a total of 16, against the remaining 19, which are regular schools. There are, therefore, in the United States, 23 regular schools and 18 non-regular, in which women are taught to be doctors. Apart from this statistical evidence, we have obtained information from various sources which leads us to the conclusion that the majority of women now wishing to be doctors go where they can get through easily, or where they will be taught a pseudo-science, or something worse. In our own city we observe that the Homœopathic Medical College for Women, which has a cheaper and shorter course, graduates a larger class than the regular medical college, although the latter's teaching advantages are unquestionably much superior.

These facts are certainly significant, and we have deemed it our duty to call the attention of educators and the profession to them; for it appears beyond question that the undue and indiscriminate encouragement of the medical education of women is really adding disproportionately and dangerously to the number of quacks and incompetent practitioners.

A HOSPITAL FOR SHOP-GIRLS.

A MOVEMENT is on foot to establish a hospital for shop-girls who have become ill and worn-out by work. Such a special institution would be very expensive, and is quite uncalled for. Already we have some twenty or thirty hospitals in the city providing for all forms of bodily affliction. The wiser plan would be to provide endowed wards for shop-girls in existing hospitals, if it is really found that this particular class is in more need than others of special hospital provision. Evening dispensaries might also furnish some help. But, most of all, a society which would teach shop girls to lead healthful lives, to avoid caramels, late hours, and fancy balls, would be of especial service.

Employers have their duties also in the case, but that particular question has already been freely discussed in these columns.

THE PROPOSED REMOVAL OF DARTMOUTH MEDICAL COLLEGE.

WE learn that an effort is being made to remove Dartmouth Medical College, otherwise known as the New Hampshire Medical Institute, from Hanover, where the college is situated, to Concord, N. H.

It is claimed by those interested in securing this removal, that the conditions upon which the Professors of the New Hampshire Medical Institution became, by act of the Legislature, December 15, 1824, Trustees of the State property at Hanover, consisting of one acre of land and a building used by that institution, have not been complied with. They also allege that there is quite a general feeling that the property should not be used by men who discriminate against women as medical students.

Naturally also, the argument is offered that a medical school should be moved to a place where greater clinical facilities exist than are possible in a town of twelve hundred inhabitants.

Apart from any technical considerations, the proposition to remove the college to Concord appears to be unwise, if not absolutely suicidal. According to the report of the New Hampshire State Medical Society's delegates, the college at its last Commencement graduated its largest class, and was in a most prosperous condition. During a period of ninety years it has sustained an excellent reputation as a teaching school. Its graduates should not in these days be content with its didactic lessons; but how much more could be learned in Concord, a city of fourteen thousand inhabitants? If any removal is contemplated, for clinical reasons, Manchester, a city twice the size of Concord, would seem to be preferable. But the fact is that no new medical school is needed or could thrive within one or two hours distance from Boston.

News of the Week.

Northwestern Medical and Surgical Society.—The fifteenth anniversary of this Society was celebrated on the 14th inst., by a dinner and reception at the Buckingham Hotel. A new departure was made from the usual "stag" dinner by the presence of the wives and lady friends of the members and other invited guests. The dinner was presided over by Dr. T. H. Burchard, and there were covers for seventy persons. Aside from the usual commemorative toasts, the Hon. G. H. Yeaman pleaded for the legal fraternity, and the shortcomings of the clergy were atoned for by the Rev. Dr. Lloyd. A humorous poem and several musical recitations were excellently given by some of the ladies. Altogether the occasion was a very happy one, and the Society is to be congratulated on the new social feature introduced at this, their first anniversary dinner.

New York Academy of Medicine: Election of Officers.—At the annual meeting, held January 15th, the following officers were elected: Dr. A. Jacobi, President; Dr. C. C. Lee, Vice-President; Dr. L. Elsberg, Corresponding Secretary; Dr. A. L. Loomis, Trustee; Dr. A. S. Hunter, Member of Committee on Admission; Dr. F. R. Sturgis, Member of Committee on Medical Education; Dr. A. H. Smith, Member of Committee on Ethics; Dr. E. D. Hudson, Member of Committee on Library.

Hospitals for Saleswomen.—With reference to this subject, which we have discussed elsewhere, we learn that a project is on foot for a fair to raise money for hospital beds for saleswomen.

The Value of Expert Testimony.—Medical expert (on the witness stand): "No, sir, it would have been impossible for the accused to quietly think out his plans for committing the murder while walking on Broadway." Counsel for the defendant: "State why, doctor." Medical expert: "Because Broadway is the main artery of the city, and my professional skill teaches me that a quiet vein of thought on a main artery is paradoxical and absurd."—*New York Times.*

Marion County (Indianapolis) Academy of Medicine.—At the regular meeting of the Marion County (Indianapolis) Academy of Medicine, January 6, 1885, the following officers were elected for the ensuing year: Dr. Thomas N. Bryan, President; Dr. A. W. Brayton, Vice-President; Dr. F. W. Ferris, Secretary; Dr. J. O. Stillson, Assistant Secretary; Drs. T. B. Harvey, F. S. Newcomer, L. L. Todd, E. Hadley, G. V. Woolew, George Cook, Censors.

A Contest over the Will of the Late Professor William Darling is expected. A will, dated April 27, 1881, leaves the property to Amelia Delacroix, of Yonkers, "an esteemed and valued friend." A second will, it is claimed, was made on June 25, 1883, leaving the property (or part of it) to the New York University Medical College. A third claimant is a Mrs. Catherine Lefferts, who asserts that Professor Darling was at one time married and had children, of whom she was one. A fourth claimant is Mr. John Darling, of Burlington, Iowa, an alleged brother.

The Utica Asylum, which has been in a state of chronic investigation for many years, is having a short recess owing to a legal technicality, which prevents the getting a quorum of the managers.

The Hospital Contributions for 1885.—At the annual meeting of the Hospital Saturday and Sunday Association, on January 19th, the Treasurer reported that collections for the year had so far amounted to $30,988.90, and that enough more had been promised to insure a total of at least $36,000 by the end of this month. Of the above sum about $7,300 is specially "designated." Of this, St. Luke's Hospital gets $3,184, the Presbyterian, $1,589, and St. Mary's, $1,227. Last year the sum collected amounted to $43,062.74. The falling off was in the collections at the churches, presumably because Hospital Sunday was rainy. The trade auxiliary associations, on the other hand, have done better than ever. The dry goods men gave $4,118.10, against $3,933.06 last year; tobacco dealers, $2,000, against $1,734.90 last year; the clothing trade, breweries, and insurance men, $300 each. There have also been contributions from various lodges and from printers. The following officers were elected for the ensuing year: George Macculloch Miller, President; Hyman Blum, Vice-President; Charles Lanier, Treasurer; Rev. George S. Baker, Corresponding Secretary; John S. Bussing, Recording Secretary. Various committees were also appointed.

Dr. Charles W. Shumway died at his residence, Chicago, on January 18th, at the age of fifty-eight. He was a graduate of the College of Physicians and Surgeons of New York.

Another American Fellow of the Royal College of Surgeons.—Dr. W. P. Manton, of Detroit, Mich., writes that the late Professor Darling was not, as was stated in his obituary notice, the only F. R. C. S. in the United States. Dr. W. B. Platt, of Baltimore, Md., received this degree in 1883.

Professor Theo. Meynert, of Vienna, on account of his distinguished services to science, has been given the title of Hofrath.

Dr. Rudolf Tauszky.—This unfortunate physician has quite recovered from the wound which he inflicted upon himself, but he is insane, and, it is feared, hopelessly so.

Dr. James Dunn, one of the prominent physicians of Virginia, died in Petersburg, January 19th, after a lingering illness, aged fifty-four years. During the late war he was one of the leading surgeons in the Confederate Army.

The Missouri State Board of Health and the Medical Practice Act has recently been sustained by a decision of the Supreme Court. The Board can, therefore, refuse to grant licenses to practise to quacks or graduates from irregular and inferior schools.

The Annual Prize of $50, offered by the Baltimore Academy of Medicine for the best thesis read by a member during the year, has been given to Dr. John N. Mackenzie. Dr. Mackenzie's paper was read before the Academy on January 15, 1884, and was entitled, "Irritation of the Sexual Apparatus as an Etiological Factor in the Production of Nasal Disease."

The First Horse Ambulance Service on the Continent has, through the influence of Dr. B. Howard, been adopted by the Municipality of Toulouse, where its working is greatly appreciated by all classes.

Civil Service Reform and Medical Appointments.—A competitive examination to fill future vacancies in the medical departments connected with the City Government, as prescribed under the laws of the State of New York relating to appointments under Civil Service, will be held on Monday, February 2, 1885, at such time and place as will be announced in the city papers of the preceding Saturday. The necessary application papers may be obtained of Russell Sturgis, Esq., 23 East Twentieth Street, New York. Applicants must be regular graduates in medicine and residents of this city.

T. H. Burchard, M.D.,
Thomas H. Manley, M.D.,
J. Tilden Brown, M.D.,
Examining Board.

A Sanitary Protective League has been organized in this city. Its object is to unite, if possible, all existing sanitary societies in a league to protect the city against cholera. There are several such societies, including the Ladies' Health Protective Association, the Hebrew Sanitary Society, the New York Association for Improving the Condition of the Poor, which has a Sanitary Committee, and the State Charities Aid Association. It is proposed to group all the members together, and then divide them up into local committees, whose duty it will be to report to a general committee any facts which may come to their knowledge regarding sanitary defects. The Sanitary Auxiliary Society of New Orleans, according to Mr. C. F. Wingate, has kept yellow fever out of that city for four years by just such a system as this that is proposed, and there is the best of ground to hope that the league can succeed in preventing a cholera epidemic here. The plan of the Sanitary Protective League also contemplates personal investigations by the general committee of all markets, dairies, sources of milk supply and food, and everything in its power to assist the authorities of the Health Board. Sanitary tracts on cholera will be published and circulated throughout the city free, and all information available will be given to the public in regard to cholera and the best means to prevent it. As soon as the organization has been completed a public meeting will be held in Chickering Hall, for discussion of the subject of cholera.

The Archives of Medicine.—We regret to learn that the publication of this valuable journal has been suspended. The editor says in his announcement that "The experience of the past year has convinced him that the verdict of the times is in favor of periodicals appearing at brief intervals, able to furnish scientific material and news with the utmost promptness and in a fresh state. These considerations affect contributors and subscribers alike, and contribute to the preference for weekly issues."

The New York State Medical Society—Fare to Albany.—Dr. C. L. Dana, Secretary of the County Delegation, writes us that round-trip tickets from this city to Albany can be purchased of the West Shore Railroad Co. for $3.10. On Monday afternoon, February 2d, a train with an extra palace car leaves from the down-town station at 3.50 P.M., from Forty-second Street station at 4 P.M., arriving in Albany at 9.10 P.M.

Bogus Medical Diplomas.—Dr. John Buchanan, who became notorious three years ago by issuing bogus medical diplomas, was again arrested in Philadelphia on January 20th, together with a woman calling herself Dr. Rebecca Russell, who claims to be Buchanan's business partner. Buchanan is charged with having again issued bogus diplomas since his release from prison, and further with forgery, in having subscribed the names of some of Philadelphia's most prominent physicians to his bogus sheep-skins in order to enhance their value.

A New Cancer Cure.—Washington, D. C., seems to be the fostering mother of cancer cures. The latest is a Brazilian plant, called *alveloz*, and belonging, it is said, to the family of Euphorbiaceæ. Last September the United States Consul at Pernambuco wrote a letter to the State Department, inclosing a report by Dr. R. Bandeira, surgeon at the Pedro Hospital at Pernambuco, regarding a cancer cure to which wonderful properties were ascribed. A magistrate, Dr. Guemres, was the first that made it known, four years ago. He had a cancer of the face. He was perfectly cured there by the natives of the country, using this remedy, and he wrote to Recife, sending the plant and its juice, which was tried, Dr. Bandeira says, with success in several cases. Last year the juice of *alveloz* was used in the Hospital Pedro with such success that Dr. Vellozo published a notice in the papers advising the employment of it. Many other experiments have been made in cases of epithelioma of the lips, nose, face, and eyelids. The application of *alveloz* in sarcoma or carcinoma, has not given the result that many hoped, and it appears that the efficacy of the new drug is limited to epithelioma.

Reported Appearance of Cholera in St. Louis.—Two persons are reported to have died of cholera this week in St. Louis. It is not possible to say as yet that these were cases of genuine epidemic cholera. It is greatly to be regretted that our health authorities still have no experts qualified to interpret the significance of the bacilli found in alleged cholera cases.

Reviews and Notices.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY: A SYSTEMATIC TREATISE ON THE THEORY AND PRACTICE OF SURGERY. By authors of various nations. Edited by JOHN ASHHURST, JR., M.D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with chromo-lithographs and wood-cuts. In six volumes. Vol. V. New York: W. Wood & Co. 1884.

A new volume of this great work is now before us, and like its predecessors reflects credit upon all engaged in its production. This, the fifth volume, continues the detailed discussion of regional surgery. Injuries of the head are considered by Dr. Nancrede of Philadelphia, who handles his subject with thoroughness and skill.

Dr. Frederick Treves, of London, favorably known on both sides of the Atlantic, is the author of a comprehensive and thoroughly practical exposition of the malformations and diseases of the head.

The next chapter is written by Dr. E. Williams, of Cincinnati, and embraces a consideration of the injuries and diseases of the eyes and their appendages. In a work of this kind it was hardly necessary to introduce a section on the anatomy of the eye, but aside from this criticism, we can only commend the article as an able and trustworthy presentation of a difficult subject.

In the following chapter Dr. Albert H. Buck discusses, in a very satisfactory manner, the injuries and diseases of the ear. The nose and its accessory sinuses is similarly dealt with by Dr. George M. Lefferts. Then comes an elaborate article on injuries and diseases of the face, cheeks, and lips, contributed by Dr. A. C. Post.

Christopher Heath ably discusses the surgery of the mouth, fauces, tongue, palate, and jaws. He is followed by Dr. Kingsley, of New York, who takes up the surgery of the teeth and adjacent parts. Injuries and diseases of the neck are admirably described by Dr. Macleod, of Glasgow. The article by Dr. Solis-Cohen, of Philadelphia, on the air-passages is a very complete and practical one, and, although it seems rather lengthy, it is never prolix in unnecessary details. The chest and breast follow, the former article being prepared by Dr. Bennett, of Dublin, and the latter by Thomas Annandale, of Edinburgh. Especially the last-named article shows a masterly grasp of subject, and bespeaks the careful surgeon, the conscientious observer, and lucid writer. The injuries and diseases of the abdomen have been assigned to Dr. Henry Morris, of London, who, in an article replete with exact information, shows how a difficult subject may be made clear by skilful and systematic handling.

The concluding article on hernia is from the pen of Dr. John Wood, of London, who does ample justice to a most important subject that has a constant interest for physicians as well as surgeons. That portion of his essay dealing with the construction and application of trusses might have been made still more useful by the incorporation of more detailed accounts of the most modern modifications of apparatus of that kind.

Taken all in all, there is scarcely any room for fault-finding with this volume, and it will take its place alongside of its predecessors, adding its full measure toward the success of the encyclopædia.

A PRACTICAL TREATISE ON THE DISEASES OF THE EAR, including a Sketch of Aural Anatomy and Physiology. By D. B. ST. JOHN ROOSA, M.D., LL.D. Sixth edition. Revised and enlarged. Pp., 718. New York: William Wood & Co. 1885.

IF any one thing more than another attests to the value of a scientific text-book, it is the rapid succession of its editions. Scarcely two years pass, when a new issue of this valuable work is announced, the first having appeared in 1873.

The present work emphasizes the well-known views of the author in the more ordinary fields of aural practice, as deduced from his own large experience; while a liberal spirit is shown on those points open to a variety of opinion. The work is fully up to the times, and proclaims no new school of otology; in this sense it is thoroughly practical, and deserves the generous reception accorded to it by the medical profession and a scientific reading public.

After forty pages of a valuable *résumé* of otological literature, Dr. Roosa finds no ground for giving the syringe other than first place in the removal of foreign bodies from the ear: exceptional cases demand exceptional methods. He reasserts his belief as to quinine-salts; that they "produce congestion of the labyrinth and tympanum, and sometimes distinct inflammation, with permanent tissue changes."

The pathology of deafness after mumps is still *sub judice*, and will probably so continue, until a larger percentum of cases is quoted than that noted by the author, viz., one in five hundred cases of aural disease. Ten cases are detailed with manifest middle-ear complication.

Dr. Roosa coincides with the experiences of well-known otologists as to the negative results of every form of electricity in deafness of the internal ears. We are glad to see that he deprecates the use of the name, "Ménière's disease," when writing on syphilitic affection of the cochlea; as also that he reports so many cases of recovery of hearing by anti-syphilitic treatment, with which some recently published experiences seem to be at variance. The author's recent papers on the value of the tuning-fork in differentiating between diseases of the middle or internal ear are still fresh, and we quote his conclusion: "If, in cases of impaired hearing, aërial conduction (with the tuning-fork) be better and longer than bone-conduction, we have disease of the internal ear. If bone-conduction be better than aërial, there is disease of the middle or external ear."

The chapter on acute suppuration of the middle ear should be read by every practitioner of medicine. A careful perusal of an aggravated case of middle-ear disease, given on pp. 321–331, is worth the price of the book to any one treating ear patients. An acute otitis media with pain in the mastoid and side of the neck, simulating retained pus, eventuates in a true neurosis of the middle ear.

Generous doses of milk, whiskey, and quinia, advised by a well-known general practitioner, struck the key-note of treatment. The author states that the early paracentesis of the drum-head, and the later Wilde's incision, were not only unnecessary, but that they aggravated the case. How much worse would have been trephining the mastoid, advised by one consultant! While the author does not any less disapprove of Von Fröltsch's position that, "inflammation of the tympanic cavity is essentially a periostitis," yet he desires to emphasize the neurotic complications in a case debilitated, as was this, by any one or more causes of anæmia; such as overwork, anxiety, or malaria. Dr. Roosa states, on the one hand, the consequences of a neglected aural catarrh; while, on the other, he greatly inveighs against maltreatment of an acute suppuration.

The publishers have done their part well, as to excellence of anatomical sketches, display of instruments, and large type.

LE CHOLÉRA DANS LA BASSE-EGYPTE EN 1883. Par le DOCTEUR DUTRIEUX-BEY. 8vo, pp. 287. Paris: O. Berthier. 1884. THE CHOLERA IN LOWER EGYPT. By DR. DUTRIEUX-BEY.

THE author, who is honorary professor in the Medical School of Cairo, gives a history of the cholera epidemic in Egypt last year, with practical conclusions from his personal studies. His last sentence deserves to be quoted; it is "*Tout à l'hygiène!*"

A Theoretical and Practical Treatise on the Hemorrhoidal Disease: Giving its History, Nature, Causes, Pathology, Diagnosis, and Treatment. By William Bodenhamer, A.M., M.D. Illustrated by two chromo-lithographic plates and thirty-one wood-cuts. New York: W. Wood & Co. 1884.

The author of this comprehensive monograph is already favorably known as a writer in the department of practice of which it treats. Several of the articles contained in the volume before us will be recognized by the readers of The Record as having appeared in its columns. Hemorrhoids are of such frequent occurrence, and often prove almost as troublesome to the practitioner who attempts their cure, as to the patient who seeks relief from his sufferings.

Dr. Bodenhamer's treatment of hemorrhoids is simple and rational. His treatise will be welcomed by the profession as a complete and satisfactory one of its kind.

A Handbook of Ophthalmic Science and Practice. By Henry E. Juler, F.R.C.S., Junior Ophthalmic Surgeon to St. Mary's Hospital, Senior Assistant Surgeon and Pathologist to the Royal Westminster Ophthalmic Hospital, formerly Clinical Assistant at the Royal London Ophthalmic Hospital, Moorfields. With illustrations. 8vo, pp. 416. London: Smith, Elder & Co., 15 Waterloo Place. 1884.

The contents of this book are presented in a sequence of ocular diseases, beginning with those of the lids, lachrymal apparatus, conjunctiva, cornea, sclerotic, iris, ciliary body, choroid, optic nerve, and retina, and ending with disturbances of the lens and visual field, amblyopia, errors of refraction, etc., the latter category occupying more than two-thirds of the work.

Under the head of lid-operations, Wolfe's transportation of skin *en masse* is given prominence over other means of correcting deformities of these parts. The author, however, prefers skin-grafting to this and older methods. The late Mr. Critchett's operation of pericorneal section of a bridge of conjunctiva is given preference in all operative means for the relief of pannus, while the use of jequirity, now quite general, is described, though not warmly advocated. Inoculation with pus is given its true position in the treatment of such cases; it should be used only as a last resort.

The pages devoted to the visual field and to the use of the perimeter in detecting the limited excursions of the field in the various forms of toxic amaurosis; the chapter on color-blindness (achromatopsia), and the elaboration of Holmgren's tests in the railway and marine service; the interesting pages upon hemiopia and its presumable lesion in the occipital lobes and angular gyrus will specially commend themselves to the accurate student of ophthalmology. They are written from a genuine clinical basis, while at the same time they premise an understanding of the physical and physiological factors, so far as these are known. Under the head of amblyopia or amaurosis, the reviewer fails to find any reference to the interesting group of ocular symptoms in the later months of pregnancy; while, on the other hand, malingering, or simulated amblyopia, properly receives large attention from the author. McHardy's new perimeter for mapping out the fundus of the eye is perhaps no better than Forster's, so long in use, but its mechanism is easier and more ingenious.

The author's ophthalmoscope is shown in full size in woodcut; it contains two discs of spherical lenses, one convex, with ten, and one concave, with eleven lenses, and a revolving sector with four lenses and an aperture. A similar instrument has long been in use in this country, and of much lighter build. The pages devoted to testing errors of refraction by the ophthalmoscope are well written, and the method, known as Retinoscopy, or the Shadow-Test, is of especial interest. On page 377 two examples of fitting presbyopic glasses to a far-sighted and a near-sighted patient are given, in which the corrections for age are given much higher than in Donders' tables.

The colored plates and woodcuts are taken from cases in the large hospital services of the author and his colleague, Mr. Anderson Critchett, who was for many years associated with the elder Critchett. The plates of corneal neoplasms and of pathological processes in the iris, choroid, and retina are unusually good.

There are fewer errors than usual in the text and index, and the publishers' work is well done.

Diseases of the Nose. By Clinton Wagner, M.D., Professor of the Diseases of the Nose and Throat in the New York Post-Graduate Medical School, etc. New York: Bermingham & Co. 1884.

The rhinoscopic era in medicine has brought with it a mass of special literature that at times threatens to overwhelm the practitioner. Nevertheless, after perusal of Wagner's little treatise, we are forced to conclude that there was room for one more good book on the diseases of the nose. The work is not intended for specialists, but seems eminently suited to teach the physician in general practice enough about rhinology to enable him to deal more or less successfully with catarrhs, nasal polypi, and other growths, without the assistance of a specialist. A valuable feature of this book consists in a carefully selected bibliography appended to the text.

Diseases of the Spinal Cord. By Byron Bramwell, M.D., F.R.C.P. (Edinburgh), Pathologist to the Edinburgh Royal Infirmary, etc. With 183 illustrations. Second edition. Edinburgh: Young J. Pentland. 1884.

The first edition of this work appeared in 1882, and it has now been found necessary to issue a second. It certainly speaks well for the body of the medical profession that it so quickly recognizes a book of real value. We are informed by the author that his work has also been translated into German, French, and Russian. It is not an exhaustive treatise, but for a concise résumé of our actual knowledge concerning the diseases of the spinal cord it has no equal.

Pyuria; or, Pus in the Urine and its Treatment. Comprising the Diagnosis and Treatment of Acute and Chronic Urethritis, Prostatitis, Cystitis, and Pyelitis, with Especial Reference to their Local Treatment. By Dr. Robert Ultzmann, Professor of Genito-urinary Diseases in the Vienna Polyclinic. Translated, by permission, by Dr. W. P. Platt, F.R.C.S. (England), Demonstrator of Surgery in the University of Maryland, etc. New York: D. Appleton & Co. 1884.

This is rather a long title for a small volume of ninety-odd pages. But it appears, from a study of its contents, that the title is the least satisfactory part of the book. Ultzmann has for a number of years been favorably known as a specialist in the department of genito-urinary diseases. His modest little book is an earnest plea for local treatment based on exact differential diagnosis. The physician cannot fail to derive profit from a careful perusal of the author's therapeutic recommendations.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.B., A.M., M.D., LL.D., late Professor of Surgery in Bellevue Hospital Medical College, Surgeon to Bellevue Hospital, New York, etc. Seventh American Edition, revised and improved. 8vo, pp. 1005. Philadelphia: Henry C. Lea's Son & Co. 1884.

There is no longer any necessity for reviewing this admirable work. It has triumphantly advanced to its seventh edition, its venerable and talented author still keeps abreast with the times, and it is still the most exhaustive practical treatise on fractures and dislocations in this or any other language.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Annual Meeting, January 15, 1885.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

AFTER the reading of the minutes of the last meeting the following annual reports were presented:

REPORT OF THE COUNCIL.

The Council recommended that five hundred dollars be expended in subscriptions for medical journals. Adopted.

The Council further recommended that a sum not to exceed two thousand dollars be appropriated for the library. Adopted.

It further recommended that the thanks of the Academy be tendered to Dr. C. R. Agnew for his contribution of fifty dollars and services in securing the exemption of the property of the Academy from taxation; also that a vote of thanks be tendered to Messrs. Taft & Benedict, attorneys, for a contribution of one hundred and twenty-five dollars for the same purpose. Adopted.

REPORT OF THE TREASURER.

DR. W. F. CUSHMAN, Treasurer, presented his annual report, from which it appeared that there was a balance in the treasury of $1,880.47. It further appeared that, during the last year, contributions to the fund to liquidate the mortgage had reached the total amount of $1,880.

REPORT OF THE BOARD OF TRUSTEES.

This report showed that an effort had been made to tax the property of the Academy, from which an appeal was made by the Board of Trustees, and the case was taken before Judge Donohue, who directed the Comptroller to strike the assessment from the list. The Board further expressed the opinion that the question of taxation of the property of the Academy had been permanently settled.

It also appeared in the report that a sum of nearly, if not exceeding, one-half the amount necessary, had been secured by the new Committee on Ways and Means, for liquidating the present mortgage.

REPORT OF THE COMMITTEE ON LIBRARY.

The report showed that the library contains thirty-five thousand bound volumes and nine thousand pamphlets.

DR. JOHN C. PETERS further reported that in the routine of business as Librarian of this Academy, certain official communications had come to him from the librarian of the École de Médecine, of Paris, and also from the dean and permanent secretary of the Academy of Medicine of Paris. They were in acknowledgment of the receipt of regular exchanges of books and pamphlets between the New York Academy of Medicine and the learned bodies above mentioned, brought about by the President of the New York Academy of Medicine.

The first was from Dr. Béclard, Permanent Secretary of the Library of the Academy of Medicine, Paris, dated December 8, 1884, in which Dr. Barker was addressed as Mr. President and Honored Confrère.

Dr. Béclard, also Dean of the Faculty of Medicine, an institution entirely separate from the Library of the Paris Academy of Medicine, had instructed his colleague, Mr. Cheveau, Librarian of the Faculty of Medicine, to acknowledge the receipt of books, and spoke of Dr. Barker as most honored president and confrère, with the sentiments of highest esteem, addressing him as Dr. Fordyce Barker, President of the Academy of Medicine, New York.

Dr. Teed, of Kansas City, was introduced to the Academy and invited to a seat on the platform.

DEMONSTRATION OF KOCH'S CHOLERA BACILLUS.

DR. E. C. WENDT: "I have placed under the microscope a very perfect specimen of the cholera bacillus, which was kindly sent me by Robert Koch, of Berlin. He writes that it was prepared from a pure culture. It shows well the characteristic shape of the so-called comma-bacillus. Of course a simple demonstration of this kind proves nothing with regard to Koch's well-known doctrine, which assumes this bacillus to be the specific cause of Asiatic cholera. Nevertheless so much has been recently said and written about the comma-bacillus, that it may interest you to actually inspect its peculiar appearance. So far as I am aware this is, with the exception of a slide in the possession of Dr. Billings, the only authentic specimen now in America, and I take great pleasure in giving the members of the Academy an opportunity to examine it. One word more. You are doubtless all aware that chief among the objections to Koch's doctrine was the claim of Lewis, that comma-bacilli were normally present in the mouth and fauces. Under the second microscope I have placed a specimen, prepared by myself, from the buccal secretions of a healthy man. In addition to a great variety of bacteria, you will not fail to observe some curved bacilli. But on comparing them with those of cholera you will easily detect differences that I need not here enlarge upon. Quite apart from this point, however, it is well to bear in mind that identity of shape does not signify identity of morbid action. In conclusion let me say that, while the exact diagnostic significance of the cholera bacillus is still *sub judice*, the claims of Koch rest on so substantial a basis that it will require actual scientific proof, and not mere scepticism and denial, to overthrow them."

OBSTETRIC FORCEPS AND SPECULUM.

DR. W. B. SCHUYLER exhibited a new obstetric forceps, pointed out the advantages which it possessed, especially with reference to the arrangement of the shanks and curves. A complete description of the instrument, with its advantages and peculiarities, can be found in the *New York Medical Journal*, March 4, 1884.

The speculum was an ingenious combination of the Sims, Thomas, and Nott specula, and had also been described in the *New York Medical Journal* for September, 1876.

It was claimed for the instrument that it could be introduced easily, opened readily, and that it was self-sustaining.

DR. F. A. CASTLE directed attention to the fact that the intention of Dr. Nott, in devising his speculum, had been entirely subverted by the changes which the instrument-makers had from time to time made in the instrument, and that as it now appears it could scarcely be recognized as the original instrument.

DR. W. GILL WYLIE then read a paper (see p. 85) entitled,

DISEASES OF THE FALLOPIAN TUBES: THEIR RELATIONS TO UTERINE DISPLACEMENTS AND THE USE OF PESSARIES.

DR. E. NOEGGERATH was invited to open the discussion, and said that he had listened with a great deal of pleasure to the scientific and practical paper of the evening, and that while there were very many difficulties and a great variety of opinion concerning the investigation of this class of cases, he would only direct attention to a few points which were still the subject of discussion.

First, he would repeat what had already been stated at the International Medical Congress of Copenhagen, that it was a misnomer to call the operation "Tait's operation." Hegar, in September, 1879, reported forty-two cases in which this operation was performed, with or without the removal of the tubes and performed to meet the same indications. Therefore, if Tait was to receive any mention in connection with the operation, it should

be simply as to the number of cases in which he had operated.

Dr. Wylie had asked whether always in cases of salpingitis the disease was caused by gonorrhœa. Dr. Noeggerath had investigated this subject, and made special researches in this direction for the purpose of demonstrating the presence of the gonococcus. Now, the gonococcus is a diplococcus, and of these four different species had been described as existing in the vagina. As yet, however, we had not been able to obtain a gelatine in which the gonococcus could be cultivated. Dr. Noeggerath had already tried four different kinds of gelatine and had had not yet been satisfied with the results—the microbes obtained by culture did not resemble the original ones. He had also compounded a coloring material which stained the gonococcus a peculiar red color, and the other tissues of a different color, but he had failed in this respect, because, as he now believed, in the uterus after a certain time—say six, eight, or ten weeks—if there be gonococci they exist in such small numbers that the micro-organisms can be demonstrated only by culture in gelatine, which as yet he had not succeeded in doing.

He could not say, therefore, whether the secretion of gonorrhœa in its chronic state was simply the result of a paralytic condition of blood-vessels, originally produced by the gonococcus, or whether the gonococcus still existed in small quantities, producing emigration of leucocytes. The demonstration of the gonorrhœal origin rested as yet only upon clinical facts.

As to the connection between salpingitis, perimetritis, and uterine dislocation, if there was anything which was characteristic of salpingitis and perimetritis, it was lateral version combined with anteversion.

He did not doubt that Dr. Wylie had seen retroversion with pyosalpinx, as there were probably such severe cases, but they were the exceptions.

If there existed nothing else upon which to make a diagnosis of salpingitis, the fact that there was diminished mobility of the uterus, with anteversion, or with light lateral version, and a certain form of uterine catarrh, was sufficient. Furthermore, with regard to retroversion, he was well aware that, eight or ten years ago, a certain number of gynecologists were of the opinion that this dislocation, without the existence of adhesions, was a rarity. He did not, however, regard it as such, and believed that in ninety per cent. of cases of retroversion the uterus could be replaced and kept there, and that those cases in which it could not be replaced, in consequence of adhesions, were very rare.

With regard to the diagnosis of salpingitis, we had to divide the cases into two classes: first, ordinary salpingitis with slight exudation, and, second, the disease in its later stages, where we had pyo- or hydro-salpinx.

In the first instance it was not necessary at all to feel the tube, but if there was decided perimetritis, with catarrh, minute condylomata about the hymen and labia minora, and erosion around the orifice of the vulvo-vaginal glands, we knew that salpingitis existed, because the cases where perimetritis existed without salpingitis were so extremely rare that those cases in which it did not belonged to the exceptions.

In the second instance, the *shape* of the tumor was of great importance in diagnosis. The tumor in salpingitis was, as a rule, not a single one, but a tumor divided into two or three sections, and of the shape of a cone running in the direction of the lateral diameter of the pelvis. In very doubtful cases we could touch the tubes directly by the recto-vesical touch.

The large majority of cases of salpingitis were not ready for surgical operation, and the treatment in such cases was very much like that described by Dr. Wylie; but there was one mode of treatment which he had found most efficient of all, and that was the prolonged use of the waters of Franzensbad, in Bohemia.

Dr. A. J. C. Skene said, with reference to pathology, that he accepted the position taken by Dr. Noeggerath, and, so far as his observation went, it was rare to see disease of the Fallopian tubes without having been preceded by gonorrhœa. On the other hand, he was inclined to take issue with Dr. Noeggerath with regard to the rarity of the occurrence of pelvic peritonitis without disease of the Fallopian tubes, for he thought that such cases occurred not infrequently.

With reference to the question of diagnosis, Dr. Skene accepted what had been stated by Dr. Wylie and Dr. Noeggerath, but the practical difficulty seemed to be in distinguishing between simple ovarian cysts in the prolapsed condition and pyo- or hydro-salpinx; perhaps the difference was most marked with reference to hydro-salpinx. There was one point to which attention had not been directed, and that was differential diagnosis by aspiration. If it was true that ciliated epithelia were so generally present, what objection could there be to removing by aspiration a portion of fluid and examining it under the microscope? Out of twenty-one specimens which he had examined, ciliated epithelia had been found in eighteen, thus indicating the condition that was present.

This fact also raised a question with regard to treatment. If the operation for removal of the tubes could be avoided—an operation which, to his mind, was something of a fearful necessity—it was certainly a step which no one would hesitate to take. After aspiration, a hydro-salpinx might not refill, and the aspiration might be followed by recovery. If the diseased tube could be thoroughly evacuated, the chances were that the cases would terminate in recovery in many instances. He thought, therefore, it would be well, many times, to try aspiration more thoroughly than it had yet been tried, both as a means of diagnosis and as a means of treatment.

Dr. P. F. Mundé, since he had had opportunity to follow out Dr. Noeggerath's teachings, and since Tait had published his successes in operating, had investigated this class of cases with special reference to diagnosis, and it was yet the one point upon which he was not at all satisfied. Dr. Wylie had been unable to give any new information on this part of the subject, and Dr. Mundé thought it was impossible to make a diagnosis in the very cases in which it was most desirable. In cases of pyo- and hydro-salpinx, the diagnosis could be made either with the fingers or by the use of the aspirator. The cases in which diagnosis was most desirable were not those in which there was a soft sausage-like tumor that could be distinctly felt, but they were those where there existed a diffuse thickening or infiltration of the tissues in each side of the pelvis, in which the patient complained of pain upon pressure, and pain at irregular intervals, with, perhaps, discharges of small quantities of pus. It was in such instances that the diagnosis was most difficult, and in those cases Dr. Mundé believed that the only positive assurance on this point rested in exploratory incision.

Furthermore, he did not believe yet that laparotomy would be very frequently performed. So long as we have no means of making a clear diagnosis, the operation will not be as popular as could be wished.

With regard to the influence of inflammation of the tubes upon uterine displacements, he agreed with Dr. Noeggerath that lateral displacements were the most frequent, but he had seen retro-displacements after chronic salpingitis, and thought that while they were not as common as lateral, they were more frequent than anterior displacements.

Concerning adhesions, he agreed with Dr. Noeggerath, that in the majority of cases of retroversion the uterus was not adherent.

With reference to treatment other than by laparotomy, Dr. Mundé thought we were rather at loss, and that but little could be done. He had in some cases in which there was nothing but a diffuse swelling, seen more benefit follow the local application of the constant electric

current than from any other means, using from twelve to sixteen cells of the ordinary battery, with sittings of from fifteen to twenty minutes every day or every other day. The benefit which had followed this treatment, according to his experience, was not in the way of greatly diminishing the exudation, or in reducing the adhesions, but in allaying the pain. This, however, did not cure pyo-salpinx with distinctly diseased tubes.

From our present stand-point he thought that Dr. Wylie's paper had been so complete as to leave but very little to offer in the way of discussion.

Dr. Wylie felt satisfied that if Dr. Mundé would take the pains to adopt his method of preparatory treatment, in those cases in which there was a marked diffuse induration, with fulness in the iliac regions, the diagnosis would become quite easy. In his first cases he was in doubt, as was Dr. Mundé, but in his later cases he had, by the use of glycerine and alum applied on a thin pledget of cotton two or three times a week, been able to so reduce the thickening as to enable him by digital examination to diagnosticate the exact condition of affairs within the pelvis.

Dr. Wylie doubted if hydrosalpinx would be cured by aspiration. With reference to diagnosis by means of the aspirator, he thought that, as a rule, if there was a large tumor, either a dilated tube or a cystic ovary, it would be much safer not to tap, as Tait had so well observed, abdominal tumors upon which it was proposed to operate. Probably it was only in the cases in which there was a single cyst in which any benefit would be obtained. With reference to retroversion being associated with salpingitis, he thought that, in women who had never borne children, lateral version of the uterus was the most frequent displacement; but that in the majority of cases occurring in women who had borne children, especially where there was salpingitis due to septic endometritis, retroversion was almost invariably present. His experience, therefore, was that, in cases in which salpingitis arose from septic-poisoning, retroversion was a frequent accompaniment.

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION.

Dr. C. C. Lee, the Chairman of the Committee on Medical Education, to which was referred, at the last stated meeting, a resolution offered by Dr. Jacobus concerning a State Board of Medical Examiners, reported that, after a full and careful consideration of the resolution, the Committee deemed it inexpedient for the Academy to take any action at present with regard to the subject. The report was accepted.

Dr. F. V. White, Statistical Secretary, reported the death of Jonathan S. Lawrence, M.D.

Dr. F. R. Sturgis made some remarks concerning the establishing of

A STATE BOARD OF EXAMINERS,

through which the licensing power to practise medicine would be divorced from the teaching power, and offered a resolution asking the Academy to endorse the desirability of the enactment of a law to accomplish this end, and also asking that the Academy instruct its delegates to support, at the next meeting of the Medical Society of the State, acts which might be introduced for the purpose of accomplishing this object.

Dr. Roosa seconded the resolution, and remarks were also made by Dr. H. T. Hanks, who thought it best to postpone the consideration of so important a subject until a larger number of the Fellows of the Academy were present.

The President also intimated that this question would be considered somewhat extensively in his valedictory address; he thought that it would be well for the Academy not to commit itself hastily on so important a subject, and suggested that, if the discussion should be postponed until some future meeting, it might be in the interest of all concerned.

Dr. Sturgis accepted the suggestion of the President, and, on motion, the resolutions were laid upon the table.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, December 24, 1884.

John A. Wyeth, M.D., President, *pro tem.*, in the Chair.

Dr. Frank Ferguson presented on behalf of a candidate a specimen of *tuberculosis of the larynx.*

CATARRHAL PNEUMONIA WITH DIPHTHERIA.

Dr. Van Santvoord presented specimens with the following history: The patient was a child, aged thirteen months, an inmate of Randall's Island Infant Asylum. It had been ailing for about one month, with diarrhœa occasionally succeeding a somewhat constipated condition, and the occurrence of bronchitis some time ago. Prior to the fatal illness there had been no examination of the lungs for several days. On Tuesday night the house physician was called to see the child, when the nurse told him that it had been ailing more than usual for a number of hours. He found that breathing was labored, and on examining the throat discovered a patch of false membrane upon the right tonsil. The child rapidly sank, and died within a few hours. Death occurred within twenty-four hours from the inception of the throat trouble.

At the autopsy the brain presented no very obvious lesion. A patch of pseudo-membrane was found upon the right tonsil, and the epiglottis and the trachea, to about its middle, were coated with false membrane, which, as usual, was somewhat adherent over the laryngeal surface and tonsil, but loosely attached in the trachea. The trachea and large bronchi were injected and coated with copious secretion of muco-pus. About one-third of the lower lobes of both lungs, and about one-half of the upper lobes were hepatized from catarrhal pneumonia. The heart presented no marked lesion, simply a post-mortem clot in both ventricles. The abdominal viscera were normal, with the exception that the solitary follicles were somewhat enlarged throughout the small and large intestines. From about eighteen inches above the ileo cæcal valve to within two feet of the stomach there were six intussusceptions, but these were so frequently found at autopsies in children that they were regarded as having no special pathological significance.

PERICARDITIS AND PNEUMONIA.

Dr. Van Santvoord also presented the heart and pericardium removed from the body of a man who was admitted to the surgical ward of Randall's Island Hospital to be treated for varicose ulcer of the leg. About two weeks before his death he complained of pain in the region of the heart, and shortness of breath with a certain amount of cyanosis quickly developed. On physical examination nothing was found except a rapid action of the heart, with the apex beat on the line of the nipple. No abnormal sounds were heard on auscultation, except subcrepitant râles over the lower lobes of both lungs posteriorly. Within forty-eight hours from the beginning of the attack, bronchial breathing over the lower lobe was heard distinctly. One of the visiting physicians, a competent observer, auscultated the chest and found nothing abnormal with reference to the heart except that there was an increased area of cardiac dulness. The patient died after an illness of two weeks.

At the autopsy the arachnoid showed chronic opacity. The Pacchionian bodies were more developed than usual. There was a certain amount of œdema of the membranes, and some excess of fluid in the ventricles.

Something more than a pint of fluid was found in the left pleural cavity, the lower lobe of the left lung was compressed, and the upper lobe was in a condition of gray hepatization beginning to resolve, and the entire lobe was œdematous. The upper lobe of the right lung was in a condition of red hepatization, passing into gray, the middle lobe was in a stage of red hepatization, and the lower lobe was œdematous, with the upper portion apparently beginning to hepatize.

About eight ounces of blood-stained fluid were found in the pericardium, and the entire inner surface of the sac was coated with a thick layer of lymph. The heart was covered with a large quantity of fat, and all its cavities were dilated. The left auriculo-ventricular opening admitted three fingers, and the right admitted four. The muscular tissue of the heart was moderately fatty.

The liver was normal, the spleen was somewhat shrunken, and the kidneys showed a moderate amount of interstitial nephritis.

The specimen was interesting as showing how easily a prominent lesion might be overlooked by a competent observer.

PLEURISY, PERICARDITIS, AND BRONCHO-PNEUMONIA.

Dr. Van Santvoord also presented specimens taken from the body of a child, about one year of age, that died without a diagnosis. Fluid with exudation of lymph were found in the right pleural cavity. The upper lobe of the lung on the same side, and to a certain extent the lower lobe, exhibited spots of broncho-pneumonia, and a wedge-shaped infarction was seen in the upper lobe near the apex. There was pericarditis over the right auricle, adjacent to the inflamed pleura. The bases of the aortic valves were somewhat roughened.

PROLAPSE OF THE RECTUM.

Dr. Van Santvoord further presented a specimen removed from the body of a child, nineteen months of age, who had suffered from time to time with diarrhœa. The cause of death was bronchitis and broncho-pneumonia. The specimen was interesting as illustrating how the peritoneum might be dragged down with the gut.

BRONCHO-PNEUMONIA AS A COMPLICATION OF DIPHTHERITIC CROUP.

Dr. Van Santvoord said that at the last meeting of the New York Academy of Medicine a difference of opinion arose between the reader of the paper, Dr. Joseph E. Winters, and Dr. John H. Ripley, as to the frequency of the occurrence of broncho-pneumonia as a complication of diphtheritic croup. The position taken by Dr. Winters was that the direct effect of laryngeal obstruction was congestion of the lungs, and subsequent broncho-pneumonia. Dr. Ripley claimed that when the entrance of air to the lungs was partially prevented, instead of congestion occurring as a result, pulmonary emphysema followed, and consequent anæmia of the lung. Dr. Van Santvoord believed that Dr. Ripley's view was certainly that accepted by pathologists in general. Dr. Ripley had also stated that the number of cases in which broncho-pneumonia had been found in patients who had died after tracheotomy for diphtheritic croup was very small, and that, as a matter of fact, the chest was hyper-resonant in cases where the larynx was obstructed, etc., and, consequently, the idea that the performance of tracheotomy was indicated as a means of preventing the occurrence of broncho-pneumonia when laryngeal stenosis exists, was erroneous. The first specimen presented by Dr. Van Santvoord had a bearing upon this particular question. The bronchitis had been recognized prior to the occurrence of the diphtheria, and the diphtheria lasted for only twenty-four hours, while the extent of the broncho-pneumonia was too great to allow of the assumption that it had existed only while the diphtheria existed; in other words, the broncho-pneumonia was the antecedent disease.

Dr. Ripley remarked that, since the discussion at the New York Academy of Medicine, he had seen a number of cases of bronchial croup secondary to tracheotomy. In one he had made the post-mortem examination himself, and in all of these cases the lungs were in a state of distention, and there was no evidence whatever of the existence of pneumonia.

Dr. Van Santvoord further remarked that in his case the lungs did not collapse, as they usually do when the anterior wall of the chest is removed, and that they were anæmic.

Dr. Ripley further remarked that on magnifying the lung where pneumonia does not exist, it would be found that it was in a state of acute emphysema. Furthermore, that there might not be any membrane below the trachea, and but little within the trachea.

TRACHEOTOMY FOR DIPHTHERITIC CROUP.

Dr. H. D. Chapin presented the larynx, trachea, lungs, and heart of a child, three and a half years old, on whom he had performed tracheotomy. He was called to see the child last Wednesday, and found it in a very poor general condition. One week previously it had had general bronchitis, almost reaching the air-vesicles. He prescribed and the patient got a little better. About a week or ten days subsequently he was called and found the child quite ill, with a temperature of 100° F., and on examination discovered a thick membrane covering the soft palate and the back part of the fauces, apparently extending upward into the nose, and there was also pseudo-membrane over the tonsils. It had a slightly hoarse cough, with mucous râles over both lungs.

On the following day the hoarseness of the cough had somewhat increased. Under the use of a solvent spray the membrane began to disappear from the throat. On the following day there was slight dyspnœa. On Friday morning the dyspnœa became intense, all the signs of suffocation developed, and he performed tracheotomy at five o'clock in the afternoon. The temperature before the operation was 99.5° F., and the pulse 140. Within three-quarters of an hour after the operation the temperature was 101.25° F., and the pulse 155. He operated below the isthmus; a large membranous cast of the trachea was expelled, and breathing was relieved at once. During the night after the operation the child breathed easily, but on Saturday morning slight difficulty of respiration was again seen; the respirations, however, were only twenty-four, and there was a slight depression of the upper part of the chest, showing stenosis. The tube was perfectly clean, and there was no membrane in the canula. The difficulty in breathing increased through the forepart of the day on Saturday, and on Saturday afternoon it was as great as it was before the operation, with the respirations about thirty. At five o'clock in the afternoon the child was apparently dying of suffocation. Dr. Chapin then determined to experiment with tripsin. He made a warm solution of the solvent and sprayed it down the tube after removing the inner canula. There was some coughing, and a small portion of the membrane was expelled; the patient then breathed easier. He continued the spraying, and at the end of a few hours the patient was breathing perfectly easy, with the respirations at twenty-eight. During Saturday night the patient breathed easily, and no membrane was expelled. He kept up the spraying steadily, but the child died on Sunday morning of blood-poisoning, with the pulse at 170.

At the autopsy he found the tracheal opening covered with a very thick membrane, but the pseudo-membrane was seen only in patches and soft masses along the trachea and in the bronchial tubes as far as the second bifurcation, showing that the pancreatic extract had digested it. All the lobes of the lungs could be fully inflated with the exception of the base of the right lower lobe, where there were two spots of consolidation.

Dr. Chapin remarked that the tripsin seemed to be a valuable compound in the treatment of these cases,

namely, those where croup existed below the tube. Usually we are powerless to affect the membrane which forms so low down, and if it can be digested by means of tripsin, we may be able to save life in spite of the new formation of membrane.

Another point of interest was the fact that the child, after the first spraying, was anxious to have it repeated on account of the relief which it afforded.

Dr. J. Lewis Smith said: "Tracheotomy seems to have been successful in this case in relieving the dyspnœa, and death occurred from the blood-poisoning instead of the laryngeal stenosis. In discussions in the societies it has been said that severe complications, as pneumonia, or nephritis, or profound blood-poisoning, contra-indicated tracheotomy; that when death would in all probability occur after the operation from such complication it should not be performed, because fatal cases tended to produce hostility on the part of the public to this operation. The correct view, it seems to me, to take of this matter, is that tracheotomy should be recommended, if in however small a degree it improved the chances of the patient's recovery. Our regard and solicitation should be for the welfare of the patient, and not the opinions of the public. I am glad to hear of the encouraging result of tripsin inhalation. I have never seen pseudo-membranes disappear more rapidly from the fauces than when the following prescription was applied by a large camel's-hair pencil every half-hour to the fauces:

"℞. Extracti pancreatis ..... 3 j.
Sodii bicarbonat ..... 3 ij.

"M.—Add one teaspoonful heaped, to six teaspoonfuls of tepid water, and apply by the brush.

"The good result may be partly from the alkali, but I suspect it was largely from the tripsin."

Dr. Wyeth said that in the last case in which he performed tracheotomy he experienced very great difficulty in getting into the trachea. The case he had already reported to the Society, and he would not mention it except for the fact that there was apparently a false impression extant that the operation was an exceedingly easy one to perform. He did not think that he had had an operation during the last six months which had given him more trouble than the tracheotomy in the case to which he referred.

Dr. Chapin referred to a case in which he came near losing the life of his patient on the table on account of a general oozing of blood from the surface of the wound.

Dr. Ripley remarked that he was very glad to hear this expression of opinion concerning the operation from so bold and careful an operator as was Dr. Wyeth, for he did not know of any operation to which he went with more apprehension than to the performance of tracheotomy in croup. With regard to the pancreatin, he hoped that it would prove a success. So far, all solvents which he had employed had been unsatisfactory. In many cases difficulty in breathing can be modified by inhalations of steam.

With regard to the temperature running up after the operation, that had been the general rule in his cases, but it was also a rule that, unless the disease progressed, the temperature fell on the following day. He also thought that apprehension concerning the danger of pouring fluids into the trachea was without foundation, as the fluid could not reach lower than the second or third bifurcation of the bronchial tubes.

Dr. Jacobi said that inasmuch as he had not heard the report of Dr. Chapin's case, there was only one point to which he would direct his attention, if it was necessary, and that was that if there were any disease in which statistical numbers were necessary, it was certainly croup-diphtheria in all its shades, and especially with regard to the fact whether or not diphtheritic membrane would descend into the lower branches of the bronchi more frequently after tracheotomy had been performed than it did in cases in which the operation had not been resorted to. He would only direct attention to the well-known fact that membrane in the trachea, and more often in the bronchi, had a greater tendency to macerate than when it existed elsewhere in the air-passages. In a number of operations where the membrane was already in the trachea, when the incision had been made, loose material would be thrown out, showing that maceration of the newly-formed membrane had already taken place. Thus it was we had so many reports of success following the application of water, lime-water, alkaline washes, extractum pancreatis, etc.; but if there was any place where the membrane macerated easily it was in the trachea and the bronchial tubes, and certainly we wished to have a large number of cases in order to determine whether or not this or that solvent had greater power than those which had been already used.

When croup descended after tracheotomy we found a number of cases in which the children died in a way similar to that in which they did if no operation had been performed, namely, of stenosis, but not to the same extent as when not operated upon.

That meant that the stenosis of the larynx was somewhat different from stenosis of the bronchial tubes. It was true there was dyspnœa, with recession of the supra- and infra-clavicular and diaphragmatic portions of the chest, but it did not obtain to the same degree. There was, besides, when there was laryngeal stenosis, uncomplicated, long-drawn, slow inspiration. It would be found in the vast majority of cases in which there was bronchial stenosis that the respiration was no longer so long-drawn, but was more frequent, and more of the character of the respiration which occurred in inflammatory disease; that is, the breathing when we had the membranous exudation descending was no longer that which arose from pure, uncomplicated croup, but there was a mixture of the inflammatory respiratory disease, and the children did not die alone of laryngeal stenosis, but of the complicating pulmonary congestion, bronchitis, œdema, etc. Dr. Jacobi believed that this fact could be utilized for purposes of diagnosis. In those cases, for instance, in which there was on one day long-drawn inspiration with croupy dyspnœa and on the next day the respirations were quite changed, the recession of the chest-walls was not quite so deep, but the respirations were more frequent and accompanied with cyanosis. Recently he had seen a case of this character. He was obliged to operate, although, he said, it was not an uncomplicated case of laryngeal stenosis, but that the disease had extended downward, and that the lungs were implicated in the process. So it was; for, he found the trachea lined with membrane, and large masses of membrane were thrown out. There was no pneumonia at that time, but there was the descent into the smaller bronchial tubes, which resulted in the relative frequency of respiration.

Dr. Ripley would like to ask Dr. Jacobi if he wished to give out the impression that in laryngeal stenosis the respiration was slow.

Dr. Jacobi answered that he did.

Dr. Ripley thought that this was a mistake. He had the record of over one hundred cases in which the respiration had been invariably hurried. That was not only true of croup, but also of asthma.

Dr. Jacobi believed that he was right in one thing which he had said with regard to Dr. Chapin's case, and it was that, if there was any disease or condition in which a large number, and still a larger number, of observations was necessary, it was certainly with reference to the various manifestations of croup and diphtheria. Dr. Ripley had expressed an opinion exactly the reverse of what he had stated, and Dr. Ripley believed that he was right, and Dr. Jacobi also believed that he was right. Now, Dr. Ripley had had one hundred cases, and he had seen perhaps as many.

Dr. Ripley: "Yes, and many more."

Dr. Jacobi: "I have operated now between four and five hundred times. So it appears to me that his one hundred and my four or five hundred cases do not

begin to be a sufficiently large number to decide that question. I would suggest only this, and I offer it for only what it is worth: Dr. Ripley may observe his cases as accurately as he has already done, and he will find that when there is a decided recession of the supra- and infra-clavicular regions, that where there is laryngeal stenosis pure and simple, the respiration in those cases will be slow—slower than normal. The process is simply a mechanical one, and the observation theoretically is also correct. I shall, however, now proceed to make new observations, and at the end of five years I hope that Dr. Ripley and I will have an opportunity to discuss the same subject again."

Dr. Levi thought that the amount of air required depended upon the capacity of the lung to hold reserved air after each inspiration. When the quantity taken in had been consumed, then breathing began, and in the healthy condition of the lung, with simple laryngeal stenosis, the quantity of air reserved in the lung was greater than that which could be reserved when the lungs became diseased and could not take in the proper quantity of air. The number of respirations, therefore, depended upon the capacity of the lungs to hold the air in reserve after it had been inspired. Theoretically, therefore, he agreed with Dr. Jacobi.

ACUTE PLEURITIS COMPLICATING PERTUSSIS.

Dr. J. Lewis Smith, related the following case: Gertrude I——, aged eleven months, nursing, contracted pertussis about the middle of September, 1884, but progressed favorably with it till the middle of November, when she began to have febrile movement, and respiration was accompanied by an expiratory moan. These symptoms, indicating an acute inflammation, continued, and soon after the resident physician, Dr. Bissell, detected evidences of an effusion in the right side of the chest. Subsequently he introduced an exploring needle at the usual point below the angle of the scapula, but failed to remove liquid. My first examination of the patient was on November 24th, when it was evident from the gravity of the symptoms and the feebleness of the infant that death was not far distant. The pulse was 180, respiration 52, vaginal temperature 103½° F.; marked dulness over the whole right of chest posteriorly and laterally; anteriorly on the same side the resonance was better, though not clear from the clavicle to the nipple, and it was flat below this point; distinct bronchial respiration heard over the entire right side, apparently near the ear; diffuse moist râles also observed in the lung. On the following day the patient was evidently fast sinking, and a more thorough auscultation and percussion was not admissible; respiration 98, temperature 103⅘° F.; pulse very feeble and too rapid to be counted. Death occurred soon after. It will be seen how closely the physical signs and symptoms as ascertained in these brief examinations resembled those of pneumonia.

Autopsy by Dr. W. P. Northrup.—Body well nourished, "a plump, pretty child." Lungs: Right pleural cavity contains sixteen ounces of fluid. This fluid, after standing in a measuring glass a few minutes, separates into a tolerably clear fluid above, at the bottom a sediment of about one-third the whole volume. The fluid is greenish yellow, and the collection of small coagula at the bottom is found under the microscope to be made up of pus cells. The lung is compressed inward and forward, and so devoid of air, in alveoli and bronchi together, as barely to float in water. There are no regions of distinct consolidation, the whole lung having the feeling of muscle. The pleura has a macerated appearance except in one place, about the size of a nickel five-cent-piece, which is thickly coated with adherent fibrin. On section pus exudes from the larger bronchi, and one terminal bronchus is dilated to form a cavity about the size of a pea. The lobes are glued together by recent fibrin, and the lung lightly adherent anteriorly. Liver, spleen, kidneys and stomach normal. Intestines show moderate catarrhal inflammation. The left lung is œdematous—no consolidation and no pleurisy.

Microscopic examination by Dr. W. P. Northrup.—Near the pleura the lobules show a diffuse pneumonitis. In more remote portions the smaller bronchi are compressed; the epithelium has much of it fallen into the bronchi loosely, but there is no infiltration of the bronchial walls. In the lesion of the alveoli are dilated vessels and swollen epithelium.

Remarks.—In children over the age of three years it is not difficult to diagnosticate pleurisy by the physical signs, but in patients under this age, and especially under the age of two years, it is often very difficult to discriminate by auscultation and percussion between pleurisy with effusion and pneumonia. The physical signs accompanying a pleuritic exudation in infants are such, as in the present case, that, if they were observed in an adult, we would unhesitatingly diagnosticate pneumonia. In the infant, enfeebled by disease, the lungs, which are prone in such patients to atelectasis and collapse, are compressed by the liquid before there is any appreciable elevation of the chest-walls or even of the intercostal spaces, and if there be an undue prominence on the affected side in consequence of the effusion, it is compensated by the exaggerated expansion of the opposite lung, which performs the function of both. Measurements, therefore, afford us little aid in the infant. Displacement of the heart is a conclusive sign, but this we lose as an aid in diagnosis if the pleurisy be on the right side. Palpation, in order to determine the presence or absence of local fremitis, and change of position of the patient, in order to determine an increase or recession of the area of dulness if a liquid be present, are for the most part without result in the examination of infants.

In the infant, however great the effusion, it is seldom that we do not hear distinctly the respiratory sound when the ear is placed over the fluid. In the beginning of the attack the murmur may be vesicular, but as the effusion increases it becomes bronchial, and is often as distinctly bronchial and nearly as loud as in pneumonia, as it was in this case. Even in an effusion that is large for an infant, the distance of the lung from the walls of the chest is so small that the respiratory sound is readily transmitted through the liquid, either from the bronchial tubes on the affected side, or perhaps from the other side, so that, as a rule, we hear quite a distinct bronchial respiration when the ear is applied over the pleuritic effusion. This deceives auscultators, and leads them to think that the disease is pneumonia.

The percussion sound is, of course, dull, and nearly or quite flat if there be much effusion. If it be very dull, approaching flatness, over a considerable part of the affected side of the chest, I have been led to regard the disease as pleurisy with effusion rather than pneumonia, whatever the other physical signs in the infant. One would suppose that the exploring needle attached to the hypodermic syringe would always afford a quick and certain means of diagnosis; but, as in the present case, we sometimes fail to obtain liquid by the needle, when it is present, either because there are adhesions or a thick fibrinous exudation at the point of puncture, or because it has not been inserted to the proper depth. Less than half an inch will pierce the chest-wall in most instances, and I think the needle is not infrequently inserted too far.

The chief interest attaching to the clinical history of the present case was the difficulty of diagnosis, and we see why for a long time pleurisy in the infant was supposed to be rare. The mistake is even now frequently made by good auscultators and experienced physicians, as I have at different times observed, of diagnosticating pleurisy in the infant for pneumonia. It seems as if in these times of accurate diagnosis we should be able to discriminate more clearly and accurately the one from the other.

Dr. Van Santvoord thought that the difficulty of differential diagnosis between pleurisy and pneumonia was

not confined to children. He had seen quite a number of cases in which mistakes had been made by competent observers in examining adults. He regarded measurement of the chest and displacement of the heart as two very important physical signs.

Dr. Smith had not noticed any difference in the size of the sides of the chest in cases of pleurisy in children, and when the effusion was on the right side displacement of the heart was not liable to occur.

Dr. Van Santvoord further remarked that he regarded expectoration as an important element in differential diagnosis, although he was aware that in many cases of pneumonia it was absent. In one of the specimens which he presented there was bronchial breathing, transmitted probably through the fluid and through the compressed lung.

Dr. John A. Wyeth presented four specimens containing one point of pathological importance and several of surgical importance. The first was a specimen of

SARCOMA OF THE LOWER JAW,

occurring in a boy eleven years old, A. B——, a native of England. The patient said that about four months ago he noticed "a hunk of flesh" hanging down by a decayed tooth in the lower jaw. This hurt him on eating, and bled at times. He had the tooth extracted, and after that the piece of flesh increased in size. The mother said he had continuous and severe toothache for eight days before this, and also that the glands about the neck did not appear to be enlarged until four weeks ago. On admission to the hospital the alveolar process of the inferior maxilla on the left side, from the incisor tooth back to the last molar tooth, was the seat of a new growth, also involving the cheek and outer side of the inferior maxilla and sublingual gland of the same side; it also extended along the upper side of the inferior maxilla beyond the last molar. The cervical glands of both sides were enlarged. The operation for its removal was performed on November 19th. The point of surgical importance in the case was the fact that Dr. Wyeth kept far away from the periosteum and operated in healthy tissues. The patient made a complete recovery, so complete that it had not been necessary to use a dental apparatus to hold the fragments of the lower jaw in position. Microscopical examination revealed the new growth to be sarcoma.

TWO SPECIMENS OF NECROSIS OF THE LOWER JAW.

Dr. Wyeth also presented a portion of the inferior maxilla removed from a patient seven years of age, who, six weeks ago, had toothache which continued for two weeks. Immediately after this subsided a reddened swelling appeared over the angle of the left side of the lower jaw. There was no history of injury, or of exposure to cold, and the child had always been healthy, except that it had measles when two years old. On admission to the hospital the left side of the cheek, at the lower part, was occupied by a tumor about the size of a hen's egg, which extended from the malar bone down to the angle of the jaw, and backward as far as the lobule of the ear. It was firm and hard, and connected with the inferior maxilla. The integument was freely movable over the tumor, and showed no reddening or ulceration. The teeth were sound. On August 29th a molar tooth was extracted, and some pus escaped. When the probe was passed into the cavity it touched bare bone behind the side of the extracted tooth.

On September 27th the swelling had pointed just behind the angle of the jaw. An incision was made and the probe introduced, which touched bare bone. Operation for necrosis was performed on November 13th. The point of surgical interest was that the bone had an involucrum in which the sequestrum was loose, and Dr. Wyeth thought operations performed early in these cases were not so simple as those in which the operation was delayed until the sequestrum was loose.

Dr. Wyeth also presented the angle, and part of the ramus, of the left lower jaw, which he had removed by operation, and which was accompanied with a history not essentially different from that already narrated.

NEUROTOMY FOR INFERIOR DENTAL NEURALGIA.

Dr. Wyeth reported a case of neuralgia of the inferior dental nerve, in which he performed an operation for its relief—assisted by Drs. Stewart, Ripley, and others—by making an incision down at the upper angle of the jaw, along the border of the inferior maxilla, turning up the flap, dissecting loose the masseter muscle, applying the trephine over a point opposite to the inferior dental foramen, exposing the dental canal, exsecting the nerve to a distance of three-fourths of an inch, and then, with the forceps, stretching the central part of the nerve, and also ligating the inferior dental artery. There had been no pain since the operation.

The Society then went into executive session.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

LUNACY LAW REFORM—A NEW MEDICAL SOCIETY—REFORM AT THE COLLEGE OF SURGEONS—THE TEACHING OF PATHOLOGY AND OBSTACLES TO ITS STUDY—THE CASE OF EXCISION OF A TUMOR FROM THE BRAIN, AND THE ANTI-VIVISECTIONISTS.

London, January 3, 1885.

The cases of Mrs. Welden and others occurring in the past year have caused considerable attention to be paid to the subject of lunacy reform, both in the profession and outside. It is believed that a member of the government is now preparing a new lunacy bill which will be brought forward in the course of the ensuing session of Parliament. It is generally admitted that many reforms are desirable. The present system of certification of lunatics by any two medical practitioners—in the case of insane paupers by one only—is not satisfactory. It has been suggested that it should be made a rule that one of the certifying practitioners should be either the medical officer of health for the district, or else an asylum medical officer. In the latter case, he should of course be unconnected with the asylum to which the patient is to be sent. A reconstruction of the present Boards—of Commissioners and Visitors respectively—administering the lunacy laws, is also urged. It is stated that the Lord Chancellor recommends the formation of *one* board only to be called the Board of Lunacy.

A new medical society has just been founded under the title of the British Gynecological Society. Dr. Barnes has been elected Honorary President, and Dr. Meadows, President. It is to be hoped that the new society will do a good deal to rescue gynecology from the disrepute it has largely fallen into. It is also to be wished that the question may be settled as to what a gynecologist is, and what he may do. At present, at many general hospitals, those in charge of the obstetric department are forbidden by the rules to perform operations such as ovariotomy, though in some cases they are *permitted*, through the courtesy of their surgical colleagues, to do so. At the meeting which took place last week to institute the new society, Dr. Barnes stated that he had emancipated himself at St. George's Hospital, because it was well known that he could easily find his field outside, if denied him there. He knew full well that the operation of ovariotomy would be refused to his successor.

Reform at the College of Surgeons still lags. The Council have refused to adopt the more important changes urged upon them by the Fellows and members. They have not yet applied for a new charter, without which no important change can be made. Should they do so, the Fellows and members will probably bring all

the influence they can on the Crown to have reform granted *against* the will of the Council, as they can gain so little with the Council.

Pathology is still far from attaining the position to which it ought to aspire. One obstacle in the way of pathological investigators is undoubtedly the limited supply of material. No British pathologist can point to such a roll of post-mortem examinations as those performed by Rokitansky. In London, our pathological material is distributed not only among our eleven teaching hospitals, but also between a host of others, general and special. Each hospital has usually a pathologist, but in those with medical schools attached the lecturer on pathology is not, as a rule, also pathologist, the latter being often regarded as an inferior post, only to be held as a stepping-stone to a place on the staff. A similar separation of the practical and theoretical teaching of pathology obtains elsewhere also. At Edinburgh, Professor Greenfield holds the chair of pathology at the university, whilst Dr. Byron Bramwell is pathologist to the Royal Infirmary, the hospital practice of which is attended by university students.

Where the theoretical teaching of pathology is thus divorced from opportunity for pathological observation and research, it is not surprising that teachers should not only at times sound an uncertain note, but also fail to be in unison. Considering that the lecturers on medicine, surgery, and other branches, all invade the domain of pathology, it is no wonder that, in our present unsettled phase of belief on many subjects, students should be hopelessly confused.

The invincible repugnance of the friends of deceased patients to "allow them to be opened," is often a bar to the pursuit of science. A case recently came under my notice in which the father of a patient refused a post-mortem, and said he had permitted one once on another child who died, and he had never heard the last of it from his wife. His personal objection to it was not unconquerable, but under these circumstances what was he to do? In similar cases I have heard stories of post-mortems being performed unknown to the friends, in cases of great scientific interest. This is a dangerous proceeding and to be deprecated, as there is not only the law to fear, but a prosecution instituted for such a procedure would bring the profession into great odium in the eyes of the public. This has occurred once within the last few years.

The patient from whom Mr. Godlee excised a cerebral tumor has since died from meningitis and cerebritis, although he progressed favorably at first. The anti-vivisectionists have taken the opportunity to air their views in the general press, and denounce the inutility of Professor Ferrier's former experiments on animals to determine cerebral localization. Your readers will not care to be troubled with an enumeration of their illogical statements.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from January 11, 1885, to January 17, 1885.

HEAD, JOHN F., Colonel and Surgeon. Retired from active service by operation of law, on January 9, 1885, under provisions of act of Congress approved June 30, 1882. S. O. 7, A. G. O., January 9, 1885.

JEFFERSON R. KEAN, to be Assistant Surgeon, with rank of First Lieutenant, December 8, 1884.

BENTLEY, EDWIN, Major and Surgeon. Leave of absence extended two months. S. O. 8, A. G. O., January 10, 1885.

TREMAINE, W. S., Major and Surgeon. Relieved from duty at Fort Porter, New York. S. O. 8, Department of the East, January 12, 1885.

GIRARD, A. C., Captain and Assistant Surgeon. Ordered for duty at Fort Porter, New York. S. O. 8, Department of the East, January 12, 1885.

APPEL, D. M., Captain and Assistant Surgeon. Ordered for duty at Plattsburg Barracks, New York. S. O. 8, Department of the East, January 12, 1885.

GIRARD, J. B., Captain and Assistant Surgeon. Ordered for duty as Post Surgeon at Fort Schuyler, New York Harbor. S. O. 8, Department of the East, January 12, 1885.

HAVARD, VALERY, Captain and Assistant Surgeon. On being relieved at Fort Schuyler, authorized to avail himself of leave of absence (four months). S. O. 8, Department of the East, January 12, 1885.

ELBREY, F. W., Captain and Assistant Surgeon. Sick leave still further extended six months on surgeon's certificate of disability. S. O. 9, A. G. O., January 12, 1885.

PROMOTIONS.

CAMPBELL, JOHN, Lieutenant-Colonel and Surgeon, to be Surgeon with rank of Colonel, December 7, 1884.

ALEXANDER, R. H., Major and Surgeon, to be Surgeon with rank of Lieutenant-Colonel, December 7, 1884.

MCELDEWY, HENRY, Captain and Assistant Surgeon, to be Surgeon with rank of Major, December 7, 1884.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 17, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
January 10, 1885.....	17	10	82	6	164	69	0	0
January 17, 1885.....	3	11	64	6	126	54	0	0
Deaths.								
January 10, 1885.....	0	2	18	5	26	35	0	0
January 17, 1885.....	1	3	13	5	37	20	0	0

THE LATE PROFESSOR WILLIAM DARLING.—At a meeting of the medical class of the University of Vermont held in City Hall, December 26th, the following resolutions were adopted in relation to the death of the late Dr. Darling.

Whereas, it has pleased Almighty God to remove from among us Professor William Darling, and whereas, it seems fitting for us who have been favored with the acquaintance and instruction of one whose intellectual attainments have commanded the highest admiration, whose name will stand among the foremost of his profession, and whose memory will be cherished by all who have had the honor to be his pupils, to in some manner express our deep sorrow; therefore

Resolved, That, while we as a medical class do deeply mourn the great loss we have sustained, we extend to the Faculty of the Medical Department of the University of Vermont our sincere and heartfelt sympathy in the loss of a colleague so able and genial.

Resolved, That we place a fitting emblem of mourning in the lecture-room of the college, there to remain during the remainder of the present session.

Resolved, That a copy of these resolutions be forwarded to the Medical Faculty of the University of Vermont; also one to the Burlington *Free Press and Times*, and the New York MEDICAL RECORD for publication.

B. J. ANDREWS,
B. D. NELLIS.
Committee for the Class.

BURLINGTON, VT., December 29, 1884.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 5. NEW YORK, JANUARY 31, 1885 Whole No. 743

Original Articles.

AFFECTIONS OF THE EAR INFLUENCED BY, OR DEPENDENT ON, MALARIA AND DEFECTIVE DRAINAGE.[1]

BY OREN D. POMEROY, M.D.,

SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL, ETC.

THIS question is beset with difficulties. At the outset we are confronted by the fact that most cases having any symptom of malaria are treated by some salt of Peruvian bark, which exerts, more or less, its peculiar influence on the organ of hearing, making it in some cases simply impossible to determine whether the ear symptoms are dependent on malaria or on the exhibition of quinine. It is sufficiently well known that quinine will congest the cerebral vessels, together with those supplying the scalp, ears, eyes, face, throat, etc., and that this congestion may give rise to swelling and obstruction of the Eustachian tubes, to hyperæmia of the tympanic membranes, and external auditory canals, and even of the labyrinth. In consequence of this the patient will be troubled with deafness, tinnitus aurium, anomalous sensations in the tympanic cavities, with the labyrinthine symptoms dependent on disturbance in its functions, and possibly true disease of the labyrinth itself.

To differentiate, then, between malarial ear symptoms on the one hand, and those dependent on the exhibition of quinine on the other, will present one of the difficulties of the problem before us. Perhaps the earliest and best account of malarial ear affection may be found in the *Monatschrift für Ohrenheilkunde*, No. 11, 1871 (Green's reference and extract), by Weber-Liel. He describes two forms of ear disease, dependent, as he thought, upon malarial poisoning; one an inflammatory affection, which he denominated otitis intermittens; the other a non-inflammatory affection, which he described as otalgia intermittens.

Both varieties of the disease are referred by him to malarial neuralgia of the third branch of the trifacial nerve—the otalgia being a malarial neuralgia, pure and simple; the otitis being an inflammatory affection, the expression of a vaso-motor trophic neurosis accompanying or produced by the neuralgic affection. "After the irritating influence of the malarial poison in the first fever has ended in a severe paroxysm of pain, simultaneously existing in all the branches of the trifacial and neighboring nerves, the malaria is shown for a considerable time longer in the form of a vaso-motor neurosis, as the effect of which there is injection of the tympanic blood-vessels, and a collection of muco-purulent secretion in the tympanum." He describes the symptoms thus: Generally, although not always, there has been a preceding angina or naso-pharyngeal catarrh, when, toward evening or in the night, there is a chill, either decided or perhaps so slight that it is scarcely noticed; this is followed by a feeling of fulness and roaring in the ears, and sometimes by vertigo and pressure in the head. The patient passes a restless night, with profuse perspiration, but on the next day is perfectly well, and the ear symptoms have passed off. Forty-eight hours or so afterward there is another chill, with shooting pains in the ears, deafness, and increased subjective noise, and examination of the ear often shows in this stage an exudation into the tympanum. As the stage of perspiration comes on after the chill, the patient falls asleep, to awaken perfectly well, except that the subjective noises continue.

If the exudation of the tympanum has ruptured through the drum-membrane, the discharge, which was perhaps profuse during the night, ceases by morning, and all pain is relieved. Tenderness of the tragus, which was marked during the pain, is also relieved. Thus the attacks continue, following the quotidian or tertian type, with intervals of perfect freedom from all general symptoms, although the local symptoms in the ears increase in severity, and the intermissions, so far as the ears are concerned, become less and less marked, till finally the ear symptoms are a constant irritation.

Usually but one ear is affected. The mastoid cells may gradually become involved and be filled with pus. Local treatment, even paracentesis of the drum membrane or perforation of the mastoid cells, affords only temporary relief to the constantly recurring attacks of pain. Neither the air-douche, warm or cold water applications, nor morphine injections, prevent the recurrence of the nightly pains. Quinine alone, in large doses, gives relief, and the earlier it is prescribed the more thorough and rapid is its action. The spleen is often found to be enlarged and tender. If the disease has continued for a long time, as it sometimes does for months, till the local changes in the ear have become thoroughly developed, the quinine is then of no value. In all cases of subjective noises and tympanic catarrh dependent upon malaria, large doses of quinine diminish the noises and deafness, while in the more common forms of the disease the same medication has the effect of increasing these symptoms very decidedly.

Professor Voltolini, in the *Monatsch. f. Ohrenheilk.*, May to July, 1878 (Hotz's reference and extract), publishes similar observations, but lays greater stress upon the neuralgic symptoms, calling the affection otalgia intermittens. Hotz again quotes Weber-Liel, in the *Deutsche Zeitschr. f. Prakt. Med.*, 1877, as follows: "Since I first described the otitis intermittens, I have observed a great many cases of acute aural inflammation which belonged to this class, and which, when treated as intermittent otitis, were so speedily cured that I have no hesitation in saying that a great number of acute otitides especially those occurring in spring and autumn, are caused by malarial agencies." James Patterson Cassels, M.D., M.R.C.S., etc., in the *Edinburgh Medical Journal*, vol. xxiii., part 2, p. 910, has an article on "Sewer-gas and Ear Diseases: a Record of Struggles with Foul Drains and other Unsanitary Conditions." His first experience was with his own family. He noticed that his children complained of a general malaise, showed evidence of being out of condition, were dispirited and disinclined to play. All of them showed congestion of the naso-pharynx. On June 29th, a boy, aged eight, had a sudden and painful attack of catarrhal otitis, which was relieved by paracentesis of the membrana.

In a few days there had been eight ounces of serous discharge from the tympanum. He recovered in three weeks by simply keeping the parts clean. On the next day two children, aged eight and ten respectively, were similarly attacked with like results. After a few days a girl, aged three, suddenly became deaf to loud conversation, but with no pain; a quantity of jelly-like mucus was removed from the tympanum by paracentesis. She was

[1] A paper read before the County Medical Society, January 26, 1885.

longer in recovering than the others. He found a cesspool in his yard to be choked, together with sewer-gas in the house from bad plumbing. After this was corrected there was no further trouble. Soon after this a young lady, together with her mother and a governess living in their house, complained at about the same time of a general feeling of being out of condition, with congestion of the naso-pharynx and hardness of hearing. Defective drainage was found, and after being corrected the health of all parties was restored. Another young lady had congestion of the naso-pharynx and catarrhal thickening of the drum-membranes, was languid in mind and body, and the doctor suspected malarial poisoning. She was cured by changing her residence temporarily. Soon after returning to her home she had a low form of fever, and for many months was quite ill. The house was found to be in a very unsanitary condition. She ultimately recovered her hearing by living for a time away from home. Another young lady was affected in a similar manner to the lad of eight years, previously reported. After partial convalescence there was still congestion of the naso-pharynx and persistent deafness. A prolonged residence in London resulted in cure, but on returning to her home she was ill again, went into the country and recovered, when on returning to her home she became ill. She seemed to have caught cold at each relapse. The sanitary condition of the house was found to be very defective. The gentleman of the house was never well while at home, but enjoyed good health elsewhere. Three children had previously died of throat trouble, in this house. An old gentleman with two daughters, all being perfectly healthy, went to live in an old house in the country which was in a bad sanitary condition. The father soon grew very hard of hearing from a naso-pharyngeal catarrh, then the eldest daughter became deaf from the same cause, and subsequently the younger was found to be growing deaf. No treatment seemed to benefit. This house was also very damp. Three other young ladies complained of general malaise and hardness of hearing. They lived in an old house in the country which was in a damp unsanitary condition. They all became convalescent on living for a time in a different neighborhood.

It is worthy of remark that in several of these houses dampness was mentioned, which is so potent a factor in developing catarrhal otitis. The fact that convalescence occurred after the patients were removed from the offending houses does not quite prove that the unsanitary condition perpetuated the disease, for it is well known that change of air will often greatly benefit a patient having catarrhal otitis, whether the new conditions are more healthful or not.

The famous case of Dr. S——, under the care of Dr. Roosa, reported fully in the last edition of Roosa's "Treatise on the Ear," may fairly be regarded as an ear affection caused, or at least modified, by defective house-drainage. The doctor was at the time forty years of age, had been working hard for a long time in his editorial labors, was known to have been anæmic for more than a year before the attack, and had been afflicted with neuralgia about the head and face. Dr. Roosa sums up the case by saying, "It was simply a case of subacute non-suppurative inflammation of the Eustachian tube and tympanic cavity, occurring in an anæmic and consequently neuralgic . . . subject." The affection continued from May 5, 1879, with varying results, until June 19th. A great variety of opinions were expressed by different consultants. The drum-membrane was incised, as well as the meatus and the tissue over the mastoid process. All of the more usual remedies were employed with uncertain effects, until, on May 28th, as the result of a consultation, quinine in large doses was suggested—with the idea that the pain might be neuralgic, and this dependent on malaria (or sewer-gas?)—to be followed up by arsenic. This modified the pain so that smaller injections of morphine sufficed. On June 12th, as the result of another consultation, whiskey was ordered to the amount of two ounces every three hours with milk and other nourishment, besides citrate of quinine and iron. The patient during the next week became nearly convalescent, with the addition of other means of relief suggested by the indications. It was believed by Dr. Roosa that the essential condition of the patient, independent of unpleasant complications arising from operative interference, depended on the bad influence of defective plumbing, together with the depression resulting from constant overwork.

Dr. J. Orne Green's case, from the *Amer. Jour. Otol.*, April, 1879, is as follows: M——, aged twenty-three, applied to the Boston City Hospital, in October, 1878, for pain in and discharge from the left ear. Meatus narrow from a hyperostosis; abundant muco-purulent discharge; membrana nearly destroyed; granular condition of the tympanal lining, and obstruction of the Eustachian tube. Local treatment was applied for two weeks, when she was much better. One week after this she had pain in her right ear from a catarrhal inflammation of the tympanum. Politzer's inflation greatly improved her. During the next three weeks she was seen several times, and she had pain and discharge sometimes from one, and then from the other ear. Right membrana then had a small perforation.

In December the doctor found that he was dealing with an intermittent catarrhal inflammation of the two tympana. First one ear discharged for one or two days, would cease, and the other become similarly affected; the disease returning to the former ear, with repetition of the symptoms. At this time, on almost every evening, at about 6 P.M., she had pain in the face, teeth, head, and around the ear, soon became chilly, with flushed face, continuing until 10 P.M., when she retired, began to perspire, and by 11 P.M. the pain would be relieved, and she would sleep till morning. These pains were sometimes on one side and then on the other, and were followed by inflammation, with discharge from the ear of that side. She was employed in a boarding-house in Boston, situated on what is called "new land," but with no suspicion of malaria in the neighborhood. Defective drainage, however, was suspected. During the summer a child was ill with diphtheria, and was removed by the order of a physician. In October a lady died of typhoid fever. There was an ill smell about the house. In December a daily record of the patient's condition was made from the 13th day until the 28th.

December 13th.—Chill about 6 P.M.; pain in right cheek and ear, followed by fever and perspiration.

December 14th.—A little fever in the evening.

December 15th.—Chill at 6 P.M.; pain and throbbing in left ear; pain around both ears, and, in mastoid regions, fever and perspiration.

December 16th.—Muco-purulent discharge from the left ear; tinnitus and vertigo. In the evening slight fever; little pain in both ears.

December 17th.—Membrana of left very red and secreting; right free from congestion; small perforation; perforation whistle dry; slight fever; little pain in both ears.

December 18th, 19th, and 20th.—Both ears free from congestion; no symptoms.

December 21st.—Chills, with pain and throbbing in the left ear; swelling of left side of the face; fever and perspiration.

December 22d.—Discharge from left ear in the evening; same history as on 21st.

December 23d.—Same as 22d.

December 24th.—Discharge from left ear ceased; little fever.

December 25th.—Chill, fever, and pain in right ear and face.

December 26th.—Right membrana very red.

December 28th.—A thin muco-purulent secretion discharging through a small perforation in right membrana; tumors about the ear sensitive to touch.

She was then sent to the hospital, when she complained of nausea in the morning, pains in the limbs and left side, besides other symptoms, which caused the diagnosis of hysteria to be made.

After leaving the hospital the doctor saw her at irregular intervals. She had chills occasionally, but at longer intervals; fever and sweating less frequent; more or less constant headaches, neuralgic pains in the face, nearly constant nausea for a few days at a time, with occasional vomiting; inflammation in left tympanum constant, the discharge ceasing in two weeks, but with no attempt at a reparative process.

Right tympanum became congested and discharged for a few hours about ten days after leaving the hospital; the perforation after a time closed. The chills never went beyond a decidedly cold feeling. Flushing of the face was very marked; perspiration profuse. The hyperæsthesia during the pain was extreme. The loss of membrane in one side, the doctor concluded, occurred before this attack, and that this differs from an ordinary form of catarrhal inflammation in the preceding slight chill, in the marked neuralgia of the trifacial, in the fever, swelling of the face and hyperæsthesia, in the relief of the neuralgia by the perspiration, and "in the congestion and discharge from the ear following the other symptoms after a few hours usually, and coming on rapidly and diminishing with nearly equal suddenness; these attacks recurring every few days for four months." The direct connection of the aural affection with the neuralgia—or with the cause of the neuralgia—was so decided that it could not be denied. He concludes that his case is quite similar to those described by Weber-Liel in the *Monatschrift für Ohrenheilkunde*, No. 11, 1871. The cause of the disease seemed obscure. The patient had always lived in Boston and its vicinity, and had not, as far as the doctor could judge, been exposed to malaria. He was inclined to ascribe sewer-gas as the cause of the trouble, and calls the affection "otitis intermittens."

In the *American Specialist* for March 1, 1881, F. C. Hotz treats of this subject and refers to a typical case of otitis intermittens, in which, after all other means of relief had failed, the intermittent character of the disease was demonstrated by the speedy relief obtained from the use of quinine. Another class of cases, which were promptly relieved by quinine, showed a remarkable intolerance of applications to the ear, and a great disproportion between the objective changes observed in the auditory canal and middle ear and the degree and extent of the subjective symptoms, the patient showing great nervous prostration with so violent pain in the ear and head as to remind one of the severer forms of suppurative inflammation, while the objective symptoms were those of a comparatively mild form of catarrhal otitis. He reports a case where the most gentle injection of warm water was so painful as to produce a fainting fit. This case had followed a malarial attack; it was that of a married lady, thirty-six years of age, suffering from violent earache. She had an attack of malarial fever three weeks before the attack of otitis. She also had had an attack of intermittent fever several years previously. The last attack was speedily arrested by quinine, which was discontinued with the subsidence of the fever. One week after the termination of the fever the patient was seized with a neuralgia in the left side of the head, extending to the left parietal bone, which during the attack was tender to the touch. These attacks recurred daily, subsiding in the latter part of the day; the post- and infra-auricular regions became swollen, and after one week a slight discharge appeared from the ear, when the neuralgia only appeared every second day and with a shorter duration. The auricle, meatus, and adjacent parts were normal. The membrana was very red and swollen; a small perforation was seen in its ant. inf. portion. Syringing caused great pain and the patient fainted. Quin., Dover's powder, and warm water dressing were used. Two days after this the discharge had ceased, the perforation had nearly healed, and there was no pain. Hearing decidedly improved; continued only the quinine. Two days after this the pain had returned, the membranæ were swollen, and a slight discharge was noticed; quinine was given in two-grain doses every two or three hours.

Six days after this—she had been free from pain since the last note—no more discharge, no longer sensitive to touch; perforation healed, membrana opaque; watch heard at ten inches, which at first was not heard at all. In the *Archiv. Otol.*, vol. ix., p. 245, the same author reports a case of otitis intermittens as follows: A man, aged forty-eight, had a violent middle-ear inflammation of the left ear, which had continued for three weeks before the doctor saw him (March 2d). The most severe pain was in the left parietal bone; muco-purulent secretion in the meatus, the latter being red and much swollen; membrana red, swollen, infiltrated, and perforated. H. D. L. watch 0., tuning-fork heard by bone conduction better than in the other ear. H. D. R. watch $\frac{1}{24}$". Patient had tertiary syphilis. Treatment: boric acid wash and ten grains of pot. iod., ter in die, continued for four weeks. This resulted in no change of symptoms.

March 29th.—No improvement, except meatus less swollen; pain moderate, but violent yesterday; touched edges of perforation with cup. sulph.

April 1st.—Violent reaction from the cup. sulph., but the ear now is about the same as on the 29th. Touched granular edge of perforation with a ten-grain solution of arg. nit.

April 5th.—About the same reaction from the arg. nit. as from the cup. sulph. In neither instance were the topical applications severe, and a morbid irritability of the part was suspected. After more than four weeks of treatment there was no improvement. At this juncture it was discovered that the patient had had a good day and then a bad day, and that on the latter there would be pain in the ear and discharge, with soreness around it, the pain increasing until the afternoon, when a profuse perspiration brought relief. He lived in a very malarious locality. Ordered two grains of quinine every hour.

April 8th.—Took twenty grains of quinine every day; had one moderately "bad" day. To-day should be a bad day, but he escaped.

April 12th.—No pain since the 6th; all the symptoms have nearly disappeared; very little discharge; the large doses of quinine disagreeing, he was ordered eight grains a day.

April 20th.—Drum-membrane 'healing'; hears a watch in contact, and the voice well.

May 20th.—Been taking quinine irregularly, but is well.

Dr. Hotz refers to a case of Dr. Roosa's, published in the *Arch. Otol.*, which local treatment aggravated, but which was rapidly improved by quinine. Dr. Hotz regards this intolerance of local treatment and the prominence of nervous symptoms as an evidence of the malarial character of the disease. He, with Voltolini, agrees that small and frequent doses of quinine are preferable in these cases to the larger and less frequent.

In the *Archiv. Otol.*, vol. iii., p. 97, Dr. C. J. Blake reports on 1,652 cases of ear disease, among which are two cases of otitis intermittens. These were males, subject to malarial fever. Their symptoms were neuralgic pains in the ears, congestion of the membrana and secretion in the middle ear, which occurred at the period of symptoms of malarial poisoning, and subsided with the disappearance of these symptoms. Local treatment did no good, but quinine promptly gave relief. Dr. Rossi, of Rome, *Archiv. Otol.*, vol. ix., No. 2, "Progress of Otology," in a report on 364 ear patients, observed one case of neuralgia of the tympanum, dependent on malarial influence, which was promptly relieved by quinine.

In "Ziemssen's Cyclopædia," p. 621, under the head of "Chronic Malarial Infection," appears this statement: "Patients thus affected complain of dizziness, ringing in the ears," etc., and on p. 614, under the heading of

"Remittent and Continued Malarial Fever," appear these among other symptoms: "Severe headache, dizziness, ringing in the ears," etc. In the Cincinnati *Lancet and Clinic*, October 6, 1883, Dr. Seely makes the statement that he has seen one or two marked examples of serous effusion into the tympanum due to malarial influence.

The following case was treated at the Manhattan Eye and Ear Hospital, September 26, 1883. It was that of a man, aged twenty-nine, who in July last caught cold in the left ear; suffered pain for two weeks, when rupture of the membrane and discharge relieved the pain, the discharge soon ceasing. About three weeks previous to admission to the hospital the pain returned in the same ear, soon followed by discharge. Pain was not now relieved by the discharge, and extended well over the side of the head, including the occiput; hearing was nearly abolished. Some granulations were removed from the tympanum, leeches were employed to relieve the pain, but with only partial success, as the hemicrania returned, and on October 1st it was relieved by ten grs. of quinine, t. i. d. Since this time there has appeared a spot of tenderness behind the angle of the jaw, and the pains in the ear and head have returned in spite of the quinine. Other means of relief failing, and there being considerable discharge, on October 8th a 40 gr. sol. of arg. nit. was poured into the meatus and allowed to remain. On October 10th pain and discharge ceased. Same application repeated on the 12th. H. D. watch 1"; perforation healed. October 15th, hearing still improving, and he was sent home; no further symptoms.

This patient came from a very malarious region up the river, had recently had malarious symptoms, and I infer that the prompt action of the quinine in relieving the pain was an indication of its malarious nature, though *proof* of this does not absolutely exist.

With a view of determining the opinion of aurists on this subject, I have addressed notes to about thirty-six prominent aural surgeons in this country and Canada, twenty-eight of whom have replied. Among those whose replies bear on the subject I may refer to the following:

Professor E. L. Holmes, of Chicago, writes: "I am sorry to say I can contribute so little to aid you in your effort to determine the facts bearing on malarial diseases of the ear. I have seen many cases of disease of the ear, modified by malaria, and have prescribed quinine in nearly every case of continued inflammation of middle ear, especially if accompanied by *much* pain; in fact, this is so much a habit, that I have little experience in knowing the course of inflammatory diseases of the ear without quinine."

Dr. H. G. Miller, of Providence, writes: "I do not think of any cases of ear disease which I can describe with certainty as malarial. I have seen not a few in which I had reason to think malaria entered as an element. But as there has generally been previous catarrhal trouble, and as, in almost every case, quinine had previously been freely given, I have found it very difficult to make a satisfactory distinction. I have simply said 'chronic or acute catarrhal otitis media complicated with malaria,' or, 'aggravated by quinine.'"

Dr. Clarence J. Blake, of Boston, writes: "I have no experience in malarial affections of the ear to any extent except in cases which I have had from the West—chronic cases in which large quantities of quinine have been taken. We have as yet no malaria in Boston, though I suppose we may expect it in time."

Dr. St. John, of Hartford, writes: "I cannot say that I have met with many ear affections which I regarded as distinctly malarial. Of course I see many who date their trouble from a malarial attack, but usually speak of having taken a great deal of quinine, which somewhat complicates the etiology. I have had no cases of *acute* aural disease which I thought were due to malaria."

Dr. W. H. Carmalt, of New Haven, among other things, says: "I have met a few cases where the patients reported that their attending physician had ascribed their deafness and tinnitus to malaria, but I have always found sufficient chronic middle ear or posterior nasal trouble (catarrh) to account for it all."

Dr. Albert H. Buck, of New York, replies, in substance, that possibly acute and chronic affections of the ear may be caused by malaria, but "I possess no proof nor any facts tending to favor such a belief. In three or four of my mastoid cases I have observed (on the second or third day after the operation) a rise of temperature and a general depreciation of the patient's physical tone—loss of appetite, increased discharge of pus from wound, return of headache, rapid and feeble pulse—which I ascribed to malarial influence, and which condition was gradually relieved by large doses of quinine (fifteen to thirty grains daily for a few days). I have seen only a few cases of otalgia which I suspected to be of malarial origin. I say 'suspected' for I never could reach anything more definite than a mere suspicion. The success of quinine in relieving ear symptoms favors a malarial theory of origin, but certainly does not prove it." [This in response to specific questions from myself.]

Dr. W. W. Seely, of Cincinnati, writes: "I fear I am not yet able to formulate my experience with 'malarial affections of the ear.' I certainly have seen an example—probably examples—of effusion (serous) into the cavitas tympani due to malaria, one case occurring in a man[1] who was suffering from malarial albuminuria, which I diagnosticated by getting the special and general two and two together, and the patient promptly recovering under the quinine internally, and the ear under inflation simply (no paracentesis, an operation I never make for serous effusion). I presume every one has seen samples of otalgia due to malaria, and promptly relieved, of course, by quinine. Twelve or fifteen years ago I had my attention called to a child in the ward by the nurse saying that every afternoon it began to fret and cry, and soon a discharge would occur in one ear. I found her report true, and gave the baby quinine, without any direct treatment of the ear, prompt relief following. About a year before your famous New York case (Dr. S—— (?)), a man came over from Indiana to consult me for a bad otorrhœa, facial paralysis on the same side, and intense pain in mastoid, and great tenderness on pressure. While everything seemed to point to mastoid disease, he gave a history that had an appearance that led me to keep him quiet, giving him potass. bromid. for the first night and, while it had done no good and things looked the same, I, notwithstanding there was no 'periodicity,' concluded I would take another night, and give him twenty grains of quinine. The next day he had no pain or tenderness, and had slept perfectly. While the facial paralysis persists, the ear is well, or was the last time I saw him. Under ordinary circumstances, and acting under the incision or trephining 'habit,' one would have hardly avoided opening the mastoid. I am constantly in the habit of giving quinine under all circumstances, even in acute otitis media catarrhalis, or purulenta in children, where there seems to be indications, and expect, and find so far, only benefit; in this regard my experience not coinciding with that of Buck (?). I don't know that I *have* illuminated much the points you may have in mind. Possibly catechising may bring out more, and I'll gladly submit to it."

Dr. Samuel Theobald, of Baltimore, states that he has not found malaria to be associated with ear affections, but notes the fact that an obstinate form of keratitis often follows an attack of malarial fever. He propounds my query to Dr. S. L. Frank, of Baltimore, who recalls a single case of distinctly intermittent tinnitus, dependent on malaria, which was cured by the administration of arsenic and quinine.

Dr. H. N. Spencer, of St. Louis, writes: "In malarial infection and concomitant aural disease, I have not been able to trace a connection, as cause and effect, in a single

[1] In the case reported here, of course, others would claim, and perhaps with truth, that the tympanic effusion was simply due to the albuminuria.

instance. Where they co-exist, the inducing cause will be found to have co-existed. For my part, all that I can say is: 1. The constitutional effects of a malarial poison will have a prejudicial effect upon an ear disorder, whether pre-existent or concurrent, *without changing its nature at all.* 2. The therapeusis of malaria, as ordinarily practised, *may* exercise an unfavorable influence upon the ear in health or disease. In the malarial regions of this *climate* aural diseases are very prevalent. In more intense malarial regions than this, having an equable climate, as the Southern coast, ear troubles do not prevail to a marked extent. The intermittent character of symptoms in some aural affections, I feel inclined to ascribe to 'nerve fatigue' rather than to a malarial origin. Indeed I have more frequently found this phenomenon disassociated from a malarial history."

Dr. C. H. Burnett, of Philadelphia, writes: "I have never observed what I could call a malarial ear disease. I think, furthermore, the term as used by some writers needs a clearer definition."

Dr. Charles A. Todd, of St. Louis, among other things, says: "It is customary here to give quinine freely in 'catarrhs' with persistent fever, in which cases the ears are apt to be involved, secondarily probably. We have also to deal with tinnitus, ascribed by the patient to the 'effects of quinine' given to break up ague."

Dr. J. Alfred Andrews, of New York, writes: "Last autumn I looked up my ear cases for the purpose of ascertaining to what extent intermittent fever was responsible for middle-ear trouble. I find that on Staten Island many of the ear patients had had chills and fever at some time antedating their ear trouble, but the majority of my cases had never had the 'ague.' Since the Staten Island Eye and Ear Hospital was inaugurated last May, I have had better opportunities for inquiring into the question, but I am not yet sufficiently advanced in my opinion to offer any positive data in regard to the malarial nature of some cases of ear disease. I have seen an acute exacerbation of middle-ear trouble which I believe to be distinctly traceable to the malarious attack. In my own house I have seen a case of otitis media cat. subacut., which I was convinced was due to malarial influence; but this is an isolated case, and similar opportunities are rarely offered. I have myself had intermittent fever, and frequently had occasion to test my hearing during the attacks, which, four years ago, were of almost monthly occurrence, but I never noticed any deviation from the normal condition."

Dr. S. O. Richey, of Washington, writes: "In my opinion it (malarial influence) sometimes intensifies the impairment of hearing, with a given pathological condition in chronic otitis of the non-suppurative form. I feel sure that it increases the tinnitus in cases where it already exists, but whether it ever induces it (the tinnitis) or not I cannot decide. It probably does, by the disturbance of the general circulation incident to it (the malarial condition?). Quinia so frequently produces tinnitus in such cases that its effects often, I think, disguise the effects of the ague itself. The tinnitus is that which you have often noticed in anæmia. Malaria in its acute form has seemed in one or two instances to retard recovery in the chronic form of suppurative inflammation. Other than this I have noticed nothing which I could attribute to it, except as it influences any affection from which the individual may be suffering at the time."

Dr. R. A. Reeve, of Toronto, writes: "My experience of strictly malarial affections of the ear has been so limited, I can at present recall but one definite example, and of that I cannot furnish notes."

Professor S. J. Jones, of Chicago, writes: "I have never yet been able to diagnose 'malarial affections of the ear.' By this I mean primary affections of the ear, due solely to malarial poisoning. That malarial poisoning may complicate existing inflammation of the ear, or may even cause a neuralgic pain in the ear, may readily be conceived, but that malaria produces primary affections other than neuralgia, I need further evidence to convince me. That acute otitis media may subside after the administration of large doses of quinine does not prove that such subsidence was not in spite of its administration, and not necessarily because of it."

In conclusion, I will simply say that, as far as I have been able to study this subject, I am inclined to the belief generally obtaining in the replies from aural surgeons herewith read, that is, that malarial and unhygienic influences from bad house-drainage exert a modifying influence on ear affections, which are not necessarily peculiar in their manifestations, and not in those opinions entertained by Weber-Liel, Voltolini, and Hotz.

ON DEBOVE'S NEW TREATMENT OF GASTRIC ULCER—THE HABITAT AND TREATMENT OF THE OXYURIS OR ASCARIS VERMICULARIS.

By HENRY B. MILLARD, A.M., M.D.,

NEW YORK.

In a communication made to the Société Médicale des Hôpitaux in April, 1884, and in the *Progrès Médical* of July 12th of the same year, Dr. Debove promulgated a new treatment of a malady which may justly be termed the *opprobrium medicorum*, namely, gastric ulcer, illustrating the practical view of his theory by presenting the records of four cases which he had cured. His idea is to spare the stomach the necessity and labor of excessive muscular action, and the stretching and pulling, as it were, of the new tissue necessary to the healing of the ulcer, giving it rest; and as the secretion of the gastric juice cannot be suppressed, to modify its acidity, which, though necessary to gastric digestion, is, nevertheless, to an ulcer, a caustic irritant; using such food as does not require peptonization by the stomach, and can be digested entirely in the small intestines. Under such favorable conditions the ulcer may heal with comparative ease.

Dr. Debove showed me, in the summer of 1884, his method of treatment, and I saw and examined a number of patients cured or relieved by it. The lacteal diet usually employed, consisting in the administration of several quarts of milk daily, is sometimes provocative of hemorrhage from distention of the stomach, and not only that, it is usually inefficacious. Dr. Debove, after having used with advantage nutritive powders, condensed milk, etc., conceived the idea of relieving the stomach entirely of the chemical part of digestion, and neutralizing the acidity of the gastric juice by administering the powder of beef and milk, or water mixed with the bicarbonate of soda. That the gastric juice does not act upon this mixture is shown by the fact that, upon removing a portion of it by the tube from the stomach after a certain time, it is found to contain no peptones. The work of converting albuminous substances into peptones is thus taken off the stomach, and the ingesta is passed unchanged into the duodenum, only in a more highly alkalized state, being thus all the more favorable for intestinal digestion. That peptonization by the stomach is not always necessary to digestion, is evident from the fact that the pancreatic juice liquefies the muscular and other tissues separated, but not dissolved, by the gastric juice, and that this latter, indeed, does little more than separate the elements of the food; and if certain forms of fatty matter and nitrogenous substances in divided particles, and free from fibre, tendon, etc., could be introduced directly into the duodenum, the stomach might to a considerable extent be dispensed with.

As to the "alkaline cachexia" being produced by the administration of an ounce of the bicarbonate of soda daily, he cites Jaccoud, who gave, for a long time, twenty grammes, and Charcot, who had given forty grammes daily, without any ill effect, but admits that although the cachexia may not be established, the remedy may cause

inconvenience; its taste is disagreeable, and it is somewhat irritating to the stomach, and its decomposition by the gastric juices gives rise sometimes to the formation of considerable quantities of carbonic acid gas, causing painful eructations. He advises its use, therefore, when it does not agree, in smaller doses. On account of these objections he tried lime-water, calcined magnesia, saccharate of lime, etc., but abandoned them in favor of the soda. In employing this treatment the stomach is first washed with simple water to free it from acidity, using Debove's modification of Faucher's tube. (A full description of the method of lavage by this tube was given in a paper by me in *The New York Medical Journal* of April 19th and 26th, and May 10, 1884.) This operation should be performed by, or under the direction of, the physician himself, on account of a possibility of hemorrhage being produced. The operation should be suspended if the water is returned tinged with fresh blood, but otherwise continued until what comes from the stomach is quite clear. As to the danger of hemorrhage from *lavage* it has never occurred in his cases, but he instances two (which have been published) where it occurred to a fatal extent, and was supposed to have been produced by the *lavage*. At all events, it is a danger that should not be overlooked. Debove usually gives twenty-five grammes of the *poudre de viande* with ten of the bicarbonate of soda, prepared with milk, so as to be of about the consistence of cream, administering it, when it cannot be taken otherwise, by the tube. That Dr. Debove's ideas are not chimerical is evident from some very remarkable cures which he has effected, three of which I will refer to, as I myself saw and questioned the patients. The most remarkable was that of Louise Davit, whom I saw at the Hôpital des Tournelles, where Dr. Debove is at present physician-in-chief; she was thirty-nine years of age, and had had for twenty years a gastric ulcer, and during this period had suffered frequently from exhausting hemorrhages, and, as a matter of course, from severe gastric pains. So imperfectly had her system been nourished for many years that she looked a dried-up woman of sixty-five. She was, when I saw her (last August), entirely cured, and serving as an assistant in the wards; and was able to digest ordinary food; she had been under treatment for nine months. At first, fifteen to twenty grammes of soda were given daily, the quantity being gradually increased to thirty—about one ounce.

Hôtel Dieu, August, 1884.—The patient was a man forty-five years of age; the gastric ulcer had existed nine or ten months; had been subject for three months to gastric pains and violent hemorrhages. Is now taking ninety grammes of the *poudre de viande* daily, and six grammes of the bicarbonate of soda immediately before the beef powder, in a little water. The hemorrhages have stopped and the pains entirely gone.

Hôpital des Tournelles, August, 1884.—Patient a woman; the gastric ulcer had existed eight months, with severe vomiting and hemorrhages. Has been under treatment six weeks, and is now quite cured. No restrictions now as to diet. The beef powder and soda were given mixed with milk at the commencement of the treatment.

I regret that I cannot supplement these cases by experiences of my own, but I have had no cases of gastric ulcer since becoming acquainted with this mode of treatment.

OXYURIDES, OR ASCARIDES VERMICULARES, THEIR HABITAT AND TREATMENT.

It is but little creditable to many, I may say most, writers on diseases of children, that they usually state that the ascaris oxyuris mostly infests the rectum, and the blind acceptance by me of this common statement, rendered the cure of two cases well-nigh impossible. To find out their habitat and character it is necessary to consult specialists in this department, and not rely upon works on general practice or on the diseases of children. Kuchenmeister[1] states that they inhabit the large intestine, especially the cæcum and rectum; and Cobbold says: "It is an error to suppose that the lower bowel or rectum forms their especial habitat, nevertheless the most approved manuals, *vade mecums*, and general treatises have for a long time supported this general view."[2] And according to the same author, "they commonly infest the terminal portions of the intestinal tube, being especially abundant in the sigmoid flexure of the colon."[3]

Leuckart says: "Their only natural abode is the large intestine, the whole length of which is often inhabited." . . . "They are also found in the cæcum and the small intestine."

With cases of ascarides, occurring so frequently as they do in children and adults, we are all familiar, and there are usually no insuperable difficulties in affording relief by the constitutional and local means of treatment usually employed, the latter being most generally used on the theory that the ascaris inhabits the rectum solely, and that this should be made the point of attack; still, many of these cases are very troublesome. The two cases to which I have referred, however, are as follows: Six years ago, Miss X——, then seventeen years of age, had a rectal abscess resulting in a fistula; this was successfully operated upon by Dr. J. C. Minor; it had been preceded by other abscesses. She had since infancy been troubled at various times by ascarides, and for two or three years they had been more intolerable than ever. Injections of nitrate of silver, strong infusions of the seeds of chenopodium, etc., always produced relief, but this was only momentary; internal remedies were also given, but as it proved, not enough reliance was placed upon them. I believe that the rectal abscesses, so severe and incessant almost was the itching, were caused by the parasites; they were so troublesome as to prevent sleep and were voided, according to the young lady's expression, "almost by the cupful," and she often found them on her clothing. The matter of diet was not overlooked. She was particularly fond of old cheese, and this, with many other things, was prohibited. The fistula was cured, and the ravages of the ascarides kept in check more or less satisfactorily, mostly by an injection at bedtime of semina chenopii. Toward the spring of 1884, however, her sufferings became so great that she was obliged to seclude herself to a great extent from society. For a young lady of twenty-three, refined, and noted for her beauty and accomplishments, this was a humiliating malady, not to take into consideration the extreme suffering entailed; had this continued much longer I think her reason would have become impaired. As my treatment had thus far been ineffectual, I determined to make an exploration of the rectum, which I did with a long two-bladed speculum. I found the mucous membrane swollen and dark red, the hemorrhoidal veins prominent and coated with mucus, and there were superficial erosions. I applied to the whole surface of the rectum a solution of thirty grains to the ounce of nitrate of silver, which produced relief lasting several days, and was followed by exfoliation; several other applications produced the same effect, but the benefit was not lasting. I thought I might have overlooked some pocula or sinus, and requested Dr. Minor to see the case, as I was about in despair; he examined the rectum with me but could not discover nor suggest anything different. The condition of the rectum at this time seemed pretty healthy. Upon making a later examination, however, I noticed, oozing from the sigmoid flexure of the colon, a quantity of jelly-like mucus in which there were a few oxyurides.

This discovery at once determined my course of action, and entirely discarding any more local treatment, I prescribed forty-five drops of Parke, Davis & Co.'s ext. fl. cort. rad. granati before each meal, and a grain and a half to two grains of santonine between meals and at bedtime, giving the latter remedy cautiously, as it sometimes de-

[1] Die Parisiten. Leipsic, 1855. [2] Parasites. London, 1879.
[3] Entozoa. | London. 1874.

velops poisonous effects unexpectedly. As there was more or less constipation, I ordered every morning one of the sulphate of soda waters, sometimes Pullna and sometimes Marienbad. I will terminate my account of this case by saying that these remedies effected a cure in a few weeks, and that the patient has remained well since, a period now of eight months.

The anthelmintics, however, I am convinced, would not of themselves have effected a cure in this case, as they afforded only limited relief, till I prescribed with them the sulphate of soda waters. I believe these were of great service in destroying the mucus in which the worms had their nidus, and I have found them of great value in all forms of intestinal parasites.

The second case was that of a married lady from a neighboring State, who had been under the care of a number of physicians at home, and had undergone a great many varieties of treatment without benefit. The local irritation had engendered insomnia, hysteria, and a condition bordering on nymphomania. I prescribed injections of the infusion of chenopodium at bedtime, and availing myself of the experience I had recently acquired, at once resorted to the same treatment I had employed in the case of my first patient, and with a similar happy result. At first neither the cæcum, rectum, nor colon can be positively designated as the region mainly or entirely infested; when it is the former, attention to the general health, a relaxed condition of the bowels, and local injections of various kinds will often prove sufficient; but when these measures are not followed by rapid improvement, it may be assumed that other portions of the intestinal canal are inhabited, and whatever other treatment seems most indicated, should be resorted to without delay.

It is *since* the cure of these two cases that I have ascertained what Cobbold and Kuchenmeister, as well as Leuckart, say. I should have saved my first patient a good deal of distress had I ascertained earlier, though the local applications corrected a very unhealthy condition of the rectum.

I may add that the opportunity is not very likely to occur to any one of actually *seeing* the oxyurides emerging from the sigmoid flexure into the rectum.

VESICO-UTERINE FISTULA — OPERATION — RECOVERY.

By HAMILTON WILLIAMS, L.K.Q.C.P.I., L.M.,

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THE following case may not prove altogether devoid of interest to the readers of THE MEDICAL RECORD:

Mrs. B——, Laurel Hill, Kings County, was taken with the pains of labor at 4 A.M. on June 8, 1884, and was first seen by her attendant physician some four hours later. At 5 P.M., on the 11th, she was delivered, by the forceps, of an average-sized female child. This was her first confinement. Mrs. B—— is twenty-one years of age, and, without being over robust, had always enjoyed good health. She was married on December 17, 1882, had had no miscarriage, and the period of her pregnancy was otherwise uneventful. On the day next after her delivery she noticed, for the first time, and complained that she had no power of retaining her water. The attending physician took cognizance of the fact, but, in the sequel, on August 5th, finally notified her husband that it would be necessary to remove her to hospital for treatment. On that same afternoon I saw her for the first time, her husband seeking my assistance, having declined, without further consideration, to accede to the suggestion of her whilom medical attendant. On examination I found that the cervix uteri had been split across in the lateral diameter to the level of its entry into the vagina, almost as evenly as one could do it with a knife. The posterior lip was complete, highly congested, swollen from a condition of hyperplasia to perhaps half beyond its normal size, red and angry, was granular degeneration of its endo-cervical mucous membrane. The anterior lip had all but entirely sloughed away, and that, too, level with the roof of the vagina, leaving but a small portion at its left extremity of the size and of the shape of an adult uvula. The condition of this portion was precisely that of the posterior lip. A moderate amount of vaginitis was all that was predicable of the vagina, no lesion in the sense of a solution of its continuity being discoverable. The urethral meatus appeared somewhat patulous. The os uteri would have admitted a bougie of the diameter of a dime. Traction on the posterior cervical lip failed to bring into view any fistulous opening in the uterine walls, but a sudden movement of the patient, while under examination on the table, occasioned a considerable gush of urine through the cervical canal, while at the same time none whatsoever was apparent from the urethral meatus. My diagnosis of vesico-uterine fistula was then definitely decided on, the amount of urine passing through in that one gush precluding the hypothesis of uretro-uterine fistula.

Having explained the state of affairs to the patient's husband, arrangements were at once made for her removal to Greenpoint, within easy distance of my office. Having invited the assistance of two brother practitioners of the neighborhood, I proceeded to operate. This was on August 15th, ten days after my first interview with the patient. The position selected by me was Sims'; I could not have dreamed of attempting the operation in the far more striking, if less convenient, position of Simon. Reasoning *à priori*, I should conclude that in the breech-back (the Steiss-Rückenlage) position the intestines would gravitate forward against the diaphragm in such fashion as seriously to impede the respiratory efforts. I would say further, that in the breech-back position the anterior vaginal wall is so circumstanced as to obviate rather than further the essential principle involved in the employment of Sims' speculum, to wit, the dilatation of the vaginal canal by atmospheric pressure. The first step in the operation was the removal of the uvula-like remnant of the anterior lip, and the vivification of the foundation, so to speak, whence the balance of the lip had sloughed off. The instrument employed was the long, slightly curved—not the angularly curved scissors, nor the bistoury. For the purposes of this particular operation it was most effective. The next step was the amputation of the posterior lip. Now, as between such amputation and an amputation of an entire cervix, the difference is one of degree rather than of kind, and the chief dangers in the path of the latter operation are, it is urged, hemorrhage and cellulitis. Would it not, therefore, it may be inquired, have been better policy to have drawn the posterior lip across the cervical canal, and united it to the vivified base of the anterior lip. My answer is no. To begin with, the dangers from hemorrhage and cellulitis were pretty much the same whether I cut through the attached border of the posterior lip in amputating, or vivified its free borders; and in the second place, as far as the chances of union are concerned, I should not have trusted much to its possibilities, having regard to the posterior lip's advanced condition of congestion and hyperplasia. Having now done with the cervix, the vaginal surface proper, to the extent of four lines in breadth around the borders of the cervix, was next vivified by the denudation of its mucous membrane.

The edges of the wound were now brought together, and six sutures of silver wire inserted. In the passing of the sutures care was taken to enter the needle about three lines from the border of the vivified vaginal portion, bringing it out about the middle of it, re-entering it in the middle of the vivified vaginal surface on the opposite side, and out finally three lines or so from its border, through the untouched vaginal mucous membrane. This procedure gave a thoroughly strong purchase to the sutures, and supplied an extensive surface for apposition

and cicatrization. I may here anticipate my story, and state that a perfect union resulted, and I am disposed to venture on the assumption that, had I left the vaginal mucous membrane untouched, and trusted for union to any vivification of the lips merely, or of the canal of the cervix, the unhealthy condition of those parts must unquestionably have stood in the way of success.

There was, through the operation, no undue hemorrhage, and that point calls for the remark that the inexperienced operator would do well to possess his soul in patience under such a difficulty, and by careful sponging, and if necessary the use of the tampon. secure for the entire operation a thorough view of the field, thus avoiding haphazard, if not dangerous incisions. and defective, unworkmanlike sutures. Before removing the patient from the table, the vagina was well washed out, a piece of lint wet with carbolized oil, one to thirty, applied over the wound, and a tampon, also carbolized, inserted, with the object of giving support to the parts in a possible case of retching or vomiting from the chloroform or other cause. I look upon that as a wise precaution. An opiate was given that night in combination with an astringent mixture of catechu and chalk. The astringent was continued for five consecutive days, and was precisely the same dose as that given on the first evening, save that the quantity of the opiate was materially reduced. I should not on a future occasion follow the policy of confining the bowels, but would rather keep them gently open from the beginning; and I shall not forget that it was not without considerable misgiving that I looked forward to the effect on the cicatricial efforts of the discharge from the bowel of scybalous masses, the product of many days enforced constipation. A little castor-oil was the laxative used, with the best results, on the sixth day. A common male gum-elastic catheter was passed as the patient was put to bed; it was tied in, but withdrawn the next afternoon, the patient being directed to turn gently into the genu-pectoral position when desirous of micturating. The vagina was carefully syringed out with a solution of potassium permanganate, or carbolized water, one to forty, once a day, and the carbolized lint and tampon were renewed. The tampon, however, was discontinued on the ninth day. Some hemorrhage took place on the evening of the sixth, and on the seventh day; it was inconsiderable in amount, though somewhat alarming to the patient. A readjustment of the tampon effectually controlled it. The cause of its occurrence is not quite clear to me, though I have mentally discussed several hypotheses in connection with it. An examination on the ninth day showed a gaping of the wound in its left extremity, with a blood-clot intervening between, and projecting from the edges. Under the circumstances, I thought it well to defer for the present any action toward a removal of the sutures. The patient was however permitted to leave her bed.

It was now for the first time that the effect of the operation in controlling the flow of urine was estimated with a degree of accuracy. Her "water still was coming, but nothing at all like what it used to be." The flow was in reality no more than what might have been conveniently provided against by a napkin, as in the case of the menses. Before the operation no precautionary measures could render it possible for her to leave her house with propriety. Having no misgivings as to the effect of the sutures on the tissues, the more especially after my inspection of them on the ninth day, I contented myself with enjoining for the present the completest local cleanliness, and a daily syringing of the vagina. On the first of September, having placed the patient under chloroform, I withdrew all the sutures save the one next adjoining the still gaping left extremity. It required but a slight pressure over the pubes, and the urine "presented" itself in that opening, becoming a distinct stream on any considerable movement. The retching which supervened a few times under the chloroform invariably brought that about. Two things were at once clear, the one that more sutures, at least one more, were required; the other, that the unclosed portion of the original wound should somehow be further vivified. A vivification of the apposed edges merely would have been a measure of very considerable difficulty, if indeed at all possible, without prejudice to the integrity of the union already attained, and I was opposed to further denudation of the vaginal mucous membrane for the purpose of closing over the opening. Accordingly I determined to employ the fuming nitric acid, applied by a little slat of wood pushed into the troublesome aperture. The cauterizing was effectually done, and an additional suture inserted. A little lint wet with carbolized oil (1 to 40) was the only dressing. The improvement was immediate, and better still, permanent, and yet on the 29th of the month there was still a little dripping, the ghost in fact of its former self. On that day I removed the two remaining sutures, when it was barely possible to discover a minute opening at the extreme end. I was now anxious to avail of Thomas' suggestion of the cutting burr and dentist's treadle, but before I completed my arrangements, for other matters were occupying my attention at the time, the last trace of fistulous opening had disappeared. I last saw the lady professionally on November 15th. There was not then, nor has there been since the slightest trace whatsoever of escaping urine through other than its normal channel. It is, in conclusion, interesting perhaps to note that in no instance was a suture removed before the seventeenth day; that one was suffered to remain *in situ* twenty-eight and another forty-five days. This must necessarily dispose of all doubts as to the availability of the silver suture. The mother and child are both at the present enjoying the best of health, and yet, were it not for the labors of men like Sims and Simon, she might well have "cursed the day on which she was born, and the night on which it was said that a man-child is conceived."

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ATROPIA IN SEVERE ELECTRIC SHOCK.

By WM. G. EGGLESTON, A.M., M.D.,
PHILADELPHIA, PA.

The absence from our text-books of suggestions as to the proper treatment of severe electric shock, and the records of three cases—two personal and one in the practice of my father, Dr. J. D. Eggleston, of Hampden Sidney, Va.—in which atropia was successfully used, are my apology for this note.

In his work on "Legal Medicine," Mr. Tidy gives two degrees of shock from lightning, "one producing temporary contraction of muscles and insensibility, from which recovery is possible, and a second, killing directly by producing a condition of nervous and general muscular insensibility." As will be seen by reference to the following cases, after a severe, but not instantaneously fatal shock, there are usually seen sudden insensibility; slow, gasping, and labored respiration; slow, feeble, and irregular pulse, and dilated non-sensitive pupils. (The pupils may be, rarely, contracted and sensitive.) Not infrequently, also, there will be general convulsions.

Case I. *Lightning-stroke.*—This case, the notes of which were obtained from my father, presents three points of interest: 1, As to the position of the patient when struck; 2, the prompt and efficient action of atropia; and 3, as to the sensations of the patient at the time of the shock, and on recovering consciousness. M. L——, twenty-two years of age, was sitting on a bed, the frame of which is of iron, between an open window and a door, playing with a dog. The patient's hand was resting on the dog's head, which was against the left iliac region of patient. A flash of lightning came through the window and struck the patient, the fluid entering, as nearly as can be determined, in the region of the right temple, passing thence to the left iliac region, and out to the floor along the dog. The dog ran out unhurt, and L——

followed him to the door, stopped, caught hold of the frame, did not answer when spoken to, and began to stagger. He was caught while in the act of falling, laid on the floor, and immediately became insensible. While awaiting the arrival of a physician he was, very properly, thoroughly wetted with a large quantity of water. Dr. J. D. Eggleston arrived in twenty minutes. The patient was very cold, insensible, and limp; pulse and respiration very slow, and the pupils widely dilated. There was no mark on his body or clothing. He was immediately put to bed and thoroughly warmed; meanwhile one-eightieth grain of atrop. sulph. was injected hypodermatically. Within a short time after the injection both the respiration and pulse became more frequent; but it was necessary to repeat it in about two hours, and again in two and a half hours. An attempt was made to administer stimulants by the mouth, but the act of swallowing seemed to produce a spasm of the pharyngeal muscles and a general convulsion, and stimulants were administered per rectum. Consciousness returned in about six hours and a half, and the patient immediately asked for his dog. When questioned, he said: "I was sitting on the bed playing with my dog, and a flash of lightning came and I went to sleep." He complained of pain in the head, down the right arm, and in the left iliac region (where the dog's head was resting at the time of the stroke), and of excessive photophobia. On the next day he had a hemorrhage from the bowels, which seems to indicate that the electric fluid had caused a rupture of some small vessel or capillaries in the iliac region, where it passed from the patient to the dog. He also complained of violent headache; but perfect rest and confinement in a dark room produced, in a short time, a decided change for the better in the cerebral and ocular symptoms, though they did not entirely pass away for more than three months. As is well known, a non-fatal lightning-stroke sometimes causes blindness, possibly by coagulating the albumen of the lens (?), as has been suggested. At any rate, it sometimes causes total and permanent blindness, and it was feared that such might be the result in this case.[1]

Case II.—C. K——, twenty-six years of age, received a shock from a dynamo-electric machine on October 8, 1883. He walked about ten steps, said that his arms and hands felt dead, and then became unconscious. When first seen, within ten minutes after the accident, the hands and fingers were strongly flexed; the head was thrown back; the pupils widely dilated and insensible to light; respiration jerky and gasping, shallow and very slow; the pulse slow and irregular, though not very feeble; and the patient was almost entirely unconscious, but sometimes writhing as though in agony. At times, when the head would be thrown back farther than usual, the anterior portion of the neck was markedly bulged and tense. At 8.20 P.M., fifteen minutes after the patient was first seen, one-hundredth grain of sulphate of atropia was given hypodermatically; within twenty minutes the respirations and pulse became more frequent and more regular, and the patient soon so far regained consciousness that brandy-and-water and spir. mindereri were administered every fifteen minutes. The respirations and pulse became irregular again at 9.55, and one-eightieth grain of atropia was injected, with improvement in twenty minutes. Though not entirely conscious, he was able to swallow the brandy and ammonia, which were given every fifteen or twenty minutes. He now steadily improved, until at 12 o'clock he sat up and was then carried home. Beyond a slight weakness and a "curious feeling about the head," there were no unpleasant after-results.

Case III.—A. F. R——, forty-two years of age, a strong and powerfully built man, was seen, January 9, 1884, at 10.05 P.M., a few minutes after he had come in contact with an electric-light wire. He was limp and unconscious; occasional contractions of the hands and fingers; pupils widely dilated; respirations shallow, jerky, slow, and sighing; pulse irregular, very slow, and feeble; head thrown back; occasional shivering. A hypodermatic injection of one-eightieth grain of sulphate of atropia was given at 10.17. The unconsciousness and the pharyngeal spasm were such that the patient could not swallow fluids, and brandy and ammonia were injected into the median cephalic vein. At 11 P.M. the pulse was excellent; respirations still somewhat jerky; hands have contracted twice in twenty minutes. 11.45 —respiration getting shallow again; pulse getting irregular and more feeble; contractions of hands and feet more frequent; one-eightieth grain of atropia, injection of brandy and ammonia. At 12.15 system had fully responded to medicine, and at 1 A.M. had so far improved that brandy and ammonia were administered *per os*, though consciousness had not returned. These stimulants were kept up every twenty minutes in small quantities, until 3.05 A.M., when he sat up and asked for water. For more than a week afterward he complained of photophobia and frontal headache, and of great weakness in his limbs. Within three weeks these had so far disappeared as to give him no uneasiness or trouble. It may possibly be objected that too much stress is laid on the value of the atropia, seeing that brandy and ammonia were also administered in Cases II. and III. But while by no means underrating these stimulants, I cannot regard them so valuable as atropia; for it should be remembered that they were not used so freely in the most severe case (I.), and that although freely and continually used in Case II., they did not keep up the respiration and pulse; and further, that when the bad symptoms returned atropia caused them to disappear in a short time.

Besides the treatment of these cases, attention is called to the symptoms, as persons might be choked while alone. But if the limp condition of the patient generally, and the contracted hands, and possibly feet; the slow, shallow, irregular, and feeble pulse; the contracted pupils (generally, for they may be dilated, or one may be dilated and the other contracted), usually insensible to light; the lowered temperature, and other minor and accidental symptoms, as feeble convulsions, backward position of the head, and pharyngeal spasm be carefully noted, there need be no especial difficulty as to the diagnosis.

Better indications than the above-described symptoms could scarcely be desired for the exhibition of atropia. The predominating symptoms are those of extreme cardiac and respiratory depression. Atropia not only increases the number and vigor of the heart-beats, but "the area over which the pulsations are distributed is enlarged. The number and depth of the respiratory movements are also increased by it. The more rapid action of the heart, the increased respiratory movements, the contraction of the arterioles, result in an increased supply of blood to the periphery, . . . and consequent elevation of temperature. Atropine may be given to counteract a sudden and temporary depression in the heart's action."

New Uses for Apomorphine.—Dr. S. H. Stevenson writes to the *Chicago Medical Journal* of an interview with Dr. Weber, of Darmstadt. "Accidentally," she says, "the conversation turned upon apomorphine, and the Doctor informed me that he had found it a most excellent remedy in chronic asthma, and related a case of some thirty years' standing that had been permanently cured by the administration of one-twelfth grain three times daily, gradually increasing the dose to one-third grain. The result was obtained in about three weeks. The Doctor's brother, who is an obstetrician, had found the remedy very useful in rigid os—not interfering in the least with the normal contractions."

[1] I can find no record of a case in which the blindness, if it resulted, did not follow immediately.

Clinical Department.

SYMMETRICAL DRY GANGRENE OF FINGERS.

Dr. S. C. Clark, of Clayton, N. Y., writes: "I have seen a case of symmetrical dry gangrene of the distal phalanges of both hands recently, and can find no record of similar cases. The gentleman is sixty-three years of age, and suffered from typhoid pneumonia fifteen weeks since, and the gangrenous changes made their appearance soon after. The lines of demarcation made their appearance within six days of the beginning of the disease.

"Will you please inquire through your reliable journal if any others have seen similar cases?"

[In the *Revue de Chirurgie*, Nos. 1, 3, 6, and 9, 1883, MM. Petit and Verneuil, in a series of papers on local asphyxia of paludal origin, describe several cases of symmetrical dry gangrene of the phalanges of either the upper or the lower extremities. The authors speak of the symmetry of the affection as one of its chief characteristics when occurring as a consequence of malarial poisoning and without the intervention of traumatism.—Ed.]

A PERINEUM PIN FOR LACERATIONS.

Dr. S. M. Monser, of San Francisco, Cal., writes, describing his method of adjusting a lacerated perineum. He uses a number of ordinary small safety-pins, either silver or nickel plated. A smooth shirt-button is first passed over the point of the pin and carried back as far as the spring. Then the pin is inserted at a distance of about one-half its length from the rent, and emerges at an equal distance on the other side. A second button is then slipped over the point and the pin is fastened. The points of entrance and exit should be far enough from the line of laceration to insure firm coaptation of the wounded surfaces. The great advantage claimed for this appliance over the ordinary suture is that it causes no strangulation of the tissues, and little if any irritation. Dr. Monser states that he has used it with great satisfaction to himself and comfort to his patient, and has obtained better results with it than with any other form of suture.

A CASE OF OPIUM-POISONING SUCCESSFULLY TREATED BY BELLADONNA.

Dr. David McFalk, of Gouverneur, N. Y., relates the following case: A child, eighteen months old, swallowed some laudanum (the exact amount could not be ascertained), and when seen some five hours later was in a state of profound stupor, bathed in a clammy perspiration, with relaxed muscles, cold extremities, and pupils contracted to a pin-point. The respiration was stertorous, very slow, not exceeding four or five to the minute, and frequently interrupted. The mother had given mustard, alum, and other domestic remedies without producing emesis. One drop of the fluid extract of belladonna was at once injected hypodermically, and repeated every fifteen minutes until three doses had been given, respiration being in the meantime artificially maintained. An improvement was evident after the third dose. The respirations increased in frequency and the intermissions occurred at longer intervals, and the pupils were dilated somewhat. At the expiration of half an hour another drop of the fluid extract was administered hypodermically, and in a short time the pupils became dilated to their normal size, and the respirations increased to eighteen per minute. The child continued to improve, and seemed to be as well as usual the following day. It could not be learned how much laudanum had been taken, but there seems to be little room for doubt that there would have been a fatal termination but for the timely administration of the belladonna in doses just sufficient to antagonize the effects of the opium without producing the symptoms of belladonna-poisoning.

CHRONIC PERITONITIS WITH CYSTIC TUMOR RUPTURING INTO THE INTESTINE AFTER LABOR.

Dr. Victor Dupont, Hospital Steward, U.S.A., San Francisco, Cal., was called to attend a very corpulent woman, forty-five years of age, in her ninth labor. The child was still-born. The woman was at first greatly exhausted and made but slow progress, suffering much from tympanites and abdominal tenderness. On the twenty-third day a large amount (one and one-half gallon) of a serous fluid was passed per rectum. This gave great relief temporarily and the abdominal distention was much reduced. Very soon after, however, the symptoms returned, and the patient sank rapidly and died. The post-mortem examination revealed a chronic peritonitis of long standing. A large cystic tumor of a capacity of not less than a gallon and a half was found united by firm adhesions to the anterior abdominal wall and the small intestines. It communicated with the small intestines, and contained fecal matter. The opening was undoubtedly established at the time that the profuse serous discharge occurred. The other organs were comparatively healthy. Dr. Dupont is unable to say whether the tumor was parovarian, an encysted dropsy, or of some other nature.

BREAKBONE FEVER.

Dr. H. A. West, of Galveston, Texas, sends us some notes of an epidemic of dengue, which has prevailed in that city since August of last year. The epidemic has been severe as regards the number attacked, not fewer, according to Dr. West's estimate, than ten thousand persons having suffered from this painful malady in the course of three months. The writer states that among several hundred cases he saw but one in which there was any glandular enlargement, and this occurred in a child one year old who succumbed to the disease. This was the only case seen by him which terminated fatally. This fact of the non-involvement of the lymphatic glands was peculiar, as the majority of authors mention glandular enlargement as one of the prominent symptoms of dengue. Dr. West conversed with other physicians in Galveston, and their experience of the disease coincided with his in this respect. Another symptom noted by him, upon which most writers are silent, was uterine hemorrhage. This occurred in many women, although they were attacked during an intermenstrual period. The flow usually made its appearance upon the decline of the fever. There were also numerous instances of abortion or premature labor in the case of pregnant women who were suffering from the disease. Most authors lay special stress upon the swelling and pain of the joints, but in Dr. West's cases the pain was most intense in the muscles, especially of the back and limbs. Severe cephalalgia was present in many cases, and frequent complaint was made of epigastric pain. Two patients suffered from obstinate muscular rheumatism continuing for three or four weeks after the subsidence of the fever. Insomnia was pronounced in most cases, and anorexia was complete with very rare exceptions. The tongue was red at its tip and edges, and in most cases thickly coated. Gastric irritability, with nausea and vomiting, were present in many instances for a week or ten days after the fever had disappeared. The temperature at the height of the disease seldom rose above 103° or 104° F. An eruption was present in about half the cases, but in all there was an increased redness of the pharynx. As to treatment, the writer deprecates the use of mercurials in large doses. A gentle saline laxative or castor-oil was all that was required in most cases. Hot mustard foot-baths, sinapisms to the nucha and epigastrium, and turpentine stupes to the back were found useful. Aconite, belladonna, and liquor ammonii acetatis mitigated the fever. The bromides and hydrate of chloral helped to relieve the headache and induce sleep, but opiates were

found of greater value and they also were efficacious in quieting the gastric irritability. A combination of Dover's powder with muriate of pilocarpine was found to act well, the free diaphoresis thereby induced affording great relief. Stimulants in the form of light white or red wine were of great service in restoring the tone of the stomach. It was noted that previous attacks did not confer exemption, many persons being seized who had suffered from the disease in previous years.

THERAPEUTIC APPLICATIONS OF COCAINE HYDROCHLORATE.

We are constantly in receipt of communications from correspondents calling attention to the efficacy of cocaine in hyperæsthetic and irritable conditions of the mucous membranes. The following cases are reported :

Irritable bladder.—Dr. Sara E. Post, of New York, writes : "Two weeks ago I employed cocaine for an irritable bladder, with almost constant micturition, which four grains of the extract of opium, given per rectum in the course of twelve hours, did not control. By means of the Cushier intra-uterine syringe ten to fifteen drops of the two per cent. solution of cocaine were injected, so as to bathe the neck of the bladder and the urethra over its whole extent. The relief was immediate. The patient did not micturate for an hour after the application, and not more frequently than once in forty-five minutes during the night. The previous condition did not recur."

Asthma.—Dr. Post relates another case of a woman, sixty years of age, who had suffered from asthma for many years. She presented herself at the clinic for general medicine at the New York Infirmary during an attack. Examination showed a catarrhal condition of the naso-pharyngeal mucous membrane, and thinking that the dyspnœa might be the expression of a nasal reflex, Dr. Post painted the mucous membrane of the nose and throat with a four per cent. solution of cocaine. Within ten minutes the spasm was relieved and respiration became easy and inaudible. The patient was afterward treated with local applications of tannin and glycerine, and the asthma has not returned. This result would seem to argue well for the use of cocaine in the paroxysms of asthma occurring in hay fever.

Pruritus vulvæ.—Dr. Sarah J. McNutt, of 238 East Thirteenth Street, writes : "I have under my care a patient who suffers from an exaggerated pruritus vulvæ, associated with a peculiarly atrophied condition of the parts. All of the usual remedies had been tried with but little relief at any time, and frequently with apparent aggravation of the trouble. This patient came to me a few days ago meditating upon self-destruction, her agony was so great. A four per cent. solution of cocaine painted over the parts gave almost immediate relief, the patient remarking, 'I have now no sensation, not even the sense of soreness, from the rubbing and scratching which has been done.' The physician's satisfaction was almost equal to that of the patient, her treatment had been such a care."

HEROIC DOSES OF CALOMEL IN THE TREATMENT OF CHOLERA.

Dr. Thomas J. Henderson, of Woodville, Miss., advocates the employment of calomel, given with an unfaltering aim in large and frequently repeated doses, in the treatment of cholera. He writes : "During the prevalence of cholera from 1848–55, and since, I have used calomel as the principal remedy, and whenever I have been able to get it to act on the liver (which it will do in nearly all but the most malignant cases, if given in large and frequently repeated doses), I have had the satisfaction of seeing my patients recover." He suggests that the remedy may not only act as a cholagogue but also as a microbicide. He relates a case occurring in May, 1849, in which he was called to see a negro, living in East Baton Rouge, sick with cholera. The patient was lying on a cot in a little cabin surrounded by water, he was vomiting, passing rice-water discharges from the bowels, suffering agony from cramps, with cold shrivelled skin, weak pulse, and great prostration. *Fifty grains* of calomel were given at once in a little sugar moistened with brandy, while mustard plasters were extensively applied to the surface, and hot applications made quite freely around the body and extremities. When the treatment was begun the patient was passing copious rice-water discharges every twenty or thirty minutes. The calomel was repeated in equal or larger doses after every second or third evacuation. When three or four doses had been taken the vomiting ceased, the cramps diminished in intensity, and the alvine discharges became less frequent and much smaller. In about twelve hours bilious stools began to make their appearance, and the calomel was then discontinued, to be resumed only in case the cramps, vomiting, or rice-water discharges should return. In a few days the patient was again on his feet, though, of course, very weak, and eventually recovered. Dr. Henderson does not say what was the total amount of calomel given, but it could not have been far from one ounce.

A SUCCESSFUL CASE OF TRACHEOTOMY FOR DIPHTHERIA.

As illustrative of the good results of early tracheotomy, even in an unpromising case, Dr. H. H. Lee, of West Stewartstown, N. H., sends the following notes :

"L. K——, two and one-fourth years of age, previously healthy, was attacked with diphtheria about November 7th, the tonsils and posterior pharynx being then covered with a false membrane. Breathing was slightly stridulous. Dr. Ward, who first saw the case, gave calomel, ipecac, brandy, and lime-water inhalations, with concentrated nourishment. The following day the laryngeal symptoms were marked—feeble, crowing respiration, episternal and abdominal retraction during inspiration, and a hoarse laryngeal cough. The tonsils and posterior pharynx were covered with a thick grayish membrane. There was also a profuse diarrhœa, accompanied with considerable abdominal pain and distention. The child persistently refused nourishment. It was decided, on consultation, to perform tracheotomy should no improvement occur within twenty-four hours, and, no tracheotomy tube being at hand, one was immediately telegraphed for. The breathing became more and more labored, the signs of carbonic-oxide poisoning were growing evident, and death from suffocation seemed imminent. As soon, therefore, as it was light, on the morning of November 9th, the patient was anæsthetized, and the trachea was opened in the usual way. A silver wire was passed through each border of the tracheal wound, and the opening maintained by fastening the wires at the back of the neck. Just before the completion of the operation the child was apparently moribund, no radial pulse was perceptible, and respiration had ceased. As soon as the trachea was opened, however, inspiratory efforts were excited, and the patient rallied under hypodermic injections of brandy and ether, artificial respiration, and the application of dry heat. The tube arrived in the course of the forenoon, and was then inserted. In a short time after the operation the patient, who had previously refused all nourishment, would swallow with avidity all the milk and brandy that was offered it. The temperature of the room was maintained at about 70 , and the atmosphere was kept charged with vapor. The child was in a critical condition during the two succeeding days, but then began rapidly to improve, and eventually made a good recovery."

Medical Society of the State of New York.—The attendance at the coming session will be unusually large.

Progress of Medical Science.

The Introduction of Inorganic Material does not induce Tuberculosis.—When Koch first announced to the world his discovery of the tubercle bacillus, and gave an account of the experimental evidence which had convinced him of its essential etiological relation to the disease tuberculosis, it was natural that conservative physicians should demand additional evidence and confirmation from other sources before accepting his conclusions, notwithstanding the reputation which he had already established as an expert and conscientious investigator. Hence Dr. George M. Sternberg was led to study the *modus operandi* of the bacillus in producing tuberculosis, and ascertain whether its pathological power resulted from its simply acting as a mechanical irritant or depended upon specific physiological characters peculiar to it. The result of his investigation, which was made in the biological laboratory of the Johns Hopkins University, appears in the January number of *The American Journal of the Medical Sciences*. He injected into the peritoneal cavity of a number of rabbits, thoroughly sterilized, powdered glass and marine blue, taking every precaution to avoid the dangers and possibilities of accidental infection, and the results gave no support whatever to the claim that tuberculosis may be induced by the presence of finely powdered inorganic particles, or to the view that the tubercle bacillus induces tuberculosis by acting simply as a mechanical irritant.

The Secretion of Bile.—Dr. D. Baldi, of Florence, has recently undertaken a series of experiments on the process of secretion of the bile, in which he has endeavored to ascertain whether it takes place in a uniform manner in accordance with the presence or absence of food in the alimentary canal, and whether it varies materially with the nature of the food. A biliary fistula was first made, the ductus communis choledochus being ligatured so that no bile entered the duodenum. Dr. Baldi found that there was a singular irregularity in the quantity of the secretion formed, distinguishing the function of the liver from all other digestive secreting organs. Not only was there great variation in the absolute quantity secreted, but the composition of the bile differed remarkably at different periods after a meal. Speaking broadly, in an animal that has been supplied with food, there is an augmentation in the total quantity of bile secreted in the course of some hours as compared with the quantity secreted in the same time by the animal when fasting. It is not possible, however, to fix the time at which the secretion of bile after food is at its maximum; indeed, it is even possible that the maximum may be attained during some one hour when the animal is fasting. Different kinds of food, starches, proteids, fats, and mixed foods, have no appreciable effect on the quantity or quality of the bile. If we consider, in addition, that unlike the other secretions which are poured into the intestinal tract, the bile continues to be secreted in prolonged fasting, as has been demonstrated by various experiments, we shall be led to the conclusion that this fluid, from a physiological point of view, has more analogy with urine than with the other digestive fluids. In a second series of researches, in which the effects of reputed cholagogue drugs were investigated, Dr. Baldi is not in accord with either Röhrig or with Rutherford. Röhrig found that colocynth was the most active cholagogue; then, in succession, jalap, aloes, senna, and rhubarb. Rutherford considered the order to be—podophyllin, rhubarb, aloes, colocynth, senna, and other drugs. Baldi experimented with podophyllin, rhubarb, jalap, sodium phosphate, pilocarpine, and Carlsbad water, and, from his results, feels inclined to doubt altogether the cholagogue value of all these substances. He admits, however, that the presence of a biliary fistula seriously interferes with the action of remedies. Dr. Baldi undertook still another series of experiments, to determine whether bile injected into the blood was excreted by the liver. The animal employed was the dog. The bile injected was that of the ox deprived of mucus. Dog-bile is brown; ox-bile green. Almost immediately after the injection of ox-bile the color of the bile secreted by the dog became green.

Erysipelas as a Complication of Pregnancy and Labor.—In *The American Journal of the Medical Sciences* for January Dr. G. H. Balleray records two cases of labor with concurrent erysipelas without untoward result. He points out that the management of labor in the case of a woman suffering from erysipelas does not materially differ, other things being equal, from the management of a case of normal labor. The accoucheur should abstain from frequent vaginal examinations during labor; and such examinations as are necessary should be made with *clean* hands. The placenta should, if possible, be delivered by Credé's method; thus avoiding the introduction of the finger or hand within the genital canal. A full dose of ergot should be given after the delivery of the placenta; and the uterus should be gently manipulated until it is *firmly* contracted. In the after-treatment the nurse should be forbidden to touch the genitals of the patient, without having previously washed her hands thoroughly with *hot* water and soap. The use of antiseptic vaginal injections should be commenced within twelve hours after delivery, and continued as long as there is any indication for their employment.

Medicine in India Two Thousand Years Ago.—Professor H. Kern, of the University of Leyden, the distinguished author of many works on Oriental subjects, has lately published a History of Buddhism in India. Of this a translation into German has been published at Leipsic, from which *The Medical Press*, December 3, 1884, extracts the following concise but complete account of the state of medical science in India about two thousand years ago, as gathered from the set of Buddhist works called the Mahavagga: "In sickness the religious orders might take butter, clarified butter, honey, and sugar, but only as medicine. The Lord Buddha also permitted the medicinal use of five fat substances, namely, bear's grease, fish oil, guinea-pig fat, pork suet, and asses' fat; also of the different roots which take a very important place in the Hindu Pharmacopœia, such as ginger, turmeric, calamus, and andropogon. The preparation and use of infused herbs or teas, the use of curative leaves, fruits, and resins, of salt powder, eye-salve, even of raw flesh and blood, the employment as remedies of snuffs and of pipes for inhaling the smoke: all these things were allowed by Buddha. The medical system even included the following cures: Salves for rubbing in, three kinds of cupping-glasses, many sorts of vapor-baths, plunge-baths, bloodletting, the use of lancets for cutting out sores, corrosive fluids, gargles, bandages, means for cleaning wounds, corrosive alkalies, purgatives, clysters, etc. This catalogue is sufficient to give one some idea of the state of Indian medicine at the time in which the canonical writings (the Mahavagga) from which the details are taken were composed." In another passage Dr. Kern mentions that the ancient Hindus smoked various sorts of herbs in pipes and cigars as we do tobacco, and that pipes are described in the most ancient Indian works on the art of medicine.

A Contribution to Jacksonian Epilepsy and the Situation of the Leg Centre.—In the January issue of *The American Journal of the Medical Sciences* Dr. William Osler, of the University of Pennsylvania, records the history of an instructive case of Jacksonian epilepsy. The main points of difference between that disease and true epilepsy are—the slow onset, local in character, beginning in, or in mild attacks confined to, one limb or a single group of muscles; the gradual extension until the side is involved, or, in severe attacks, the entire body; loss of consciousness late, not early and sudden, as in

true epilepsy; and, lastly, the muscular contractions are clonic. His case lasted over fourteen years, the convulsions beginning in the left hand, at first monobrachial, then extending to the leg, afterward becoming unilateral, and finally general; at first without loss of consciousness. For the first nine years of the illness there were remarkable intermissions, lasting for six or seven months, once an entire year. Six years after the onset the left leg got weak and stiff. For four years—the tenth, eleventh, twelfth, and thirteenth of the illness—the seizures were frequent. During this period there were six weeks of unconsciousness in which the spasms were very frequent, fifty to eighty in the day. Ten months prior to the final attacks there was freedom from convulsions. The intellectual faculties were unimpaired. The case is unusual in the limitation of the lesion to the ascending frontal convolution and to its fasciculus of white matter, scarcely involving the gray substance, which is commonly affected in cortical epilepsy. The accurate localization and the remarkable absence of tissue-changes in the immediate vicinity give the case the nature of an exact physiological experiment. With this limited lesion of the motor area there was permanent paralysis, with contracture of one extremity and epileptiform convulsions. Another feature of interest in the case is the light it throws on the situation of the leg centre. The fibrous mass was situated entirely within the anterior part of the paracentral lobule, limited in extent, confined chiefly to the medullary fibres of the superior frontal fasciculus, and only touched the gray matter in places. A point to be referred to is the absence of the paralysis of the leg for the first six years, for, if the convulsions and monoplegia were caused by the same lesion, how explain the late onset of the latter? From the fibroid state of the tumor it might reasonably be inferred that it was originally larger and had shrunk, but the absence of puckering on the surface and the way in which the margins merged with the contiguous parts make it probable that the growth was always small, so small in fact that at one period of its development it may have caused sufficient irritation to induce the convulsions, and yet at the same time not involve the special fasciculi of white fibres to the extent of producing weakness of the leg, or monoplegia.

The Treatment of Diarrhœa by Resorcin and Salicylic Acid Dissolved in Castor-oil.—Dr. Bogush discusses the treatment of acute and chronic cases of offensive diarrhœa accompanied by high fever, and sometimes delirium, on the one hand, and by the presence of enormous quantities of micro-organisms in the fæces, on the other. The author thinks that a severe aspect of similar cases may be dependent upon the self-poisoning of the system by ptomaines originated in the intestines. Hence, the rational treatment of the diarrhœa must consist in a rapid removal of the contents from the intestines, and simultaneously in destroying the microbes. As the author's experience proves, this end is most successfully obtained by the administration of a solution of resorcin in castor-oil. For the adult his formula is this: ℞ Resorcini puri, ʒj.; olei ricini fervidi, ℥v. Solve. To be taken at once. To children he administers eight grains of resorcin in a corresponding quantity of castor-oil. To disguise the odor and taste of the latter he advises to mix the solution with a tablespoonful of beer or stout. Of his numerous cases treated in this way, only one did not yield to resorcin, but rapidly recovered after the administration of twenty grains of salicylic acid dissolved in a tablespoonful of hot castor-oil. Resorcin proved equally successful in similar cases in Dr. Ikoff's practice. The author proposes to try the same plan of treatment in cholera. In conclusion he adds that when observing an epidemic of cholera in Egorievsk in 1871, he obtained the best results from hypodermic injections of morphia and internal use of castor-oil with opium. Dr. Sprimon, from his independent observations, testifies to the value of castor-oil in cholera. In choleraic epidemics in Voroneje in 1866 and 1868, recovery followed in every case where castor-oil had been administered before the asphyctic stage of the disease. Quinine proved not only useless, but even harmful, especially in the asphyctic stage. In the latter, the best results are given by free and often-repeated subcutaneous injections of brandy, tincture of musk, ethereal tincture of valerian, ether, spirit of camphor, and other stimulants.—*London Medical Record*, November 15, 1884.

Double Infantile Spastic Hemiplegia.—In the January number of *The American Journal of the Medical Sciences* Dr. S. J. McNutt reports a case of double infantile spastic hemiplegia, with carefully recorded notes of the post-mortem appearances, illustrated with seven cuts exhibiting the lesions found. This is believed to be the third, or, at the most, the fourth case of its kind upon record. Yet these cases do not appear to be so very uncommon, since four others presenting similar symptoms are known to be now in New York City. As a distinct condition, even simple infantile spastic hemiplegia has but lately received attention in text-books. For this reason, and on account of the difficulty of obtaining any comprehensive information on the subject, the collection of facts and theories presented in Dr. McNutt's paper is quite valuable, and will doubtless lead to a further study of this interesting condition. The author has collected and tabulated thirty-four cases in which autopsies have been made, and each of them presented atrophy of the cerebral cortex near the fissure of Rolando. The subjects of infantile spastic hemiplegia may live to old age. The inception of the disease, however, always dates back to early childhood, or to intra-uterine life. At whatever age seen, its victims are characterized by more or less complete hemiplegic motor inability, atrophy, and contractures, with or without aphasia, monosyllable utterance, dysphagia, dyspnœa, and idiocy, the latter being especially characteristic of the double affection. The etiology of infantile spastic hemiplegia has been defined as primitive defect, arrest, encephalitis, and hemorrhage. Clinically the cases may be divided into three classes: those in which the inception of the condition precedes birth, those in which it occurs after birth, and those of which parturition is the cause. The paper concludes with a careful study of the differential diagnosis and treatment.

Poliomyelitis Anterior in Adults.—Dr. Gustavus Eliot, of New Haven, records, in *The American Journal of the Medical Sciences* for January, a carefully noted case of poliomyelitis anterior occurring in an adult. The progressive development of muscular weakness, unattended by febrile symptoms, but accompanied by diminution of the size of the limbs, by abolition of the patellar tendon reflex, and by sensations of numbness, yet without loss of tactile sensation, and without interference with the function of either the rectum or bladder, rendered the diagnosis clear and indisputable. A large proportion of the reports of cases which have been published contain little or no information concerning the details of treatment, and in many others the multiplicity of drugs prescribed renders any reliable conclusions in regard to the effect of each almost impossible. Bromide of potassium, belladonna, strychnia, ergot, and iodide of potassium have been most often employed, and most praised. Counter-irritation, baths, rubbing and exercise, and electricity are also included as important elements in most plans of treatment. From a careful study of the results of various plans of treatment, as reported by various observers, Dr. Eliot deduces the following conclusions: 1, Counter-irritation and ergot should be employed early in every case; 2, massage and electricity should be used as soon as there is any evidence of improvement; 3, little, if any, effect can be expected from iodide of potassium; 4, belladonna and the bromides should be used only with extreme caution; 5, strychnia should be entirely avoided.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, January 31, 1885.

USE THE EPIDEMIC FUND.

IN our last issue we urged the appropriation by Congress of the funds necessary to enable the National Board of Health to devise and put in operation the measures necessary to prevent the introduction of cholera into the United States. Since that writing the Committee on Public Health of the House, Hon. Lewis Beach, of New York, Chairman, has recommended the appropriation of $25,000 to the National Board, and an additional sum of $500,000 to be used at the discretion of the President. The Committee took a very sensible view of the situation, and decided that there was not time during this session to consider new health bills, and that it was the part of wisdom to empower the existing board to act. But commendable as this action of the Committee undoubtedly was, the emergency is not thereby met. In the ordinary course of affairs, if such appropriations are passed, the funds are not available before the 4th of March. Meantime, the season is fast approaching when the first cases of cholera, the *avant couriers* of the epidemic, make their appearance among the immigrants. In our opinion, if adequate preventive measures are to be planned and put into successful execution against the present threatened invasion, the whole machinery must be in full operation, at the latest, as early as the 1st of April. Now, what does this preparation imply? First, that the National Board of Health shall plan and adopt the measures which are to be relied on to prevent the introduction of the cholera contagion. Those measures cannot be matured in a week, nor in twice that time, by the most experienced sanitarians in the country. They must necessarily involve interests of the highest importance to the travelling public, to the steamship companies, and to the foreign commerce of the entire country.

To perfect rules and regulations governing such vast public and private interests, so as better to protect the country from a pestilence, and yet interfere the least possible with the rights of private individuals and corporations, will require weeks of considerate discussion and wide consultations with all parties affected by, or interested in, such measures. And when the scheme of prevention is perfected, if it is organized as modern sanitary science demands, it will involve the creation of a series of official inspections of a minute and yet comprehensive character, so related as to form a harmonious plan of surveillance of ocean travel and commerce, which must intercept the contagion of cholera in whatever form it is being transported. This official inspection must begin in the foreign port, must be careful and searching at sea, must be reinforced at all our seaport quarantines, must extend along the Canadian frontier, and must finally end at the terminus of every great trunk railroad of the United States.

It will be seen that even after these measures of prevention are adopted, it will require time to organize and set this machinery in motion. The officials who undertake the duties herein outlined must be trained and reliable men who have been carefully selected for their individual qualification for the special work they are to perform. Steamship companies must be conferred with, and a plan of co-operation decided upon. The local quarantines must all be visited, and strengthened at all points where they are defective. The Canadian health authorities, who have always shown a most admirable spirit, and a desire to aid in the prevention of widespread epidemics, should be conferred with and brought into active co-operation. The trunk lines of railroads, which carry the great bulk of immigrants, should be consulted and induced to co-operate with the steamship companies in carrying out and rendering effective the methods proposed.

It will undoubtedly be alleged that the scheme of preventive measures above outlined is unusually comprehensive, and that their execution will prove expensive. Both statements are true. We propose nothing less than the *prevention* of an epidemic of cholera in this country. No half-way measures, as the past history of the pestilence proves, can accomplish that result. Every avenue of approach is to be guarded, all along the lines of travel, by a large force of skilled officers. Is the object sought worth the effort and expense? We believe it is. An invasion of cholera means the death of thousands of the laboring people, the occurrence of tens of thousands of cases of sickness, and the loss of millions of dollars in business. In our view prevention at any cost is comparatively cheap.

We repeat, the National Board of Health should meet at once and continue in session until its measures are not only matured, but put into effective operation. It is stated that it has no means, even to pay office rent, owing to the failure of Congress to make an appropriation last year. If that is true, there is still the Epidemic Fund, to be used at the discretion of the President in the event of a threatened or actual epidemic. There is no reason why the expenses of the Board should not be defrayed out of that Fund. President Arthur knows well what an epidemic of cholera means to the health and business interests of New York. Let us ask him, in all seriousness, if cholera is not sufficiently threatening to make it incumbent on him to use that Fund to prevent the invasion.

Profoundly impressed with the threatening attitude of cholera, and the power of preventive measures, wisely matured and vigorously executed, to protect us from the pestilence, we can but regard every day's delay on the part of the general Government to employ all the means at its command to meet the increasing emergency as an unpardonable trifling with the lives of the people and the future business of the country.

THE PHYSIOLOGY AND SURGERY OF THE THYROID GLAND.

An unusual amount of attention has been devoted, during the past year or two, to the subject of the thyroid gland. On the one hand, the surgeons have been industriously, and in a measure successfully, attempting its extirpation for disease; on the other, physiologists have been removing the gland in animals, with a view to obtaining a more definite knowledge of its functions. Already some very striking observations have been made, and important results foreshadowed.

Some two years ago, the attention of Dr. Kocher, a German surgeon, was called to the fact that after total extirpation of the thyroid gland in man, peculiar symptoms set in, and finally a set of phenomena which he called "cachexia strumapriva," and which much resembled that of myxœdema, was developed. His observations were confirmed by those of Reverdin, Julliard, and other surgeons. Quite recently, Professor Horsley, of the Brown Institute, London, extirpated the thyroid glands of monkeys. He found that in these animals a condition resembling the "cachexia strumapriva" of Kocher, the "myxœdema" of Ord, and the "cretinoid state of old women" of Gull, was produced. But in his cases the condition came on within five or six weeks, the animals rapidly dying from the effects of the induced disease. The symptoms were those of severe nervous disturbance, commencing with tremors and followed by paresis and hebetude; there also developed an oligæmia and leucocytosis; mucin was found in the blood, subcutaneous tissues, and salivary glands, and there was a puffiness of the face and a subnormal temperature.

Mr. Horsley concluded that the gland has much more important functions than has been supposed, and that these are: first, to excrete mucin; second, to manufacture red blood-corpuscles.

The publication of Kocher's observations has stimulated continental physiologists to great activity.

Dr. D. G. Zesas, of Bern (*Langenbeck's Archiv*, Bd. xxx., Heft 2), as the result of experiments upon dogs and cats, reached the conclusion that the thyroid was a gland having a certain hæmatogenous function, like the spleen, but that it was also, as Liebermeister has suggested, an important regulator of the intracranial circulation. The animals upon which he operated all died within a few weeks, and not, he claims, as the result of the operation. He always found at the necropsy marked cerebral anæmia, and their dull, sleepy, weak, and progressively marasmic condition he attributes to this cerebral disturbance.

Soon after the appearance of Zesas' article, Professor Schiff contributed the results of a similar study (*Archiv f. Experiment. Pathologie u. Pharmak.*, Bd. xviii., Heft 1 u. 2). The animals (dogs and cats) operated upon all died in from four to twenty-seven days. They also became dull and marasmic, but Schiff noted various sensory and motor disturbances, such as itching, paræsthesia, tremors, and paralysis. He noted also a brain anæmia upon post-mortem, but he concludes that the thyroid has some controlling effect upon the nourishment of the central nervous system, and explains upon this hypothesis the symptoms following its extirpation.

Dr. J. Wagner, of Vienna (*Centralbl. f. Deut. Med. Wissenschaft*, July 26, 1884), extirpated the thyroid gland in dogs, cats, and kittens. Tremors, clonic spasms, difficulty in locomotion, dyspnœa, increased nervous irritability, and anæsthesia were observed. The animals died in from two to four days, from which one must conclude that the operation had more to do with the symptoms, than the absence of the gland. Two animals, from which only half the gland was removed, remained healthy.

Sanquirico and Canalis (*Archive Italienne de Biologie*, Bd. v., Heft 3, 1884) extirpated the thyroids of twelve dogs. In two cases half the gland was removed at one operation, the remainder at a later operation, after the first wound had entirely healed. All the animals died within from four to sixteen days subsequent to the treating of the wounds. The phenomena observed were much like those described by Schiff. Vertigo and ataxic movements were noticeably present. The post-mortem examination revealed marked anæmia with some œdema of the brain. Examination of the blood revealed only "slight and variable modifications," thus contradicting in a measure the observations of Horsley and Zesas. Sanquirico and Canalis agree with Schiff in the view that the thyroid stands in some important relation to the nutrition of the nervous system.

The fact that after extirpation of the thyroid in animals, death occurs within from one to four or five weeks, naturally suggests the idea that this mortality may be due to the severity of the operation, or to some mechanical trouble caused by an operation in a place so rich in vessels and nerves as the anterior part of the neck. This was the conclusion arrived at practically by Kaufmann (*Archiv f. Exp. Path. u. Pharm.*, Bd. xviii.), as the result of his experiments in extirpating the thyroid glands of dogs. He first employed the operation by median incision, with simultaneous total extirpation of both lobes. Two strong dogs thus operated upon died respectively in one and in three days, from hemorrhage and septicæmia. He then removed the lobes separately by lateral incisions, waiting until the first wound was healed, before the second operation was undertaken.

The whole of the thyroid was removed from three dogs in this way. One of these animals contracted the distemper (*Staupe*) and died in five weeks. The other two remained healthy. Kaufmann claims that these experiments contradict and subvert the conclusions of Zesas and Schiff. Dr. Zesas says, however, that he has seen Kauffmann's dogs in the Zurich Pathological Institute, and they are extremely meagre and emaciated. He cannot deny that they have lived already for nine months, but he denies that his own animals died from the direct effects of the surgical operations, since death occurred in some cases weeks after the healing of the wound.

The view of Kaufmann, however, is in a measure supported by others, who also deny the serious results of thyroidectomy which Kocher describes. Professor Bardeleben, of Berlin (Medical Record, May 12, 1883, p. 523), states that he has removed the thyroid gland from a dog, with no bad result, and that he has successfully removed diseased thyroids of adults in two cases. He believes that the cachexia which Kocher calls attention to, would have appeared in any event, and was part of the disease which caused the goitre. Wölfler, of Vienna,

apparently disagrees with Kocher's view also. In a paper upon the surgery of the subject (*Deutsche Medizinische Wochenschrift*, April, 1883), he says, that there have been only five deaths out of sixty-eight cases operated upon by Billroth in the past six years.

In summing up the results of present observation, we are led to the conclusion that it is at any rate safer to lean toward the views of Kocher, Horsley, and Schiff, as to the high functional importance of the thyroid gland. It should never be removed except as a very last resort, and then some parts of the tissue or capsule should be left. As to its function, the theory that it is an important regulator of the cranial circulation, is fanciful and improbable. The view that it is a hæmatogenous organ is well supported, while its alleged relations to the excretion of mucin and the nutrition of the nervous system are still *sub judice*.

THE DISCOVERY OF THE SPECIFIC GERM OF DIPHTHERIA.

At a recent meeting of the Clinical Society of the New York Post-Graduate School, Dr. M. Putnam-Jacobi called attention to the very elaborate and possibly epoch-making investigations, regarding the parasitic nature of diphtheria, which have been made by Löffler. It is well known that despite the immense amount of labor which has been expended in studying the pathology of diphtheria, the actual relations of micro-organisms to this disease have, up to the present time, remained undetermined. Most observers who have presented the claims of a micro-organism have identified it with certain micrococci found in the diphtheritic tissues. A few, like Eberth, of Zurich, have referred the disease to a bacterium, while the weight of critical opinion, up to the time of Löffler's experiments, has been against the view altogether of their being a specific pathogenic organism.

Löffler sums up the results hitherto obtained from investigations as follows: All observers have found bacteria in diphtheritic pseudo-membranes, although many have contented themselves with searching for it by means of the dilaceration method, which prevented the exact relations of the tissues from being ascertained. In the majority of cases the bacteria described have been micrococci, usually in colonies, and these nearly always on the most superficial part of the membrane. Only occasionally have they been found in the lymphatics of the affected parts; still more rarely (Letzerich) in internal organs. To examine these the modern resources of aniline staining, Abbé's condenser, and oil immersion lenses have, so Löffler asserts, been only insufficiently employed. Cultures have been made in fluid media, and thus it has been impossible to isolate from each other the different species of bacteria, of which every diphtheritic pseudo-membrane contains several. In the coincident evolution of these different species, the physiological action of each becomes neutralized, and even the development of some completely hindered by that of others. This circumstance accounts for the negative or atypical results of inoculation with the products of such fluid cultures; and similarly, for the uncertainties consequent upon inoculation with fragments of the membrane itself, as in the experiments of Satterthwaite and Curtis.

Löffler's own experiments were divided into three parts:—

1. Histological examination of the tissues of patients who had succumbed to diphtheria (tonsils, pharyngeal and laryngeal mucosa, internal organs).

2. "Pure" cultures on solid substances of two species of bacteria discovered during above examination: namely, micrococci in chains and a species of bacillus.

3. Inoculation, subcutaneous, muscular, corneal, or tracheal, of products of such cultures, from the fourth to the twenty-fifth generation, upon several species of animals (mice, guinea-pigs, rabbits, pigeons).

Of the two species of bacteria above referred to, the micrococci seem to be identical with the micrococci observed and studied by previous investigators. These he cultivated and used in inoculations.

He finally concludes regarding them, that: "Since the chained micrococci excited in no animal an artificial disease even resembling diphtheria: since they were only observed in a limited number of cases of human diphtheria, and then associated with bacilli: since they exactly resemble the micrococci of erysipelas and other infectious diseases, they are only accidental complications of diphtheria. They may, however, sometimes excite a disease resembling it."

Cultures were then made with the other micro-organisms, the bacilli, which were isolated and cultivated upon stiffened blood-serum. They do not develop on the meat-water-peptone-gelatine, partly at least because this softens at a temperature about 20° C., and a temperature higher than this is essential to the development of this species of bacilli. A temperature of 60° C. kills them. The duration of their life seems to be about three months.

The result of experiments, conducted with these new bacilli, is summed up by Löffler as follows: They were found in thirteen cases of diphtheria with fibrinous exudation; they lay in the oldest part of the membrane and penetrated farther toward the tissues than the other bacteria; products of the cultures of them, carried to the twenty-fifth generation, when inoculated under the skin of guinea-pigs and small birds, kill the animals, after the production of a whitish or hemorrhagic exudation at the point of infection, and extensive subcutaneous œdema. The inner organs remain intact, as do those of diphtheritic patients. Pseudo-membranes were generated by inoculation of the trachea of rabbits, chickens, and pigeons, or of the vagina of guinea-pigs. There are then also evidences of several vascular lesions, manifested by hemorrhagic œdema, by hemorrhages into lymphatic glands, and effusions into the pleural cavity. The bacilli, he says, have thus the same effects on the animal organism as the diphtheritic virus.

The bacillus which would thus suddenly assume so much of importance to the human race is considered to be identical with the bacillus of diphtheria described by Klebs at last summer's International Medical Congress; and it is a significant fact that two experienced investigators should thus have arrived independently at similar conclusions. The micro-organisms in question are motionless rods, partly straight, partly curved, about the length of the tubercle bacillus but double its breadth, coloring intensely with methyl blue potassa solution, discoloring again with diluted iodine, except at the two ex-

tremities. They are found deep in the tissues, where they are supposed to develop a poison which decays the surrounding tissues, paralyzes the blood-vessels, causing congestions, exudations, and finally paralysis of nerve-centres and death.

Such are the main facts regarding the alleged pathogenic organism of diphtheria. Undoubtedly, Löffler and Klebs have secured for it a greater weight of positive evidence than has ever been obtained previously for a specific diphtheritic germ. Perhaps the only points which are open to criticism are these: Löffler confesses that in certain typical cases of diphtheria the bacillus was not found, and he assumes that here they have died and been eliminated. It can hardly be doubted, however, that the tissues and juices in these cases would have proved infectious. But how could they be so with the specific germ absent? Again, it may be asked whether the disease produced by inoculation of these bacilli into animals was surely, and always, identical with the diphtheria of man. Further experiments of Satterthwaite and Curtis seem to show that lower animals cannot be inoculated with diphtheria, and their conclusions cannot be swept away by saying that other germs neutralize for animals the specific action of the bacillus, when it is an established clinical fact that they do not do this for man. On the other hand, however, it has been shown by some experimenters, and quite recently, by Dr. C. J. Renshaw (*British Medical Journal*, January 3, 1885), that sometimes true diphtheria can be inoculated in lower animals.

THE ACHIEVEMENT OF THE PENNSYLVANIA RAILROAD COMPANY.

In a recent article on "Control of Vision," Dr. Jeffries, of Boston, calls attention to the entire failure in Connecticut, and the partial failure in Massachusetts and in England, to obtain efficient legislation to compel railroads to discharge employees with visual and aural defects. Dr. William Thomson, of Philadelphia, in a later article in the *Popular Science Monthly*, explains this failure and shows how the Pennsylvania Railroad, alone of all companies, has succeeded in subjecting its employees to physical tests. The difficulty with attempts at legislation so far has been that the advocates of the tests would compel railway companies to have expensive examinations made by medical men, which examinations would result in a decimation and demoralization of the force. To the Pennsylvania Railroad Company and Professor Thomson belong the credit of devising and putting into practice a scheme by which the tests could be applied quietly, economically, and effectively. Dr. Thomson invented instruments for the examination of the color-sense, and of visual and aural acuteness, which could be used by any intelligent, instructed man. These instruments, together with rules for examining and recording the tests, were put into the charge of instructed lay officials, who made the examinations and sent their reports to the surgical expert. If the latter found evidence of defect, a further opportunity for a more careful and full examination was given to the employee. If still found defective he was, if possible, placed in some other position, where his special defects could do no harm.

The ratio of those defective in color-vision among 2,000 examined was four per cent.; and that of those otherwise defective in vision or partially deaf was ten per cent. The Pennsylvania Railroad operates 5,000 miles of track, and employs about fifty thousand men, of whom about ten thousand are dependent upon color-signals for guidance. It may be easily seen, therefore, that it was no small task to attempt to eliminate the defective. Yet it has been successfully accomplished, and the general manager, Mr. Charles E. Pugh, writes in most positive commendation of the good results of the work.

Other railroads are now rapidly following the example of the Pennsylvania Company. They cannot, however, take away from it the great credit due to having so successfully applied a measure which cannot fail to be the means of saving lives and preventing injury.

INSTRUCTION OF TEACHERS IN THE FIRST SYMPTOMS OF TRANSMISSIBLE DISEASES.

The Health Department of Brussels recently prepared a pamphlet containing some brief instructions as to the first symptoms of transmissible diseases, for the use of teachers in the public schools. Through this means it was believed that infectious diseases could be more quickly recognized and isolated. The pamphlet of instructions has been translated by Dr. L. B. Tuckerman, published by the Cleveland Board of Education, and introduced into the public schools of that city. The plan is, in theory at least, a good one. Only experience will show whether it practically amounts to anything. It certainly should be part of a teacher's education to learn how to tell the grosser defects and more dangerous diseases from which their pupils may be suffering. The pamphlet of instructions is tolerably complete, but in form and composition might be improved.

American Public Health Association—Official Announcement of the Lomb Prize Essays.—Mr. Henry Lomb, of Rochester, N. Y., has offered through the American Public Health Association the sum of $2,800, to be awarded as first and second prizes for papers on the following subjects: 1. "Healthy Homes and Foods for the Working Classes"—first prize, $500; second prize, $200. 2. "The Sanitary Conditions and Necessities of School-Houses and School-Life"—first prize, $500; second prize, $200. 3. "Disinfection and Individual Prophylaxis against Infectious Diseases"—first prize, $500; second prize, $200. 4. "The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the Best Means and Appliances for Preventing and Avoiding them"—first prize, $500; second prize, $200. All essays written for the above prizes must be in the hands of the Secretary, Dr. Irving A. Watson, Concord, N. H., on or before October 15, 1885. The judges will announce the awards in the second week of December, 1885, at the annual meeting of the American Public Health Association. Competition is open to authors of any nationality, but all the papers must be in the English language. The American Public Health Association earnestly appeals to those able to compete to take part in this work, which it is believed will do much to augment the health, comfort, and happiness of the people.

News of the Week.

Reduced Rates to Albany.—The New York Central & Hudson River Railroad will sell excursion tickets to Albany at $3.10, good for thirty days, and available without special credentials as delegates or members of medical societies, except in case of an increase in rate *before* the date of the meeting at Albany (February 3d), when all delegates presenting their credentials will be supplied with excursion tickets at $3.10.

A Surgeon Inoculated while Operating.—The sad death of Dr. Atkinson, of Brooklyn, prompts Dr. John D. Mulhane, of Steubenville, O., to write us an unfortunate personal experience of his own. On March 10, 1884, Dr. Mulhane removed from the inferior carotid triangle of a woman a tumor of character unknown. During the operation and while holding the tumor, the needle point plunged into his middle finger, giving an opportunity for a pure inoculation of the tumor. Three days after a pustule appeared, and five days later the doctor had a temperature of 104° F., and was delirious. He put himself upon carbolic acid and took seven minims daily for five days. The glands in the axilla became swollen, the wrist-joint suppurated and had to be opened. In August Dr. M. had severe boils and carbuncles. At date of writing Dr. Mulhane states that the axillary glands are enlarged and a very suspicious eruption is appearing on his body. He fears that he was inoculated with a specific virus. We should say, however, that our correspondent is a little "over anxious," and has had only a septic infection.

Is there a Form-Blindness?—A daily paper quotes a prominent artist of this city as saying: "I have during many years of art teaching, and in various other ways, encountered a peculiar form of visual defect which is akin to color-blindness. Instead, however, of being insensible to a difference in color, these people appear to have lost, if indeed they have ever possessed, the power of perceiving clearly defined forms—form-blindness, in other words. I have sometimes placed objects in the shape of hexagons, or octagons, or decagons, or even so common a shape as a pentagon, or a five-pointed star before these pupils as a test, and almost invariably they were unable to distinguish one form from another, even when with careful distinction the differences were explained to them. This fact is a curious one, and I do not know whether it has ever been treated scientifically or not."

Color-sense depends upon the integrity of the retina, but the forms of objects are dependent, speaking generally, upon the integrity of the refractive media. The defects above referred to are very likely due to astigmatism. There is, however, a disease of the retina called micropsia, in which objects seem smaller than they really are. And there is another retinal disease, described by Förster and called metamorphopsia, in which horizontal lines look crooked and curved to the patient.

Congress and Cholera.—As we predicted, the House Committee on the Public Health has decided that by reason of the late stage of the season and the crowded condition of the calendars, it would be impossible to pass during this session such a bill to protect the public health as was recently prepared by the delegates from the various State Boards of Health assembled in convention at Washington. The Committee, however, decided to recommend the appropriation of $25,000 for the National Board of Health, and $500,000 to be used at the discretion of the President, in preventing the spread of cholera, should it appear in this country before the next Congress assembles.

Iron for the Blood.—*Mike* (something of an invalid)—The docther says Oi must dhrink oirun for me blood.

Mary—Shure, an' how can yez dhrink oirun, Moike?

Mike—By meltin' it, av coorse.

Mary—But yez can't dhrink hot melted oirun, ye fule.

Mike—Oi knaw Oi can't dhrink hot melted oirun, but it's meself that can wait till it cools.

Mortality in Tennessee Prisons.—The Legislature of Tennessee has ordered the appointment of a special committee to investigate the treatment of convicts in the main and branch penitentiaries, startling facts as to the death-rate having been reported to the State Board of Health by Dr. Sims, chairman of the Committee on Prisons. It is stated that during the past two years, out of a population of 1,323 convicts, 205 died. Over five hundred convicts are confined in the main prison.

The "Index Medicus" has suspended publication pending the question of its being issued in another shape. We sincerely trust that the able editors will find that they can continue their work by presenting it in a more available and practical manner.

A Munificent Bequest.—A legacy of $400,000 was recently left by Mrs. Philander Peck, of Chicago, for the erection and support of a Home for Incurables.

The Bill to Regulate the Practice of Medicine in New York was introduced into the Assembly on January 27th.

Medical Practice in the Argentine Republic.—Correspondents of the *South American Journal* give some glowing accounts of the prospects for medical practice in the Argentine Republic: "All the medical men here are said to be making fortunes, and there is still room for 'healthy competition.' The ordinary charge for a consultation at a medical man's house is said to be two dollars (about 8*s.*); for a visit, four dollars, say 16*s.*; for attendance at confinement when all goes well, about twenty pounds; but when any special care or operation is required, these fees mount up to hundreds of pounds. Accounts for medical attendance are sent in, and paid without remark, which would make the hair of a paterfamilias in the 'old country' stand on end. My friend mentions the following fees as having been lately obtained by doctors who, though of good standing, are not looked on as 'stars'; for extraction of ovarian tumor, £1,200; amputation of arm, principal, £600; amputation of arm, two assistants, each, £400; delivery with operation, £400; attendance during typhoid fever, £200; visit by a physician for dropsy, £50; consultation fees, £20 and upward." Expenses are high, however, and before one can practise medicine he must pass an examination before the Government Medical Board, and must be able to speak Spanish.

THE BILL TO REGULATE THE PRACTICE OF MEDICINE IN NEW JERSEY.—The provisions of this bill, which is or is to be before the New Jersey State Legislature, provides for a Board, to be appointed by the Governor, and to consist of nine members, who must be graduates of a medical college, and with not less than five years' practice in medicine or surgery. Seven members are to be chosen from a list submitted by the State Medical Society, and the other two from a list submitted by the Homœopathic State Medical Society. Two sets of questions will be prepared, each set respectively by the regular and homœopathic societies, and the examination will be in anatomy, physiology histology, pathology, principles, and practice of medicine, general chemistry, surgery, and obstetrics.

THE MASSACHUSETTS STATE MEDICAL EXAMINERS.—The Governor of Massachusetts in his annual message accuses the official medical examiners of, at times, charging fees for unnecessary autopsical examinations, and cites one case in which the examiner charged thirty dollars for making a formal autopsy on the body of a man killed instantly by a railroad accident in broad daylight. *The Boston Medical and Surgical Journal*, comes vigorously to the defence of the medical examiner system. The profession has certainly looked at Massachusetts as being much in advance of other States in this respect.

PRESCRIBING DOCTORS' WIVES.—A novel case is reported in *The Lancet* in which a widow lady of Glasgow sued a medical man to recover £50 for injuries to health produced by medicines prescribed and supplied in the absence of the medical man by his wife. It was sought to show that in this case the wife was the agent of her husband, and that he was responsible. The injuries alleged were salivation and its consequences, due to a quantity of mercury prescribed by the defendant's wife. The defendant denied that the powder given contained anything unusual either in quantity or quality, and, while admitting that his wife occasionally assisted "in the shop" in his absence or that of his assistant, denied that his wife had any authority to prescribe. This view was taken by the judge.

ST. MARY'S HOSPITAL, BROOKLYN, N. Y.—The second anniversary dinner of the staff of this Hospital was held on Monday evening last, and was a very enjoyable affair. The medical board, the chief of which is Dr. John Byrne, is composed of specialists in different branches, each having continuous service. So far the staff is perfectly satisfied with the working of the plan, and took occasion to felicitate itself accordingly. A number of distinguished medical men from Brooklyn and New York were present, and cordially responded to the toasts.

THE ALBANY BASIN.—The dock front of Albany, N. Y., is a curve concave toward the city. Across the chord of this arc is built a pier, about four thousand feet long, parallel with the current of the river, leaving between it and the dock front proper a basin four thousand feet long and from one hundred and fifty to four hundred and fifty feet wide, containing some thirty acres. Into the northern end of this basin opens the Erie Canal. This basin was intended as a harbor for canal boats, and it was expected to maintain in it seven feet of water at low tide. The basin has, however, become filled with mineral and organic matter from two sources, so that now at low tide from five to six acres of the bottom are laid bare. The New York State Board of Health has sent in a report declaring the basin a nuisance and a source of danger to the citizens of Albany.

Reviews and Notices.

THE AMERICAN HOMŒOPATHIC DISPENSATORY. By THEODORE D. WILLIAMS, M.D. 8vo, pp. 698. Chicago: Gross & Delbridge. 1884.

IN some respects the work is a very satisfactory one. Its general directions for the preparations of drugs, and the utensils, weights, and measures necessary for dispensing them are clear and to the point. This may be owing to the fact that the greater portion consists of quotations from King and the United States Dispensatory. The chapter on General Formulary is also gratifying, consisting as it does of directions for preparing various articles of diet for the sick, and containing a selection of recipes selected from "old-school" works. To meet in a homœopathic dispensatory with the prescription for Plummer's pills, for acute rheumatism a mixture of salicylic acid and bicarbonate of soda, etc., is a hopeful indication of the tendency of progressive homœopathy. The appendix, giving the ingredients of the principal natural mineral waters, will also be found useful. In short, in those parts of the book in which the author has had to do nothing but copy from standard medical works he has accomplished his task with considerable judgment and produced a compilation of some value.

As much, however, can hardly be said for the greater portion of this literary effort—the six hundred and fifty pages devoted to special homœopathic pharmacy. In the preface we are told that the *raison d'être* of this book was a presumed want of the homœopathic practitioner, "in view of the fact that the American Institute of Homœopathy, who are the only proper persons to arrange and authorize a National or standard pharmacopœia, had abandoned the publication of such a work." If this work really represents a homœopathic dispensatory we think the American Institute of Homœopathy did themselves credit in abandoning its publication; for we have no hesitation in saying that six hundred pages of drearier or more puerile repetition it has never been our lot to meet with. It is an insult to the intelligence of every homœopathic physician in the United States to be told four times on every page that one and nine are ten, and ninety-nine and one make one hundred. This is no exaggeration or parody, but gives exactly the contents of this part of the book. Under each article of the materia medica are given the synonyms, vulgar names, and chemical formula; then the preparations and how to make them. This latter information comprises the great bulk of the work and informs the reader that "to prepare the *first decimal* trituration it requires to *nine parts* of milk-sugar *one part* of the unoxidized sulphate. Deposit the sulphate in a porcelain mortar, and add *three parts* of milk sugar, and steadly triturate for ten minutes; add *three parts* more of milk-sugar and again triturate for ten minutes; then add balance of milk-sugar and triturate for twenty-five minutes." This appears *verbatim et literatim* under every article, with such slight alterations as the substitution of "tincture" for "trituration," or "ten" for "twenty-five" minutes. We know that the author does the average homœopathic practitioner gross injustice; that the latter does not require to be officially informed that four and six make ten, or that ninety-nine and one are a hundred. Nor does he require the didactic wisdom of Dr. Williams to explain to him that "a solvent is a fluid substance in which various solid substances do not possess the property of resisting solution."

HANDBOOK OF THE DIAGNOSIS AND TREATMENT OF SKIN DISEASES. By ARTHUR VAN HARLINGEN, M.D. With two colored plates, pp. 282. Philadelphia: P. Blakiston, Son & Co. 1884.

Of writing books on skin diseases there seems to be no end. Nevertheless we must accord some praise for the present volume. It is intelligently written, and the author shows a proper appreciation for the wants of the general practitioner. Pathogenesis and pathological anatomy are for the most part omitted, and the work is devoted to diagnosis, symptoms, and treatment. The subjects are arranged in alphabetical order in the manner of Fox's "Epitome."

ON THE USE AND ABUSE OF PESSARIES. By GEORGE G. BANTOCK, M.D., F.R.C.S., Edinburgh. Second Edition. London: H. K. Lewis. 1884.

Dr. BANTOCK's views on the use of pessaries, as well as their frequent abuse, are already well known to the profession of England and America. The second edition of his original pamphlet is considerably amplified and, as he states, has been entirely rewritten. He treats the subject of pessaries from a practical point of view, which will do much to popularize his teachings with the general practitioner.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, January 26, 1885.

DANIEL LEWIS, M.D., PRESIDENT, IN THE CHAIR.

AFFECTIONS OF THE EAR INFLUENCED BY, OR DEPENDENT ON, MALARIA AND DEFECTIVE DRAINAGE.

Dr. O. D. POMEROY read a paper on the above subject (see p. 113).

Dr. HACKLEY could recall only two cases in which acute aural disease occurred in patients suffering from malaria, and in these it was while the patients were taking small doses of quinine. The occurrence of aural affections due to malarial poisoning would probably depend upon the absence of several distinct conditions, such as pharyngeal diseases, mentioned by the author of the paper, vaso-motor disturbances, etc.

So far as his experience went, the admixture of malaria, aural disease, and other well-defined influences has been so pronounced that he had been unable to decide which was primary.

Dr. BARUCH regarded cases of malarial ear-disease as extremely problematical. He believed that, in all the cases of this kind which had been reported, there existed an error in diagnosis. That quinine was beneficial in diseases other than malarial was well known, and he hoped that more distinct observations would be made before endorsing the view that ear affections may enter the class of malarial diseases. Dr. Baruch discussed at some length the effects produced by malaria, presented statistics to show that malarial fever did not occur in the city of New York nearly so frequently as appeared from the death-certificates sent to the Board of Health, and also commented on the reported cases cited by the author of the paper, with criticisms referring especially to errors in diagnosis.

Dr. J. C. PETERS said a word in defence of malaria, and believed that it prevailed in the city of New York to a much greater extent than Dr. Baruch would have us believe, for the reason that the drainage for the natural water-courses was extremely deficient; in many places no provision at all had been made for it, and consequently the subsoil of a very large portion of the city was constantly damp, at times saturated, and also thoroughly impregnated with sewer-gas and other noxious substances. He cited several cases in which the symptoms of malarial disease were unmistakable. He believed that pure malarial fever in the city of New York was very common, and that malarial poisoning mixed with other malignant influences was exceedingly frequent.

Dr. CRANMER referred to the case of General Garibaldi, under his care in 1859. The patient complained of excessive pain in his left ear, for which the doctor used fomentations of hot water and laudanum, but complete deafness developed within a few hours. The General then took, of his own accord, thirty grains, probably, of quinine, and on the following morning was entirely well again. Dr. Cranmer also referred to deafness occurring in the later stages of phthisis, and asked concerning its cause in those cases.

Dr. GARRISH thought it important to search for the cause of ear troubles, such as impacted wax, scarlet fever, etc., before attributing the affection, in any given case, to malaria. He had seen cases in which deafness had been produced by quinine, but had not seen disease of the ear produced by malaria.

Dr. HOLCOMBE, during a practice of thirty-five years' standing, had not seen a case of ear-disease which could be distinctly attributed to malaria. Undoubtedly it was correct to say that diseases of the ear were influenced by malaria, and for those who regarded malaria as a cause of ear-disease, some of these cases would be put down as due to malaria. He was sorry that malaria should be looked upon as the source of one more evil, and was glad to hear that Dr. Pomeroy did not subscribe to the German view concerning malarial diseases of the ear. The cause of the ear-disease should be diligently searched for, such as typhoid, measles, scarlet fever, syphilis, tuberculosis, diphtheria, etc., and he believed that it could be found independent of malaria, although, undoubtedly, the course of the disease in patients living in malarious districts, constantly exposed, was influenced by the poison.

Dr. POMEROY, in closing the discussion, said that he did not subscribe to the view of the German observers who held that there was something peculiar in ear affections dependent upon malaria, as there was nothing peculiar about the ear-disease in cases which had been placed in this class. Deficient house-drainage, with imperfect soil-drainage, meant dampness, which favored relapses of catarrhal affections, and under such circumstances the development of ear-disease was especially favored. Malaria, however, he believed, was not to be regarded as the primary cause, acting at the inception of acute aural disease, although inflammatory and also painful affections of the ear were likely to be aggravated, possibly excited, by the influence of malaria and sewer-gas.

Dr. A. HADDEN, from the Committee on Hygiene, then read a report on

THE MANURE NUISANCE.

From the evidence of Drs. Chandler, Doremus, and Draper, decomposition of such material gave rise to gases which were unhealthy to respire. As to the production of specific disease by such exhalations, the Committee did not express an opinion, but simply spoke of the general insalubrity of the atmosphere in the immediate neighborhood of decomposing heaps.

The conclusion reached by the Committee was that the manure-dumps of this city were nuisances and detrimental to the public health, and that all reasonable means should be used to do away with them entirely. The Committee recommended that the Society insist upon the health officers of the city lessening the nuisance by some feasible method, such as pressing and baling the manure, which had already been done successfully in a number of large stables, or by some other method equally efficient. The report was accepted.

After the transaction of routine business the Society adjourned.

CLINICAL SOCIETY OF THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

Meeting of January 3, 1885.

C. L. Dana, M.D., in the Chair.

A discussion on

INTRACRANIAL HEMORRHAGE IN CHILDREN

was opened by Dr. S. J. McNutt, who first presented the following cases :

Case I.—A boy, four years of age, was well until a year ago, when he had an attack of fever, which was accompanied on the third day with convulsions, lasting twenty-four hours, after which he remained unconscious for a week, having to be fed by force. For six weeks he did not speak, and had to be taught again as though just learning. On return of consciousness it was noticed that he was paralyzed on the right side, and that the angle of the mouth on the same side drooped. He first came under notice on July 2d, with still some drooping of the mouth and the tongue drawn to the right. These symptoms are not now present. He could walk, but had not as much strength in the right as in the left leg, and the toes were curled under. The fingers were flexed, and there was strong pronation of the right arm. All the muscles responded to faradism, but the extensors of the wrist and those of the anterior tibial group very imperfectly. The extremities of the affected side were smaller and shorter than those of the left.

Case II.—Had a specific history. An attack of indigestion at the age of ten months was followed by convulsions of the left side, which resulted in contraction of that side and a drooping of the corresponding angle of the mouth. Although this child was sixteen months old, it had not yet walked, and though free from contractions, there was a disinclination to use the left hand. The angle of the mouth on the same side was more readily tired, and sometimes drooped.

Case III.—Had an attack of fever at the age of nine months which lasted for several days, and when it abated left the child dull and sleepy. After this it had daily convulsions, never walked or stood alone, and died fourteen months later of diphtheria.

Case IV.—A girl seven years of age, had an attack of small-pox, which was followed by contractions of the fingers of the right hand and dragging of the toes of the corresponding foot. The first symptoms of cerebral trouble were noticed ten days after the eruption, when she was seized with convulsions, and was soon unconscious. While in this condition the mouth was drawn to the left side and there was internal strabismus of the right eye, but both were corrected in a few weeks. She had to be taught to speak again. At the end of four months she began to walk, although the contractions still persisted, and there was some atrophy of the paralyzed side.

Case V.—A child, nine years of age, had paralysis of the right arm and head, which followed convulsions at two months. The thumb was flexed into the palm, and the forearm upon the arm. This limb was shorter than that of the other side.

Dr. M. Allen Starr kindly allowed the mention of

Case VI.—A boy, ten years of age, never had walked, and at the age of six months could not hold up its head. He was born after a long and difficult labor, instruments being resorted to—the marks remaining for a long time. He had convulsions for ten days after birth, which were more severe on the left than on the right side, and internal strabismus in the left eye, which still existed at times. The hands were held semiflexed and pronated, and the forearms flexed upon the arms, but all these contractions, except those in the little fingers, were easily overcome. The thighs were adducted, and there were contractions of the tendo-Achilles and under each knee. The toes were curled under, and during the last few months talipes varus had developed in the left foot. His intelligence had improved lately and his memory was uncommonly good. He laughed, sang, and for two years had been able to talk in monosyllables. When laughing, the mouth was drawn to the right side. Sensation was normal.

In all these cases save one there was paralysis of both extremities upon one or both sides of the body. The simultaneous paralysis of an arm and leg on the same side pointed, as a rule, to a cerebral cause. In addition there was one case with aphasia and right hemiplegia, lasting six weeks, facial paralysis, and deviation of the tongue to the right side ; in another there was left hemiplegia, and drooping of the angle of the mouth ; one with double hemiplegia never spoke after the seizure, while still another, with right hemiplegia, had the mouth drawn to the left side, internal strabismus of the right eye, and aphasia lasting six weeks ; in the other case, where only an arm was paralyzed, it became contracted and shortened, a condition which was characteristic of the other cases.

In locating the lesion of intracranial hemorrhage we were guided by a number of facts. Aphasia was particularly noted in the two hemiplegics, and when facial paralysis occurred it was on the same side as the affected limbs, which proved the lesion to be above the pons.

PATHOLOGY.

Thirty-four autopsies, details of which had been collected by the speaker, furnished the following : A right hemiplegic presented upon the surface of the left hemisphere a depression which communicated with the ventricle of that side ; a case of double hemiplegia with idiocy had atrophy of the cortex about the lower two-thirds of the fissure of Rolando, on both sides ; one of right hemiplegia had atrophy of the whole left hemisphere ; another, with right hemiplegia, had the middle upper part of the left hemisphere occupied by a cyst, about which hæmatoidin crystals were formed ; and one with left hemiplegia and strabismus had atrophy of the right hemisphere, particularly in the region of the fissure of Rolando. The lesion, then, which had generally accompanied infantile hemiplegia, had been either shrinking of the whole of the opposite hemisphere, or a depression in the surface about the fissure of Rolando, into which the gray matter of the cortex dipped. Where the sutures were not ossified asymmetry of the skull resulted, but if ossification were complete previous to its occurrence a serosity filled the vacuum. Sections of the pyramidal tracts colored deeply with carmine, as though a secondary degeneration had occurred. Rilliet and Barthez mentioned the transmission of the degeneration to the acoustic and optic nerves in some cases. Hérault advanced the opinion that this staining might be due to the predominance of the neuroglia from arrested development, rather than to new growths. He found similar staining in all children under four years of age.

The lesion was supposed to proceed from an encephalitis or clot, and to travel from the convexity. West gave a number of autopsies following these seizures in which hemorrhage was present. The theory of a clot was favored by the large number of cases that, presenting by the breech or feet, received an injury which apparently induced the hemorrhage. In a case which the speaker had reported there was a foot presentation, a difficult labor, and instrumental delivery, followed by convulsions, complete paralysis, and nasal regurgitation of food The autopsy revealed an atrophy about the fissure of Rolando upon both sides. Over

FIFTY CASES OF SPASTIC RIGIDITY,

where a difficult labor was the supposed cause, were reported by Little. In one of them atrophy of the opposite hemisphere with evidence of an old clot was found. In a number of cases collected by the speaker, particularly three of breech presentation, followed by convulsions, paralysis, or rigidity similar to that of the initial stages of the disease, and where death occurred within one,

two, or three weeks, the autopsies showed a fresh clot, which furnished still more conclusive evidence. In favor of this hemorrhagic lesion we had the fact that intracranial hemorrhages in children were as a rule meningeal. Eustace Smith said that under three years it was rare to meet with any other form. The production of the symptoms may be thus accounted for, as meningeal hemorrhages often occurred simultaneously on both sides.

ETIOLOGY.

The predisposing cause seemed, in one of the doctor's cases, to be a specific taint; weakness is also considered to be an etiological factor. A number of Rupprecht's cases were premature, and probably a congenital weakness of tissue was present. In some cases the seizure followed a febrile attack. Stiner suggested that fatty degeneration of the walls of the vessels occurred from the pyrexia. The disease had followed measles more frequently than any other disease, and it had been suggested that a profound alteration of the blood might be an element in its cause. The hemorrhage at birth which induced this condition seemed to be connected with the after-coming head, when it usually occurred at the convexity, while in vertex cases it was more common about the cerebellum and at the base of the brain, destroying life more rapidly. Six vertex cases—living fifty-five, thirty, forty-eight, forty-eight, one hundred, and one hundred hours respectively—showed, at the autopsies, effusions about the base of the brain, in the cerebellum, or limited to the posterior cerebral lobes, but in none of the breech cases were these portions involved. According to text-books the hemorrhage was always at the base of the brain or involved only the posterior cerebral lobes. The fact that the hemorrhage at the convexity had not been recognized was probably due to the longer period of life in those cases.

DIAGNOSIS.

The diagnosis of the one-sided variety was not difficult, for the paralysis with apparent shortening, dating from childhood, following convulsions and contractions, presented a picture which, as Rupprecht said, "once seen could never afterward be mistaken." The double hemiplegia offered more difficulties, as it had to be differentiated from a number of other morbid conditions.

THE PROGNOSIS

was not hopeless, although until a very late day the favorite method of treatment had been to allow the patient to outgrow the disease. Rilliet and Barthez considered that when improvement took place it was due to the fact that other portions of the brain took on the functions of the affected part, and a number of the cases mentioned in this paper improved while under observation.

TREATMENT.

In treating the contractions use might be made of passive exercise, central galvanization, faradization of the opposing muscles, cold douches, splints and other orthopedic apparatus, etc.

Dr. Charles Henry Brown presented two other patients illustrating the same disease:

Case I.—Boy, aged two years and seven months, whom he had been treating for seven months. The presentation was transverse and the labor long and difficult, the child being delivered by podalic version. When one month old its left arm was powerless, and at six months the leg of that side was in a like condition. Contractions then began in the arm. At fourteen months its sight and hearing became affected on this side. He did not speak until two years old, and then only a few words. The development of the affected side was fair, though at first there was atrophy. The flexor muscles were contracted, the thumb and fingers into the palm; the leg was thinner than its fellow, and when standing the heel could not touch the ground. Tendo reflex on this side exaggerated. He had epileptic attacks, was excitable and ungovernable. The treatment had been the application of the combined currents, from three to four times weekly, to the extensors of the upper and lower extremities, making each muscle respond well at every sitting. The reactions were normal. The improvement in the arm was remarkable, but the leg and foot had not done so well although they could be used.

Case II.—Girl, aged seven years, with double hemiplegia, was born by the breech, and the labor was prolonged and difficult. The late Dr. Hart thought the child dead, but his efforts at resuscitation were rewarded at the end of half an hour by seeing it begin to breathe. It did not cry for eight hours, but then did so incessantly. During the first two years it suffered from insomnia, only falling into a doze, from which the slightest noise would waken it. After birth all its muscles were relaxed, and continued so for two years. Contractions began early and grew worse rapidly, so that in a few months the hands, especially that of the right side, could not be opened. When first seen, about a month ago, she was tall, well developed, weighed about forty pounds and had a large head, the face presenting rather an idiotic expression, owing to the drooping of the chin and constant dribbling of the saliva; utterances were thick and hard to understand. In spite of this idiotic appearance she was bright, was a willing scholar, and read quite well. The hands and arms were flexed and adducted, the right more than the left. She could not stand, but when supported there was contraction of the adductors and flexors. The knees interfered and the feet interlocked, while the heel did not touch the ground. Choreic movements, when sitting, were noted, and when excited athetoid movements of the extremities. Sensation was good but no tendo-reflex could be elicited. She was emotional, easily unstrung, and sometimes cried for a long time. The right side was atrophied and gave a more feeble response to faradism than the left. She was unusually healthy, and slept well, with complete relaxation of all contractions and cessation of the choreic movements. Special senses were normal. A left antero-lateral curvature of the spinal column existed, for which she had worn a spinal jacket.

THE TREATMENT

had consisted in applying the combined currents, under which the improvement had been very decided. The dribbling of the saliva had decreased, and the mouth could be kept closed, both cheeks and hands moved better, and she could place her heel to the ground, and raise her head and arms. The choreic movements were less, and she had better control of the muscles generally.

THE POINTS OF INTEREST IN THESE CASES

were, first, the fact of their dating from birth and following difficult and prolonged labors, where the delivery was by the feet, which pointed strongly to meningeal hemorrhage as a cause of the difficulty; second, the late effects, contractions, etc., and the comparatively bright mental capacity of both children; third, the decided and satisfactory improvement in both under electrical treatment, and the encouragement it held out to us in similar cases.

Dr. Græme M. Hammond presented the following history: A boy, three years of age, had been perfectly well up to last summer. In June he fell down stairs, but apparently received no injury save a few bruises. A month later he fell backward from a chair, striking upon the head, and also during this month had an attack of cholera infantum. In August had a fit which lasted an hour, followed by three weeks of repeated spasms. The mouth, tongue, trunk muscles, and left arm were subject to convulsive movements for two weeks. The left eye was pulled to the extreme left, and the left testicle was much swollen. He held his urine and fæces well. The left arm and leg were paralyzed for five weeks, when he

became unable to stand, both limbs being too weak to support the weight of the body. There was complete loss of vision and inability to swallow for a time. Suffered from insomnia for three months, and when he did sleep it was only by burying the head in the pillow and resting upon the vertex, with the knees drawn up. There was no rigidity or retraction in the cervical region. The child is now apparently idiotic, deaf, acts as though in pain, and has from four to five epileptic attacks in the day and night. There is considerable loss of muscular power on the left side.

In this case there was without doubt a hemorrhage upon the surface of the brain, involving gradually the motor centres, first of the trunk and legs, and then progressively passing downward to the centres for the face.

Dr. S. M. Roberts related the history of several cases.

Case I.—Some years ago he had had an opportunity of making an autopsy upon a patient, a child, who, suffering from an attack of croupous pneumonia, suddenly died. He found a large clot covering the surface of the left hemisphere, which dissected up the pia mater and caused some laceration of brain tissue.

Case II.—Another, a boy, that he had seen at the age of three years, had had, the year before, convulsions lasting twelve hours, and followed by stupor. He was immediately afterward paralyzed on the left side. The use of the limbs was recovered, and he continued to improve for five or six months. He had talipes and slight contractions, but no wasting in the paralyzed parts. When three years of age he was suddenly convulsed and died, but no autopsy was allowed. In this case the hemiplegia was probably due to a cerebral clot.

Case III.—In another case, also a boy, seven years old, there was an attack of scarlet fever at two years, accompanied with very marked swelling of the glands. Five weeks after the subsidence of the fever he was noticed to be again feverish, and suddenly his whole body became stiff, and the right arm and leg "worked," the left angle of the mouth was elevated, and the face was pale. The next day there was no motion in the limbs, but consciousness had returned, and within a few weeks the mouth straightened and the limbs could be used. At the end of three months, recovery seemed complete, but the muscles on the paralyzed side were still weak. Four or five years after the first attack the child had petit-mal, did not fall but became frightened, the eyes stared, and the whole body trembled. He continued to have these attacks for five months, having from four to thirty fits in twenty-four hours. They were checked by the bromide of potassium.

The paralysis in this case was probably

A TYPICAL HEMIPLEGIA FOLLOWED BY CORTICAL EPILEPSY.

The patient recovered from the paralysis more perfectly than usual.

Case IV.—Another case, that of a girl, was said at eight months to have had measles and scarlet fever—the first being complicated with bronchitis. The child was convalescing nicely, but was found one morning paralyzed upon the right side. After this seizure she could make her wants known, played about and seemed quite well. The paralyzed side was anæsthetic. The paralysis in the leg improved a few weeks after the attack, but the grasping power in the hand was never regained. The face recovered entirely, but though she could be understood her speech always remained thick. The interesting feature in this case was that after the attack she had no rise in temperature, played and crept, dragging the paralyzed limb after her. She subsequently died of congenital heart defect, with symptoms pointing to cerebral hemorrhage. In the heart was found stenosis of the pulmonary artery, so that a lead pencil could hardly be passed in, and an opening in the septum between the ventricles. An

EMBOLUS

seemed probable in this case. In a case of phlebitis of the lower extremity ("Trans. of the London Path. Soc."), death was caused by an embolus in the brain, which gave rise to the query, How did it pass through the lungs? This was answered at the autopsy, however, by the discovery of a perforate foramen ovale through which the clot had passed.

Dr. C. A. von Ramdohr thought that where injuries to the fetal bones occurred during delivery it was due to either a contracted pelvis or to the application of the forceps above the superior strait before the head had had time to be properly moulded. If the forceps had to be applied it should not be until moulding had taken place, should be late rather than early, and the delivery should be performed as rapidly as possible.

The Chairman, referring to the etiology of intracranial hemorrhage in children, recalled a case of

MENINGEAL HEMORRHAGE FROM CONGENITAL PURPURA HEMORRHAGICA.

An infant, female, born at term after a long and difficult labor, requiring the use of the forceps, with vertex presentation, showed on the second day evidences of purpura, viz., hemorrhagic spots on the limbs, trunk, and head, bleeding from the vagina and bowels. The child was weak, anæmic, and suffered from frequent tetanic spasms. On the fourth day it developed a right hemiplegia, and next day died. No post-mortem. In speaking of prognosis he also related a case of a boy, now fourteen years old, who, at the age of four, had an attack of right hemiplegia, following convulsions. The attack was gradually recovered from, but whereas he was right-handed previous to the seizure, he was now left-handed, having accustomed himself to its use while still paralyzed. He was quite well and bright until the age of ten, when he received a severe fall, and became subsequently dull and epileptic.

Dr. McNutt presented a

LARYNX REMOVED FROM AN INFANTILE HEMIPLEGIC

who had had stridulous breathing with dyspnœa. It was of small size and showed a number of small growths composed of natural tissue, and supposed to be caused by the puckering of the mucous membrane from the arrested development. Little was the only author who made mention of this complication, and then only incidentally.

Dr. M. J. Roberts made some

REMARKS CONCERNING TREATMENT.

The main therapeutic indications, from the mechanical standpoint, were to sustain the patient in natural positions and to artificially direct (co-ordinate) his movements so as to encourage physiological activity. For a patient who was able to move all parts of the body, but unable to sit up or hold the head erect, or to co-ordinate any of his movements, Dr. Roberts had devised an apparatus which effectually supported the spine, maintained the head erect, overcame the flexions of the upper and lower extremities and directed their movements in normal paths. The apparatus was exceedingly light, not irksome to wear, did not interfere with the normal movements of the body, or excoriate the soft parts, was easily removed and reapplied, and possessed the merit of being inconspicuous. Dr. Roberts made brief comments on four patients suffering from infantile hemiplegia, photographs of whom he exhibited. Numerous photographs illustrating mechanical appliances devised by him for these patients were also shown, together with several novel instruments and appliances of general and special applicability.

Dr. William H. Porter presented a specimen showing a lesion of the lung which was probably due to syphilis, and which might be classed as a

SYPHILITIC INTERSTITIAL PNEUMONIA,

pulmonary syphilis of adults, or syphilitic phthisis. The lung showed cheesy nodules, large and small cavities, and was introduced on account of its bearing upon the approaching discussion upon phthisis.

The history of the case was given in full.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE DEATH OF DR. HERBERT DAVIES—SIR ANDREW CLARK AND THE TEMPERANCE QUESTION—DR. LAUDER BRUNTON ON GOOD FEEDING.

LONDON, January 1, 1885.

By the death of Dr. Herbert Davies the profession has lost one of its most honorable and upright members. His father, Dr. Thomas Davies, was physician to the London Hospital and introduced the stethoscope into British practice, having learned its use in Paris under Laennec himself. Dr. Herbert Davies succeeded to his father's practice in Finsbury, and like him became physician to the London Hospital, then, as now, the great East End hospital. Having the good fortune to obtain the assistant-physiciancy at an early age, he became full physician at a much younger age than is common, and, having served his twenty years as full physician, became consulting physician. During his tenure of office he lectured on materia medica and medicine successively. Former pupils well remember his annual clinical course on auscultation, carried on at a time when clinical instruction was far from being as full and complete as it now is. Dr. Davies took great pains over this annual course and brought to it much practical knowledge acquired in the Vienna school, which is also embodied in his work on the lungs and heart. He was educated at Cambridge where he became a fellow of his college, and his medical education was received at the London Hospital, and he also spent a considerable time in study on the continent. This was of course much less common then (1848) than now. Your readers will remember him as the originator of the plan of treating acute rheumatism by free blistering. He also worked out the law regulating the relative magnitudes of the areas of the four valvular orifices of the heart. His paper on this subject was first published in the "Proceedings of the Royal Society," and the law is frequently called after him "Davies' Law." He enjoyed the absolute confidence of his professional brethren and consequently the largest practice at the East End of London as a pure physician. As a distinguished Cambridge graduate, he was made a Fellow of the London College of Physicians very early in life, filled most of the offices in the College, and would no doubt have been president, but for that modesty which always led him to put others before himself. Kindly and gentle in manner, always overflowing with humor, his presence in the sick room was always welcome, and thousands will regret the cheerful countenance and encouraging words which never failed to inspire hope or elicit a smile.

The temperance journals are rather wroth with Sir Andrew Clark because, in a recent address before the Young Men's Christian Association, he partially unsaid some of his former statements. In his recent utterances, although as before decrying the use of alcohol by healthy persons, he said there were some people not in robust health who were enabled to get through their work more easily by the use of alcohol "in physiological quantities." Sir Andrew is now accused of contradicting his former utterances. As he is such a ready orator and never uses notes, some inconsistency may easily occur between speeches delivered at different times and under different circumstances. Moreover, Sir Andrew Clark does not profess to be a personal abstainer and temperance advocate like Dr. Richardson. In combating the evil of drink the teetotallers should be glad of the assistance of any one who will help them to "put the brake on."

Dr. Lauder Brunton's Lettsonian Lectures on "Disorders of Digestion" are likely to prove more amusing than instructive, if we are to judge by the first of the course. Dr. Brunton is so learned—and, let me whisper it, sometimes dry—a writer that it is somewhat surprising for him to come out in a new character. Christmas festivities have doubtless warmed his heart. He naïvely confessed that he had been partaking of the hospitality of a city company, and proceeded to sing a pæan in praise of modern dinners, the order of the courses adopted in which was, he said, "thoroughly physiological"—*i. e.*, soup and bread, fish, chicken, meat and vegetables, bread and cheese, dessert. A simple dinner is surely not one of six courses. Physiological teaching points to plainer living and will also be slow to endorse Dr. Brunton in the meed of praise awarded by him to alcohol in speaking of its use as an adjuvant to digestion. It is rather at variance with modern notions about the "physiological quantity" to hear of "the value of the preprandial sherry and bitters, of the sherry with soup, of the champagne with its effervescing carbonic acid, and of the small glass of liqueur or brandy, and the like!"

MEDICAL MATTERS IN NORTH CHINA.

(From an Occasional Correspondent.)

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: While reading my latest MEDICAL RECORD which, by the way, is nearly three months old, I am tempted to write you a few lines while I am waiting here at this old Chinese inn for my muleteer to feed his animals.

This is a little wayside village inn, just two hundred and forty li (or eighty miles) from Chefoo, the nearest point of civilization, and at which I am stopping for dinner while on my way westward to Wei Hien, about one hundred and twenty miles farther, to which place I go to open a hospital and dispensary under the P. B. F. M. I am travelling at the express rate of three miles per hour; think of that in comparison to the speed of the big-wheeled engine which draws the express to Philadelphia. My conveyance is the Shentze, a sort of litter between mules, with a matting cover for protection from the sun, which here has a peculiar effect upon the brain, often producing very serious complications, that is, to foreigners; the natives very generally go bare-headed, experiencing no evil effects whatever. This conveyance of mine, though very jolty, having the combination of a pepper-box and sieve motion, nevertheless is not a bad institution, protecting one from the elements and at the sane time allowing a variety of positions, even to that of lying down and taking a good snooze if so disposed.

So far I have been three days and a-half on the road, including Sunday, which I spent with some friends in a large city about twenty miles back, and from which I resumed my journey this morning. This large city I speak of, Hwang Hien, is in the centre of a rich and populous district, and besides being a very old city, dating perhaps a thousand years back, it is a very busy place, transacting an immense amount of business in raw silks, which it sends to the south to be woven; furs, leather, blacksmith's materials, some rhubarb, and many other articles. The city has about one hundred thousand inhabitants, is surrounded by two massive walls, the outer brick and the inner stone; over each gate is a watch tower, and on the parapeted walls places for cannon in time of war. However, there are no signs of belligerents about, and everything looks peaceful enough, unless it be the clumsily moulded old cannon lying near the gates, partially covered with dirt, which have no appearance of ever having been used. The houses are substantially built of stone and half-burned brick, and are some of them quite elegant, though but one story high. A two-story house is never built, for fear of the "Fung Swey" or "wind and water" spirits, which are always flying in straight lines in the air, and which are apt to knock their heads against anything too high! But as I would like to introduce you to my friend Dr. Le, who has a medicine-shop near the inn, I will cut short my description and take you there. Passing out the inn door, by a number of very dirty looking street

restaurants, bumping against carts loaded with goods from Western China, with their mule teams tandem, stepping aside from the huge wheelbarrows, heavily loaded, with a man pushing with all his might, at the same time yelling lustily to the little donkey hitched by a long rope to the front of it, and then, in spite of all our care, getting punched in the ribs or back by the poles of a shentze, or mule litter, the muleteer expecting each man to look out for himself, we soon arrive at Dr. Le's shop, which has glass doors, and is gotten up regardless in the Chinese eyes. Dr. Le, a fat, good-natured old fellow invites us to sit down very politely, asks how our family are from our grandfather down, offering us, perhaps, his own pipe for a smoke.

While the palaver is going on we take a look around and are surprised to see a number of foreign bottles, and still more suprised to find them filled with foreign medicine. Upon inquiry we find that Dr. Le is a Christian and studied under Dr. Brown of Chefoo, and is now settled here, using entirely foreign medicine, and is making more than a comfortable living, in fact, is making money in Chinese estimation. Chief of all he uses santonine, for nearly every Chinaman has lumbricoids in great number, besides he uses nearly all the commoner medicines, such as castor oil, all the forms of potash, cathartics, iron, mercury, etc., and though he does not use them with all the philosophy and precision that we do, nevertheless he does very well for the light knowledge that he has.

He does something in the surgical line, too, and takes great delight in showing us his minor operating case; then, too, he has a fine case of catheters, a hypodermic syringe, and last, but not least, two stomach-pumps, which show signs of having been very often used. In truth, the common way of committing suicide here is by eating a large dose of opium, and many a man has he pumped out. Not long ago a grateful father gave him a hundred taels for saving his son, which is about one hundred and thirty-three dollars. Men of this kind are doing a great deal to establish foreign medicine in this country upon a firm basis, and in this man's case, though his knowledge of medicine is very limited, yet he is creating far and wide a sentiment of respect for the medicine of the "foreign devils," as they call us, and though I am a "medical missionary," using my influence for the propagation of the gospel, I yet feel it is also my duty to work in the interest of our noble profession, in which is my heart, and to give this people all that I can both of medicine and surgery, in both of which their ignorance is dark as night. For instance, imagine a man bleeding to death from a small wound, through ignorance of knowing how to take up an artery; or a soldier, badly wounded, allowing a leg to drop off and the dry, dead bone protrude, because no one could or would dare to perform a simple amputation; or a man, or hundreds of them for that matter, suffer agony with a belly full of worms, because the right man did not come along and give him a dose of santonine. But I am afraid I have already trespassed upon your space by my gossipy letter. I hope some time in the future, if acceptable, to write you of the prevailing diseases here, Chinese medicine, methods of treatment, of which not a few are worth attention; besides I myself meet a number of cases which are both unique and interesting, and might interest your numerous readers who are so widely scattered over the face of the earth.

HORACE R. SMITH, A.M., M.D.

HWANG SAN KWAN, NORTH CHINA, October, 1884.

THE NEW YORK ORTHOPÆDIC SOCIETY.—This Society held its first meeting on Thursday evening, January 29th, at which a paper was read by Dr. A. B. Judson, on the "Management of the Abscesses of Hip Disease." This organization, consisting of all the active workers in the specialty, has bright promises for future usefulness. There is no doubt that it will be plentifully supplied with material.

CLINICAL NOTES ON INTESTINAL CATARRH AND DYSENTERY.

(From our Mexican Correspondent.)

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In Mexico and in all southern countries the transition from the cool temperature of winter to that of the hot summer is very rapid. Thus in the months of March and April we have in Texas and here sometimes hot days, which seem to be even more oppressive than those of midsummer. This sudden change produces in all persons, more or less, a disparity between the income and expenses of the body. The glands of the central part of the body secrete less and their secretions are less liquid, the mucus of the stomach and intestines becomes more concentrated and viscid. Since perspiration is necessary to maintain the normal temperature of the body, by means of the rapid evaporation of the surface, the lymphatics of the intestines are constantly working with all possible energy to carry the liquids contained within that tube to the blood, to be transferred to the integument. The epidermis by this means being macerated all the time, becomes softer and more disposed toward disorders, such as erythemas and eczemas, and the whole body more inclined to be affected by the sudden cooling off of the temperature, which very frequently takes place after sunset. In consequence of the rapid absorption and the simultaneous diminished muscular action of the intestinal tube, its movements become less energetic; its thickened contents are propelled slower, becoming harder all they time, as they proceed onward; the bile becomes thicker, and so does the mucus which is secreted by the mucous glands of the bile-ducts, thus causing stagnation and enlargement of that organ. Constipation—bilious colic, as it is termed by the country people, but which in reality is only a symptom of the catarrh of the intestine existing—and often dysentery emanate from this state of affairs and nearly all spring and summer give the physician a large share of work. The popular saying is, "the liver does not act." This is only partly correct. It really acts as well as it can under such circumstances, but it is impeded in expelling its products as rapidly as required. The stagnation of bile in the liver and the distention of the finer ramifications of the bile-ducts in consequence, lead easily to venous congestion of that organ and other affections which will be mentioned hereafter. I have no doubt that it is the primitive cause that nearly all persons who have lived for a length of time in a tropical or subtropical country, have a larger liver than those of a Northern latitude. The most frequent disorder following the above-described state of things, is intestinal and gastro-intestinal catarrh. These are the cases in which the old prescription—calomel or blue mass and quinine—has at all times achieved such brilliant triumphs; the two former, by their stimulating effect upon the nerves of secretion, increasing the products of the mucous glands and making them and the bile more liquid, the latter by increasing the muscular tonus of the intestinal tube. Unfortunately the remedy can only correct the disorder for the time being, but cannot prevent the same causes from reproducing the same effect. For this reason the only way for people to hold their own during the long and hot summers is to take mild purgatives from time to time. My favorite remedy is the salts of the thermal springs of Carlsbad, in doses of from four to six drachms, taken in the morning an hour or two before breakfast. This is a mild purgative and does not irritate the intestines, even if taken for a length of time. I must state here, although it is in contradiction to high authorities, such as Trousseau and others, that all drastic purgatives, such as aloës, gamboge, scammony, jalap, are injurious and make matters worse. The different so-called "antibilious" pills do more for a physician, to keep him busy than the disease proper would do. The popular belief is that a purgative should be taken

from time to time, and what is correct enough in one way is only made wrong by the wrong remedy. The irritation which these drastic substances produce upon the mucous membrane of the intestines is very often followed by more serious consequences, if taken repeatedly within a short time.

We then have to contend with chronic intestinal catarrh, stubborn habitual constipation (which these pills fail to overcome by that time), a low state of digestion, and often a still lower state of spirits in our patients. In many of these cases the salts of Carlsbad render excellent service; in others I obtained the best results by the administration of Bretonneau's belladonna pills. My prescription is somewhat different, however. I give one eighth grain of the extract of belladonna and of that of nux vomica twice daily, giving at the same time to my patients the direction to live entirely on liquid nourishment. My patients generally got along well under this simple treatment. Icterus I have but rarely observed in these cases, even where the liver was considerably increased in size, although, for obvious reasons, we might expect that symptom to present itself. One case of the most singular state of perversion of a distant plexus of nerves, in consequence of the above disorder, I had the opportunity to observe not long ago. A physician of this city was attacked by most violent pains in the bladder, which were so excruciating as to make it impossible for him to get one moment of rest. The attending physicians did everything within their power to obtain relief, but all in vain. Four days and four nights the patient had passed without one minute of sleep and almost mad with pain. Morphine, which had been administered to him, had produced the most alarming effect; instead of quieting, it had led to a maniacal state, with hallucinations, muscular excitement, etc. At this juncture the father of the sick gentleman came to request my attendance. I attended a consultation with the other physicians, and found, upon examining the patient, the pulse and temperature almost normal; the liver increased in size; the small intestine somewhat tender and distended by gases; the cæcum and colon also distended by gases, and containing some fecal masses; the urine free from albumen or anything abnormal, when examined by the microscope and by chemical tests. The sick gentleman was considerably emaciated; he had suffered for some months from constipation, malaise, and loss of appetite, and had frequently had recourse to purgatives. A convulsion took place during my presence, which passed in a short time, however. It was evident, to my judgment, that the nervous perversion was simply in consequence of a chronic catarrh of the intestines, in which the pain emanating from the splanchnic nerves had radiated in the direction of the hypogastric and vesical plexuses, thus causing, at a distance from the real seat of the disorder, and at a part which otherwise was in a perfectly normal state, the most violent symptoms. Blue mass and quinine had a most excellent effect in this case. About four hours later the pain had subsided, and the patient fell asleep without any further remedy, the fatigue of the nervous system predominating now over the nerves, that previously were in a state of perversion and excitement. I have often seen cases of intermittent neuralgia extending over a considerable area of the body but this was not a case of that order. The other physicians, suspecting it to be such, had given quinine in sufficient quantity to overcome it, had such been the case. In the clinics of Europe and the United States I do not recollect to have seen a case as above described, although I have seen a great many cases in which diseases of the uterus, ovaries, the bladder, etc., produced the most violent spasms of the stomach, with obstinate vomiting and other symptoms of a severe affection of the apparatus of digestion.

Dysentery.—One of the old and yet one of the highest authorities (Cullen), in speaking of this disease, expresses the opinion that it arises from the same causes which I mentioned above as leading, in the first instance, to intestinal catarrh. Cullen, in short, considers dysentery produced by constipation first, and mechanical irritation afterward. There is everything in favor of this view. I can say from my own observations that I have not seen any cases of dysentery here, or anywhere, which were not preceded by constipation. This disease occurs here almost at all times of the year, but its frequency increases with the advent of the hot weather. The hottest summers always have brought to me the largest number of cases, while the cooler ones showed comparatively few. For this same reason I think this disorder should not be classed among the diseases of infection, as some high authorities do.

Above I have enumerated the principal causes of intestinal catarrh, as they present themselves daily. I mentioned, besides, the well-known fact that people who have sojourned for a number of years in a tropical or subtropical country have the volume of the liver increased. This increase is not a hypertrophy or hyperplasia of that gland. Persons who were affected that way to such an extent as to be seriously inconvenienced by it, and whom I sent to Carlsbad, in order to take the waters of its famous springs, returned greatly improved, the organ having again attained almost its natural volume. I wish it to be understood that I say "almost," because there remained always a slight increase. This increase is the consequence of stagnation first, then venous congestion and dilatation of the finer ramifications of the bile-ducts and portal vein afterward. If there existed proliferation of the intercellular tissue or real hyperplasia, the cure at Carlsbad would hardly reduce the size of the organ to such an extent. Whenever the passage of the blood through the liver is impeded, hyperæmia of the mucous membrane of the intestines is the unavoidable consequence, and principally that of the rectum and colon, their veins being the most distant, having no valves, and being more exposed to pressure by solid contents. This alone would hardly produce dysentery as frequently as it occurs in this country; it is due in great part to the substances which form the principal alimentation of the large majority of the people. These consist of corn-cakes (tortillas), beans, and Cayenne pepper. To prepare the corn-cakes, the corn is ground on a flat stone by means of another stone, which is held between the hands of the tortillera (the woman that makes the cakes). This grinding is very imperfect, and leaves a great deal of substance upon which neither the gastric juice nor any other intestinal secretion can have any solvent power. A small part is digested, and most of it remains as ballast, as Liebig calls it in his "Letters on Chemistry." The beans are not quite as heavy a task, but they also leave a considerable proportion of undigested residue, which the intestines can move forward with some difficulty only. The substances are ingested mixed with sometimes an excessive quantity of Cayenne pepper, which, by its constant contact with the mucous membrane of the intestinal tube, acts as a powerful irritant. Under these circumstances it is easily comprehended why intestinal catarrh and dysentery are so frequent. I have made it a rule to inquire of my patients affected by dysentery whether they had eaten fruits to excess or in an unripe state, and have invariably received a negative answer. Trousseau, as my readers probably are aware, denies that eating fruits produces dysentery, and I have had sufficient opportunity of convincing myself of the correctness of his views. As to the epidemic of dysentery which befell the German army that fought the battles around Metz, and later besieged that fortress, the problem, whether it was a real epidemic or whether it was caused in the manner above stated, is not yet solved to my satisfaction. An army of nearly half a million of men making forced marches day after day under a hot sun, living on rough nourishment, perspiring heavily all the time, not having always water to drink, finding scarcely the time to

attend to that most important function, defecation, and with all this the fatigues of battles, patrol duty, etc., may well have a large proportion of its men affected by dysentery when all the conditions for its production are existing. The question still is, whether it was communicated from the sick to the healthy, whether its character was epidemical. I speak of catarrhalic dysentery and not of diphtheritic, the origin of which is unexplained to me, since a small proportion of cases always occurs with the many of the first-mentioned class. But even in these I have not seen the disease communicated to nurses or attendants.

Those I have had to attend to showed considerable destruction of mucous membrane, pieces of which were evacuated in a necrosed state. There was always considerable fever—a symptom much less prominent in the catarrhalic form—and prolonged ulceration. In managing cases of dysentery of any kind, I devote principally care to the thorough evacuation of the bowels, and if one purgative does not accomplish this, I repeat it the next day. My favorite remedy is the neutral solution of the citrate of magnesia (one ounce citric acid to six drachms magnesia) in eight ounces of water. To children above two years of age I give from two to four ounces of this solution. This acts thoroughly without irritating the intestines. Only when I am satisfied that the bowels are thoroughly evacuated do I administer opium or morphine. To small children, instead of this, I give a solution of hydrate of chloral by the mouth and by the rectum. Enemas of a solution of boracic acid with acetate of lead and opium tincture have often given me the most satisfactory results. In many cases I have resorted to the old remedy, the decoction of simaruba bark (one ounce in twelve ounces water), which is still one of the most valuable remedies in the treatment of this disorder. Blisters to the abdomen and cups or leeches I have never found any use for. I saw lately a case, however, in which a would-be physician had applied a blister nearly ten inches square to the surface of the abdomen, producing thereby the most violent tenesmus of the bladder, nephritis, and hæmaturia. I am glad to be able to say that the patient recovered—from the effects of this barbarous treatment first and from his dysentery afterward. It is hardly necessary to mention that the patient suffered severely before I succeeded in quieting matters.

The most serious and not very unfrequent consequence of dysentery, principally if prolonged so as to lead to deep ulceration, is the formation of abscess of the liver. All the cases of this most serious affection which have come under my treatment could be traced back to dysentery, with the exception of one, which was of traumatic origin, the person having fallen from a considerable height, breaking his arm at the same time. Frerichs, in his work on "Diseases of the Liver," gives quite a number of causes, which, according to his observations, produce abscess of the liver; but, as I stated above, those observed by me came in the wake of dysentery. The result has been fatal in all cases, except one, in which the continued use of the Carlsbad salts, together with repeated applications of leeches over the region of the liver, and afterward frictions with the ointment of iodide of mercury, led to a gradual absorption of the pus and the formation of a cicatrix, which now, after four years, can be felt. I have not been so fortunate as to find the opportunity to evacuate these abscesses by means of the trocar or the aspirator. I made an unsuccessful attempt to do so in one case; but the aspirator drew nothing except a few drops of very thick matter. The relatives of the patient did not permit the aspirator to be introduced at another point, and I learned shortly afterward that he had succumbed. My experience has been consequently most discouraging in this disease.

Monterey, Mexico, January 8, 1885. EDMUND GOLDMANN.

MEDICAL FEES.—A fee in the hand is worth two in the book.

POISONOUS PUMPKIN PIE—CHROME-YELLOW POISONING.

To the Editor of The Medical Record.

SIR: I was summoned recently to attend four persons of one family, who had been seized, without assignable cause, three or four hours after dinner, with nausea, vomiting, and in two cases, purgation. An analysis of the influences to which these persons and another member of the family had been severally subjected led me to infer that a pumpkin pie, partaken of at dinner, was the cause of the disturbances.

I was told that the pumpkin-paste of the pie was of an inordinately yellow color, but withal very insipid. I was thereby led to the further inference that some noxious substance had probably been used by the confectioner to give an appearance of richness to the dish.

The statements contained in the paragraph in the current issue of The Medical Record on chromate of lead as an adulterant appear to me to give considerable warrant to the belief that the cases mentioned above were cases of poisoning by that substance.

Your obedient servant,

C. PITFIELD MITCHELL.

22 East Thirty-fifth Street.

[The amount of chrome-yellow required to color pie would not be poisonous. The poison is more likely an aniline color. Lemon pies colored with this substance have caused toxic symptoms.—Ed.]

THE HEALTH BILL.

To the Editor of The Medical Record.

SIR: As a member of the Committee on Federal Legislation at the recent Conference of State Boards of Health, held in Washington, may I ask the favor of a few lines in order to reply to some objections brought forward by your correspondent, A. S. Carroll, M.D., in criticism of the bill reported by the above-named committee, and submitted to Congress by direction of the Conference.

The first objection raised is to the form of appointment, that is, by the President with confirmation by the Senate. To this it may be replied that there is no other way in which the members can obtain a national position. The General Government would not confer upon a body selected by the various State boards of health the national powers with which the proposed organization must be clothed. My own knowledge does not allow me to assert, as your correspondent seems to imply, that the State boards are so largely made up of politicians as to be unsafe material from which to construct an efficient central authority. There is very little in the work of a State board of health to invite the presence of the political schemer, and my own belief is, that the members of these boards throughout the country are the most trustworthy collection of sanitarians from which to select a national organization. They have the necessary training and experience.

The objection that the tenure of office is not limited, is not well taken. The members of State boards have definite terms of service, and would cease to be members of the National board whenever they failed of a reappointment upon the State board, so that there is little probability of any individual enjoying, for an unlimited term of years, "the potential profits of the proposed machinery," whatever this may mean.

Thirdly, it is suggested that some person not a sanitarian may become a member of the board, of the executive committee, or even be selected for the important position of executive officer. I will answer to this, that the first State board of health organized in this country—that of Massachusetts—has never felt the need of a statute protection against the lay faculty of educated common sense; rather it has been welcomed, and I am very certain that the board has profited thereby.

Its successive health officers have been physicians, and it has never occurred to the board to put in jeopardy important functions by any other selection; nor do I believe that a national board would have a less well-defined sense of the measures essential to self-preservation.

One word as to the composition of the committee that framed this bill: With one exception, the Hon. E. Brooks, of the State Board of Health of New York, the members were all physicians, now or formerly executive health officers in their respective States and cities, presumably jealous of their claims as medical officers of health, and yet I venture to assert that probably not one of them saw the necessity of inserting in the draft a provision, that none but competent persons should be appointed by the President or confirmed by the Senate; but all felt that men now safely trusted in their respective States with large powers for the protection of the public health would not of necessity fail in a wider sphere because their responsibilities had been honorably increased. While admitting the force of an objection to the size of the proposed board, the difficulties in the way of forming a truly representative board without direct State representation seem insurmountable; but, as the board as a whole meets but once a year, and has authority to bestow any power it will upon an executive committee of convenient size, the objection cannot, I think, outweigh very manifest advantages. Subject to annual election, the executive committee cannot properly be designated as either permanent or arbitrary.

A more careful reading of the bill will, I hope, convince your correspondent that there is the least possible provision for patronage of any sort.

The section providing for enforcement of rules, framed by the National Board, in States where no adequate quarantine regulations exist, was omitted in deference to grave doubts expressed by prominent lawyers as to the constitutionality of such a provision.

H. P. Walcott, M.D.,
State Board of Health L. and C., Massachusetts.

PURPURA HEMORRHAGICA.

To the Editor of The Medical Record.

Sir: In your issue of January 3d, page 9, appeared an article under the above title by Dr. J. H. Ziteke. I read with absorbing interest the article, believing as I do, that the heretofore rare disease is becoming more common in this country.

To Dr. Ziteke the thanks of those among us who do not believe in using alcohol, except when the indications are complete, are due.

According to Rigal and Cornil (quoted in Duhring's "Diseases of the Skin," 3d ed., page 363), purpura hemorrhagica is the result of debility following nervous exhaustion, the hemorrhage being due to irritation of the sympathetic nervous system, or upon diminished action of the vaso-motor centres.

Alcohol (Farquharson, "A Guide to Therapeutics and Materia Medica," page 130) paralyzes the sympathetic nervous system, and its chronic abuse causes nervous tremors and debility. An analysis of Dr. Ziteke's case, viewed in the light of the above authorities, would be as follows: Mr. Johnson M——, as a result of the continual abuse of alcoholic drinks, exhausted his nervous system; debility followed, and the sympathetic nervous system being continually irritated by the alcohol, purpura hemorrhagica ensued.

It is more than probable that every case of purpura hemorrhagica can be explained by this modern etiological view. Any disease which, during its course or toward its termination, produces nervous exhaustion and great debility becomes the predisposing cause, and should the sympathetic tract or the vaso-motor centres be irritated, both predisposing and exciting causes would be present to produce the disease. Thus we have it during the course of the severest forms of typhus fever, rubeola, and in the hemorrhagic form of variola, in all of which it proves invariably fatal. I have also met with the disease upon one occasion occurring as the sequela of a very severe form of typhoid fever, with protracted convalescence. This patient (upon reference to my journal) had the first premonitions of purpura hemorrhagica four and a half months after he was free from fever, and three from the time he first could be permitted, and indeed was able, to go out. He had the characteristic purpuric eruption upon his feet and legs, forearms and hands, and a few extravasations upon the left side of the chest over the ninth and eleventh ribs, and in a line with the axilla. These spots varied in size from that of a pin-head to that of a twenty-five cent piece. His gums were soft, very vascular, and although they would not bleed, could be made to do so by merely pressing upon them. He lost daily for a month about three ounces of pure arterial blood from his bowels. He finally, after a sickness of two and a half months, recovered. Toward the termination of fatal illnesses where the above causes are in operation the same disease is produced, *i.e.*, Bright's disease, pulmonary phthisis, syphilis, pernicious anæmia, etc.

Frerichs (Wood's Library of Standard Medical Authors, vol. i., page 147) has placed on record a case where it appeared toward the termination of acute atrophy of the liver; and again (vol. ii., page 64), where it appeared toward the end of acute fatty degeneration of the liver. A. Verneuil ("International Encyclopædia of Surgery," vol. i., page 318) has met with the disease following the course of hepatic disease, malaria, diabetes, scurvy, and leucocythæmia. Erichsen (vol. i., page 913) believes that the disease occurring in the course of scurvy, chronic jaundice, and albuminuria, is due to the *morbid state of the blood*, in consequence of which its coagulability is diminished or lost. But he is inclined to admit that the solid tissues of the body rather than the blood is at fault, and "that one element in the disease is certainly a want of proper contractility of the arteries."

Niemeyer (vol. ii., page 455,) says that the disease appears in healthy, robust subjects who indulge freely in spirituous liquors, and is due to the intense fluxionary hyperæmia. He further believes that the *nutrition of the walls of the blood-vessels* is at fault in the purpura of the severe exanthemata, scurvy, etc. In conclusion, I desire to say that should the etiological factor in purpura hemorrhagica prove to be nervous exhaustion, one cannot help, after reading Dr. J. Leonard Corning's book on "Brain Exhaustion," or his most admirable paper with the same title (*New York Medical Journal*, December 29, 1883, page 712), having the greatest hope in its remedial treatment by the fluid extract of coca.

Very sincerely yours,
T. W. Lauterborn, M.D.
243 Mulberry Street, Newark, N. J.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from January 18, 1885, to January 24, 1885.

Tremaine, W. S., Major and Surgeon. Granted leave of absence for one year on Surgeon's certificate of disability. S. O. 14, A. G. O., January 17, 1885.

Mans, Louis M., Captain and Assistant Surgeon. Granted leave of absence for two months on Surgeon's certificate of disability, with permission to leave the Division of the Missouri. S. O. 16, A. G. O., January 20, 1885.

Stephenson, William, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Omaha, Nebraska, and ordered to Fort Niobrara, Nebraska, for duty. S. O. 6, Department of the Platte, January 19, 1885.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 6 — New York, February 7, 1885 — Whole No. 744

Original Lectures.

VALEDICTORY ADDRESS

Delivered Before the New York Academy of Medicine, February 5, 1885.

By FORDYCE BARKER, M.D., LL.D. (Edin.),

retiring president.

Fellows of the Academy: In now closing my official relations with the Academy, it is both a pleasure and a duty to briefly recall the more prominent features in its history during the period of this connection. I will also venture to offer a few suggestions, derived from my long experience in this position, as to some points relating to its future growth, its increasing usefulness, and its influence on the profession. As I know you will be impatient for the intellectual feast which is to follow in the address of my successor to this Chair, I shall be as brief as is consistent with a clear statement of the points to which I think it desirable to ask your attention.

It has been my good fortune to hold this position when the profession were becoming more alive to the importance of this institution, and more and more ready to contribute material aid for its growth and support. At the same time, there was a new development of mental activity in the profession, not only in this city, but all over the world, as demonstrated by great and important discoveries in science, and a wonderful increase and valuable additions to medical literature.

As I have referred to these facts more in detail in former addresses before the Academy, I will not detain you now by further allusion to them. I will only briefly refer to a few of the most notable events connected with the Academy, during my administration.

First to be mentioned, is this new and commodious hall, which could not have been built except for the munificent donation of one noble benefactor, Dr. Abram DuBois, and the contribution to the full extent of their hard-earned means by many others. We are rapidly out-growing our new hall, and must soon have another, as our library is now nearly filled. As I learn from Mr. Browne, our excellent Assistant Librarian, the Academy had when this hall was built, in 1879, about nine thousand volumes; it now has about twenty-five thousand volumes and fifteen thousand pamphlets. Its circulating department has about six thousand volumes, which our Fellows can take out of the library for consultation at home. In our journal room, open as is the library, for all who may wish to read in our rooms, there are two hundred and twenty-five medical journals, in all languages in which there is to be found a medical literature.

The Academy is greatly indebted to Messrs. William Wood & Co., and D. Appleton & Co., for large donations of their new publications, and I believe, to some foreign and other American medical publishers. We gratefully acknowledge the generosity of these gifts, and we feel assured that they were made from entirely generous motives. But we may be permitted to express the conviction that both publishers and authors will find it a wise business policy to place a copy of every new medical work in our library, as it has been estimated by a competent authority that one copy of every new good book in this library will secure the sale of at least ten more. The library is visited not only by the profession of this city, but by medical men from all parts of the country who come to this great metropolis. They have seen in some medical journal a notice of a book, but have not remembered who were the publishers; in coming to our library they examine it to see if it is what they want.

The next notable event in the history of our Academy since I have held this position, is its absorption of another very important organization, the Journal Association, which, to quote from a former address, "not only added largely to our library, but also to our moral and intellectual power."

The truth of history demands that the fact should be mentioned that, nearly two years ago, the Academy passed through the segment of a cyclone, but, like a good steamship driven over a sand-bank near a lee-shore, with its engines temporarily disabled, it escaped being hogged, its seams were not opened; its barnacles have been scraped off, its bottom has been cleaned, and it has since gone on its voyage with favoring winds and fine weather.

All who are familiar with its past history and who are unbiased by personal feeling or prejudice, must agree that the Academy has more nearly approached its avowed aims and its high purposes during the past year than in any former one since it was founded. It has had a larger increase of prominent men, and of young men of promise, than in any previous year since that in which it was organized, with the exception of the year when the Journal Association came into it. More than four times as many papers have been offered to me than there have been sessions to listen to them—as these sessions had been promised to previous applicants, months before; very many of these papers have been withdrawn, and I have afterward seen them, not only in the medical journals of this city, but in the journals of Philadelphia and Boston. It is bare justice for me to add that I have generally found them to be of such merit that I greatly regretted that the Academy could not have had the credit of their first publication.

The papers which have been read at our meetings, have been characterized by careful preparation, thorough research, original and often valuable hints as to pathological explanations and therapeutical indications.

Our discussions have been of such excellence that I am quite certain that every one carries away from our meetings either new suggestions or new information, which amply compensate for the evening pased in this hall.

In a scientific body like this, all discussions should express the results of mature inquiry, and a clear and forcible statement of the reasons which have led to positive practice. In some papers, the novelty of opinions advocated and the original methods of practice proposed, whether medical or surgical, may be so exclusively a matter of individual experience that all discussion must be necessarily limited at first to inquiries and *à priori* objections, founded on anatomical, physiological, or pathological grounds. Papers of this class should be the subject of a most thorough and searching examination; for they may be either mischievous, and their effect for evil must be effectually exposed, or they may possess positive value, which should lead to prompt acceptance and adoption.

To secure such discussion as will represent the most advanced knowledge of the Academy on any special topic, I have recently adopted a plan first introduced by Dr. V. P. Gibney. Writers of papers have been requested to send to a few of those whom they knew to have given

special attention to the subject, the points which it would suggest for discussion, printed on a small slip of paper, and especially asking those who held different or opposing views to take part in the discussion. They thus have time to arrange and formulate their knowledge of opinions, and the time of those present at the meeting is not wearily wasted in listening to crude, profitless, and digressive talk.

The reports of the Treasurers of the Academy and of the Board of Trustees have already been before the Academy. While its financial condition is now better than ever before, there still remains much to do. A few weeks since a Committee of Ways and Means was appointed, of which Dr. Gouverneur M. Smith is the chairman, to solicit contributions to pay off our only debt, a mortgage of five thousand dollars. They have worked with great zeal and enthusiasm, the Fellows of the Academy have responded with self-sacrificing generosity; the necessary sum has not yet been wholly secured, but the prospect of soon accomplishing this is most encouraging. We particularly need money for preserving our library by book-binding. It will be remembered that last year a generous sum was given for this purpose by a lady, who has in many instances shown that she is a warm friend to the Academy, as she is conspicuous for her readiness to aid every good work by munificent support. Many of our Fellows have also most liberally added to the beauty of the library in this way, and have rendered great service in the preservation of our books in good condition, which otherwise would speedily deteriorate.

I have long contemplated offering some suggestions on the present occasion as to the wisdom of a change in our by-laws relative to the duties and functions of the sections. Only one of the sections, that of Obstetrics and Diseases of Women, has kept up an active organization, done excellent work, and made regular reports to the Academy since my official connection with it. Two or three only of the other sections have reported their organization by the election of a chairman and secretary; and this has been all. Two have appointed a Fellow to read an original paper before the Academy, one of which, a most valuable paper, was read before us. The other, I have never been able to get, and as four years have now passed since that time, I do not think it very probable that it ever will come before the Academy.

The founders of the Academy did not contemplate making these sections independent societies for special work, but as contributing aids to the high aims of the central power. I had proposed to suggest such a modification of Article XVII., Section 2, as would assign to the sections functions similar to those of the Academy of Medicine of Paris. But we have not the time now to consider the details of such a change, and I leave the matter for future consideration by the Academy and my honored successor.

Neither did the founders of the Academy intend to absorb or concentrate in itself all the scientific work of the profession in this city. The whole spirit of its high aims and purposes indicates that, on the contrary, they desired to stimulate and encourage such work in every feasible direction. I hope the time is not far distant when the Academy will be so well endowed, that it may offer to all such societies as the New York County Medical Society, the Pathological, the Obstetric, and the Surgical Societies, and the youngest of all, which has begun its career with excellent scientific work, the New York County Medical Association, a home for its meetings free from all expense.

Our standing committees have always faithfully discharged their important duties, with one exception, and that is the Committee on Medical Education, which has had little to do, and it has just done this and nothing more.

I may now be permitted to ask if the time has not come when it should be one of the most important and useful of all of our standing committees, in carrying out one of the objects of the Academy as declared in our constitution, "the elevation of the standard of medical education." How can this best be effected, is the question.

It seems to me that a way is now open for this committee to do effective work in this direction.

For years the medical profession in all parts of the country have been agitating the question of separating the licensing power to practise medicine from the teaching power.

It is a subject of great importance to the profession, to our medical schools, and equally so to the community. It must be met and settled in a way that will be most effective for good, but this cannot be done at once. There are two ways by which this can be accomplished, but each would require time.

One way involves the division of the profession into contending parties, each most zealous to carry its point, heated controversies, which always provoke personal feeling and personal antagonism, an appeal for action of societies, and a struggle for majority votes not only in medical societies, but in securing legislative action—all of which would undoubtedly affect injuriously our medical colleges and lower the profession in the estimation of the public. Any good secured would be at a great and unnecessary cost. The public cannot understand medical controversies, except from what appears on the surface. A "doctors' quarrel" seems to the non-medical community like a fight between drunken men in the dark. The late Mr. Charles Dickens once related to me a story which he had heard of how Sidney Smith convulsed with laughter a dinner company at Holland House, by his description of a duel between two doctors. The mode of warfare was croton-oil on the tips of their fingers, trying to rub each other's lips.

Now, this question is one which belongs to the domain of reason, and let us hope, for the honor of the profession, that hereafter it will be confined to the region of argument, and that in due time it will be settled to the satisfaction of all who are actuated by pure motives and a desire to secure the best results. At the last meeting of the Academy, some resolutions were offered, but by the courteous consent of my friends, the mover and seconder of the resolutions, they were laid on the table for future consideration. I therefore feel that I have now the floor, and venture to throw out a few suggestions as to the other method of meeting this question.

In order that the standpoint from which I look at this subject may be perfectly understood, I will briefly state a few propositions which seem to me common ground upon which we all stand, and from which we must start.

Where charters for medical colleges can be easily obtained from State Legislatures, it is a duty which the profession owes to the public, as well as to itself, to protect the community from ignorant, unprincipled practitioners of medicine, who not only swindle their victims, but jeopardize health, and often sacrifice human life.

This is a matter of great difficulty, where each State is an independent sovereignty as to all such laws—where there is no central power to control action—and where personal freedom of opinion and conduct is zealously guarded as to everything which does not interfere with the rights of others, as regards health and property.

The interests of the medical profession are so closely allied with the medical colleges, that what affects detrimentally the one must reciprocally injure the other.

The profession has a perfect right to supervise the methods and exercise a controlling influence over those who by law are permitted the privilege of giving a diploma, which is effectually a licence to practise medicine.

All wise legislation must be based on a thorough knowledge of all the conditions which demand special law; it cannot be evolved from the inner consciousness of any one who has only the spirit, the zeal, and the genius of reform, but must be derived from the accumulated wisdom and experience of the past.

Mere examinations by a special board, who have had no previous training in this direction, no personal acquaintance with the mental characteristics, the habits of study, or the personal conduct of the candidate, would be as unsafe a test for admission to the profession as any objection that can be urged as to the present system. Injustice would be done to some, while flippant readiness in reply, which can be easily attained by a quick, bright mind by a few weeks of cramming, without either solid acquirement or sound judgment, would always secure success.

The experience of all countries has demonstrated the wisdom and necessity of examination by and the assent of the teaching faculties.

But in all other countries, except this, there is an additional protection to the profession and the public by the concurrence of another power.

In the Edinburgh University, and in some other medical institutions of Great Britain, this is vested in a special Board of Examiners. In France, this is under the direct control of the Government. The Minister of Public Instruction has not only the power of granting or withholding the diploma, but in addition, even in this so called Republican Government, he has the power of retiring any professor whose teaching is not abreast of the times. In Germany also, while the methods vary in different universities and in different constituent parts of the Empire, it is yet under Government control, which I believe is always exercised wisely.

Now I offer the suggestion that a committee of judicious, wise, and unprejudiced medical men, which would represent the best interests of the profession, the medical colleges, and the public, could frame a law, with the aid of competent legal advisers, which would combine the two methods, in accordance with the spirit of our republican institutions and the sentiments of our epoch, and thus save the profession from unfortunate and heated controversies, and from crude, hasty, and ever-changing legislation.

Would not the demands of the most progressive members of the profession be satisfied if the Regents of the University were empowered by law to appoint the Committee on Education of the Academy of Medicine a supervisory board of examiners for the medical colleges of this city, whose duty should be to make an annual report, not only as to the examinations for diplomas, but other details as to the instruction and education of the student? This committee should be enlarged to the number of the principal departments of instruction, and should serve without pay; for there can be no doubt that the best men in the profession, who have the time, would esteem it a high honor to serve on such a committee.

For the medical colleges in other parts of the State, there would be no difficulty in devising a method by which the regents would appoint men for the board of supervisory examiners who would be most satisfactory to all.

None except those who are well acquainted with the facts, can appreciate the immense advance which the medical colleges of this city have made within the past quarter of a century, in teaching and increased facilities for acquiring a thorough education in all departments.

I have also great pleasure in referring to two other schools, the Polyclinic and the Post-Graduate Medical School and Hospital, which have been doing great work for the more thorough medical education of those who have diplomas, and thus necessarily for the "elevation of the profession," within the past three years. I do not believe that one in fifty of the profession of this city have the least conception of what these schools are doing. If I expressed in moderate terms my estimation of the importance and value of their work to the profession of the country, I should be regarded by many as either carried away by my enthusiasm or prompted by personal considerations—so I will only say, go and see for yourselves. Medical men who come to this city, and who always keep up their professional interest, should not fail to visit and see what clinical teaching and clinical opportunities are found here, with all the equipments for their utilization, and they will be well repaid for the time given up for this purpose. This system of special clinical improvement originated in Germany, and nine or ten years ago I seized an opportunity to visit the most prominent of the policlinics in that country. Undoubtedly they have greatly advanced within this time, but I assert that then none that I visited were, either in clinical advantages or clinical teaching, on a level with our own at the present time.

I take the liberty of suggesting that it would be a wise and politic move for the medical colleges of this city, the New York Polyclinic and the New York Post-Graduate Medical School and Hospital, to take the initiative and invite the Committee on Medical Education of the Academy of Medicine to visit these institutions, study their methods and their equipments, and report the result of their observations to the Academy at its annual meeting, in January, 1886.

It must be obvious to all that this great improvement in medical education, far beyond the elementary teaching of former times, implies a corresponding elevation, not merely in the level of the average of the profession, but a still greater growth in the higher standards of medical science and literature.

Thus the inquiry is naturally suggested, What is the future of this Academy, what is to be expected from it, and how is it to be placed on the high plane where it should stand in reference to the profession, not only of this city and of this country, but of the world? A wise forecast will early plan to secure a result which it desires to attain.

While our educational institutions are steadily improving their facilities for training the young men who are about to begin their career, and our policlinics and post-graduate schools are more thoroughly preparing them for the higher grades of the profession, such an organization as our Academy of Medicine—in the great metropolis of the country—should be an ultimate centre, at which all those who have been long enough at work to find out their individual vocation, should have every opportunity to carefully study all the literature of past ages, and make original investigations in every possible field of medical science which can add to its importance. All short of this will be just so far a failure of the true mission of the Academy.

Thus far, which is only a beginning, the Academy has done its duty in bringing together most of the best men of the profession, and making them acquainted with the special ability of each—in collecting a most creditable library for consultation, research, and circulation—and in stimulating and bringing out good literary scientific work.

What the Academy requires in the future is:

First.—A large fire-proof building, with ample room for a library containing all the medical literature of past and coming times, and including:

Second.—A large hall for its meetings, and others for smaller societies and committees.

Third.—A large room for a museum, illustrating physiological and pathological anthropology, and which should include a craniological series, a pathological series, and a series of sections and dissections, illustrating topographical human anatomy, and a comparative anatomy series.

Fourth.—An anthropometric laboratory, provided with the best means of measuring human bodies, the faculties, and everything cognate to these subjects, and which should include a set of psychometrical instruments, and everything pertaining to the series.

Fifth.—A lecture hall, connecting with the laboratory, and fully equipped with apparatus for lectures and demonstrations of all kinds.

Sixth.—It should also have a thoroughly educated and trained pathologist, who should, by means of an adequate

salary paid by the Academy, be able to superintend all the scientific work and report on the specimens furnished to him; and also a first-class mechanic, skilled in brass and glass work; and a good, practical phonographer.

This is a broad scheme, which will require a very large endowment, but it is my firm conviction that it only outlines the future of the Academy, even if it demands a million of dollars.

The liberality of New York is as boundless as its wealth when convinced of the worthiness of its object. But large wealth is subjected to perpetual annoyance from solicitations, and to criticism from those who have some pet end to promote, which they deem the most important above all others. This kind of discipline trains wealth to the exercise of discrimination and judgment, and besides it has its own convictions as to how its surplus can best be employed.

The position of the possessors or representatives of great wealth in this country is peculiar and anomalous, and the thinking men of this class, and there are many, perfectly comprehend this.

There is no reason to suppose that there will be any exception in this country to the general experience of the world in the past, which is, that those who have but little or no property will greatly outnumber those of large wealth. Here lies the peculiarity and anomaly of wealth with us. Heretofore, property has protected itself through its representatives by monopolizing or controlling the law-making and the law-administering power. With us the condition of affairs, if not actually reversed, has certainly been brought within the possibility, if not the calamity, of absolute reversal, inasmuch as through universal suffrage, untrammelled by conditions of property, and absolutely (in theory at least) free elections, the control of all law-making bodies, and the appointment of all law administrations, have come to be possible with those "who have not" rather than "to those who have."

Property or its representatives, and more especially the representatives of very large wealth, are therefore exposed to dangers in the future with us, through arbitrary or destructive legislation, which have not existed or do not now exist anywhere else. The possessors of great wealth, in virtue of their superior education and knowledge of the use of methods, may be able to guard themselves in the future as they have in the past, but this will turn on the fact whether the great majority of such have the clear perception of the future and the sagacity to avail themselves of the two strictly legitimate methods for protection open for adoption.

The first is to bring to the masses, in whom all political power rests, a full realization of the fact that nothing so undermines the property of a state, or so quickly impoverishes the people, through the arrest of industrial growth, as the impairment, or the menace of impairment, of the rights of property.

The second is the demonstration by the possessors of wealth, by liberal contributions to every object that can benefit humanity, relieve suffering, prolong and preserve human life, improve education, aid scientific investigation, and promote a higher development of art, that it is a greater boon to the masses than it is possible to secure by any other means, as the past history of the world illustrates.

We have abundant proof that this view has been adopted by many in this city.

The foundation of the Astor Library and the Cooper Institute, are a corroboration of this statement as regards the past. The splendid gift to the College of Physicians and Surgeons by Mr. W. H. Vanderbilt, the munificent endowment of the New York Cancer Hospital by Mr. John Jacob Astor, and the generous and liberal contribution of Mr. Andrew Carnegie for a pathological laboratory in the Bellevue Hospital Medical College, are recent evidences of the correctness of my assertion.

Such noble examples are sure to be emulated by many others in the future.

The wonderful growth and development of this country is unparalleled by anything in the history of the past, and it is certain to go on in even more rapid strides for years to come. Its educational and scientific institutions will be placed on a corresponding plane, as compared with other parts of the world, with its industrial, its financial, and its political relations.

There is another point worthy of remark: Men of wealth, in common with other men of intelligence, like those devoted to literature or science, have a desire to be remembered after death. They have a dread of having their names and the record of their lives pass into utter forgetfulness or oblivion. To avoid this, the resting-places of the dead are everywhere crowded with cenotaphs and memorials. This is strikingly manifested, in some parts of the country, by the most expensive monuments and mausoleums of modern times. They crowd each other in some of our cemeteries to such a degree, that they lose all their individuality in their multiplicity, and the names which they are intended to keep alive are forgotten in the observations as to the comparative merits of the architect or stone-cutter who has erected them. The only question asked is, "How much did it cost?" and the only suggestion is that of vulgar wealth. "Yet all here," to quote from quaint old Sir Thomas Browne, "are but Babel vanities. Time sadly overcometh all things, while her sister Oblivion reclineth somniferous, making puzzles of Titanic erections and turning old glories into dreams."

The only lasting monument a man can build is the reputation he makes during life, and the memory of the benefit which he has, in some form or other, conferred on those who live after him.

> "For the good dead through the ages,
> Lingering in historic pages,
> Ever gleam and grow immortal,
> Unconsumed by moth and rust."

From all these considerations, I feel justified in expressing the belief that the ideal of the future of the Academy which I have given will at no remote period prove to be history. I hope to live to see it well begun, and I have the strong conviction that some now present will see it in full accomplishment. Some man of wealth, fully comprehending the importance of this Academy, not merely to the profession, but still more to the public, will esteem it a privilege to have his name prefixed to our new hall, by furnishing the requisite sum to build it, and perfectly equip and support it. Others will contribute the necessary amount to give their names to each of the special museums that I have mentioned, and others will place their names on an alcove in the library.

I here crave indulgence for one remark, the only one personal to myself:

I trust this evening will end on my part all official connection with any medical societies. The remainder of my life, except the time necessary for bread-winning, will be devoted to putting on record the results of more than forty years of study, observation, and experience, with the hope that this may be of some value to the younger men of the profession, and to doing all in my power to urge forward that future of our Academy which I have anticipated.

I have but a few words to add, before introducing my successor.

Some years ago, when elected to a similar honor in another society, I remarked, "Scientific societies seem to be governed in their selection of office-bearers by one of two principles: One is to confer honor on those who by their contributions to literature and science have won a right to it; the other is to select such as will most efficiently perform the duties which pertain to the office."

In the election of my successor, the Academy has most happily combined both of these principles. His literary and scientific work have won for him an envi-

able fame and high distinction, equally in this country and in Europe. His ability as a presiding and executive officer has already been successfully tested by his former service as President of the New York County Medical Society, and of the Medical Society of the State of New York. Thus he begins his career with a prestige which is a promise of great success.

I now have the great pleasure of presenting to him the "loving cup," on which his name has already been engraved, and which is to be transmitted to his successors in turn. It is ornamented with the symbol of friendship and love, and the sentiment, "May peace and love be multiplied unto us."

I Some years ago, the phrase was very current in the political world, "Let us have peace." It is as wise a sentiment for the medical as the political world. I sincerely hope that my successor will never have to qualify this with the paradoxical appendix, "Let us have peace, even if we have to fight for it."

Original Articles.

ACUTE ATROPHIC PARALYSIS IN THE ADULT,[1]

With Report of Two Cases caused by Arsenical Poisoning.

By W. PAGE McINTOSH, M.D.,

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Acute anterior poliomyelitis is rather a rare disease in the adult, if one is to judge from the literature on the subject. I have had cause to be somewhat surprised in looking over the works on diseases of the nervous system to find so little said upon the subject. This is doubtless owing to the fact, as I have just observed, that the disease seldom occurs after childhood. The two cases which I shall endeavor to describe, are, I take it, somewhat unique, at least as to their causation.

Case I.—Jennie P. W——, female, aged twenty-seven years. Family history shows no neuropathic diathesis. Patient suffered some time ago with an attack of muscular rheumatism, otherwise health has been fair, suffers at times from melancholia; attempted suicide once previous to present illness. She has miscarried twice (violence), and has two living children, whose health is good, aged five and six respectively. Present illness dates three years back. She tells me that after eating a hearty supper she was about to retire for the night, when she was taken with burning pains in stomach, radiating over abdomen, uncontrollable vomiting, the vomited matter being of a greenish color at first, afterward mixed with blood. She suffered from great dryness of mouth and fauces, with intense thirst; also had diarrhœa, passing bloody stools; later she had profuse flooding (metrorrhagia). Suffered much during night, and on attempting to stand the next morning she found it impossible to do so, her legs, as she expresses it, "gave out and folded up under her." She was confined to her bed for three months, being for a long time unable to keep anything on her stomach, suffering great pain over her abdomen, diarrhœa, fever, bleeding at nose and uterus. Upon quizzing her she told me that she thought her husband, or the man with whom she was living, had poisoned her. She certainly, without any assistance, gave the symptoms of a typical case of acute arsenical poisoning.

When seen by me she presented the following symptoms: General appearance indicated fair state of nutrition, appetite good; sleeps fairly well; suffers with slight headache; temperature and pulse normal; suffered no pain except occasionally slight pain in knees; seems to have good use of hands and arms; legs very small as compared to body, muscles very much atrophied, right leg measures at ankle six and one-half inches; left, six inches; above knee, twelve and one-half inches and twelve inches respectively. Could flex leg upon thigh, but could not extend well; could not stand; in fact, could make no effort tending to upright position. When seated legs hung dangling down like a flail, muscles flabby, skin glazed and branny to feel. Entire absence of sole reflex, also of patella tendon reflex, foot extended and slightly turned in, tending to the deformity known as talipes varus; could not flex tarsus upon leg, the action of tibialis anticus and perineus tertius being in abeyance, as were other muscles in this region. Cutaneous sensibility not impaired. Tickling soles of feet could be felt, but caused no retraction of foot, feet and legs objectively cold. No reaction of muscles of leg or front of thigh to strong induced current. Slowly interrupted voltaic current produced degenerative reaction in calf muscles, also thigh, none in flexors of leg. Functions of bladder and rectum not interfered with; sexual appetite normal; catamenial flow regular.

Case II.—Fred. M——, German, aged twenty-two; admitted to City Hospital, March 30, 1884. Family history good. Patient had enjoyed excellent health up to time of present attack. When admitted to hospital he stated that he was taken suddenly with vomiting about twelve o'clock on the previous night, and continued vomiting and retching until morning. Denied having taken anything to cause above. He appeared very nervous and much exhausted, trembling all over. Complained of excruciating pain in stomach, headache, and great thirst. Suspecting arsenical poisoning, he was treated accordingly.

March 31st.—Headache; tongue badly swollen, dry, and fissured; eyelids puffy and itchy; face deeply red; bowels moved six or seven times; stools dysenteric in character, small in quantity, and very fetid; much straining and tenesmus; tender on pressure over abdomen, especially in epigastric region; no appetite; eyes very bright.

April 1st.—Rapidly losing flesh; paralysis of forearm and hand on both sides; tongue continues swollen, and is now covered with aphthous patches and small ulcers, as is also the inner side of cheek; scaly eczema on face; abdomen quite tender; still passes blood at stool.

April 5th.—Both legs paralyzed; from this to time of leaving almost entirely helpless; cannot extend hand or forearm, or use legs; mouth better; eczema disappearing; acknowledged taking five cents' worth (about a drachm) of arsenic, which he had bought to kill rats, with suicidal intent. Left hospital, April 14th.

I am indebted to my friend, Dr. Watkins, for notes on case while at City Hospital.

Patient came under my charge July 20, 1884. General condition at this time: Pulse, 100: temperature, 98⅘°; anæmic, complains of cold, anorexia, insomnia, and inability to use hands or feet; some pain in knees; no impairment of cutaneous sensibility; pupils equal; movements of eye-ball, vision, taste, smell, articulation, and swallowing normal; no trouble with bowels or bladder; can raise arm and flex at elbow; cannot close hand or flex fingers; tendon reflex absent at wrists on both sides; hand hangs perfectly limpid (wrist-drop); no reaction whatever to faradic current; slight reaction to slowly interrupted voltaic current; supinator longus acting best; forearm better than arm; legs very small from atrophy of muscles and adipose tissue; muscles soft and flabby; cutaneous sensibility slightly increased; skin reflex, very much exaggerated; can make no attempt to stand up; feet extended; ligaments of ankle-joint flaccid; slight voluntary motion, being able to flex tarsus just a little; cannot move toes; feet hang helplessly when he sits; tickling soles of feet excites skin reflex; sole reflex and patella tendon reflex absent on both sides; sexual reflex good.

No muscles in legs react to induced currents. Inter-

[1] Read before the Clinical Society, December 5, 1884.

rupted voltaic current from twenty-four cells causes some reaction in muscles of thigh and slight reaction in muscles of calf. *Reaction of degeneration.* The same current causes no reaction in anterior tibial group or peronei.

Patient under observation till September 1st. No perceptible improvement.

Etiology.—Sex and heredity seem to exert no influence. By far the most cases occur in childhood. Exposure to cold, injuries to back, exanthematous diseases, debility—all play their part. Loomis gives malarial poisoning as a cause, and from observations I have been able to make, I think arsenical poisoning may be enumerated among the causes. No authority that I have been able to consult mentions arsenic as a cause. Bartholow quotes Sklarek as having attempted to demonstrate that arsenic decidedly impairs sensibility, leaving the motor functions untouched. The same authority states that Ringer and Murrell found the observations of Sklarek to be incorrect, they having found the motor paralysis precede the sensory disturbances in the frog poisoned by arsenic. Hammond, Rosenthal, Bramwell, Charcot, and Buzzard do not mention arsenic. Leyden makes the following observations:

"Paralysis resulting from arsenical poisoning has been long observed. Leroy d'Estable reports several such cases. The paralysis generally affects the lower extremities, and is attended during its development with pain, tremor, and muscular weakness; occasionally the upper extremities are affected. As a rule, *motility* and *sensibility* suffer alike, though the former more extensively than the latter. The paralysis develops *slowly*, but cases are on record where it occurred rapidly following the external use of arsenical preparations. In addition to the paralysis there is frequently a burning pain and tremor affecting the extremities. The paralysis may exist for from four, six, to ten months. Anatomical investigations have failed to locate the lesion in arsenical paralysis, but the symptoms and distribution of the paralyses point to the existence of peripheral neuritis. Experiments on animals show that arsenic easily excites inflammation of the nerve-trunks, which may then extend to the spinal cord" (Leyden: "Clinic of Diseases of Spinal Cord," vol. ii., p. 296).

The paralyses here mentioned present no points of similarity to poliomyelitis; on the contrary, the slowness of their occurrence, the affection of sensibility alike with motility point to a wide difference; they are of service to us, however, in showing the power of arsenic to produce cord lesions.

Pathology.—Microscopical examination has, thus far, failed to decide whether acute poliomyelitis is an interstitial or parenchymatous inflammation; the weight of evidence is in favor of the latter.

It is essentially in the anterior horn of gray matter that the pathological changes occur, and has been described by Vulpian, L. Clarke, Charcot, Damaschino, and others. Buzzard quotes the following observations from these authorities:

"Under the microscope, at an early stage, areas of inflammation are found in the gray substance of the anterior horns, especially in the lumbar and cervical enlargements of the cord. In these areas of disintegration the substance is soft, friable, and interspersed with numerous granulation cells, the blood-vessels overcharged, and there is increase of connective tissue with its nuclei. The large multipolar ganglion cells have, in great part, entirely disappeared, whole groups having vanished, whilst of those that remain some are degenerated and atrophied, others undamaged. The nerve-fibres and axis cylinders within the areas of softening have also disappeared. The anterior horn, as a whole, appears wasted. There is often overgrowth of connective tissue, with wasting of nerve-fibres in antero-lateral column.

The anterior roots show signs of degenerative atrophy.

Observations made years after the attack show much firm connective tissue, thickened blood-vessels, together with large numbers of corpora amylacea. The muscles most seriously affected loose their transverse striæ, and are infiltrated with oil globules. The interstitial fibrous tissue in some fibres shows simple atrophy, in others is normal. In the young, bone growth is either arrested or else progresses exceedingly slowly.

Symptoms and Course.—In the infantile variety the trouble may begin in one of three ways: The child may retire in apparent good health. On awaking in the morning he can't walk. A group of muscles or a number may be paralyzed. Again, after one or several attacks of fever, with vomiting, thirst, delirium, convulsions, when these pass off he is found to be paralyzed. The third mode is when the trouble creeps on so insidiously that we are not aware of its presence till our attention is called to it by the deformities. We at times see children of some size thus deformed, and the parents can't tell how it began.

In the adult the "dominant unique exclusive symptom," as Charcot expresses it, is the trophic muscular lesion. The patient has probably suffered from traumatism, fever, or poisoning, which is followed by extremely rapid loss of power in the limbs. On testing the paralyzed muscles with electricity, we find that their faradic excitability is lost, or very much lowered. Duchenne was able to observe a case on third day of attack. On fifth day the electrical excitability was impaired, and was lost on seventh. Müller, who observed a case on first day of attack, found that the faradic muscular excitability still persisted when the nerves had lost theirs. On fourth day faradic excitability was lost for nerves, that of muscles on fifth and sixth. In paralysis of the lower extremities, the reflex from sole of foot is generally lost, as is patella reflex when muscles of front of thigh are affected. One or all of limbs may be affected. Duchenne found only five cases of general paralysis out of a total of sixty-two observed. Sensibility is generally not impaired. Functions of rectum and bladder not interfered with.

Differentiation.—When upper extremities are involved we find it necessary to differentiate from hypertrophic cervical pachymeningitis. This will cause paralysis with wasting, which very much resembles poliomyelitis. In the latter however, the process is rapid, and the highest degree of paralysis is reached at once. In pachymengitis the course is slow, occupying weeks, the condition getting progressively worse, the posterior roots being involved; there are also marked sensory disturbances, darting pains in extremities, with more or less cutaneous anæsthesia.

Injury to a mixed nerve will produce paralysis with wasting, and the nerve and muscle, when tested, will show the reaction of degeneration just as in poliomyelitis; but the lesion is found to be limited to the district of the nerve; cutaneous sensibility is also affected. A tumor pressing on anterior roots can only be told by its mode of onset.

So far as I am aware, no one has seen proper to draw the line between multiple neuritis and poliomyelitis. I have been so fortunate as to have a case of this trouble in the same ward with one of my cases of poliomyelitis, and I have been forcibly impressed with the similitude existing between the two affections. My esteemed friend and former teacher, Professor A. B. Arnold, has also been so kind as to furnish me with some data bearing upon multiple neuritis. "In this trouble we have motor paralysis, bilateral and symmetrical, implicating in the beginning either the upper or lower extremities." In the case I have under observation the lower extremities are paralyzed, the patient having no use of legs at all. The right leg was attacked two weeks later than left. The paralysis was preceded by pains in the limbs which continued; subsequent to the paralysis the pains are of a darting, shooting character, radiating in a centrifugal direction, also paræsthesia (sensation of formication, chilliness, and a feeling as if affected limbs were asleep), also

complains of a feeling as if water was running on skin, atrophy is rapidly developing in affected muscles, which show reaction of degeneration. The reflex tendon phenomena cannot be elicited, the skin reflexes arediminished; there appears at this time to be a hyperæsthetic condition of skin. I am led by the authority above quoted to believe that anæsthesia will supervene later, as will the trophic disturbances of skin, now beginning, into thickening pigmentation, and a glassy shiny hue. Cannot say if this patient had fever, but she says not. The mode of onset, sensory disturbances with later development of atrophy.

Prognosis.—Though not shortening life, the nature of the lesion—a destruction of ganglionic cells, with sequelæ—precludes idea of recovery.

Regression may, and does begin, but is very rarely complete. Reconstructive metamorphosis advances most rapidly in muscles which do not entirely lose their reaction to induced currents.

The power of responding to volitional impulses frequently returns long before the muscles will respond to the faradic current, as in one of the cases noted.

Treatment.—*Theories* are as thick as stars in night's diadem, *facts* as scarce as medical specifics. Absolute rest, light diet, counter-irritation, with constant current to increase warmth and nutrition of muscles. The faradic current probably does harm by increasing instead of lessening deformities.

CONTINUOUS TRACTION IN THE TREATMENT OF POTT'S DISEASE.

By JOHN F. RIDLON, A.M., M.D.,

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THE *Boston Medical and Surgical Journal*, vol. cxi., No. 1 (July 3, 1884), published an article on "Extension in the Treatment of Diseased Vertebræ," by Buckminster Brown, M.D. The principles advocated accorded with theories held by me for some time, but not put into practice from lack of the right case under the right circumstances. On July 16, 1884, the case presented.

Patient female, seven years old. Hereditary history good. Four months ago her neck began to grow stiff, and soon head began to droop forward. No complaint of pain, and no crying at night noticed. The condition increased. The general health remained fairly good.

Examination.—The chin rests on the sternum, and at times is steadied by the hands. Voluntary movement of the head is impossible. Attempted passive movement in any direction elicits an anxious look but no complaint of pain; and the head is found to be held absolutely rigid by muscular spasm. There is a sharp angular kyphos at the third cervical vertebra. No evidence of abscess. The patient was put in bed on July 19th, a Sayre's collar was applied, and from it a cord passing over a pulley at the head of the bed, which was elevated, and a ten-pound weight attached. It was soon found that the patient would slide up in bed till the straps from the collar struck the pulley and released the traction. A harness was then arranged, of webbing around the waist and over the shoulders, and passing to the foot of the bed, where it was fastened. The appetite was good and the sleep normal. From this time the case progressed favorably. The muscular spasm relaxed; the chin left the sternum and the kyphos diminished. By the end of six weeks, voluntary rotation and flexion were possible to a considerable degree when the patient was lying in bed.

By November 15th, four months from the beginning of treatment, the deformity was entirely reduced, and motion free in all directions when the head was supported. When support was removed, however, the head drooped forward, and the patient caught the chin in her hands and complained of the motion. A support was then applied consisting of a modification of the H. G. Davis brace. The upright pieces of steel, instead of stopping opposite the lower borders of the axillæ, were carried up along each side of the spine, carefully moulded to the surface, and up over the posterior surface of the head to the occiput. From here a strap was carried around the forehead, and another downward to form a chin support. The chin support was removed at meal times, and has recently been removed altogether. Up to the present time there has been no return of the deformity, and the possible voluntary motion has increased.

I have followed one other case, but with less satisfactory result. During the vacation of Dr. Newton M. Shaffer, I commenced the treatment of a similar case in a like way in his service at St. Luke's Hospital. The hereditary history was not clear, a brother having died of meningitis, and the case was complicated with an abscess. The case improved, however, but the kyphos could still be distinctly felt when Dr. Shaffer returned. He did not approve of the traction treatment, and I put the case in Dr. C. F. Taylor's spinal brace and chin piece, with Dr. Shaffer's ball-pivot joint. The kyphos has slightly increased in size, but the patient has no pain, and prefers the brace to traction in bed.

Observing these two cases, I have been led to believe that in certain cases traction, as in hip-joint disease, will relieve reflex muscular spasm and pain more quickly, and give a better result as to deformity, than will fixation alone.

CAUTION IN THE USE OF COCAINE.

By JAMES L. MINOR, M.D.,

NEW YORK.

DR. KNAPP, in the New York MEDICAL RECORD for December 13, 1884, first called attention to the precaution which should be observed in the use of the new anæsthetic. His reasons are based upon the symptoms presented by the two following cases:

CASE I.—Six minims of a four per cent. solution of cocaine were injected close to the posterior segment of the globe. Anæsthesia was complete and the operation successful, there being no disturbing element in the recovery. During the operation, however, it was noticed that the patient became pale.

CASE II.—Five minims of a three per cent. solution of cocaine were injected beneath a sebacious tumor of the lid. Anæsthesia was complete, and the somewhat laborious operation was satisfactorily completed; but, during the operation, the patient became as pale as a corpse, felt faint, asked repeatedly for drinks, and was covered with cold perspiration. All of these disagreeable features passed off in fifteen minutes. Dr. Knapp, while recognizing the safety of injecting larger quantities of cocaine in other parts of the body, suggests that the vascularity of the orbit may allow quicker entrance of fluids injected here into the general circulation than elsewhere, and will hereafter be more cautious in the use of cocaine about the eye—will use one or two minims, and feel his way. The New York MEDICAL RECORD for January 17, 1885, under the head of "Disagreeable Experiences with Cocaine," refers to numerous communications from correspondents, relating more or less disagreeable or alarming experiences with this drug—some of which appear in its columns. Dr. E. S. Peck, of New York, has had the same experience as Dr. Knapp in operating for squint, under cocaine, in the person of a young lad. A four per cent. solution was used, and during the operation, was noted "increasing pallor of the face, together with a profuse, beady perspiration." This was at first attributed to apprehension or pain, but as no pain was experienced, it is thought to have been due to the drug.

Dr. George T. Stevens, of New York, injected four minims of a three and a half per cent. solution of cocaine

over the course of the rectus internus, preparatory to advancement of this muscle, in the person of a very nervous man. The operation was performed without pain, and ten minutes later the patient had convulsions, difficult breathing, loss of consciousness, and a livid face. All of these symptoms passed off in half an hour, and nothing out of the way could be discovered by a careful examination of the man, farther than dilatation of the pupils ad maximum on the operated side. He refers to Dr. Knapp's observations, and suggests that the proximity of the orbit to the large nervous centres may, in part, account for the disagreeable symptoms.

Dr. E. C. River, of Denver, Col., reports the case of a man operated upon for strabismus under cocaine, where six drops of a four per cent. solution had been instilled into each eye. After completion of the operation the patient complained of nausea and a feeling of faintness, the face became pale, the hands cold, and the skin covered with cold perspiration, pulse 48. All of these symptoms passed off in a few minutes. The next day cocaine was used as before, without unpleasant effects. The patient said the distress previously experienced was due to the knowledge he had that he was being cut, though he had no pain. He had fainted on a former occasion while witnessing an operation.

The enthusiasm of success on the one hand, and the suspicion of novelty on the other, are two factors which greatly influence us in our estimates as to the value of all new remedies. Should the former outweigh the latter, prominence is quickly gained. A preponderance of the latter delays proper appreciation and recognition. Occasionally, however, they counterbalance, and correct opinions are then quickly gained; but usually this process of vacillation continues to make belief uncertain, long after the question should have been definitely settled.

The unusual success which has been accorded to cocaine has given it impetus enough to override much that has been said against it—and I would fain call attention to such effects as the above, which have been ascribed to cocaine, and ask if the suspicions pointing to this agent as the cause have not been as premature as they are unjust.

Few operators in minor surgery have failed to observe the train of symptoms narrated above during operations without an anæsthetic. Nay, more, the sight of instruments or of blood, or the mere description of an operation, will at times bring on the various stages of fainting, which may culminate in the patient's falling senseless to the floor in a state of syncope. And in another class of individuals—nervous and excitable—such surroundings will bring on hysterical phenomena, simulating as strongly serious disorders as they are in themselves harmless. Having shown that it is not necessary to go so far as cocaine for an explanation of phenomena which have been observed during its use, it will be superfluous to state that physiological research has failed to reveal such properties as have been attributed to it upon the operating table. That cocaine can be used about the orbit with comparative impunity, it will suffice to say that three cases of enucleation which I am familiar with have been performed at the New York Eye and Ear Infirmary under its influence, the amount of the drug used being about 3 jss. of a four per cent. solution in each instance. Two of these cases occurred in the practice of Dr. D. C. Cocks, the other in my own, where the house surgeon, Dr. L. P. Walker, operated, and Dr. Walker informs me that he has a second case. No untoward symptom was noted in either of these four cases.

The importance of cocaine can hardly be over-estimated, yet it has its limitations; and not an unimportant one is the mental impressions which grow from a knowledge of what is going on during an operation performed under its influence. Local anæsthesia does not necessarily bring mental quietude and self-control, and if these two latter conditions are absent, the imagination is apt to play an important role in any operation undertaken. Whether a prominent feature or not, the imagination must always be considered in operations performed without a general anæsthetic.

25 East Thirty-first Street,
January 29, 1885.

A CASE OF TRAUMATIC TETANUS,

Occurring in the Service of the Late Dr. Johnson Eliot, Children's Hospital, Washington, D. C.

By LOUIS KOLIPINSKI, Pharm. D., M.D.,

resident physician.

On August 26, 1883, B—— O'D——, white, seven years of age, was admitted to the Surgical Ward of Children's Hospital. He had been brought from his home in Georgetown. His previous history, as obtained from his parents, was substantially as follows: Two weeks before, the child was kicked by a horse. He was carried home insensible and medical aid summoned. The wound was sewn up and cold-water dressings applied. No difficulty in mastication existed. On the Monday and Tuesday preceding his entering the hospital he was allowed to play about the house, in the open air. On the night of Tuesday he complained of a stiff and sore feeling about the neck and jaws. Wednesday these symptoms had increased, but food could still be taken readily. Thursday the trismus was marked, deglutition difficult, and mastication impossible. The next day general tetanus appeared. Toward evening, and on Saturday and Sunday, tetanic spasms were frequent. He complained of heat at the top of the head and pain in the region of the stomach. After the jaws had become closed he received hardly any food or medicine, both on account of the difficulty of swallowing and of insufficient nursing.

The examination showed that the wound had extended on the left side of the face from an inch to the outside of the angle of the mouth, upward and inward to the inner canthus of the eye. Below cicatrization was complete, above the edges were raw and glazed. An ectropion was forming on the inner half of the lower lid. On removing a scab which covered the orifices left by a suture, a small quantity of pus escaped. There was a bony projection over the malo-zygomatic articulation of the size of a hazel-nut; the molar prominence was gone; fracture of the superior maxillary bone was not determined. The face bore the sardonic expression. The eyes were brilliant, the pupils contracted. Perspiration about the neck and head abundant. The trismus was marked, the abdominal muscles firmly contracted. The temperature the first evening (fifth day of the disease) was 101.3° F.; the pulse 140. While being carried into the ward he had a general convulsion. Restlessness increased toward night, and constant watching was necessary to prevent him rolling from off the bed. At intervals he would scream and speak of pain in the epigastric region and at the nape of the neck. The occiput was buried in the pillows, and the child frequently cried, "Lift my head up!"

The spasms were of variable intensity. Some were slight, others so severe that cyanosis, stoppage of respiration, and a hardly perceptible pulse alarmed the attendants. Once were they accompanied with priapism and the spasmodic ejection of urine; twice with involuntary evacuation of the bowels. The rule that the upper extremities remain free was not observed. The arms and hands were tonically contracted. The body never rested on head and heels alone, although the back was strongly arched forward and justified the title of opisthotonic to the seizures. The spasms did not decline in violence with the progress of the disease. The last that occurred (thirty-fourth day) was as severe as any.

The exciting causes of spasm were noticed in a few instances. They were: Inserting the nozzle of the syr-

inge; gagging from attempts at swallowing milk; efforts at clearing away the tenacious mucus in the pharynx. It was attempted to obviate this last cause by the prone position. The child was easiest on his back. The lower extremities were not, or but seldom, drawn up.

Perspiration, as before mentioned, was most marked about the head and neck, and was more or less abundant throughout. Copious diaphoresis occurred on the twenty-second, twenty-third, twenty-fourth, and twenty-fifth days, with an abundant crop of sudamina. There was no difficulty in urination. The catheter was never required. The urine had the sp. gr. 1.015. Reaction acid; sugar and albumen absent. The bowels were never constipated.

At the meeting of the Consulting Board, on the sixth day, facial paralysis of the left side was observed. It is fair to suppose from the nature of the injury that this was due to an ascending neuritis, as explained by E. Rose. The pulse and temperature were noted morning and evening. The record shows no evening rise on the 8th, 9th, 11th, 12th, 13th, 14th, 15th, 16th, 19th, 21st, 26th, 27th, 28th, 29th, 30th, 31st, and 35th days. The pulse was more frequent in the evening on the 6th, 9th, 10th, 11th, 12th, 26th, 29th, 30th, 32d, and 33d days.

The increase in the number of convulsions on the tenth day was coincident with the reduction in the quantity of the remedies to one-half; the next day on again resorting to the original dose the spasms declined in number. Treatment was begun by washing out the rectum and injecting ten grains of chloral and thirty grains of potassium bromide. Two doses of two drops each of a fluid extract of Calabar bean were administered subcutaneously. Ether was used on one occasion to mitigate the severity of a spasm. Thereafter the following, by enema, was used throughout: Chloral, gr. xv.; potassium bromide, gr. xx.; fld. ext. Calabar bean, 2 to 3 drops, and whiskey, fl. ℥ j. The quantity of the last was subsequently diminished to half. Milk, beef-tea, and whiskey, by the bowel, followed each medicinal enema. In the intervals of relaxation, and when awaking from the sleep produced by the remedies, milk in considerable quantities (fl. ℥ viij.–xvj.) was swallowed. He was fed with a spoon, using his fingers to separate the lips. Deglutition was slow and fatiguing. The boy was placed in a dark room and kept there till recovery was complete. Sleep was continuous for from three to six hours; the spasms usually occurring on awaking. On the sixteenth day symptoms like those of acute alcoholic delirium appeared, and continued more or less until the thirty-fourth. Morphia, and, after two days, extract of hyoscyamus were used, as the chloral and potassium bromide had lost their hypnotic effect. Convalescence was very rapid, the appetite becoming voracious. On the twenty-ninth day a blister was applied along the spine. It produced very transient hæmaturia. On the 6th of October he was sent into the general ward.

Feeding Infants on Cow's Milk.—Dr. B. Bornn. of Dominica, W. I., adds his testimony in favor of the excellent results that may be obtained by feeding infants on cow's milk. Two children in his own family have recently thriven with unexceptionable vigor upon this mode of nourishment. His plan, for this and other cases, was as follows: A good native cow, which had calved about three weeks previous, was procured, and the milk obtained from her alone was used for the consumption of the little fellows. She was stabled and properly cared for, and fed on guinea grass. Some days she was allowed to graze. The same person milked her twice daily, and the tin vessel in which the milk was received was kept scrupulously clean. A plain six-ounce flask with an ordinary nipple was used and also kept scrupulously clean. The milk was boiled as soon as it was taken from the cow, and a little salt and sugar added.

Progress of Medical Science.

The Alkaline Treatment of Diabetes.—Dr. Minkowski (*Archiv. für Experimentelle Pathologie*), says that large quantities of oxybutyric acid are sometimes present in the urine of diabetics, and the two cases in which the presence of this substance has been carefully noted died of coma. He suggests that the cause of death was the loss of alkali from the organism, due to the presence of the large quantity of acid. Walter has shown that the introduction of acids into the blood of herbivora causes symptoms like those of diabetes, especially the peculiar dyspnœa, but the same result was not obtained in carnivora, or in a man. But he has tried the effect of giving alkalies in a case of diabetic coma, by introducing a large quantity of sodium carbonate by the mouth and rectum. Although the patient ultimately died, he recovered consciousness, and expressed himself better. The *post mortem* examination was negative. The results of Minkowski's researches give additional support to the alkaline treatment of diabetes, which has enjoyed much repute. Le Nobel, in a recent paper says, that acetic, formic, and sulpho-cyanogen compounds, all of which may occur in the urine, give a red coloration with ferric chloride, which disappears on acidulation, but not on heating. This last characteristic is the only means of distinguishing these compounds from aceto-acetic acid, so that after obtaining the color reaction, the effect of heat must be tried, and wherever the color does not disappear, the presence of aceto-acetic acid must be regarded as doubtful.

Tuberculosis of the Uterus.—Dr. W. J. Jones, of Baltimore, calls attention to this condition, which, though comparatively rare, yet has not received that attention from gynecological authors to which it is entitled. The clinical diagnosis can be based upon a persistent leucorrhœal discharge and other symptoms which would point to uterine troubles; and in any patient of a tuberculous tendency, in which these symptoms are present, we should be led strongly to suspect an involvement of the genital organs. The diagnosis is often aided by the expulsion of caseous masses from the uterus. The author evidently agrees with Koch, for he considers the discovery of the bacilli in the secretions a sure means of diagnosis. In the event of such a case found during life, before the secondary involvement of the surrounding tissues has taken place, a knowledge of how to treat it will present itself for consideration. The authorities which he has examined upon that part of the subject have little or nothing to say. Good hygienic surroundings, tonics, and good food, and perhaps the use of iodoform topically, might at least keep the disease at bay, and thus prolong the patient's life.—*Medical News*, January 3, 1885.

Stretching of the Lingual Nerve for Neuralgia.—Mr. Clement Lucas operated recently, for the relief of extreme neuralgia of the tongue, by stretching the lingual or gustatory nerve (*British Medical Journal*). He pointed out what he believed to be an original observation: that if the tongue be seized by the tip and drawn forcibly out of the mouth and on one side, the lingual nerve of the opposite side is made to stand out as a firm band beneath the mucous membrane on the side of the tongue, where it can be readily felt and secured. The operation was performed as follows: a suture was placed through the tongue to the right of the septum, by means of which the organ was drawn forcibly out and to the left side. A sharp-pointed hook was then passed under the nerve to fix it. The mucous membrane was then divided over the nerve for about half an inch, so that it could be readily seen, and an aneurism-needle having been passed immediately under the nerve, the sharp hook was withdrawn. The nerve was in this way easily reached and stretched.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, February 7, 1885.

STREET FILTH AND THE IMPENDING EPIDEMIC.

HEALTH authorities all unite in urging cleanliness as the great preventive measure against cholera. While we believe that the cholera germ propagates itself in the human subject quite independently of filth, and that its control and suppression depend upon other means and methods than those which insure cleanliness, we are not disposed to lessen the force of the appeal for municipal and domestic sanitary cleansing. On the contrary, we shall urge this great primal duty upon our authorities and citizens, with all the arguments at our command. There are sources of air-pollution in our midst which do not receive all the attention which they ought, and we propose to point them out from time to time, and fix the responsibility for their continuance where it belongs.

First, and most obviously, are our filthy streets. Street filth is the most perfect compound of animal, vegetable, and mineral decomposable matters yet devised, consisting in varying proportions of animal excrements, hairs, epithelial scales, etc., and the pulverized waste and wear of the pavements. These substances are reduced to an impalpable powder, which pervades the atmosphere and penetrates the deepest recesses of our dwellings.

Every housekeeper is greatly astonished at the all-pervading nature of city dust. She never fails to find it covering, however often cleaned, the furniture of the parlor, the bedroom, the library, the wardrobe, the kitchen, and dining-room. We speak advisedly when we state that the sickness and death-rate of New York is immensely augmented by street filth. This dust is the carrier to our houses, and to our throats and lungs, of the germs of diphtheria and other low forms of disease, which require only warmth, moisture, and a proper soil to propagate with the greatest virulence. Is the street-dust nuisance a necessity? We answer emphatically, No! The citizens submit to it because they have always done so. They do not know, for they have never seen, the appearance of a street in New York "well and thoroughly cleaned," as the law requires. They speak with admiration of the clean streets of Paris and London, but at home they are contented with the filth and foul air in which they were born and bred. The first step in setting our house in order for a pestilence should be the sanitary cleaning of the streets. By this we mean that the streets shall, as the law demands, "be well and thoroughly cleaned, and at all times kept clean."

The responsibility for filthy streets rests primarily upon the Commissioners of Street Cleaning, and secondarily, upon the Board of Health. It is the duty of the former "to well and thoroughly clean the streets, and keep them at all times clean," and of the latter, as the guardian of the public health, to see to it that they are in proper sanitary condition. We do not hesitate to say that both parties are culpably guilty of neglect of a great and pressing public duty.

We are only too well aware of the chronic and stereotyped response which will come from the Commissioner, and his apologists, to this indictment. First, we shall be told that the streets are cleaner than formerly, and, second, if they are to be made cleaner more money will be required. To the first assertion we reply, *the streets are not clean.* We are not to be cajoled with the assertion that the streets are cleaner than when the police did the work. We contend that they are not "*well and thoroughly cleaned, and at all times kept clean*" as the law requires, nor as the public health demands. In regard to the second we say advisedly, and emphatically, the Commissioner has ample funds at his command, nor is he hampered by any second party. The great wants in his department are brains and energy. There is evidently a fatal lack of these two requisites to success. We speak after no little experience and inquiry, when we assert that the streets of New York can be well and thoroughly cleaned, and at all times kept clean, with the proper and intelligent outlay of the million of dollars spent by the present Commissioner.

One thing is certain, even the present functionary might surprise us by "well and thoroughly" cleaning the streets once in a year, with his million. What a spectacle New York would present if its streets were so clean that everywhere the pavements could be seen? How delightful it would be to walk along our avenues on a breezy day, and not be suffocated by clouds of dust? But the serious aspect of the case appears when we reflect that we are liable to pass through a cholera epidemic with this vast surface of filth undisturbed, except by the winds and the dust machines, which are to drive it into our dwellings. It is idle to expect anything better from the present department. As we have stated, there is neither ability nor energy equal to the task in the organization. Look at the clumsy and worthless machinery and methods now employed.

Once in a week, or a month, the inhabitants of most of the streets are smothered by clouds of dust raised by a gang of superannuated sweepers, or by an apparatus mounted on wheels and singularly well adapted to stir up the impalpable powder on the surface of the street and diffuse it through their dwellings. On the following day no other trace of the work of this sweeping, or dust machine is noticeable than the universal coating of household furniture and clothing with street filth. Such a burlesque upon street cleaning, as we witness it in the other great capitals of the world, is unpardonable, and should not be tolerated while an epidemic is staring us in the face. Meantime we hear no protest from the Board of Health against street filth, though the streets about headquarters are strikingly illustrative of the truth of the statements which we have made. Long familiarity with filth certainly begets indifference to its

existence, and it is to this cause we must ascribe the apathy of this body to one of the most patent nuisances in the city. It is probable that the only effectual method of bringing both our health and street cleaning officials to a sense of their duty is to summon them before the Grand Jury.

News of the Week.

The New York Orthopædic Society.—The first annual meeting of the recently organized Orthopædic Society was held on the evening of January 29th. There was a very good attendance of orthopædic and general surgeons, and much interest was manifested in the discussion of Dr. Judson's paper on "The Management of the Abscesses of Hip Disease." The following officers were elected to serve for the ensuing year: Dr. V. P. Gibney, President; Dr. A. B. Judson, Vice-President; Dr. T. L. Stedman, Secretary; Dr. W. T. Bull, Treasurer.

A National Bureau of Public Health.—There has been introduced in the United States Senate a bill providing for the creation under the Treasury Department of a Bureau of Public Health. The bill states that the chief officer of the Bureau shall be denominated the Commissioner of Public Health, and shall be under the general supervision of the Secretary of the Treasury. He shall be appointed by the President, by and with the advice and consent of the Senate, and shall hold his office for the term of five years, unless sooner removed by the President, upon reasons to be communicated by him to the Senate, and until his successor shall be appointed and confirmed. The Commissioner in question is to appoint seven Sanitary Superintendents and a Public Analyst.

The National Board of Health.—The report of the National Board of Health for 1884 was transmitted to Congress on February 2d. The report gives an outline of the movements of the several epidemics of Asiatic cholera which occurred in this country in 1832, 1849, 1854, 1866, and 1873, and calls particular attention to the dangers to which the country is exposed by the recent prevalence of the disease in Western Europe. The report says further, that in the absence of specific appropriations all investigations have been suspended and an appropriation of $43,000 is asked for such work. In addition to this it is earnestly recommended that an appropriation of $500,000 be made, to be expended in aid of State and local Boards of Health in preventing the introduction and spread of contagious or infectious diseases.

Dr. Gaillard.—We learn with profound regret of the death of Dr. Edwin Samuel Gaillard, the veteran medical journalist and editor, which occurred at his home in Ocean Beach, N. J., on February 2, 1885. Dr. Gaillard was born near Charleston, S. C., January 16, 1827. He was graduated from the University of South Carolina, at Columbia, in December, 1845, and from the South Carolina Medical College, at Charleston, with first honors, in March, 1854. In June of the same year he moved to Florida and took charge at once of a large practice, being made a member of the State Medical Society. Three years later he removed to New York, and after a few months' residence here he went abroad and remained for a year. In 1861 Dr. Gaillard joined the Confederate Army at Richmond, and he followed the fortunes of the South until the war closed. At the close of the war Dr. Gaillard practised his profession in Richmond for three years, afterward moving to Louisville, Ky. In 1861 Dr. Gaillard received the Fiske Fund prize, and in 1865 the prize of the Georgia Medical Association. A year later he founded the *Richmond Medical Journal*, which he moved to Louisville in 1868, publishing it under the title of the *Richmond and Louisville Medical Journal*. In 1874 he established the *American Medical Weekly*, having the year previously received from the University of North Carolina the degrees of A.M. and LL.D. A few years ago he removed his journal and residence to this city, where he published *Gaillard's Medical Journal*. Dr. Gaillard was a member of the various Louisville medical societies, was a correspondent of the Gynecological Society of Boston, the Louisville Obstetrical Society, an honorary member of the South Carolina Medical Association, and an honorary and corresponding member of the College of Physicians and Surgeons of Arkansas. Dr. Gaillard was elected President of the Richmond Academy of Medicine in 1867, President of the Medico-Chirurgical Society in 1868, and President of the American Mutual Benefit Association of Physicians in 1875. He was made Dean of the Louisville Medical College at its organization, and was also Dean of the Kentucky School of Medicine. Dr. Gaillard was twice married; first to a daughter of the Rev. Edward Thomas, of Charleston, who died leaving no children, and afterward, in 1865, to a daughter of Prof. C. B. Gibson, of the University of Maryland.

Adulterated Quinine.—Dr. Edson, of the Health Department, has been buying quinine at forty or fifty drug stores, and the chemist of the Sanitary Bureau has discovered adulteration in many of the samples thus obtained. In some cases fifty per cent. of the compound alleged to be pure quinine was made up of worthless stuff.

Dr. Burbank, United States Navy, died suddenly on January 31st, at Portsmouth, N. H., of heart disease.

In the Discharge of Duty.—Dr. Samuel W. Smith, Sanitary Inspector, New York City Board of Health, in charge of the pest-house, 557 West Thirty-second Street, caught typhus fever last week, and has been removed to Riverside Hospital.

Dr. Hans Powell, a veteran army surgeon, and a prominent member of the Grand Army of the Republic, died at his home in this city on January 24th. He was born in Dublin, Ireland, in 1842, and received his diploma from the College of Surgeons in that city in 1860.

The Medical Association of Georgia does not appear to have deeply intertwined itself into the life and thoughts of the Georgia doctors. Says the *Atlanta Medical and Surgical Journal*: "There are over two thousand physicians in Georgia to-day; a vast majority of that number could not tell you, if asked, whether there positively was a State Association or not, and fewer still could tell you who the President of the Association was and when the annual meetings were held."

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Seventy-ninth Annual Meeting, held in Albany, N. Y., February 3, 4, and 5, 1885.

FIRST DAY—TUESDAY, FEBRUARY 3D—MORNING SESSION.

THE Society convened at Geological Hall, and was called to order at ten o'clock by the President, DR. B. F. SHERMAN, of Ogdensburg.

Prayer was offered by REV. DR. J. LIVINGSTON REESE.

THE PRESIDENT read his inaugural address, at the close of which he appointed the following

COMMITTEES.

Business Committee.—Drs. J. V. Kendall, of Baldwinsville; Laurence Johnson, of New York; and L. E. Felton, of Potsdam.

Committee on Credentials.—Drs. Eugene Beach, of Gloversville; C. E. Willard, of Catskill; and L. M. Bennett, of Watkins.

INAUGURAL ADDRESS.

GENTLEMEN: In behalf of the Medical Society of the State of New York I welcome you to this, its seventy-ninth annual session.

I recognize before me many familiar faces, also some new ones, and am sorry to see that some of our former friends and co-workers are *conspicuous* by their absence; but earnestly hope and believe that, after a sober second thought, our brothers will return to the old home, the doors of which shall always be open to receive all true honest workers in science and searchers for the truth, however much we may differ in the matter of ethics.

I am not unmindful of the high honor conferred upon the presiding officer of this Society, nor of the responsibilities accompanying it. For the former I most sincerely thank you; for the latter I earnestly ask your forbearance and support, without which I shall be wholly inadequate to the duties before me. I have few suggestions to make, and little to say that will interest you.

The steady march of our honored profession toward the positive and real in science is marked, and in no place more so than in our own State. We live in an age of wonderful improvements, and our profession in all its branches has kept fully abreast with the age. One of its latest gifts to suffering humanity is the new anæsthetic, cocaine, which promises, in its relief of pain and suffering, to be second only to ether and chloroform, and to simplify many important as well as minor surgical operations. To make this (the largest and one of the oldest medical societies) what it should be, demands an earnest effort on the part of us all, and perhaps some change of programme.

We should have a better room in which to hold our meetings; one with more perfect acoustic properties as well as better ventilation, thereby enabling the audience to hear the speaker, and to remain quiet, during the several sessions.

As we represent a large constituency, and pay a fair proportion of the taxes, it is but just that we should have the use of a suitable room in the new Capitol, for one week in the year, in which to hold our meetings, and I advise measures to be taken to that end.

Too many members and delegates come here to serve two masters: to represent their county societies in this meeting, and at the same time to represent their local Masonic lodge, in the annual Masonic convention, or to see and study the white elephants of the city. The result is, they come into this meeting at unusual hours, in the middle of an interesting paper, or its discussion, which of necessity they do not understand, and soon leave with a mutter that "this is not a very interesting meeting," receiving no benefit themselves, and only disturbing others.

This is only to be corrected by every member and delegate feeling that *he* is a part of the Medical Society of the State of New York, and that this is *his* meeting, and *he* is responsible for the work done in it; for those of us who do not feel equal to preparing a scientific paper, can listen respectfully, and to advantage, to the reading of those presented by others; which, though a humble, is a very important, part of such gatherings.

Gentlemen who come here with carefully prepared papers, want at least a reasonable time in which to read them intelligibly, and not be obliged to crowd into five minutes what requires twenty; and then the members and delegates should be prepared and have plenty of time to discuss the same.

To do this we must have fewer papers or more time. The time can be lengthened by prolonging our sessions another day, or can be more effectively utilized by organizing sections, and devoting the afternoons to work in them.

That the discussions may be thorough, it is desirable that the title of the papers to be read, be in the hands of every member and delegate some weeks before the meeting.

There is no reason why the presiding officer should be taxed with the labor and responsibility of this printing and correspondence. I therefore advise that it be made the duty of the Secretary to issue these circulars, the expense of which to be paid by the Treasurer, with additional pay to the Secretary, who is now poorly paid for his services.

The coming International Medical Congress, to be held in Washington in 1887, should receive especial attention at this meeting, and measures taken to place this Society in the proper attitude to throw the weight of its influence in its favor, and to be properly represented.

A communication has been received from our elder sister, the Medical Society of New Jersey, which I herewith transmit to you. The importance of the subject, and courtesy to our sister society, demand that it receive attention at this meeting. The subject is a prescribed preparatory curriculum for all medical students, and is one of so much moment that the action of this Society should be taken advisedly. I therefore suggest that it be referred to a special committee, to report at our next annual meeting. We should once more memorialize Congress to furnish a fire-proof building for the preservation of the medical library and museum.

It must have been observed that the attendance upon, and interest in, the reading of the President's annual address, has yearly diminished. Even last year, when every one knew we were to have a scholarly and eloquent address, the attendance was small. In my opinion the time of the Society will generally be more profitably spent in scientific work. I therefore advise the amendment of Article II., Section 2, of the by-laws, in a way to receive but one address from the President, and that at the opening of the first day's session.

If my suggestions as to the duties of the Secretary are adopted, Section 4 of Article II. will also require amendment.

It is earnestly desired by your presiding officer, that whatever questions or debates may come before this Society during its several sessions, may be conducted by all parties in a spirit of candor and forbearance, due to all honest difference of opinion; remembering that the same object is sought by all—the elevation of the character and standing of the profession; and that the minority will not forget the first duty of all good citizens, to yield cheerfully to the opinion of the majority.

Since our last meeting some of our number have been taken from us by death, and while all are honorable and deeply mourned by us, two of the most eminent teachers and landmarks of the age have been taken—men whose

places it will be hard to fill—Willard Parker, of New York, and Samuel D. Gross, of Philadelphia.

On motion by Dr. Potter, of Buffalo, the President's address was referred to a committee of three, subsequently appointed and consisting of Drs. Potter, Squires, of Elmira, and Phelps, of Chateaugay.

COMMUNICATIONS FROM COUNTY MEDICAL SOCIETIES.

A communication from Erie County, approving of the establishing of a Board of State Medical Examiners, composed of men having no connection with any medical school, was received and ordered placed on file.

BIOGRAPHICAL SKETCHES.

Dr. Wesley M. Carpenter, of New York, presented biographical sketches of James R. Wood, M.D., LL.D., by Frederick S. Dennis, M.D.; of Willard Parker, M.D., LL.D., by William H. Draper, M.D.; of John Glover Adams, M.D., by Gouverneur M. Smith, M.D.; of Joel Foster, M.D., by Francis V. White, M.D.; all of which were referred to the Business Committee, and subsequently recommended for publication.

Dr. Carpenter also presented amendments which had been adopted by the Medical Society of the County of New York, which were referred to the Committee on By-laws; also the following resolution, which was referred to the same committee:

"*Resolved*, That any member neglecting to pay dues and assessments for two years shall forfeit his or her membership, provided he or she shall have received from the *Treasurer* one month's notice of his or her delinquency. Such member may be reinstated, upon the recommendation of the *Comitia Minora*, by the payment of his or her arrears."

He further presented the following communication from the *Comitia Minora* of the Medical Society of the County of New York:

"1. Are all practitioners of medicine required by the laws of this State to become members of some County Medical Society?

"2. How can membership in a County Medical Society be terminated?

"3. If membership can be terminated by resignation, must the resignation of a member be accepted by the Society in order to make it operative?"

A resolution from the Medical Society of the State of Nebraska, concerning

FOREIGN CORRESPONDENTS,

was read and referred to a special committee, composed of Drs. A. Jacobi, of New York, W. S. Ely, of Rochester, and W. H. Bailey, of Albany.

Dr. S. B. Ward, of Albany, of the Committee of Arrangements, introduced Dr. H. I. Bowditch, of Boston, honorary member, and the President invited him to a seat on the platform.

The President appointed Dr. W. H. Bailey, of Albany, to fill a vacancy on the Committee of Arrangements.

MEMBERS BY INVITATION.

Dr. S. B. Ward, of Albany, Chairman of the Committee on Arrangements, reported the following names: R. A. Witthaus, of Buffalo; John Gerni, of Auburn; S. A. Russell, E. A. Bartlett, John B. Stonehouse, N. B. La Moore, and W. G. Tucker, of Albany.

Dr. W. W. Potter, of Buffalo, then read a paper on

PELVIC ABSCESS,

in which he reported an acute case with remarks: Mrs. B——, aged thirty-eight, twice married, the mother of three children by first marriage. The prominent symptoms were nausea, vomiting, pain, pulse 100 to 120, increasing swelling detected by vaginal examination, chills, rigors, sense of fluctuation, etc. Aspiration was performed, and three pints of pus removed, the needle being introduced through the vaginal vault in the median line. A drainage-tube was inserted, the cavity washed out with a mercuric solution, the washing repeated several times a day afterward, first with the mercuric solution, 1 to 3,000, afterward with carbolic acid solution, and subsequently the cavity was injected with an emulsion of iodoform and starch. The following were regarded as the interesting features of the case: (1) rapidity with which such a large abscess formed in the non-pregnant state; (2) the corresponding rapidity with which it filled by granulation; (3) enormous quantity of pus evacuated at first; (4) injections of iodoform followed by such beneficial results. These points were discussed by the author of the paper until his allotted time expired.

Dr. Wylie, of New York, thought the abscess in this case was due to one of two causes: (1) hematocele; (2) septic material carried into the pelvic cavity through a salpingitis. He also thought the rapid recovery was due to the fact that only one suppurative cavity existed. The solution of the mercuric bichloride, 1 to 3,000, he regarded as too strong to be used as frequently as it should be where the fetor is great; the washing, instead of being once or twice a day, should be constantly, of the strength of from 1 to 5,000 to 1 to 10,000. Dr. Wylie preferred the method of treatment by abdominal section.

Dr. Ely, of Rochester, reported a case of "latent pelvic abscess," occurring in an unmarried girl, sixteen years of age. As there was no pointing, in accordance with consultation with Dr. E. M. Moore, a large trocar was introduced below the navel and brought out through Douglas' cul-de-sac, and three pints of pus were removed. Through the canula a drainage-tube was inserted, frequent washings practised, with simple warm water, and the patient recovered rapidly. The thorough drainage was the feature especially interesting in the case.

Dr. H. I. Bowditch, honorary member, of Boston, referred to a case of abscess occurring in a child two years old. It was treated by puncture of the abdomen and removal of a large quantity of pus. Pus reaccumulated, and then was done what Dr. Bowditch believed should not be shrunken from, as was generally the case—namely, the abdomen was opened and the cavity washed out thoroughly. He thought that the profession was as much afraid of opening the abdominal now as it was, thirty years ago, of opening the pleural cavity, an operation which, at present, is one of the most frequently performed by surgeons.

Dr. Baker, of Lockport, spoke of the use of continuous hot-water vaginal injections, suggested by Dr. Emmet, of New York, with the view of aborting the abscess.

Dr. Potter, in closing the discussion, remarked that most of the points brought out in the discussion had been considered in the unread portion of his paper.

Dr. David Webster, of New York, read a paper on

JEQUIRITY AS A REMEDY IN GRANULATED LIDS,

in which he spoke of the beneficial effects produced by the drug, but said it should be used only in cases in which considerable pannus existed, in solution not stronger than one-fourth of one per cent., making the application only once a day, and not repeating it after the characteristic inflammatory reaction began to show itself.

Dr. Roosa, of New York, spoke of the benefit following the guarded use of the remedy; and Dr. Pooley, of New York, spoke emphatically of the dangerous action of the drug; and Dr. Knapp, of New York, believed that the circle of the use of the jequirity solution was so restricted that it could be legitimately employed only in a very few cases.

Dr. Webster, in closing the discussion, thought the remedy should not be discarded because it was capable of doing damage, but that it should have a place in ocular therapeutics.

Dr. Daniel Lewis, of New York, read the

REPORT OF THE COMMITTEE ON LEGISLATION,

which mentioned the work done by the Committee in the way of checking obnoxious medical legislation, and

recommended that an act to the present law be introduced into the Legislature, asking for an amendment which would permit County Medical Societies to hold property not to exceed $50,000, and further providing that no member shall be assessed a sum greater than *five* dollars in any one year. The recommendation of the Committee was amended, making an exception of the County of New York, so that its medical society might be permitted to hold property to the amount of $100,000, and then adopted.

Dr. H. G. Piffard, of New York, from the Special Committee appointed at the last annual meeting to prepare a bill establishing

A STATE BOARD OF MEDICAL EXAMINERS,

read the proposed Act, which was ordered printed and made the special order for the evening session; Drs. Hopkins and Vanderveer dissenting to the report.

Dr. J. G. Curtis, of New York, from the

COMMITTEE ON EXPERIMENTAL MEDICINE,

reported that no bill had been introduced into the Legislature by the anti-vivisectionists during the last year, and also offered a resolution reaffirming the Society's adherence to the belief that experimentation on animals was essential to progress in medicine. Adopted.

Dr. E. V. Stoddard, of Rochester, Chairman of the

COMMITTEE ON HYGIENE,

read the annual report, which was accepted and ordered placed on file.

Dr. W. W. Potter, of Buffalo, Chairman of the

COMMITTEE ON PRIZE ESSAYS,

reported that no essay had been presented during the past year.

Dr. D. B. St. John Roosa, of New York, then read a paper on

THE REMOVAL OF THE CATARACTOUS CRYSTALLINE LENS IN ITS CAPSULE.

The removal of the crystalline lens in its capsule for the cure of cataract, as is well known by this learned body, is by no means a new operation. It is a favorite method of at least one of the distinguished ophthalmic surgeons of our time (Pagenstecher). If it can be safely performed, I think it perhaps offers the best means of curing senile cataract. When the lens is removed with its capsule, one of the evil consequences that frequently follows even a successful operation, when the envelope of the lens is divided with an instrument, is generally avoided. Of course I mean the formation of a web-like or thick neoplastic membrane. This membrane is frequently such an obstruction to vision that the patient requires a subsequent operation, not entirely without danger to the eye; and until this operation is performed, the patient is deprived of much of the benefit that comes from the removal of the lens. Indeed, in some cases the capsule which is left behind is situated in such a portion of the pupillary space, that even when no serious inflammation occurs, it of itself may prove a formidable obstruction to the entrance of rays of light. Much surgical ingenuity has been expended in performing such a division of the capsule as will cause it to roll out of the way. I am also aware that it has been lately taught that the operation for extraction of cataract should really be divided into two parts: first, the removal of the lens, and second, after the interval of a few weeks or months, upon the web of tissue formed by the cataract and the inflammatory process. The operation for cataract, when a secondary procedure must certainly follow it, however successful, becomes a long drawn out affair. This is especially intolerable for old persons, who have already waited through months or years of gradually failing vision for their cataract to be ripe.

An operation that will, in a given number of cases, sensibly diminish the proportion of those in which a secondary operation is required, will, I think, be a great boon to those who are blind from opacity of the crystalline lens. If, however, the operation for the removal of the lens in its capsule be so difficult a performance and dangerous, that the proportion of total losses of sight are increased, these things should weigh very heavily in the scale against it. For I doubt not that it is better that ninety patients out of a hundred should secure vision enough to go about alone, and to help themselves in the ordinary requirements of life, than that seventy-five should be able to read and write the finest characters, while the other twenty-five become totally blind. It seems to me that the operations for removal of the lens in its capsule that have been thus far proposed, have required so much more instrumental handling of the eye than is necessary in the ordinary operations, as to make them too dangerous for general adoption. The removal of the lens as a whole, in the operations that have thus far been proposed, is usually, if not always, accomplished by an instrument introduced *into* the eye.

Another defect in these operations, as it seems to me, is that it is accompanied by the operation for cutting off the iris. Now, if we can find an operation that will safely remove the lens in its capsule, without the introduction of an instrument into the eye, either to cut off a piece of the iris, or to scoop out the lens, I think we shall make an advance in ophthalmic surgery. I have performed in twenty-four cases what I think may be such an operation. I am not ready to claim that it is a substitute for the other methods in all cases of senile cataract, but I think in quite a large proportion it is a better operation than has yet been proposed. My method of removing the lens in its capsule is as follows:

First.—After inserting the speculum and holding the eye in the usual way with the fixation forceps, using a Graefe cataract knife, I make a large flap of the cornea, if possible, one involving one-half of its circumference, and entirely in that tissue. After transfixion, and when the section is about half completed, the back of the knife is deliberately turned so as to rest almost vertically upon the iris and crystalline lens, and some pressure is made with a view of rupturing the zonula, and dislocating the lens. The section is then finished.

Second.—The lens is then pressed out of the opening by pressing upon the lower lip of the wound, and upon the cornea, the lens being followed up in the usual manner. The pressure is made by two india-rubber spoons, used, of course, at the same time. I think the dread of too great pressure upon the cornea for the purpose of forcing out the lens is unduly great in the minds of those who have been accustomed to accompany all their operations for cataract with an iridectomy. Since I have begun to perform this operation, I have failed in a few instances to remove the lens without first dividing the capsule. That is to say, I have found that the pressure to be exerted was too great to admit of its being continued without pushing out at the same time the vitreous humor. I think that this was generally due to the fact that the corneal incision was too small. In a few others I have also been obliged to add to the operative division of the capsule an iridectomy. But of late, that is, since the first of October, I have not failed in any case to remove the lens in its capsule by the method described, when I have set out to do so. While writing this article, I have two patients in the Manhattan Eye and Ear Hospital, who have been within the last ten days successfully operated upon by this method. I think the use of cocaine, as a local anæsthetic, has assisted considerably in the successful performance of my operations. I do not now think that it is as dangerous an operation as the ordinary one. The vitreous humor is not so apt to escape as when the capsule is divided, and an iridectomy performed. To my mind the operation of iridectomy, to assist in the removal of a cataract, is a detraction from that which without it is a singularly brilliant surgical exploit.

It is generally claimed that it is of importance in assist-

ing the safe removal of the lens, and that it decreases the dangers of subsequent inflammation.

To say that the cutting off of a tissue so vascular, so richly supplied with nerves, and having such a perfect muscular system, is less dangerous than a moderate and momentary pressure by the lens upon its yielding structure, is to say something that has generally been accepted as true, but nevertheless I am disposed to question its correctness. I am persuaded that a return to the old method of operating when the iris was not cut, whether the capsule be divided by an instrument or not, would be a gain for ophthalmic surgery. If to this we may add, as I now think we can, a safe means of extracting the lens in its capsule, the best that we can hope for in the cure of cataract by operation will have been accomplished.

As is well known by the profession, it has been held, and I believe with good reason, that the removal of immature cataracts is attended with more danger to the eye than that of fully opaque ones. If my operation for removal of the lens in its capsule can be generally performed with success, the number of persons who can be relieved of impairment of vision will be somewhat increased, because unripe cataracts, and those going on to maturity very slowly, may be as safely removed as those that are completely opaque. Another advantage which may be claimed for this method is that the number of instruments introduced into the eye is cut down from the forceps, cystotome, and knife, to the knife alone.

The paper was discussed by Dr. Knapp, of New York; Dr. Webster, of New York; and Dr. Bendell, of Albany, and the discussion was closed by Dr. Roosa.

The following papers were

READ BY TITLE:

"Obituary Sketch of Dr. Coates, of Batavia," by Dr. W. W. Potter, of Buffalo; "Limitations in the Use of Cocaine," by Dr. C. R. Agnew, of New York.

The Society then adjourned to meet at 3 P.M.

AFTERNOON SESSION.

The Society was called to order at 3 P.M., by the President.

COMMITTEE OF NOMINATION.

The following were reported as the persons elected for the Committee of Nomination, by the meetings of the several Senatorial districts: *First District*—S. O. VanderPoel, of New York; *Second District*—E. F. Brush, of Westchester County; *Third District*—Herman Bendell, of Albany County; *Fourth District*—E. Beach, of Fulton County; *Fifth District*—I. N. Goff, of Madison County; *Sixth District*—I. C. Edson, of Broome County; *Seventh District*—F. M. Hamlin, of Cayuga County; *Eighth District*—F. J. Baker, of Niagara County; *Member appointed by the President*, Dr. W. W. Potter, of Buffalo.

DR. M. JOSIAH ROBERTS, of New York, read a paper on

ANATOMICAL GEOMETRY AND TOPONOMY: AN INTRODUCTION TO THE SCIENTIFIC STUDY OF DEFORMITIES.

The chief object was to demonstrate the range of normal articular mobility; this being established, the pathological deviations could be determined with a degree of accuracy which was susceptible of expression by mathematical formulæ. Descriptions of instruments of precision were then given, as the articular goniometer, the adjustable protractor, and the epiphedometer.

The paper was discussed by Dr. A. M. Phelps, of Chateaugay.

THE PRESIDENT, at the suggestion of Dr. William C. Wey, of Elmira, Chairman of the Committee on By-Laws, who was unable to attend the meeting, appointed

A TEMPORARY COMMITTEE ON BY-LAWS,

consisting of DR. H. G. PIFFARD, of New York, Chairman, and DR. W. S. ELY, of Rochester, in the place of DR. A. HUTCHINS, of Brooklyn, also absent. These gentlemen were to serve as committeemen with the Secretary, Dr. Wm. Manlius Smith, of Syracuse.

DR. T. H. POOLEY, of New York, then read a paper entitled

SOME OBSERVATIONS ON THE USE OF HYDROCHLORATE OF COCAINE,

with special reference to its local anæsthetic influence and its effect as a therapeutic agent in ophthalmic surgery. The methods employed had been instillations and injections into the lachrymal sac and duct.

To facilitate the examination of the eye and the treatment of its affections, it had certain advantages over atropine, but as a local anæsthetic, to precede the application of caustics, he had thus far not been pleased with the results. It had occurred to him that the drug might relieve the pain of acute glaucoma, although he had not tried it in this affection.

In conclusion Dr. Pooley referred to two observations recently made by Weber: (1) the production of a sensation of cold; (2) augmentation of the power of the external recti muscles; facts which may influence the therapeutic use of this drug.

The paper was discussed by DR. H. KNAPP, of New York, who referred first to the discovery of the anæsthetic effect of the alkali, and second, of the mode in which it produces its peculiar influence; the latter was accomplished through the agency of the sympathetic nervous system. There were no dilator fibres in the human iris, and whatever dilatation was caused was done through the blood-vessels acted upon by the sympathetic nerves. Dr. Mittendorf had pointed out that action was accomplished through the sensory nerves, but Dr. Knapp was not quite prepared to accept that view, although it seemed quite probable that both sets of nerves were affected by the alkali. It has no bad effect on the healing of wounds.

DR. DAVID WEBSTER, of New York, spoke of a case of acute glaucoma in which, at Dr. Agnew's suggestion, cocaine was used, and without effect. With regard to the effect on inflamed eyes, the anæsthesia was not so readily produced as under other circumstances. Concerning iridectomy, he had about made up his mind not to perform any more operations in cases in which the lens was transparent, because of the liability to injure the capsule and thus produce a traumatic cataract.

DR. SHERWELL, of Brooklyn, referred to a case of papilloma of the larynx, minor operations in the pharynx, and dilatation of anus for subsequent operation on a fissure. In all it was unsuccessful, except in producing anæsthesia of the mucous membrane of the pharynx.

The Chairman of the Committee of Arrangements introduced DR. F. K. PADDOCK, of Pittsfield, Mass., delegate from the Massachusetts Medical Society, who also spoke of the use of cocaine.

DR. POOLEY closed the discussion, in which he spoke of the impropriety of attempting to perform capital operations without the aid of general anæsthesia.

The Chairman of the Committee of Arrangements reported the following

MEMBERS BY INVITATION:

Drs. Robert Babcock, G. A. Bradbury, F. L. Classen, S. R. Morrow, John Thompson, Lorenzo Hale, O. D. Ball, P. J. Keegan, Martin J. Dwyer, D. Fleischman, J. D. Craig, T. P. Bailey, George Munson, J. M. Bigelow, Geo. E. Lyon, West Troy, W. C. Phillips and C. E. Bruce, of New York, G. A. Collamer, Toledo, O., and J. E. Winters, New York.

DR. WALLIAN, of Bloomingdale, then read a paper on

DIOXIDE OF HYDROGEN,

in which was shown its powers as a disinfectant and antiseptic, in a large variety of affections; in liquid solution of twelve volumes. It is a remedy which has too long been in obscurity. The paper was referred to the Committee on Publication.

Dr. W. S. Ely, of Rochester, then read

AN ABSTRACT OF A CASE OF CANCER OF THE LIVER, CHARACTERIZED BY A SERIES OF LOW TEMPERATURES.

Mrs. L. R——, aged sixty-two years, who gradually developed a cachexia with emaciation, attended by vague abdominal pain, loss of appetite, etc., and death. The case was interesting especially with reference to temperature. Six hundred and forty-nine observations were made, and four hundred and sixty showed temperature below normal. The highest was 104° F.; the lowest 91° F., on the one hundred and eighty-first day.

On the one hundred and ninety-sixth day the temperature was 91.5° F. The pulse bore no relation to the fluctuations of temperature. There was no evidence of collapse at any time, nor any chill, notwithstanding the low degree reached, which had been said, by some authorities, to be invariably fatal. The thermometer was used in the mouth in making these observations, and with all precautions to eliminate any possible error.

Dr. Hopkins, of Buffalo, asked concerning the quantity of urine passed and also food taken.

Dr. Ely replied that the urine was frequently below the average, but was negative, practically, on chemical examination, and the food consisted of broths, milk, and eggs.

Dr. Stoddard, of Rochester, directed attention to sub-normal temperature in chronic disease occurring as frequently as higher range in more acute disorders.

Dr. T. H. Squires, of Elmira, reported

A CASE OF TUBAL PREGNANCY,

in which rupture occurred. A large quantity of blood was removed by aspiration through the abdominal walls, followed by discharge through the vaginal wall from an opening made by a bistoury, also from the rectum, and the patient apparently nearly recovered, when unfavorable symptoms developed when abdominal section was performed, with the result of finding general adhesions which rendered the completion of the operation impossible; the wound was closed, and the patient again nearly recovered. but symptoms of blood-poisoning developed, and the patient died *nine* months and *four* days after the rupture of the fœtal sac. The case emphasized the importance of early diagnosis, so that those remedies, such as electricity, might be used for destroying the life of the embryo, which had been recently so successfully employed.

In the course of this case the patient's temperature was several times as low as 95° F., and, for a long time, was sub-normal one or two degrees.

Dr. L. E. Holt, of New York, read a paper entitled

DOES QUININE ABORT PNEUMONIA?

The author of the paper thought it was impossible to abort pneumonia with quinine, basing his conclusion upon observations made on children. Whether the same was true of adults he was not prepared to say. He explained the cases of apparent abortion of pneumonia on the ground that there was a malarial complication.

Dr. A. N. Bell, of New York, was sure that he had observed zymotic pneumonia; that is, pneumonia occurring with and influenced by what was considered ordinarily as malarial poisoning.

Dr. A. L. Loomis, of New York, referred to the relations which passive and active pulmonary hyperæmia sustained to pneumonia. He believed that the two conditions were decidedly different, and that, in children especially, passive hyperæmia might give rise to physical signs such as lead to the belief that there exists partial consolidation of the lung; whereas in active hyperæmia the physical signs are those of fluid in the bronchial tubes, perhaps a condition of beginning inflammation.

He did not believe that the passive result from malarial infection was likely to develop into pneumonia, unless there was something added to it.

He believed that acute lobar pneumonia was an infectious disease when it first strikes its blow; it will then pursue a certain course, and it was impossible to arrest it.

Again, there was a growing tendency, that there was a difference between the pneumonia of the present day and that met with ten or fifteen years ago. It seemed to him that all diseases met with at the present day were different from those which occurred ten or fifteen years ago. For example, diphtheria and cerebro-spinal meningitis, this number of years ago, were not common, and pneumonia was not regarded as a specially dangerous disease; but now these diseases were prevalent both in cities and in the country, and pneumonia seems to be taking on something of the same type; it is a different disease, and he did not believe that it was possible to avert pneumonia when once it had struck its blow.

The discussion was continued by Dr. Wallian, and by Dr. Starr, of Rochester.

The Society then adjourned to meet at 8 P.M.

Evening Session.

The Society was called to order at eight o'clock by the President, and the special order was taken up.

AN ACT TO ESTABLISH A BOARD OF MEDICAL EXAMINERS OF THE STATE OF NEW YORK.

Dr. Lewis, of New York, read the first section, and it was discussed with reference to the propriety of having one or two boards; Drs. Hopkins, of Buffalo, Vanderveer, of Albany, Roosa, of New York, Ely, of Rochester, Sturgis, of New York, opposing the establishing of two Boards of Examiners; Lewis, Knapp, Piffard, J. G. Curtis, and Jacobi, of New York favoring the same. The discussion also included the reasons why no provision had been made for examinations in anatomy, physiology, and chemistry, and this explained why six instead of nine members were named.

The first vote was on the question of recommending that there be two boards. Affirmative, 25; negative, 43. The vote was then taken on the question of six. Affirmative, 20; negative, 39.

The second section was read, and subjected to several amendments, chiefly with reference to the appointing power and to the duration of the Board, whether or not it should be elected annually.

The amendment offered by Dr. Kendall, of Baldwinsville, which proposed to substitute the Board of Regents for the Governor, was carried.

The amendment made by Dr. Ely, of Rochester, that the Board of Regents should appoint from nominations made by the three incorporated medical societies of the State, having been lost,

Dr. Jacobi, of New York, moved to reconsider the vote by which the Society directed that the bill be read by sections. Carried.

Dr. Piffard moved to reconsider all action taken on the bill. Affirmative, 52; negative, 4.

A motion to adjourn was lost.

Dr. Jacobi moved the adoption of the bill now before the Legislature, and read the same, which places the formation of the Board in the hands of the Regents of the University of the State, and the three incorporated medical societies of the State.

Dr. Vander Poel, of New York, moved that the bill be printed and made a special order for Wednesday afternoon, at three o'clock. Affirmative, 38; negative, 19.

The Society then adjourned to meet Wednesday morning.

Second Day—Wednesday, February 4th—Morning Session.

The Society was called to order at ten o'clock by the President, and prayer was offered by Alfred C. Post, M.D., LL.D., of New York.

Dr. Ward reported Drs. W. O. Stillman, B. U. Steenberg, and M. J. Lewi, of Albany, as

MEMBERS BY INVITATION.

Dr. C. H. Porter, of Albany, then read the annual

REPORT OF THE TREASURER,

which showed a balance in the treasury of $380.37. The report was accepted and referred to an Auditing Committee, consisting of Drs. S. H. Freeman, of Albany, D. F. Dayton, of Potsdam, and J. C. Spencer, of Watertown, which subsequently reported that they had examined the accounts and vouchers, and had found them correct.

Some discussion arose concerning the "Transactions," and the fact was made prominent that the County Medical Societies were "*expected and required*" "to purchase each year a number of copies of the Transactions equal to five times the number of delegates it is entitled to send to this Society."

MERRITT H. CASH PRIZE FUND.

Total, $695.89, on deposit, reported by Dr. Porter, Treasurer.

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS.

Dr. W. W. Potter, Chairman, reported that the place of holding the meetings could be safely intrusted to the Committee of Arrangements; that the division of the Society into sections for scientific work was at present inexpedient; that the business could be facilitated by the appointment of a committee of three by the President at the last session of each annual meeting, to which preparation of the programme for the next meeting could be referred; and that a circular be issued after the Executive Committee of the International Medical Congress had announced the ratio of representation from the societies entitled to send delegates, in order that the question might be clearly understood and the Society be able to take the steps necessary to secure the scientific, social, and official relations with that scientific organization to which this Society is entitled. The report was accepted and adopted.

Dr. A. C. Post, of New York, then read a paper

ON SENILE HYPERTROPHY OF THE PROSTATE,

in which he described the varieties of the affection, the pathology, the symptoms to which they gave rise, the methods of diagnosis, and the treatment. Special attention was directed to withdrawal of residual urine, once, twice, or more frequently, daily, by means of the catheter.

Dr. Post also exhibited a hard-rubber syringe which he had devised for washing out the bladder, "Post's vesical syringe."

The securing of a full size of the urethra anterior to the prostate is the most important point in treatment. If the solid catheter was used *great care* should be taken in instructing the patient how to use it properly.

In cases of large quantity of residual urine, it is not safe to withdraw all of it at the first use of the catheter. In cases in which it is very difficult to introduce the catheter, the instrument may be left in position for twenty-four or forty-eight hours. A large number of catheters were exhibited, which had been devised for overcoming the obstacles incident to local treatment, as false passages, excessive narrowing of the urethral canal, etc.

Dr. T. H. Squires, of Elmira, spoke of the treatment of prostatic retention, and he believed that in all cases, the bladder could be emptied without special skill. In most cases the soft catheter, or solid catheter of large size, can be used successfully, and in addition he would suggest gum-elastic catheters of large size and large curve.

Dr. Vanderveer, of Albany, thought that the catheter should be used from the development of the first symptoms. He preferred the silk-web catheter, and also the fountain syringe, filling the bladder to comfortable distention and allowing it to run out.

Dr. Knapp, of New York, said that cocaine had been used successfully, rendering catheterization substantially painless.

Dr. Lucien Howe, of Buffalo, gave a

DEMONSTRATION OF THE ELECTRIC LIGHT,

and spoke of its uses in surgery, and in examinations of the eye.

MEMBERS BY INVITATION.

Dr. W. H. Bailey, of Albany, announced the following: Drs. H. S. Case, J. J. Flint, J. H. Skillicorn, of Albany, J. D. Lomax, A. A. Roberts, and S. F. Rogers, of Rensselaer County, C. M. Lefler, of Fulton County, and C. M. Wilson, of St. Lawrence County.

Dr. F. M. Hamlin, of Auburn, then read a paper on

THE OPIUM HABIT,

which contained a careful *résumé* of what was known concerning this subject, together with his experimental experience in the use of the drug. Insanity seldom results from the habitual use of opium. He favored the sudden-reduction method of breaking the person of the habit.

Dr. William Hailes, of Albany, demonstrated the method of making

CULTURE EXPERIMENTS IN BACTERIA.

The culture-tubes were exhibited, of Koch, of Sternberg, which he preferred, and he described the method of introducing the materials to be examined, etc.

Dr. A. M. Phelps, of Chateaugay, made a brief communication, in which he described

A METHOD OF OPERATING FOR HARE-LIP, WHICH LEAVES THE SCAR IN THE MESIAN LINE AND MAKES AN ARTISTIC LIP.

It was admissible only in cases where one-fourth of the lip remained.

The Society then adjourned to meet at 3 P.M.

AFTERNOON SESSION.

The Society was called to order by the President, and the Society proceeded with the special order, namely, consideration of

AN ACT ENTITLED AN ACT TO ESTABLISH A BOARD OF MEDICAL EXAMINERS OF THE STATE OF NEW YORK.

Dr. Jacobi, of New York, who introduced the bill, stated that he had been informed that the Special Committee had arrived at a conclusion which had received the support of all its members. He, therefore, gave way for the supplementary report of the Special Committee, and

Dr. H. G. Piffard, of New York, made a statement, and asked for the passage of a resolution which instructed the Standing Committee on Legislation to prepare a bill covering the following points, and submit it to the Legislature as promptly as possible; to provide for *one* Board, consisting of *nine* members to be appointed by the Regents of the University, six from the Medical Society of the State of New York, *three* of whom shall be from incorporated medical colleges, and the other members from the two other incorporated medical societies of the State; that the Board shall be appointed annually, without disqualification for reappointment by reason of having served one or more years; that examination shall be on anatomy, physiology, and hygiene, chemistry, pathology, and practice of medicine, surgery, midwifery, and therapeutics; that the salary of each member of the Board shall be nine hundred dollars; that the examinations be conducted anonymously.

The resolution was adopted unanimously, and was followed by votes of thanks to the Special Committee, on motion by Drs. Sturgis and Jacobi, of New York.

REPORT ON COMMUNICATIONS FROM COUNTY MEDICAL SOCIETIES.

Dr. Piffard, Chairman of the Temporary Committee on By-Laws, reported progress on *two* communications received from the Medical Society of the County of New York, and approving of the amendments to the by-laws of that Society adopted at their last annual meeting.

The communication from Dr. Charles Jewett, of Kings County, was referred to the Committee on Legislation.

The report was accepted and adopted.

Dr. Charles H. Porter, of Albany, introduced a resolution recommending that the Committee on Legislation be instructed to have introduced into the Legislature

AN ACT TO PERMIT THE SOCIETY TO CONTROL ITS OWN MEMBERSHIP.

The resolution was unanimously adopted.

Dr. W. F. Mittendorf, of New York, read a paper on

GRANULAR LIDS,

in which he directed attention especially to the beneficial effects produced by the local use of balsam of copaiba, muriate of hydrastin, and tannin.

PAPERS BY TITLE.

By Dr. H. Jewett, of Canandaigua; Dr. F. P. Foster, of New York; Dr. P. F. Mundé, of New York; Dr. W. E. Bullard, of New York; Dr. W. B. Chase, of Brooklyn; Dr. J. S. Warren, of New York; Dr. O. D. Pomeroy, of New York; Dr. A. Jacobi, of New York; Dr. G. G. Monroe, of Crary's Mills; Dr. W. G. Tucker (biographical sketch of Dr. Jacob S. Mosher, of Albany); Dr. J. O. Roe, of Rochester.

Dr. Alfred Mercer, of Syracuse, reported

TWO CASES OF LIGATURE OF THE FEMORAL ARTERY.

The paper was discussed by Dr. A. C. Post, of New York.

Dr. F. N. Otis, of New York, gave a demonstration of the working of his

NEW INSTRUMENT FOR EVACUATING THE BLADDER IN LITHOLAPAXY.

Dr. Otis made an additional communication

ON STRICTURE OF THE URETHRA,

in which he referred to the ratio existing between the circumference of the penis and the calibre of the urethral canal, the size of the meatus, the observation that prostatic enlargement was associated with contracted orince, the reflex disturbances accompanying a narrow urethral orifice and apparently cured by restoring the meatus to the normal size, the important point that instruments used for dilating urethral strictures should not be introduced into the bladder unless associated with stricture posterior to the triangular ligament, that ninety per cent. of all strictures are anterior to the triangular ligament, and that *close* strictures in the deep portion of the urethra are spasmodic in character, and that when division of the stricture was *complete* the cure was permanent.

The paper was discussed by Dr. A. C. Post, of New York, who agreed with Dr. Otis in the statement that the first step to be taken was to clear up the strictures in the anterior part of the urethra in all cases, except when retention demanded immediate operative interference.

Dr. Vanderveer, of Albany, spoke favorably of Dr. Otis' new *evacuator*, and also agreed with him concerning the treatment of urethral stricture.

The paper was referred to the Committee on Publication.

Dr. A Jacobi, of New York, reported on the

COMMUNICATION FROM THE NEBRASKA STATE MEDICAL SOCIETY,

that the secretary be directed to inform Dr. R. R. Livingston, of Platsmouth, Neb., that he is the recognized and accredited representative in the Nebraska State Medical Society from this Society.

Dr. Jacobi also directed attention to the subject of

COLLECTIVE INVESTIGATION OF DISEASE

directed by the last International Medical Congress, and stated that the committee, consisting of Dr. N. S. Davis, of Chicago, and himself, would soon issue a circular concerning "Rickets," to which he hoped every member of the profession would respond, thus aiding in the collection of material for the coming Congress to be held at Washington.

Dr. Joseph E. Winters, of New York, read a paper on

MATERNAL AND INFANT NURSING,

in which wet-nursing was unconditionally condemned.

Dr. A. N. Bell, of New York, referred to statistics which substantiated the fact that the rate of mortality in infant life was least among those who have been nursed by the mothers.

Dr. W. S. Ely, of Rochester, did not believe that the rate of mortality was greater with healthy wet-nursing than with maternal nursing, and regarded the evidence as defective which had been adduced to support the view advanced by the author of the paper.

Dr. Townsend, of Albany, regarded wet-nursing a the only safe resource in very many cases.

Dr. A. Jacobi, of New York, regarded the paper as a sensational communication, in that it disagreed with what almost every authority on the subject had stated to be fact, and was based upon a number of anecdotes from history, etc. He believed that for infants mother's milk should rank first, nurse's milk second, and artificial food third.

Dr. Mittendorf, of New York, believed that the facts were against the conclusions reached by Dr. Winters.

Dr. Winters closed the discussion, stating that he had given the statistics from the institutions to which Dr. Mittendorf had referred, and that they sustained his views, and that, when his paper was published in full, it would be seen that it contained only attested facts, and therefore that it could not be called sensational unless facts were sensational.

The paper was referred to the Committee on Publication.

Dr. Wm. C. Jarvis, of New York, then demonstrated

A NEW METHOD OF ELECTRICAL ILLUMINATION OF THE THROAT,

by means of the Foster electric cell.

It was discussed by Dr. Goff, of Cazenovia.

The communication was referred to the Committee on Publication.

MEMBERS BY INVITATION.

F. B. Hough, Lewis County; W. W. Seymour, Rensselaer County; G. L. Ullman, F. D. Morrill, and J. W. Riley, of Albany; R. H. Sabin and W. B. Sabin, of West Troy; H. V. Hull, of Schenectady, and R. W. Warner, of Ilion.

Dr. Ward, of Albany, introduced a resolution asking for an appropriation of one hundred dollars for the use of the Committee on Legislation during the ensuing year. Adopted.

Dr. Vanderveer, of Albany, then read a paper on

TAIT'S OPERATION,

in which he described in detail the successive steps in the operation as he witnessed them during its performance. He then reported several cases and exhibited specimens removed by Mr. Tait. He also reported five cases of his own.

The paper was discussed by Dr. Baker, of Lockport; Dr. Phelps, of Chateaugay, and Dr. A. C. Post, of New York, the discussion being chiefly on the use of antiseptics in surgery.

The Society then adjourned to meet in the Assembly Chamber at eighto'clock.

EVENING SESSION.

The Society met in the Assembly Chamber, and was called to order by the Vice-President, DR. P. R. H. SAWYER, of Bedford, Westchester County.

THE PRESIDENT then delivered the annual address, taking for his subject

MEDICAL EVIDENCE.

An eminent writer [1] says, "A doctor who knows nothing of law and a lawyer who knows nothing of medicine are deficient in essential requirements of their professions."

The object of jurisprudence is the discovery of truth; and the whole range of science, physical and moral philosophy, medicine in its widest sense, everything which experience has established or can discover, are rendered subservient to justice. While there are no limits to the sources and objects of evidence, certain rules have been adopted which restrict its admission. These rules are rigid, and too numerous and complicated to be discussed here.

An expert is selected by the court, or the parties concerned, for his supposed special knowledge or skill in particular matters to which he is to testify, or make a report embodying his opinions.

I cannot better define the duties and requirements of the expert than to quote in full from Elwell:

"Extra knowledge on questions of science, skill, trade, business, or other matters requiring special knowledge, qualifies the person thus informed to give *opinions* in courts of justice. This is contrary to the general rule that the witness must confine himself to facts, and leave the conclusions of those facts to be determined by a court or jury under oath. An opinion is the judgment which the mind forms on any proposition, statement, theory, or event, the truth or falsehood of which is supported by a degree of evidence that renders it probable, but does not constitute absolute knowledge, truth, or certainty.

"These opinions or conclusions of judgment which make up such opinions of experts, are the same in substance as the verdict of a jury or judgment of a court, which is nothing more than the opinion of such jury or court as to what is established by the facts in the case. This conclusion or opinion, in the latter case, is given under the sanction of an oath; so is that of the expert. There is this difference, however, in the two cases. The court or jury is under oath while they are making up their opinions upon the facts in the case, and these facts upon which the opinion is predicated are also submitted to the minds of counsel and parties. The facts are also given by the common witness under oath, upon which the jury or court makes up an opinion. The expert, on the other hand, comes to the results constituting his opinion, which is to be received in evidence, from his own private study, observation, and reflection. He is not under oath when he weighs his facts, and however anxious he may be to arrive at correct conclusions, he is not under the significant and impressive obligation of an oath to do so; and though the facts upon which the witness' opinion is based may be called for by counsel, yet from the very nature of the case it is not to be expected that the jury or the court will understand them."

Importance of medical evidence.—No man, be he professional or layman, is properly qualified to appear as a witness without some knowledge of his duties, and the rights pertaining thereto.

The medical man, as a witness, is subjected to the most rigid criticism as to what he says, how he says it, and why he says it, and also to all the influences that may have a bearing upon it. This criticism comes not only from the opposing counsel, but also from the party by whom he is called, and he is thus placed, as it were, between two fires, from which he is fortunate if he escapes without being wounded, and especially so if he is an important witness.

Ignorance and deception may triumph in the sick-room, where it is not cross-examined, while in open court it can find no protection and must be exposed. The medical witness must understand the general rules of evidence, without which he is sure to meet with interruptions and chagrin, if not disgrace. No one should presume to enlighten the court and jury in a difficult case, unless he is able to do so. He may be compelled to attend court, like other witnesses, but no witness is compelled to testify to what he don't know, and if he is not qualified, the safe and honorable course is to acknowledge it.

Duties and responsibilities of medical witnesses.—While works on medical jurisprudence must be studied and analyzed, it is not in them that the medical witness will find the directions he needs to prepare him for the important duties of making up and giving opinions, that are to be received as facts, by the court and jury.

In a report made to the American Medical Association, the writer, in speaking of the medical witness, uses the following language: "If, however, he concludes to form an opinion and testify, there are certain rules and regulations which he should adopt, not only to give force to his testimony, but for his own protection.

"1. He should listen attentively to the testimony, as to all the facts in the case, and avail himself of every authentic means of forming a correct opinion.

"2. He should studiously guard against being biased, either by popular clamor, or because he is called by one side rather than the other.

"3. The medical witness is not to take into consideration the influence which his testimony may have on the prisoner at the bar, or the case under consideration.

"4. The expert is called to testify as to the bearing of the testimony given, and though he may have his own doubts of the truth of the testimony, yet, if it stands unimpeached, he must receive it as truth.

"5. A medical witness should not assume the province of the jury.

"6. The medical witness should have his mind fully prepared, before taking the stand, as to what he can testify to, and his reasons, if they are required."

The medical witness is rarely called upon to testify to facts, as gathered by the exercise of his senses; but to give the deductions drawn from the facts given by others. These facts may be new to him, and may be drawn from any part of the wide domain of science; yet he may be called upon to give an opinion, with no time for reflection, or for reference to authority; while counsel who manage the case have plenty of time to familiarize themselves with the authorities and with all the evidence bearing upon the case. The common witness has simply to state the facts within his personal knowledge, but the medical witness must know the facts first, constituting the case upon which his opinion is desired; he must apply to these facts his special knowledge, and from this reach a conclusion in his own mind, and give this opinion to the jury. He should never permit himself to be drawn into a discussion while upon the stand.

Before answering a hypothetical question the witness should weigh every word and see that there is no confusion or contradiction of terms or language, and then confine his answer closely to the supposed case. The courts require a hypothetical question to contain only facts that are in the case, and the expert says what they prove scientifically.

If the question involves an impossibility, as it sometimes does, the witness should decline to answer until a definite case is put.

A vote of thanks was tendered the President for his address, and the Society adjourned to meet in the banquet hall at the Delavan.

[1] David Paul Brown.

THIRD DAY—THURSDAY, FEBRUARY 5TH—MORNING SESSION.

The Society was called to order by THE PRESIDENT.

Prayer offered by DR. POST.

DR. POTTER, of Buffalo, Chairman of the Committee on the Inaugural Address, reported that they had received a communication from the New Jersey State Medical Society concerning the preliminary education of medical students. The report was accepted and referred to a Special Committee, consisting of Drs. S. O. Vander Poel, J. O. Roe, and A. M. Phelps.

The Committee on Publication recommended that County Medical Societies change the time of holding their annual meetings.

DR. STODDARD, of Rochester, moved that the County Societies be requested to hold their annual meetings in other than the first three months of the year, and that the volume be published in two parts: the first part consisting of proceedings and scientific papers, and the second of a list of members of County Societies, the membership of this Society, together with all laws affecting the medical profession. Adopted.

DR. KENDALL, of Baldwinsville, offered a resolution authorizing the President and Secretary to appoint delegates to the State Medical Societies, *ad interim*. Adopted.

A communication from Richmond County concerning the Code and State Board of Examiners, accepted and placed on file.

DR. WARD, of Albany, moved a vote of thanks to the Agricultural Society for the use of their hall. Carried.

DR. POTTER, of Buffalo, offered a resolution requesting the Committee of Arrangements to arrange with railroads, as far as possible, for reduced rates to members attending the annual meetings. Adopted.

DR. VANDER POEL, of New York, addressed the Society on the question

WILL QUARANTINE PROTECT AGAINST CHOLERA?

The disease had spread from Mecca because of the opposition to quarantine made by England. Germs of cholera may lie dormant for a long time, which explains the apparent spontaneous development. Quarantine is practically useless. Prevention of the spread of cholera depends upon local hygiene in all its details. Thorough medical inspection of persons and clothing before going on shipboard, also while on board, observing disinfection and cleanliness, and on arrival, absolute isolation of the well passengers in a building of observation and daily inspection, and removal of sick to the Cholera Hospital. Detention without symptoms for ten days at New York, Philadelphia, New Orleans, or Baltimore, is sufficient to prevent the spread of cholera in this country. Action should be taken at once, and without a moment of delay.

DRS. POST, of New York, and BOWDITCH, of Boston, also discussed the subject.

DR. WARD, of Albany, offered a resolution, that it is the sense of this Society that the United States Government should take steps to enforce sanitary measures at foreign ports where cholera exists, and that the resolution be forwarded to the President of the United States, accompanied by the remarks made by Dr. Vander Poel. Adopted.

Papers were read by title from Drs. Tuttle, of Poughkeepsie; Hopkins, of Brooklyn; Swinburn, of Albany; Parker, of Poughkeepsie; Sturgis, of New York; Howe, of Buffalo; Chapin, of New York; and Jacobi, of New York.

The report from the delegates to the International Congress was accepted and referred.

DR. LOW, of Oswego, read a paper on

CRANIOTOMY AND ABDOMINAL DRAINAGE,

which was discussed by Drs. Vanderveer, of Albany, and Post, of New York.

DR. W. W. POTTER, of Buffalo, Chairman of the

COMMITTEE OF NOMINATION,

made the following report:

President—Albert Vanderveer, of Albany.

Vice President—Alfred C. Post, of New York.

Secretary—William Manlius Smith, of Syracuse.

Treasurer—Charles H. Porter, of Albany.

Censors—Southern District: F. A. Castle, George H. Fox, David Webster, of New York. Eastern District: Joseph Lew, M. L. Snow, of Albany; Leroy McLean, of Troy. Middle District: A. Churchill, of Utica; L. Griffin, of Binghamton; Robert Frazier, of Camden, Western District: Theodore Dimon, of Auburn; M. G. Kittinger, of Lockport; David Little, of Rochester. Medical College, Syracuse University; I. N. Goff, of Casenovia.

Committee of Arrangements.—A. B. Ward, of Albany; W. S. Ely, of Rochester; E. L. Partridge.

Committee on By-Laws.—W. C. Wey, of Elmira; H. G. Piffard, of New York; W. Manlius Smith, of Syracuse.

Committee on Hygiene.—E. V. Stoddard, of Rochester; F. C. Curtis, of Albany; A. N. Bell, of Brooklyn; G. J. Fisher, of Sing Sing; E. Hutchinson, of Utica; W. H. Bailey, of Albany; J. O. Creveling, of Auburn.

Committee on Legislation.—Daniel Lewis, of New York; S. B. Ward, of Albany; F. R. S. Drake, of New York.

Committee on Medical Ethics.—A. Jacobi, of New York; Arthur Mattheson, of Brooklyn; J. W. Whitbeck, of Rochester.

Committeee on Prize Essays.—W. W. Potter, of Buffalo; W. S. Ely, of Rochester; H. R. Hopkins, of Buffalo.

Committee on Publication—W. M. Smith, of Syracuse; Charles H. Porter, of Albany; Alfred Mercer, of Syracuse.

Permanent Members—First District: G S. Hopkins, of Kings County; J. S. Warren, of New York; Wesley M. Carpenter, of New York; E. N. Chapman, of Kings County; John G. Curtis, of New York. Second District: A. M. Campbell, of Westchester; H. R. Winter, of Ulster. Third District: John M. Bigelow, of Albany; J. D. Lomax, of Troy. Fourth District: C. M. Wilson, of St. Lawrence; A. W. Suiter, of Herkimer. Fifth District: George Seymour, of Oneida. Sixth District: T. C. Edson, of Broome; E. Allison, of Steuben. Seventh District: John Gerin, of Cayuga. Eighth District: Peter Faling, of Niagara; H. R. Hopkins, of Erie.

Honorary Members—J. L. Cabell, of Virginia; F. J. Whittaker, of Ohio; J. G. Wormley, of Philadelphia; J. S. Clouston, of Edinburgh, Scotland.

Delegates—Massachusetts Medical Society: M. L. Bates, of Columbia; B. F. Sherman, of St. Lawrence; Frank P. Foster, of New York; Peter Faling, of Niagara; John Gerin, of Cayuga. Connecticut Medical Society: Henry March, of Albany. Pennsylvania Medical Society: S. H. Freeman, of Albany. Vermont Medical Society: C. S. Merrill, of Albany. Canadian Medical Association: J. O. Roe, of Rochester; J. Gerin, of Auburn. New Jersey Medical Society: W. Gill Wylie, of New York; J. P. Creveling, of Cayuga. Ontario Medical Association: Lucien Howe, of Buffalo. German Association of Naturalists and Physicians: Charles H. Starr, of Rochester.

The incoming President appointed W. W. Potter, of Buffalo; Daniel Lewis, of New York; A. M. Phelps, of Chateaugay, a Preparatory Business Committee to facilitate work at next annual meeting.

The thanks of the Association were tendered to the President, the Committee of Arrangements, and the Business Committee.

A communication from Cayuga County received and referred to the Committee on By-Laws.

Adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 14, 1885.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

CASES OF SALPINGITIS—RESULTS OF OPERATION.

DR. W. GILL WYLIE exhibited a number of specimens of salpingitis removed by laparotomy, and made the following remarks:

"MR. PRESIDENT: I will read short histories of fourteen cases of salpingitis which I have operated upon since May, 1883, and I have here for presentation the specimens from twelve of these cases, with a report on each by Dr. Henry C. Coe, Pathologist to the Woman's Hospital of the State of New York. Nine were operated on in Bellevue Hospital and five in private practice. Twelve of the fourteen recovered, and two died from the effects of the operation. Both of the latter were hospital cases, and both died on the fifth or sixth day from septicæmia.

"CASE I.—Mrs. R——, aged thirty-two, married, the mother of two children, has had two miscarriages. Her present trouble dates from an abortion, three years ago, although she has always suffered from more or less dysmenorrhœa. She complains now of severe dragging pains on both sides of the pelvis. Two years ago she underwent an operation for lacerated cervix. Examination reveals the uterus movable, but retroverted, the tubes and ovaries prolapsed, sensitive, enlarged, and easily made out, while by slowly pressing the left tube a gleety pus can be made to appear in the vagina. Operation, May 26, 1883. She made a good recovery from operation.

"*Examination of specimens.*—Both tubes are found dilated and adherent to the corresponding ovaries, which appear to be the seat of a chronic ovaritis. The distal end of one of the tubes has been so fused with the ovary, as the result of old inflammations, that the fimbriæ and opening have been entirely obliterated. In the other tube, which is less dilated, the lumen is patent. Microscopic examination of the contents of the most diseased tube showed it to consist largely of pus and fatty degenerated epithelial cells. A few ciliated cells were also noticed. A small amount of pus was observed in the fluid taken from the other tube.

"Notwithstanding the fact that both tubes were completely removed, the patient has menstruated, with one or two exceptions, regularly every month. The amount of flow became excessive, lasting eight or ten days. She was curetted; but three months later, after menstruating regularly, it was necessary to curette again, and nine months later curetting was repeated. Granulations were found each time, but nothing malignant was discovered by a careful examination made by Dr. W. H. Welch. Now, nearly two years after the operation, she still menstruates every month, but is able to go about, and except for a ventral hernia would be comparatively well. The uterus is a little above the normal size.

"CASE II.—M. L——, aged twenty-five, a native of France, married, but no childen. Was admitted May 30, 1883. She gave a history of gonorrhœa, and complains of pain over the ovaries, dysmenorrhœa, and leucorrhœa. On examination the uterus was found retroverted, and after some treatment a prolapsed tube and enlarged ovary were also discovered. Operation, June 25, 1883. The patient made a good recovery, but still complained of pains, notwithstanding both ovaries and tubes were removed. She was kept under observation till September, and then discharged. It was afterward heard that she had a ventral hernia.

"*Examination of the specimen.*—Both ovaries and tubes were removed in the operation. It was found that the one ovary and the fimbriated extremity of its corresponding tube were so fused together that they could not be separated. The appearance presented was such as to suggest a normal tube terminating in a cystic ovary. On passing a probe through the cut end of the tube, a portion of this cyst is found to be the dilated tube, though the line of separation between the latter and the cystic ovary could not be made out. Many adhesions were also present. A drop of the watery fluid obtained from the tube was found to contain a small amount of pus, broken-down cells, and granular débris. Some ciliated cells were still preserved, as if they had been among the last to suffer disintegration. The condition in this tube was one rather of hydro- than pyo-salpinx. The other ovary was small and atrophied. The tube was distinct from the ovary. Its fimbriæ had entirely disappeared, and at the distal end there was a small but distinct cicatrix marking the site of the inflammatory process which obliterated the opening. A probe can be passed through the tube from the cut end, but is arrested at this artificial septum. The tube contains a reddish fluid, a drop of which shows, under the microscope, pus, broken-down cells, and granular débris.

"CASE III.—T. S——, twenty-seven years of age, a native of Italy, married, the mother of two children. Admitted April 28, 1883. She suffers from dysmenorrhœa and leucorrhœa. For more than a year she has had a severe pain in the right iliac fossa, which, since the birth of her last child in February last has been excruciating. She gives a history of gonorrhœa, which was confirmed by vegetations in the vagina. On examination the physical signs of a local peritonitis are found. Operation, October 28, 1883, shows a catarrhal state of the tubes and indurated ovaries. She made a good recovery, but still suffered much from the old pain, but gradually got better and was discharged cured December, 1883.

"*Examination of specimen.*—The ovaries [1] obtained from this case show a decided increase in the density of the fibrous stroma and thickening of the cortical zone. A few cysts are also present. The tubes are long and tortuous, but appear to be of normal size. Their fimbriated extremities are normal, and the lumina patent throughout. The specimen is so shrunken that it is impossible to say whether the tubes were originally diseased or not, probably they were not affected.

"CASE IV.—A. S——, a native of Ireland, thirty-one years of age, married, and the mother of two children. Admitted November 1, 1883. She is suffering from dysmenorrhœa. For the last ten years she has vomited several days every month, and besides suffers from severe pain in the right iliac region. Her general health is poor. On examination the uterus was found displaced to the left and more or less fixed; marked pelvic adhesions were present; the ovaries were sensitive. Operation, December 8, 1883. It showed that the omentum was adherent over the pelvic organs, and that both ovaries and tubes were fixed by fine adhesions. The pedicle was so short that both sides had to be tied a second time, and on the right side the arteries had to be picked up with artery forceps on account of the slipping of the ligature. To do this the abdominal opening had to be made larger and kept exposed for nearly an hour. All bleeding was, however, effectually stopped. The patient did not rally well, but there was little rise of temperature till the fourth day, when it steadily increased, and at the end of the fifth day had reached 106°. Death occurred from septicæmia.

"*Examination of the specimen.*—One tube showed but little change. It had become adherent to the ovary, probably as the result of an old peritonitis. There was marked dilatation and thickening near the fimbriated extremity, but the lumen was patent. The corresponding ovary was cystic. The opposite tube was considerably enlarged, its wall thickened, and dilated near the distal end. The fimbriated opening was buried in a mass of old adhesions. The fluid removed from this tube contained pus in small amount, granular epithelial cells, and a considerable amount of granular detritus. Several

[1] The specimen has been preserved for several months in chromic acid, and hence is nearly useless for gross examination.

groups of columnar epithelial cells were seen, a few of which still retained their cilia.

"This specimen was seen when fresh by Dr. Welch; he noted much congestion of the tubes, and marked pelvic peritonitis.

"CASE V.—Miss B——, a native of the United States, twenty-three years of age, single. She has suffered for several years from slight dysmenorrhœa and leucorrhœa. She gives a history of hystero-epilepsy commencing several years ago, and becoming more and more severe, till now she has sometimes a number of severe attacks each day. Physical examination showed the ovaries enlarged, and plainly to be felt, of the size of English walnuts. The uterus was movable and in its normal position. The tubes could not be made out as enlarged. Operation, December 3, 1883. The patient made a good recovery, without a single bad symptom. Both ovaries and tubes were removed.

"*Examination of specimen.*—Only one tube and ovary preserved. The ovary is of the size of an English walnut and extensively diseased. The capsule is thickened, and at the periphery a large cyst is seen. As the organ gives an obscure sense of fluctuation, it is doubtless cystic throughout. (The ovary in the specimen was entirely separated from the tube, and only a small piece, about one and a half centimetre, of the corresponding tube has been preserved, and this is hard to distinguish, except by laying it open and examining the lining mucous membrane under the microscope.) The fimbriated end was originally closed by a cicatricial mass, which was divided. There is a small cyst of the broad ligament just below the obliterated distal end. No fluid was found in the tube.

"CASE VI.—*Hydro-salpinx* (*hospital patient*).—M. B——, a native of Ireland, married, one child. Admitted, November 17, 1883. She is bed-ridden, and has been treated for menorrhagia. She complains of severe pain and tenderness over the left side. Examination shows the uterus retroverted somewhat, and a mass the size of a small hen's egg can be felt to the left of the fundus in the left broad ligament. Operation, January 27, 1884. Notwithstanding a slight rise of temperature the first three days after the operation, she made a good recovery. The left ovary and tube were found enlarged and diseased, but the right perfectly normal and free from adhesions, and were therefore left undisturbed.

"*Examination of specimen.*—Inspection of the diseased tube shows it to be enlarged to the size of a finger, and its walls much thinner than normal. Evidences of adhesion are to be seen all over its exterior. The distal opening has been entirely obliterated, evidently the result of previous inflammation. The accompanying ovary is enlarged to the size of an English walnut. It was evidently much larger before removal, as it contained a central cyst as large as a marble. The fluid found within the tube contained nothing but a large number of round and columnar epithelial cells. Many groups of well-preserved ciliated cells were found, looking as perfect as if they had just been removed.

"CASE VII.—L. D——, twenty-eight years of age, married but sterile. Admitted September, 1883. She suffers from dysmenorrhœa, has been bed-ridden for months at times, and has already been in four hospitals. She complains of pain in the back and head, and vomits almost every day. Her pulse is always over 100. For several years she has been unable to work, and is completely demoralized. When examined, the uterus was found retroverted fixed, the tubes and ovaries could be made out slightly enlarged. Operation, March 3, 1884. She did well for two weeks, when the temperature rose to 104°, but this was unaccompanied by pain or tenderness. She had also a slight cough, and this, together with the elevated temperature, was regarded of pulmonary origin. Gradually, however, she got stronger, and was discharged cured September, 1884.

"*Examination of specimen.*—The ovaries are found to be of normal size, but cystic. The corresponding tubes are enlarged and dilated. The condition is nearly the same as in Case I., except that here both distal apertures seem to have been obliterated by old inflammation. One tube is closely adherent to the corresponding ovary, the other only partially. They both give a distinct sense of fluctuation, and on introducing a needle, a watery fluid is obtained which shows under the microscope a few mucous corpuscles and normal epithelial cells. A considerable number of perfect ciliated cells were also present. The condition may be termed one of moderate hydro-salpynx.

"CASE VIII.—Mrs. Mc——, a native of the United States, aged twenty-seven, married, and has had one miscarriage at four months, but no children. She has suffered greatly from dysmenorrhœa and menorrhagia. Her general health is poor, and she has been a confirmed invalid for the last ten years, being confined to bed most of the time. She complains also of an almost constant pain in the iliac region, back, etc. Examination shows the uterus anteverted; the left ovary and tube enlarged and adherent; the ovary also enlarged. Operation, March 13, 1884, and it was found that the right ovary was slightly adherent and cystic, while the left tube and ovary were enlarged and very firmly adherent. The patient recovered without a single bad symptom. Examination of the removed tubes and ovaries showed the one tube and ovary normal to all appearances, although the wall of the tube seems to be a little thicker than usual. The other tube was uniformly enlarged, and its mucous membrane swollen. The lumen was patent, bnt no fluid was present. The corresponding ovary was enlarged and cystic. The condition was probably one of catarrhal salpingitis, leading to hypertrophy of the mucous membrane, and, perhaps, also of the muscular layer of the wall of the tube.

"CASE IX.—H. D——, colored, a native of the United States, aged twenty-seven, married, but sterile. Admitted February 3, 1884. She is suffering from dysmenorrhœa, and has had severe local pains in the left iliac region for the past three years, making her a complete bed-ridden invalid. Examination showed the uterus anteflexed and firmly fixed, and the enlarged ovaries and tubes could be felt, especially on the left side. Operation, March 20, 1884. She had adhesions, about the worst I ever saw, the omentum, bladder, intestines, etc., being all involved. A pedicle on the left side could not be secured, and the arteries were picked up by forceps, necessitating a prolongation of the operation and exposure of the peritoneum. She gave symptoms almost identical with Case IV., and died of septicæmia on the fifth day. Both tubes and ovaries were removed in the operation.

"*Examination of specimen.*—Both tubes were found to be enlarged and thickened, but not dilated. They were buried in masses of adhesions, though the lumina seemed to be open. Both ovaries were the seat of marked cystic degeneration. In one broad ligament was a cyst the size of a large walnut. Microscopic examination of the mucous membrane of the tubes showed it to be much swollen and covered by leucocytes. No epithelial cells were preserved. In this case there had probably been a chronic catarrh of the tubes, which led to thickening of the mucous membrane. Some of the thickening could also be attributed to an old peri-salpingitis.

"CASE X.—Mrs. O——, aged twenty-five, married two and a half years, but sterile. Before marriage she was perfectly well, but soon after this she began to suffer from dysmenorrhœa and leucorrhœa. For more than a year she has had severe pains first on the right and then on the left side. Lately she has also suffered from menorrhagia. Examination showed the uterus anteverted and imbedded in a mass of indurated tissue, and the enlarged ovaries and tubes could be also made out. She was kept under observation and treatment for a year previous to operation. The operation was performed May 1, 1884. The omentum was found covering all the

pelvic organs. Both ovaries were imbedded in a mass of adhesions and very much enlarged. The left ovary was of the size of a lemon and filled with abscesses. The corresponding tube is firmly adherent and infiltrated with pus. The right tube and ovary are not as much enlarged, but a number of small pus-centres were noticed as the adhesions were broken up. The patient made a good recovery, except that an abscess formed around the stump on the left side and the track of the drainage-tube discharged for several months. Pyo-salpinx and ovaritis. Specimen accidentally thrown away.

"Case XI.—M. H——, aged thirty-two, married, and has had one child and three miscarriages. Admitted September, 1884. She is suffering from dysmenorrhœa. She had a miscarriage six months ago, and for nearly two months has had a septic fever. She complains of a severe pain in the iliac region. On examination the uterus is found retroverted; the ovaries and tubes enlarged and sensitive. Operation, October 9, 1884. Extensive adhesions were found, the omentum, small intestines, etc., being involved. The tissues of the tubes and of one ovary were so softened and infiltrated that the ligature cut entirely through the pedicle, and the blood-vessels had to be picked up and tied separately. Abscesses on both sides, involving the ends of the tubes, were met with. A drainage-tube was inserted and the patient made an excellent recovery, and was discharged cured, November 18, 1884, all pains relieved.

"*Examination of specimen.*—The specimen obtained from this case is the best in the collection. It consists of two greatly enlarged tubes with their corresponding ovaries. The smaller of the tubes is about the size of a large lead pencil, and shows on its exterior evidences of previous inflammation. The accompanying mesosalpinx is much thickened. The fimbriated extremity of this tube is patent, so that on compressing the walls a quantity of thick, reddish-yellow fluid escaped. This on examination was found to contain pus, fatty degenerated epithelial cells, free fat, fatty acid crystals, and bits of smooth muscular fibres, but no ciliated cells. The other tube is as large as the forefinger, much distorted, and its fimbriated extremity buried in a mass of adhesions, which also partly envelop the ovary. The distal end is completely closed. The corresponding ovary is cystic; its cortex greatly thickened. There are many evidences of recent peri-oöphoritis. The opposite ovary is nearly normal in size and appearance. The fluid removed from the larger tube contains a large amount of pus and fatty degenerated epithelial cells, and much free fat. Groups of columnar epithelial cells are found, but no ciliæ are observed. There are numbers of spindle cells from the muscular layers, pointing to advanced changes in the wall of the tube. This is a typical example of pyo salpinx.

"Case XII.—Miss W——, twenty-eight years of age, single. She suffers from very severe dysmenorrhœa. She complains of pain in the back, head, neck, etc., and has been a confirmed invalid for several years. Examination showed the uterus retroverted and retroflexed, being held back by bands of adhesions, and very sensitive and boggy. The tubes could not be made out as enlarged. The ovaries are prolapsed and seem cystic. Operation, October 20, 1884. Extensive adhesions were found, although the tubes were the principal bands holding back the uterus. They were thickened, but not distended. The ovaries were cystic and fixed by adhesions. The patient made a good recovery. The specimen was lost.

"Case XIII.—Mrs. C——, a native of the United States, married, and the mother of one child. Admitted October 30, 1884. She suffers from dysmenorrhœa, and has had severe pain in the left iliac region since the birth of her child. On examination the uterus was found laterally flexed, and the enlarged left ovary and tube could be plainly made out in the left broad ligament. Operation, November 29, 1884. The left ovary and tube were removed (the right being normal). The patient made a good recovery and left well when discharged, December 28, 1884.

"*Examination of the specimen.*—The ovary is atrophied and buried in a mass of adhesions. The peritoneal surface of the tube is thickened, intensely congested, and covered with adhesions. The same is true of the mesosalpinx. The tube is enlarged to two or three times its normal size, its walls are thickened, and it gives, on pressing it between the fingers, an obscure feeling of fluctuation. The fimbriæ are still preserved, and the constriction of the lumen seems here to be at the proximal rather than distal end of the tube. On pressing the tube pus flows from the fimbriated end. This examined microscopically is found to contain a large number of pus corpuscles, fatty epithelial cells, and granular detritus. Several quite perfect ciliated cells were also seen.

"Case XIV.—M. C——, a native of Italy, married, has had three children and two miscarriages. Admitted October 15, 1884. She is suffering from menorrhagia, and complains of intense pain, chiefly in the right iliac region, for the last three years. On examination the uterus is found fixed and adherent, being drawn backward toward the sacrum. Under ether an enlarged tube can be plainly felt on the right side. Operation, December 8th. The patient made a good recovery and was discharged January 8th, the pain being completely relieved.

"*Examination of specimen.*—One ovary is about twice the normal size, and seems to be almost entirely made up of one large cyst. The other is considerably atrophied. The tube corresponding to the larger ovary is enlarged to twice its normal dimensions, and the fimbriæ have disappeared, the fimbriated opening being obliterated by old adhesions. The proximal cut end admits a large probe, and a drop of yellowish fluid can be squeezed from it, which shows, under the microscope, pus, broken-down epithelium (some with perfect cilia), and a large amount of granular débris. The other tube is enlarged, much distorted, and is bent on itself near the fimbriated end, so that the fimbriæ seem to spring almost from the middle rather than from the end of the tube. A probe may be introduced into the distal opening for a short distance. There are evidences of previous inflammation, leading to thickening of the mesosalpinx and peritoneal covering of the tube. A drop of fluid, obtained from the distended distal end, is shown by microscopic examination to contain a moderate number of pus corpuscles, many round, pyriform, and columnar ciliated cells, free nuclei, and granular detritus.

No. of case.	Age.	Condition.	Children.	Miscarriages.	Disease.	Result.
I..	32	Married.	2	2	Pyosalpinx.	Recovered.
II..	25	"	0	0	"	"
III..	27	"	2	0	Catarrhal s.	"
IV..	31	"	2	0	Pyosalpinx.	Died.
V..	23	Single.	0	0	Catarrhal s.	Recovered.
VI..	29	Married.	1	0	Hydrosalpinx.	"
VII..	28	"	0	0	"	"
VIII..	27	"	0	1	Catarrhal s.	"
IX..	27	"	0	0	Pyosalpinx.	Died.
X..	25	"	0	0	"	Recovered.
XI..	30	"	1	3	"	"
XII..	28	Single.	0	0	Catarrhal s.	"
XIII..	26	Married.	1	0	Pyosalpinx.	"
XIV.	31	"	3	2	"	"

"The hospital cases were selected from patients presenting themselves for treatment at my clinic at the New York Polyclinic, where, during the past two years, I personally examined 607 individual women. Of this number 125 had unmistakable evidence of peri-uterine inflammation, and of these the tubes were plainly made out as enlarged in 18 cases on the first examination. By the use of glycerine and glycerine and alum tampons in many others of the 125, diseased tubes could be made out after the thickened peritoneal adhesions had been stretched and softened. In those cases where diseased tubes could not be defined by the touch, all other symp-

toms often indicated that they were diseased, and my studies lead me to the conclusion that peri-uterine inflammation which is not associated with diseased Fallopian tubes is the exception, and that. as a rule, disease of the tube precedes the local peritonitis."

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, December 2, 1884.

W. J. MORTON, M.D., PRESIDENT, IN THE CHAIR.

AN IMPROVED METHOD OF STAINING LARGE SECTIONS OF THE BRAIN.

DR. E. C. SEGUIN explained a method of aniline staining for large sections of the brain, which had given him very satisfactory results. It consisted in a modification of Sankey and Bevan Lewis' method. In order to insure the best effects, it was necessary to allow the sections to absorb the dye slowly. The solution employed was an aqueous one of aniline blue black, having strength of one to two thousand. In this the sections were completely immersed and allowed to remain for from twelve to sixteen hours. They were then washed, dehydrated, and mounted in balsam. He had not tested the value of this method for the study of minute histological details; but for examination with the naked eye he thought the method was superior to most others, especially in bringing out a sharp contrast between white and gray substances.

DR. STARR had tried aniline black for smaller sections, but had not been pleased with the results. Recently he had used Weigert's hæmatoxylin method and found it eminently satisfactory. He thought the two methods might be advantageously combined.

DR. WENDT remarked that such a combination would probably produce too great a mixture of colors, thus marring the distinctness of detail obtainable by either method when employed alone. Weigert's method was a good one, but required much care, skill, and time. As a general thing the simpler a method, the more satisfactory would be its every-day use.

DR. BIRDSALL was a believer in the chloride of gold for neuro-histological work. He was aware of its uncertainty; but the good specimens, which he had succeeded in preparing, were so beautiful as to compensate for the complete loss of other sections.

DR. SACHS said that the difficulty of a method was hardly a valid argument against its employment. He instanced the staining process of Freud, of Vienna, which brought out the nerve-fibres quite black, upon a purple background. The paths of the fibres thus became particularly well marked.

THE CIRCULATION IN THE BRAIN AS INFLUENCED BY ELECTRICITY.

DR. J. LEONARD CORNING read a paper with the above title. He first referred to some previous studies, undertaken in order to determine the therapeutic applicability of the mechanical regulation of the cerebral circulation, the results of which were published in THE MEDICAL RECORD of February 18, 1882. The instrument which he at first devised had since been improved upon. The essential features of the new appliance consisted in a metallic fork, having a handle four inches long, and provided with two prongs resembling those of a large tuning-fork. To the extremity of each of the prongs was attached a narrow sponge electrode. The prongs could be made to approximate or separate from each other at will by simply rotating the screw in the handle. It was thus possible, when the instrument was held at right angles to the neck, to adjust each pad with great accuracy over the corresponding carotid. When a galvanic current was conducted to these small electrodes by means of a bifurcated rheophore, secured to the negative pole of a galvanic battery, while the positive electrode was placed below the occiput, it transpired of necessity that all the structures interposed within the circuit were more or less affected. As a natural consequence the most pregnant expression of the activity of the electric current would be found in a greater or less modification of the functions of the involved nerves, namely, the sympathetic and pneumogastric.

The physiological results obtained in this way were due to: 1, Arterial pressure; 2, contraction of the cerebral capillaries; 3, retardation of the heart's action. Besides these, we should doubtless have to include effects produced by threads of current upon the medulla, as well as collateral phenomena not easily amenable to analysis. Thus the phenomena which he had succeeded in evoking by the aid of this instrument were substantially as follows:

1, Dilatation of the pupil; 2, drowsiness; 3, dizziness (where strong currents and considerable pressure are employed); 4, drooping of the eyelid; 5, retardation of the heart's action (where exclusively strong currents are employed); 6, pallor about the lips and frontal region; 7, muscular weakness, as proven by the dynamometer—the subject, if standing, complains of weakness in the knees; 8, in anæmic individuals syncope may be produced, should excessive pressure and strong currents be employed; 9, the excitement incident to the primary stage of etherization is cut short by resort to this method.

Having employed the instrument described in a variety of neuroses, particularly in migraine and epilepsy, with more or less success, the thought occurred to him that the efficacy of the procedure might perhaps be enhanced if some means were devised by which compression and galvanization could be employed for more or less prolonged periods of time.

Accordingly, after many trials, he devised an appliance which appeared to fulfil all reasonable indications. It consisted in the first instance of an elastic belt, which encircled the neck, and to the centre of which was secured a framework of metal, resembling somewhat in shape that of a horse-shoe. To the extremity of each branch of this apparatus was secured, by means of a ring and screw, a narrow, adjustable electrode, insulated by the interposition of a thin segment of hard rubber. The branches might be dilated or approximated at will by the aid of a screw which protruded anteriorly through the centre of the elastic belt.

In order to adjust the instrument the branches were placed on either side of the larynx in such a manner that each narrow electrode rested above the corresponding carotid. The branches were then carefully adjusted by the aid of the screw. The belt was then tightened and secured behind by means of appropriate buckles. The pressure was only carried to a sufficient extent to insure slight compression of the lumen of the artery, and not to such a degree as to cause the slightest inconvenience to the patient. By means of a bifurcated rheophore both electrodes were secured to the negative pole of a galvanic battery. A broad electrode, which was appropriately secured to the belt, was now placed upon the posterior aspect of the neck, and attached by a single rheophore to the positive pole of the battery. The current was then gradually increased, great care being taken in the execution of this portion of the operation. A water rheostat should be employed if possible, and the procedure should never be carried to such a degree as to produce tinnitus, dizziness, or extreme pallor about the ears and face.

In closing, Dr. Corning said: "I have employed the above apparatus in the treatment of a large number of neuroses. In epilepsy, congestive headache, mania, insomnia, and the convulsions of children it has surpassed my most ardent expectations. In the hyperæmic conditions of the brain incident to the prolonged abuse of alcoholic stimulants, and in other forms of vaso-motor insufficiency its prolonged employment has yielded excellent results. A noteworthy circumstance is the fact that the primary stage of excitement incident to etheri-

zation is effectually aborted by the use of electro-compression; and, indeed, the same may be said of simple pressure applied to the stems of both carotids, as abundantly shown by the observations of my friend, Dr. M. J. Roberts, of this city. Dr. Chichester, of New York, also tells me that he has succeeded in causing a permanent diminution in the rapidity of the heart's action in a patient suffering from exophthalmic goitre, by employing one of my instruments for electro-compression. Besides the above effects, which speak for themselves, I have recently had occasion to obtain additional proof of the pronounced influence exercised by this procedure upon the cerebral circulation. I applied the instrument to the neck of an infant whose fontanelle was still open, and observed that, when an interrupted galvanic current was employed, there was a perceptible sinking of the tissue above the opening.

"These phenomena are conclusive, even when interpreted in the light of the most guarded conservatism. Taken in conjunction with the results obtainable at the bedside, they may be urged in extenuation of the present researches in the cause of physiological therapeutics."

Dr. Rockwell said that he had no doubt that by electro-compression the brain and sympathetic system could to a certain extent be affected. But the main action of the apparatus was restricted to the surface. He did not believe that the cerebral circulation could be seriously disturbed by it. In all such investigations the varying degree of susceptibility should be taken into account. After applying electricity to the head some would experience profound drowsiness, others would feel scarcely anything. He did not know whether the results were due to direct cerebral action, or depended upon the intermediate agency of the circulation. He thought that perhaps electro-compression might prove a valuable adjunct to other treatment, just as galvanism pure and simple did.

Dr. Roberts said that compression alone had acted well in some cases in his experience, notably in one case of infantile convulsions. An immediate subsidence of struggling had followed gentle digital compression of the carotids. Of course, further practical tests were necessary to substantiate the reader's claims.

Dr. Seguin saw no theoretical flaw in the method, and thought it deserved to be tried. Ophthalmoscopic examination might decide whether, and to what extent cerebral circulation could be influenced by it.

Dr. Berg remarked that it seemed doubtful whether the sympathetic could be galvanized through the integument. He had failed to observe dilatation of the pupil, after using the current for fifteen minutes over the sympathetic.

Dr. Corning replied that he had seen dilatation.

Dr. Roberts believed that the action of electricity might penetrate deeply, just as counter-irritation produced other than merely superficial effects.

Dr. Webster stated that he had been unable to discover any change in the retinal circulation during compression, but perhaps this was owing to imperfections in the apparatus at the time of experimenting. He added with regard to the relation between ocular and cerebral circulation, that hyperæmia or anæmia of the eye might occur independently of a similar condition in the brain. Strong carotid compression should certainly affect retinal circulation in a visible way.

A New Journal.—The *Eco Cientifico de las Villas* is a journal published semi-monthly in Sagua la Grande, Cuba, by Dr. Agustin W. Reyes. It is devoted to medicine, agriculture, and general literature. The original articles on medical subjects are interesting and well written, and the selections from foreign periodicals are made with good judgment. The journal has just completed its first volume, and we congratulate the editor on his success, and wish his undertaking the long life and prosperity which it so well deserves.

Correspondence.

OUR VIENNA LETTER.

(From our Special Correspondent.)

IODOFORM POISONING AND THE USE OF IODOFORM IN PROFESSOR BILLROTH'S CLINIC—OBSTETRIC OPERATIONS —THE DISCOVERER OF COCAINE IN ANOTHER RÔLE.

Vienna, January 10, 1885.

Professor Billroth in a recent lecture spoke of iodoform as the best and most useful antiseptic drug. He preferred it to the hydrargyri bichloride solution—which is at present the antiseptic in use in Germany and England—for the following reasons: The latter discolored the instruments and destroyed their polish, and Professor Billroth takes the utmost care of his instruments. By constant use of the bichloride, even in weak solutions, the hands of the operator become soon unfit for delicate operations, where a nice sense of touch is required. The skin on the hands, and especially about the tips of the fingers, is hardened cracked, fissured, and sore. But the principal objection of Professor Billroth was, that many cases of mercurial poisoning had occurred with the use of this antiseptic. Some of these cases had resulted fatally. With iodoform and carbolic acid solutions none of these objective features were present. Iodoform properly used caused absolutely no severe symptoms. Formerly there had been cases of iodoform poisoning; these were divided into two classes, the light cases of poisoning and the severe form. In almost all of the operative cases in the surgical wards, within twenty-four hours a yellow color appeared in the urine, a slight odor of iodoform in the breath, and a faint taste of iodoform was present. These symptoms soon passed off, and were not of any importance. The lighter set of cases of poisoning were characterized by gastric symptoms, increase of the above symptoms, slight nausea, and vomiting and headache. This was the form of poisoning which presented at times in the clinic, usually after wounds of extensive surface which had to granulate, or in wounds about the mouth or face. These cases were treated symptomatically, and recovered in two or three days without any further trouble. The severe form of iodoform poisoning usually proves fatal. According to the experience in the surgical wards here, it need never occur; only two such cases have happened, and these early in the use of iodoform for antisepsis. One of these was a child which was supposed to have meningitis, but on autopsy no trace of meningitis could be found. As the patient was having a wound of some size dressed daily with powdered iodoform, this was set down as a case of poisoning from the use of the drug. The other case was a woman who had had a large tumor removed from the breast, leaving an extensive raw surface; to this surface, by mistake of the nurse, fresh quantities of iodoform gauze were applied repeatedly within twenty-four hours. The patient became rapidly delirious, there was strong odor to the breath, high fever, vomiting, bloody diarrhœa, and the ordinary symptoms of meningitis, followed by death. Many of the cases which had been recorded as iodoform poisoning were thought to be cases of acute septicæmia where the antiseptic precautions had been imperfect, although iodoform had been used.

The preparations of iodoform in use in the service of Professor Billroth, are the following: 1, The powder, used in places where the gauze is impracticable, as in the pharynx, or in wounds of the soft or hard palate; 2, the gauze, of three kinds; the ordinary gauze for general dressing purposes, containing from ten to twenty per cent. of iodoform; the iodoform gauze with colophonium, used about the mouth and where there is parenchymatous bleeding; and a third variety of gauze with tannin and iodoform, used where there is profuse bleeding, as in operations about the face and genitals; 3, an emulsion with glycerine, containing about twenty per cent. of iodo-

form, and used as an injection after the evacuation of pus in cold abscesses, in empyema, etc.; 4, iodoform with collodion, used in small superficial wounds, ulcers, etc.; 5, iodoform pencils, of different sizes, for insertion into sinuses, urethra, etc., containing about seventy-five per cent.; 6, iodoform vaseline, twenty to forty per cent.

The powder is only used when the gauze cannot be, and not in large quantities. The gauze must come everywhere in contact with the fresh surface, if it is a wound whose edges are not brought together; over this first layer of gauze is heaped layer upon layer of the same material; over this absorbent cotton and the ordinary bandages. This dressing is always to be removed within the first twenty-four hours after the operation where there was much bleeding, or in operations of considerable size, and entirely new dressings applied in the same manner. This second dressing is not to be changed in from eight to fourteen days. This rule is especially insisted upon, particularly in wounds about the mouth. Repeated changing of the dressings, with the use of fresh gauze, is the chief cause of iodoform poisoning. In wounds which are to heal by granulation, very light compression is made. Before applying any dressing, the wound and the parts surrounding it are always thoroughly irrigated with a one per cent. solution of carbolic acid. With these precautions, in spite of what would seem to the American surgeon the immoderate use of iodoform, there has not been a single severe case of iodoform poisoning in Professor Billroth's service.

In the obstetrical service, during the holidays, several capital operations have been made. Two craniotomies, and two Cæsarean sections, within a few days of each other. The former resulted successfully. In the latter two, both mothers died, and one child. In one case the patient was in a comatose condition when the operation was begun, and died in a few hours. In the other case, the conditions were all favorable; labor had just begun, and the mother's condition and the fœtal heart were both good. The patient had a rachitic pelvis with a true conjugate of under 5 ctm. The Porro operation was made by Professor Carl Braun, and lasted only twenty-five minutes; the child was removed alive. The operation was made under the use of the bichloride of mercury solution, and iodoform as antisepsis. The patient did well until the eighth day, without a rise of temperature. On the eighth day the stitches were removed, the abdominal wound having evidently united. That evening the patient had a severe attack of coughing, during which the wound reopened and a portion of the bowel protruded. This was immediately replaced and new stitches put in, but the patient died of peritonitis on the tenth day after the operation.

Another fatal result in the birth wards, last week, was a case of placenta previa with central implantation. The patient came into the hospital in labor, almost pulseless at the wrist and with cold extremities. Version and delivery of the child, which was dead, was done immediately, followed by transfusion, but the patient died six hours after delivery.

Dr. Kohler, the discoverer of the anæsthetic properties of cocaine, has brought himself into notoriety again. He was the challenged party in a duel which he fought with one of his colleagues, an assistant in Professor Billroth's clinic, and he used his opponent so badly that it is considered quite possible that he may not recover. The duel was said to have been fought by permission of the director-in chief of the hospital.

MARTIN'S METHOD OF TREATMENT OF SYNOVITIS, ESPECIALLY OF THE KNEE-JOINT.

To the Editor of The Medical Record.

Sir: The announcement of the surgical uses, other than hæmostatic, of the pure rubber bandage, was made to the American Medical Association by my father, Dr. Henry A. Martin, at Chicago, in 1877. Since that time the almost constant reports of new applications of its use, in very varied requirements of surgery, and its universal adoption in all parts of the world, have given it a most prominent position among the appliances of modern surgery. Although in the minds of many physicians the use of the bandage is associated chiefly with the treatment of varicose veins, eczema, and chronic ulcer of the leg—yet the greatest benefit is to be obtained from it in many other affections, and this is true in the highest degree of inflammations of, and effusions into, the joints:—notably the varied degrees of synovitis of the knee.

At the International Medical Congress at London, in 1881, my father presented a concise paper giving his special investigations in regard to this subject. This paper is published in the Transactions of the Congress. Since his return, he has devoted himself very earnestly to following out the method of treatment which he advocated there, and it was his intention to lay the whole matter before the American Medical Association at the coming meeting, next summer. Owing to his sudden death, this will be impossible, but as I have kept the records of his cases, and have operated on and had charge of many of them, I may be permitted to set down briefly some of the results that have been arrived at.

During the past thirty-one years over four hundred cases of synovitis of the knee and its sequelæ, of every form and degree of severity, in every variety of diathesis and complication, however chronic or acute, have been treated by the use of the pure rubber or "Martin" bandage—applied to the limb from the foot to above the knee. The joint is previously strapped from three inches above to a corresponding point below the patella, with non-irritating rubber plaster. This strapping is not applied for the ordinary reasons, but to obviate, or at least mitigate, a troublesome chafing of the skin in the popliteal space, from walking exercise while the bandage is on the limb. One such strapping will remain *in situ* for four or five weeks, and in a very large proportion of cases has not to be repeated. The plaster, however, must be perfectly non-irritating. The bandage should be applied as tightly as the patient can wear it with comfort. There is no danger to the circulation by following this rule, as no dangerous constriction of the limb could be endured without pain and discomfort. The bandage thus applied should be worn in general for from four to six weeks, according to the severity of the case, day and night; and, after that, during the day only, or while in the upright position, for from four to eight weeks longer. Many patients prefer to wear them a good deal longer, to prevent any possible return of trouble, but this is in general not at all necessary.

When the bandages are thus applied, great comfort and support are at once experienced, and with these much increased capacity to use the joint. Very soon it becomes evident that absorption of effused fluid, and of the interstitial deposits in the tissues of the synovial sac, and of the other tissues about the joint, is going on; and, in a space of time too short to be credible to those who have not accurately pursued the practice, and carefully and repeatedly observed the fact, the enlarged and weakened articulation is restored to the normal size, and, if not immediately to its original strength, to a far greater capacity for use, and eventually to a perfect restoration in all respects.

In cases where the amount of fluid effusion within the sac is small, or where the thickening of the sac is the principal element of the case, these results may be always looked for with certainty and rapidity. Sometimes, however, when the amount of fluid effusion is very large, the use of the bandage *alone* (although of the greatest value as a palliative, by strengthening the joint, and permitting painless use of the limb) will produce *complete* absorption of the fluid very slowly, if at all. The existence of these exceptionally obstinate cases induced my father, some twelve years ago, to add to the use of the bandage a preceding thorough aspiration of the sac, all the other points of treatment being exactly as before described. This

was done at first only in exceptionally obstinate cases, in which the effusion within the synovial sac was large, but the operation was gradually found to be entirely free from danger, and latterly aspiration has been practised in all cases in which, being chronic, the synovial effusion is of any considerable amount, and even in the most acute cases in which rapid effusion produces great distention and consequent pain. The results of my father's experience are summed up in the following statements :

1. In the last twelve years over two hundred cases of synovitis of the knee, and its sequelæ, have been treated by aspiration with a single strapping of the joint, and subsequent use of the bandage.

2. In these cases the knee-joint has been punctured over four hundred times.

3. In all these cases, with the exception of a very few, and these only in the early stages of treatment, the patient was not only permitted, but obliged to take a daily and considerable amount of walking exercise.

4. In not a single instance has there been failure of absolute and entire cure, requiring, in one case, seventeen weeks, but in no other more than eleven weeks.

5. Although no antiseptic measure, beyond perfect cleanliness of the aspirating needle, was employed, in not one instance has any ill symptom followed the operation. When the needle is withdrawn, the puncture is at once covered securely with adhesive plaster.

Sir Benjamin Brodie long ago declared most emphatically, that when the synovial sac is distended with fluid, it can be punctured, and the effusion drawn off with perfect safety. He does not by any means regard this as a help in treatment, however, as he says the fluid will accumulate again, and in a few hours the joint will be as much distended as before. The originality and value of my father's method of treatment lies in successfully demonstrating the fact that thorough aspiration of the knee-joint, followed by proper use of the rubber bandage, gives us a complete and satisfactory method of cure in even the worst cases of synovitis. By the firm and equable pressure of the rubber bandage, the re-accumulation of fluid is checked. If there is any return of the fluid at all, it is in very much diminished quantity, and a second, or perhaps in severe cases a third, aspiration of the joint is all that is ever required. One great advantage of it is to explode the idea that perfect rest of the joint is the only way to hope for a cure. The patient is emphatically *not* to be confined to bed, or, worse still, to a fixed splint. When the joint is strengthened by a properly applied rubber bandage, exercise is a very great and important adjunct in the treatment. This very day I have visited a lady who passed last summer in Switzerland. While there, she was attacked with acute synovitis of the left knee, with large amount of effusion into the sac. She was kept in bed, with the limb placed on a fixed splint and continually poulticed. After sweltering through the hot weather with the limb swathed in many thicknesses of cotton wadding, at the expiration of two months the splint was removed, and—she has come home with a joint almost immovable! I am sure that had this case been treated by prompt aspiration of the sac, and the proper use of the rubber bandage, a perfect and rapid cure would have resulted without a week's confinement of the patient to her bed.

I trust that other surgeons will have employed this method of treatment in a sufficient number of cases, to make a thorough discussion of it possible at the next meeting of the American Medical Association.

FRANCIS C. MARTIN, M.D.

ROXBURY, MASS., December 22, 1884.

CANCER A FREQUENT CAUSE OF DEATH IN HORSES.—The *Indian Medical Gazette* says: As in England, *melanotic cancer* is an ordinary cause of death in Bengal among gray and white horses. We can scarcely drive through Calcutta without seeing animals having the characteristic globular tumors beneath the skin.

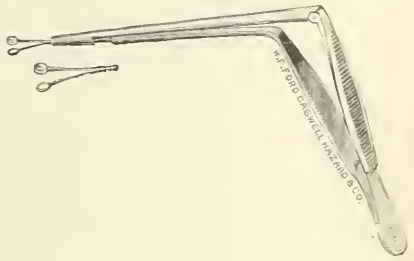
New Instruments.

A FENESTRATED CARTILAGE FORCEPS.

BY WILLIAM C. JARVIS, M.D.,

NEW YORK.

I HAVE successfully employed the little instrument, represented in the accompanying illustration, for more than two years, to facilitate the removal of deviations of the



cartilaginous septum narium. Briefly described, the cutting blades may be compared in shape and action to an ordinary ticket punch. The blades at rest are always apart, being kept so by the resiliency of their steel stems.

The handle of the instrument is bent at an angle suitable for simultaneously viewing and operating within the nostrils. A slight pressure of the thumb exerted against the handle, forces forward a metallic tube, which firmly clasps the stems supporting the cutting blades, and thus drags the ring-knives together. In this manner small pieces of deviated cartilaginous or hypertrophied tissue can be successively excised until the desired effect is obtained. The instrument may be also employed as a *trimmer* for removing the asperities sometimes remaining after the excision of large sections of deflected septal cartilage by means of my transfixion needle and écraseur. It is hardly necessary to add that the procedure is absolutely painless when good cocaine is properly applied; the hemorrhage also is insignificant. Mr. W. F. Ford is the manufacturer of this novel device.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from January 25, 1885, to January 31, 1885.

WEBSTER, WARREN, Major and Surgeon. Granted leave of absence for one year on surgeon's certificate of disability. S. O. 20, A. G. O., January 24, 1885.

TAYLOR, B. D., Captain and Assistant Surgeon. Granted leave of absence for one month, to take effect between March 15 and April 1, 1885; permission to leave Department limits. S. O. 10, Department of Texas, January 26, 1885.

KEAN, J. R., First Lieutenant and Assistant Surgeon. Ordered for duty in Department of Missouri. S. O. 23, A. G. O., January 28, 1885.

PROMOTIONS.

SUMMERS, JOHN E., Lieutenant-Colonel and Surgeon. To be Surgeon, with rank of Colonel, January 9, 1885.

SMITH, JOS. R., Major and Surgeon. To be Surgeon, with rank of Lieutenant-Colonel, January 9, 1885.

KOERPER, EGON A., Captain and Assistant Surgeon. To be Surgeon, with rank of Major, January 9, 1885.

APPOINTMENT.

RAYMOND, HENRY I. To be Assistant-Surgeon with rank of First Lieutenant, January 12, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 31, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
January 24, 1885.....	3	12	78	7	130	54	0	0
January 31, 1885.....	2	12	80	5	157	48	0	0
Deaths.								
January 24, 1885.....	0	3	18	7	31	17	0	0
January 31, 1885.....	0	6	11	5	36	24	0	0

The Boy and the Bone-Setter.—Speaking of bone-setters recalls a good story which occurred in the North of Scotland, where one of them had risen to great fame and no small fortune by his skill. A country lad residing a few miles off had got his leg hurt at one of the local factories, and had been treated for some time by the local medical man without any good result. His mother, who had great faith in the neighboring bone-setter, wanted the lad to go to him, which he declined, preferring, as he said, the "reg'lar faculty." Eventually, however, his mother's persuasions prevailed, and he agreed to allow himself to be taken to see Daniel R——, the bone-setter. A bed for the invalid was extemporized on a cart, and, accompanied by his anxious mother, he was after a rather painful journey taken to the town where the bone-setter resided. The leg was duly examined, and it was found necessary to haul it very severely, in order, as the bone-setter said, "to get the bone in." The lad was liberal with his screams while this was going on, but eventually the bone was "got in," and he was told to go home and in a few days he would be all right and fit for his work. He was lifted upon the cart again, and, with his mother seated beside him, set off for home. "Didn't Danny do the thing well?" said the joyous old lady. "Yes, he did, mother," said the lad, "but I was na sic a fool as to gie him the sair leg!" The "reg'lar faculty" will, we have no doubt, appreciate the story.—*Whitehall Review.*

An Inopportune Dislocation of the Jaw is mentioned in a recent issue of the *Union Médicale*. It seems that during the performance of a wedding ceremony the bride sneezed so violently as to dislocate her jaw at the critical moment when she should have pronounced the solemn "oui." As she was unable to articulate the word, it was found necessary for the whole party to repair to a surgeon before the ceremony could be completed.

Bichloride of Mercury vs. Muriate of Iron in Diphtheria.—Muriate of iron blackens and injures the teeth, and is not as useful in diphtheria as syringing with simple salt and water or bichloride of mercury. All experimenters agree in placing this in the front rank as a germicide and antiseptic agent. One to 40,000 prevents the development of septic germs, and but little less is required for the most virulent pus and bacteria. One to 10,000 destroys the vitality of bacteria in spoiled beef tea. It requires only 1 to 5,000 to kill the germs of malignant pustule. It forms the basis of the modern successful treatment of malignant diphtheria. The throat is frequently syringed, or irrigated, with a weak solution, and exceedingly small powders of it are given dry upon the tongue. It is the great adjunct of quinine and arsenic in typho-malarial and civic-malarial fevers. In septicæmic blood-poisoning it aids the action of food, alcohol, and quinine. But where the labors of scientists end there those of practical physicians begin. One bacterium will produce 16,500,000 in twenty-four hours, and 281,500,000,000 in two days. In septicæmic blood-poisoning, counting twelve pounds of blood in a man weighing one hundred and sixty pounds, there will be 70,000 grains of blood, counting 5,760 grains to the pound, troy or apothecaries' weight, to disinfect. It will require at least three and a half grains of corrosive sublimate to do this, and we can only give from one-twelfth to one-sixteenth of a grain three times a day. As it will require six or eight days to get in all the corrosive sublimate required, we have to depend upon the common remedies, viz., food, alcohol, and quinine to keep the patient alive in the meantime. The disease goes on increasing, or not lessening; remedies seem powerless, but succeed in the end.—*Medicus.*

The "Physician's Certificates" employed frequently in courts occasionally subject their writers to censure or criticism. This is not lessened when they bear internal evidence of faulty preparation. In a recent trial, the prisoner, in an affidavit, was described as "confallesant" but had been "irratable!" We know a practitioner who invariably speaks of a lying-in case as "a case of *midriffery.*" Attention to the small matters of spelling and pronunciation will frequently save the profession from public humiliation in the hands of critics through the writing or speaking ass.

The Dispensary Evil again and a Remedy.—"*Caritas Vera*" sends a letter upon this subject, which we are unable to publish in full. Referring to the present extent of medical charity in this city he says: "At fourteen of the chief dispensaries of New York City, there were treated gratuitously in 1883 no less than 230,000 persons, or considerably more than one hundred to each legalized practitioner of medicine in the city. This does not take into consideration the innumerable smaller dispensaries, out-door departments, etc., the vast number annually treated in the wards of our public hospitals, or the charity patients which every physician must perforce meet with in his private practice. If one is to judge from these figures alone he must inevitably come to the conclusion that New York is the most poverty-stricken city on the footstool. Besides, new dispensaries are looming up on every hand, and verily it seems that they will soon dispute the supremacy of apothecary shops and refreshment saloons in point of numbers. In making a professional call within the past twenty-four hours, the writer was obliged to pass, on his way to the patient's residence, the doors of no less than five of these institutions, and within the immediate neighborhood of two others!" The house-surgeons and clerks at dispensaries do not make careful enough inquiries as to the status of applicants for relief, being mainly anxious to increase the size of the classes. Herein, our correspondent says, lies a remedy. "If each and every patient applying for relief at our dispensaries were given to understand that such institutions were designed only for the poor and destitute, and were required to state clearly and positively that he was in need of public aid, the writer apprehends that there would soon be considerably more sitting-room on our overflowing dispensary benches. If a dispensary physician sees fit to question patients whose poverty he has reason to doubt, as to their ability to pay, he will find much similarity in their replies. In a number of cases in which the writer has ventured to make inquiries of this nature, he has usually met with replies about like this: 'Why Mrs. H—— has been coming here for several months, and she is much better off than I am;' or this: 'Oh, I went to see a private doctor, but he didn't seem to understand my case, so I came here to see a specialist." A few stated that they were unacquainted with a private practitioner. But a very small number, indeed, admitted that they considered themselves objects of charity, and some even flounced out of the dispensary in high dudgeon on such occasions."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 7 NEW YORK, FEBRUARY 14, 1885 Whole No. 745

Original Lectures.

INAUGURAL ADDRESS,

DELIVERED BEFORE THE NEW YORK ACADEMY OF MEDICINE.

BY A. JACOBI, M.D.,

PRESIDENT OF THE ACADEMY.

IT has been my privilege to enjoy many professional honors. Whatever favors my colleagues of both city and State could ever dispose of, they have liberally conferred on me at different times. To-night I am called upon to acknowledge my indebtedness and express my thanks to you for an extraordinary proof of your consideration and confidence. I do so from the depths of my heart, my pride in my elevation to the presidency of the New York Academy of Medicine being checked only by the overwhelming sense of the grave responsibility incurred.

In regard to the two highest positions the profession of the city has ever placed me in, I have been both fortunate and embarrassed. For when, some fifteen years ago, I took the chair in the Medical Society of the County of New York, my predecessors were Edmund R. Peaslee and George T. Elliott. The former was erudite, wise, a celebrated specialist, a renowned writer of great weight and force. The latter was bright, quick, versatile, as eloquent as his predecessor, conversant with the literature of his profession, also a good writer, and universally admired and loved for his pleasing manner and thoroughly gracious bearing. The difficulty of presiding after such men was relieved by but one all-important circumstance, which was this, that they had raised the Society to a flourishing condition such as had never existed before.

Now, as concerns the presidency in this Academy of Medicine, I believe I am in nearly the same position. If I were more eloquent I should try to do justice to the president of so many years, in recalling his services in the interest of the literature of medicine, of the standing of the profession at large, and of the development of this Academy. To say that the medical world knows him well, that we, the profession of the city, and the members of the Academy, are under great and respectful obligation to him for his untiring care and energy, his enduring patience, his kindness and urbanity, and his uniform success in conducting the affairs of the Academy, is but an incompetent expression of my feelings. Personally, I add my extreme gratification at the fact that it was under his guidance and supervision that the Academy could overcome such dangers and strifes as I hope these walls will never behold again. As they, however, are things of the past, I hope I shall have nothing to do but to preside over harmonious scientific meetings only, such as were contemplated when the Academy was founded. It will be my ambition and pride to contribute to its success as much as I can, hoping, at the same time, that your expectations will not be measured by Dr. Barker's eulogistic remarks, which I should be glad to deserve. In regard to them I will only say that I believe they were made on the principle and for the reason, that it is wise to stimulate ambition into powerful efforts for the accomplishment of ends by praising beforehand. The members present I beg again to receive my thanks, my promises, and my request that every one may consider the interests of this Academy under his personal charge. It will then be an easy task not only to preserve its high character, but in the course of time make it the largest and most influential scientific institution in the country.

How this can be accomplished has engaged my thoughts more than once. For the New York Academy of Medicine has been established for more than one purpose:

First.—The cultivation of the science of medicine.

Second.—The advancement of the character and honor of the profession.

Third.—The elevation of the standard of medical education.

Fourth.—The promotion of public health.

It has not been founded upon the plans of European institutions bearing similar names. The academies of sciences or of medicine in Europe, established for the promotion of the science and art of medicine, are institutions with a limited number of members, who have peculiar claims for such distinction. In them we find the most representative men only. Every one is a specialist in his way, a teacher, a savant; most of them are men of reputations, many are celebrities. They are professors in universities, directors of clinical institutes, independent of pecuniary compulsion to practise medicine, enjoying the leisure required for studies of their own. They are governed in part by rules prescribed by the government, which pays for their services either rendered to a public institution, or to pure science.

Our Academy is a democratic institution. It is not limited in numbers—on the contrary it is desirable that the many respectable physicians should gather round its flag. Like our political community, it looks for its development and success in the co-operation of the competent and cultured masses. Like the Union, it is a voluntary confederation of peers who make their own laws, and obey them because they are of their own making. The members have the same interests, both scientific and professional. There are but very few of us who are not engaged in the practice of medicine. When the Academy was founded, the members were, all of them, general practitioners; specialists there were but few. This has changed much, both study and practice have tried to become more profound by circumscribing and limiting their aims. But all of us are active men, not tied down or given up to study only. Thus we perform less laboratory work than they do in Europe, and write fewer monographs on special subjects. But the number of facts closely observed at the sick-bed or in the examining-room has increased from year to year. In spite of the circumstance that we are all busy men, the literature of medicine in New York and the United States is no longer mostly parasitical, as Oliver Wendell Holmes was justified in complaining during the session of the second meeting of the American Medical Association. Original work has taken the place, in part, of translations and reprints; still all the time the connection between the medical men and the public, the doctor and the patient, has not been severed. This is the peculiar feature of American, as it is of British, medicine. Anglo-Saxon medicine has never forgotten that the aim and end of all medical science is the treatment and healing of the sick, and that every special study is but a means to obtain that end.

Thus our Academy is not to be the centre of a select

few, who speak to the rest of mankind through their writings only, but of all who love their science and live the lives of respectable practitioners. All ought to be members. I have often been told, however, that the large number of societies prevents men from becoming members in the old and large ones. That is so. There is too much division and subdivision. But that is not the fault of the Academy. Under other circumstances the Obstetrical Society might well have been a section of the Academy; the laryngologists, otologists, ophthalmologists, dermatologists, might have their own sections under the auspices of the Academy, though under their own rules, their own officers, and, while doing the same amount of good work, not lose their connection with the main body. The large societies, such as the Academy, or the American Medical Association, or the German Association of Physicians and Naturalists, lose by the secession of important branches and their representatives. The unity of medicine is lost sight of, and the interests of science and the profession are suffering. Instead of one or two, every section of this Academy ought to be flourishing. Let us hope they will. We have been told to-night that there was more than an abundance of papers offered. Our rooms they are welcome to. Though we have to think of some time increasing our facilities, we can still accommodate them, and others besides. Indeed, most of the medical societies of the city would do well to avail themselves of the home the medical profession of the city have found in this hall, and meet here.

The peculiar features of this Academy I have mentioned permit of varied results. The mixture of the best brains of the profession and the modest practitioner is capable of raising the standard of the average professional man far beyond the level of the European medical man, frequently in knowledge, always in industry and ambition and ethics, without interfering with the individual and original labor of the hardest workers and best thinkers. Have we been successful on this side of the Atlantic?

They say we have no John Hunter. All Great Britain, in all its pride, has but one. No Bichat or Laennec. All the glory and elegance of France have but one. No Virchow. All the centuries of toiling and philosophical Germany have produced but one. What we do have, however, is a medical profession with unbiassed minds, clear insight, critical eyes, undaunted industry, and that republican courtesy which recognizes—*suum cuique*—the peculiar advantages and services everywhere, and the democratic tendency of appreciating, and appropriating, the intellectual accomplishments of the globe, and of utilizing them for the practical necessities of the commonwealth.

Besides, we do not live in the back woods, or in the darkness. As long as the Confederation and the Union have been in existence, their medical men have been, to say the least, marching in line. In what the Anglo-Saxons have known and taught, they have both participated and co-operated. Without the counting in of the original American contributions to science, the history of modern medicine would be incomplete indeed. Let Europe boast of their great names: this young community has the heirloom of the great names of Bard, Rush, McDowell, Drake, Beck, and many others of *past* years. Let the history of this Academy be written—and a grateful and gratifying labor it would be—and the array of great names is such as to astonish many of the young men in this room, who unconsciously and unconcernedly toil over the graves on which are inscribed the names of men great in literature, or achievements, or influence, great in mind and character. Let me mention a few of those who have passed away. I have known personally, and conversed and discussed with, John O. Batchelder, George M. Beard, Gunning S. Bedford, Ch. A. Budd, Gurdon Buck, H. D. Bulkley, William H. Van Buren, Freeman J. Bumstead, Henry G. Cox, George T. Elliott, John W. Francis, Edward Delafield, Elisha Harris, Horace Green, Ernst Krackowizer, Valentine Mott, Josiah Clark Nott, Edmund R. Peaslee, Willard Parker, J. Marion Sims, Joseph M. Smith, Alexander H. Stephens, James Stewart, John Watson, Robert Watts, Isaac Wood, James R. Wood. Many of these names are known wherever medicine is taught and practised; some of them will never die. This Academy will always cherish the names of its members who contributed to the glory of universal medicine and the American country.

When I, and those as old as I, knew these men, most of them were in advanced years. At that time the proportion of white heads was very much larger than it is to-day. I venture to say that it was for the good of the Academy that that was so. Neither the political republic nor that of science can thrive without the co-operation of all. At that time the number of older and old men was such as to draw forth sometimes the remark of some class of young men that the Academy was the headquarters of old fogies, and for that reason might be avoided and shunned. Much has been changed in this respect. Curly heads and young faces are plentiful, a good sign indeed for the energy and activeness of the growing generation. Many white beards, however, and bald heads have commenced to stay away for years, a proof indeed of the increased claim on their time and strength, but we fear also, now and then, of listlessness and indifference.

This ought not to be so. Neither in politics nor in science does age extinguish citizenship, with its rights and duties. Besides, I know that the best trained young minds are modest enough to admit that they are able and anxious to learn from those whose opportunities extend over a long number of years, and that books, brains, and experience are a greater power than books, brains, and inexperience.

These remarks I make for the purpose of requesting the older members of the profession not to withhold their presence and aid. Among them are men widely known in both hemispheres. When they write everyone reads, both here and in Europe. Let them not forget that a vast audience is just as anxious to hang on their lips when they either lecture before us, or take part in a discussion. They owe their teaching and their example to the rising generation of our younger brethren. They will teach them both medicine and modesty. May nobody who neglects his own duty toward them and the profession at large accuse a young man of forwardness. Some of them have indeed reaped a good harvest from living up to their duties as citizens of our republic of science. For if there be a fountain of youth for old men, it is the constant mixing and working with the young. The Nestor of our surgeons, whose face we greet with joy in almost every meeting, and whose voice we are delighted in hearing in our discussions, proves better than any preaching the powerlessness of so-called old age.

The hosts of others, general practitioners and surgeons and specialists, whom we like to boast of and to honor, will always be welcomed by all of us, both old and young, to seats in the front ranks. If they will consent, not only our scientific but also our public aims will be more apt to be reached.

For our position is that of the natural advisers in all matters concerning sanitation and health. The larger the number of our members, the more we represent the best minds and all ages in the profession, the more readily the public and its legislators will listen to us. When they know that our advice will be the digest of the best knowledge and the ripe wisdom of the profession, they will not wait until it is forced upon them. In matters of health the two large medical societies of the city ought to be, will be, the authorities. If that be so, it will no longer depend upon a number of ladies only to remove intolerable nuisances from the heart of the city. The simple appeal of the profession will become the protection of the public. The latter will soon learn that it can rely on your knowledge and public spirit, and as it calls on the bar for legal advice, it will consult the medical

profession for sanitary necessities. In this way it will happen that some time the President of the Board of Health will be nominated, or appointed by the profession; that no Board of Education, no Board of Charities will be complete without a prominent medical member; medical bills will pass the Legislature, when backed by the whole power of the profession, without either delay or mutilation; the supervising officers of factories, nurseries, streets, baths, gas-houses, will be physicians; aye, the most improbable thing will happen, which is this: that the public will acknowledge that the government of hospitals ought not to be without medical advisers in their boards. In order, however, to accomplish such results, we must unite our numbers, powers, and influence. The public and legislatures will respect and obey the regular medical profession more eagerly than the advice of individuals or societies. It gives me great pleasure, in this connection, to be able to announce to you that the representatives of the profession of the State agreed but yesterday on a bill to be presented to the Legislature, ordering a Board of State Examiners destined to license the practice of medicine. The unanimity of action in this respect on the part of apparently diverging and conflicting interests is a good omen, in this progressive State, for the growing influence of the medical profession. . Thus far the State Medical Society has done its part of the work nobly; now, may everybody see to it that the Legislature of the State be kept well informed and well advised.

The practical tendency of this Academy corresponds with the peculiar practical nature of the development of medicine in the English-speaking nations from the last century onward. Even the most fragmentary study of that development is of great interest indeed. Altogether, medicine in the eighteenth century exhibits a peculiar character. It is true that knowledge was not widespread, but the heads of the profession were capable, painstaking, searching, cool-headed men, good observers, and excellent describers. There was a large number of good monographs, excellent histories of cases, and fair diagnoses of the general condition of the patient. Local diagnosis, it is true, was mostly out of the question, since no sooner than in the second half of that century Morgagni collected in his illustrious work, "De Causis et Sedibus Morborum," all of the only three thousand post-mortem examinations which had ever been recorded in all ages and countries. Their judgment was sound, their therapeutics—though often exuberant—safe. As the scientific language of most of them was the same, Latin, their spirit was not local nor national. The same class of men were found in Germany and the British possessions; also in Holland and France. In the former we meet the names of Werlhoff, R. A. Vogel, Zimmermann, Lentin, Van Swieten, J. P. Frank. There was also Auenbrugger, who ought not to have been so readily forgotten. In Great Britain there were Mead, Huxham, Fothergill, Pringle, Heberden, Monroe, Home, Cullen, there was that giant John Hunter. In America we had Bard and Rush. In France, Levret. In Holland, at an early date, Boerhaave. The only fanatical theorist of all the English writers was John Brown; the only obscurist, who ought to have had a place in Germany between 1800 and 1840, was Robert Jones, with his "Inquiry into the State of Medicine on the Principles of Inductive Philosophy" (1782). When Broussais reigned supreme in France, his doctrines were welcomed by a great many in England. But the Anglo-Saxon mind is not easily drawn away by theories, and there is after all more solid work in Broussais than wanton theory only. Thus the English literature of the early part of this century teems with good observations and monographs by many more than those I here mention—Travers, Williams, Crawford, Astley Cooper, Brodie, Bell, Abercrombie, Cheyne, Pitcairn, Bright, Hope, and Carswell.

Of French names I have mentioned but one.

The redemption of France, after a century of almost unparalleled corruption and misery, begins with its great Revolution. Never before did fate grant to an unhappy nation a larger number of great spirits, both in politics and science. The faint impression the freer institutions of the British Island made on French literature would not have influenced the development of the country for centuries to the same extent as did the necessities of the population. In the history of political and mental development changes more or less sudden or gradual appear to be the rule; rise and decline change off, as the fertility and sterility of a corn-field. The fertility of France lasted a long time. While the greatest man in its political world could not do better than spread all over Europe part of the results of the French Revolution through violence and murder, a young scientist revolutionized medical science by genius and hard work. That is what Bichat did when he studied the physiology and pathology of the organic tissues. Since that period, France has marched at the head of medical science for about half a century. Pinel, Corvisart, Cruveilhier, Biett, Cazenave, Gibert, Laennec, Ricord, Civiale, Guérin, Guislain, Baillarger, Leuret, Longet, Guersant, Taupin, Valleix, Legendre, Dupuytren, Trousseau, Rilliet, Barthez, Durant-Fardel, Orfila, Louis, Broussais, Piorry, what a host of illustrious names, and by far not the only ones who will recall the glory of the French nation when there will be no longer a political France. It is true that a decline has set in. The number of really great men in modern French medicine is but limited. Charcot's name overshadows the reputations of all others, and it appears to me will live for centuries. May be also that Pasteur will be recognized as a fixed star in the scientific sky if he will succeed in divesting himself of the doubtful attributes of polemical tendencies.

After Bichat there are three French names connected with the history of medical sciences in all countries. Laennec's revolution of diagnosis by percussion and auscultation, is not any the less important and precious because Auenbrugger had worked in the same field more than half a century previously, for no other purpose but complete oblivion. Magendie's experimental physiology and pharmacology has benefited all mankind. His is the introduction of alkaloids, such as quinine, veratrine, strychnine, piperine, morphine, emetine—his the successful admission of bromine and iodine into practical therapeutics. Finally Broussais, by overthrowing ontologies—though he created one of his own—by localizing disease, by urging prevention and abortive treatment, by studying the anatomical lesions of pathological processes, has substituted a method of anatomical thought in diagnosis for the merely clinical and empirical observation of the sick, and thus been the intellectual author of that method of medical knowledge and reasoning which is best known by the name of the Vienna school. I shall have to consider its representatives shortly, with all its virtues and faults, both of which were learned and loaned from the illustrious Frenchman. For not only did he convey to them his anatomical way of thinking, but he also taught them to be satisfied with coarse local anatomical lesions, and with a nominal diagnosis, adding the assurance that those lesions must lead to death; that indeed the case is either getting well spontaneously, or is absolutely hopeless, and that a treatment of any kind is powerless.

The parallelism of political and scientific conditions which strikes us so admirably in the history of French development after the impulse given by the Revolution, is sadly illustrated by poor Germany. The country poor and forlorn, divided in hundreds of shreds, large and small, tyrannized and robbed by hundreds of dukes and bishops, and princelings of all sorts, every one the inferior in mind, but the emulating admirer of the tendencies of that despotic Frederick the Second of Prussia, in whom it requires the equally despotic soul of a Carlyle to find nothing but admirable traits; that country had, about the end of the eighteenth century, one representative in medicine corresponding with the character of the time.

Hufeland was a fair observer, a copious writer, an influential man, but weak and accessible to everybody and everything. It was he who admitted the first Hahnemannian gospels to his journal, and who was of the wise opinion that there may be something good in everything. Then came the French, and whipped the Germans out of political existence.. Then the wars which expelled the French, bloody, costly, and short, aroused a peculiar romantic fanaticism which pervaded the whole literature of a short decade, and could but have an unfavorable influence on science. Then came decennia of brutal political reaction and suppression, the scanty means of the nation being spent on police, military, and dungeons, in which the flower of the country, and particularly of the universities, was incarcerated. During that time German thought had no place in terrestrial parts; even before that time Schiller had proclaimed man "free though he wore chains." This sort of freedom the Germans utilized to become transcendentalists. The principal method of studying nature was imagination. Even Kant, the mathematical thinker, had taught them the art of construing things *à priori*. Then came Schelling with his system of natural philosophy, and Hegel, who wrote twenty big volumes, and is reported to have said on his death-bed, that in all his life he had but one pupil who understood him, and that one did not know anything about him. Under the influence of these philosophical absurdities no medical science could thrive. That was the time of animal magnetism and granioscopical humbug.

In such a condition of universal intellectual semi-paralysis and revelry in big words and clouded sensations of all kinds, combined with the insensate and murderous character of therapeutics, it was natural that homœopathy could thrive, with its axioms, that disease was an enemy from without, the result of psora or of medicines; that nature was an enemy of man, that nature will not cure a disease but a medicine will; that no medicine will cure which can be shown by any physical or chemical analysis to still exist; that its dynamical power increases with its attenuation and annihilation. That was the time in which one of the great lights of German medicine defined inflammation as the condition in which the "electrical essence (or part) is affected in the dimensions." Marcus never said that he understood that himself. At that time the medical literature of Germany was full of such philosophizing nonsense; full of contempt of the unphilosophical foreign countries; of Bright, with his British coarseness in studying nature as it was; of Laennec, whose percussion and auscultation were declared to be immoral and irreligious. My beloved teacher, Professor Fred Nasse, though all his life a believer in and author on animal magnetism, was one of the first to utilize Laennec's great innovation and the lessons of foreign teaching. Even Schoenlein, though it was he through whose influence young Virchow, after he had been expelled from Berlin for his liberal political views, was called to Würtzburg to teach pathological anatomy, could not free himself from the influence of philosophical doctrines. At that time the science of therapeutics consisted indeed in nothing but empty words, its practice in a great part to the traditional blood-letting, salivation, and purging. Thus it was that the fanatical hydropathists, and the adversaries of vaccination could obtain such rare opportunities and successes; thus that, but forty years ago, Rademacher could divide all ailments into saltpetre. copper, and iron diseases, by reason of the remedies of which each cured one-third of all the ailments of German kind.

Schoenlein and Liebig having prepared the medical minds, and the influence of foreign literatures being gradually felt in Germany and Austria, it so happened that Vienna had in its faculty of medicine quite an array of medical genius. Rokitansky, Skoda, Hebra, have long reigned supreme. Broussais' doctrines, good and bad, were readily accepted; his ontological gastro-enteritis was replaced by Rokitansky's doctrine of the crases of the blood, thus re-establishing the old humoral theory on an apparently firmer foundation. In Rokitansky's opinion the anatomical changes were the only thing in medicine worth knowing. Skoda, for some time, experimented carelessly and unsuccessfully with remedies; his ill-success and Rokitansky's teaching confirmed the nihilism of Broussais, against which Laennec protested in France, and made the expectative treatment and the nihilistic faith the gospel of German practice.

> "This was the medicine—the patients' woes soon ended,
> And none demanded: Who got well?
> Thus we, our hellish boluses compounding,
> Among these vales and hills surrounding,
> Worse than the pestilence have passed.
> Thousands were done to death from poison of my giving;.
> And I must hear by all the living
> The shameless murderers praised at last."

But in Goethe's "Faust" this is said by an incorrigible philosophical roué, who is ready to give himself up to the devil, and in Germany it had the result that the public, who have a right to desire to be cured when they fall sick, preferred the homœopathic pill-box to the pathologist's post-mortem case.

Not long after, Oppolzer, whose name ought to be blessed forever in Prague, Leipzic, and Vienna, began his influential career. In him Germany possessed its first great physician in this century, who knew pathological anatomy perfectly, was a thorough diagnostician, a humane physician and amiable teacher, who recognized the social, scientific, and humane duties of the practitioner, abhorred preconceived ideas and *à priori* constructions, acknowledged principles and facts only, and no duty but to find the truth.

It was about that time that Rudolf Virchow commenced to revolutionize medicine. Modern medical science owes its solid foundation and elaboration to him and his followers. The book of medicine of to-day, and, I trust, of the future, bears the imprint of his genius on every page. We all have read, and admired, and praised, knowing that when we readily place Germany in the first rank of the medical world to-day, the name of Virchow is in every mind, on every lip. This brief sketch cannot do him justice, nor do I desire to elaborate a theme with which every one is familiar. But one remark I cannot suppress, viz.: that he is not only great in his revolutionary discoveries and innovations, but in his self-denying conservatism also. If the bacteriomania of modern time has not been accepted uniformly as the universal gospel of modern pathology, if thoughtful hesitation and healthy criticism is still heard above the noisy waves of the seas of all-explaining and all-saving theories which claim to have given, at last, an absolutely solid base to etiology and pathology, that merit again belongs to a great extent to Virchow. I speak of it here because I hope that this Academy may be able to contribute to the solution of questions of great import, by original studies and discoveries.

For there was lately a time, or rather we still live in that time, when a single series of discoveries lays claim to having changed the aspect of pathology at one stroke, and solved all problems. You know I speak of bacteriology. In America also, all of those who cannot judge of the question by their own investigations, that is, the practitioners, either general or special, have readily accepted the new gospel with but few exceptions. The new theories that infectious and zymotic diseases have each their own bacillus, are so pleasant and promised to be so fruitful that it required some courage to critically resist the flood. On the other hand, those amongst us who have a right by their own researches and special knowledge to be heard, have hesitated to accept the results of microscopical, actual or alleged, discoveries as the sole explanation of everything infectious and zymotic. Amongst them I shall only name Wood and Formad, and Sternberg. Into the merits of the case, and the weighing of reasons I cannot go this evening, but it has appeared to

me that it would be well to direct the attention of the Academy to that subject as one greatly deserving of its attention.

To me, while I readily acknowledge a valuable increase of pathological knowledge, and the fact that the spreading of some diseases at least, slow, and gradual, and regular, seems to prove the multiplication of cases of disease by the regular multiplying of its causes, it has always appeared that purely bacteric etiology has too often begged the question, and that the answer to the question, whether organic or chemical poisons are the main causes of infectious diseases, has, by no means, been satisfactorily given. In the course of the last dozen years organic chemistry has made as rapid strides as has microscopy. Cadaveric poisons, ptomaines, have been discovered in great numbers. Most of them are very destructive. Sudden deaths from zymotic and infectious diseases resemble much those produced by these poisons. That the stings of insects or the poison engendered in putrid corpses lead to speedy destruction has always been known. The symptoms are exactly like those produced by many known poisons. Forensic medicine has a great many instances already in which it could be proven that the poison extracted from the body of the dead was not a vegetable agent, introduced during life, but the cadaveric poison. Count Gibbone was said to have been murdered with delphinine. Professor Selmi proved that what was claimed to be that vegetable poison was cadaveric. In another case he saved the life of a suspected person by proving that it was not morphine, but a ptomaine which was found in the body. Besides the poisons named there is strychnine, colchicine, atropine, coniine, woorara, nicotine, veratrine, hyoscyamine, narceline, the symptoms and chemical reaction of which are the same, or almost so, as the cadaveric poisons. Lecithine is found in putrid fish; a very dangerous chemical poison has been extracted from putrefying Indian corn and rye. Thus it is that many cases of poisoning with cheese, meat, fish, sausage, jelly, and yeast, many of them resembling acute infectious fevers, may find, and indeed have found, their ready explanation.

Brieger found quite a number of different varieties of cadaveric poisons—neuridine, neurine, muscarine, æthylendiamine, gadinine, and others. Many of these destroy life in a short time, and with the symptoms of acute infectious diseases. These poisons are found, in many instances, in the fresh dead body, not in that one which has undergone complete putrefaction. The results of putrefaction will, after a while, change entirely and become rather wholesome than injurious. Many years ago, Salkowski examined a vessel full of ascitic fluid, which he knew to be in utter putrefaction when he last inspected it. Not only was there no putrefaction any more, but, on the contrary, chemical decomposition had formed phenol. Thus putrefaction had worked its own destruction and antidote. The inference, then, is that a poison, even in the course of the same disease, may not always be found.[1]

Ptomaines are often met with in the presence of bacteria. Is it the latter which produce them? Do they so decompose the albumen of the tissue that a ptomaine must or can develop? Or is it their own vital change which produces it? Most modern writers—not chemists—believe it. But if the cause of decomposition of the living or dead be not bacteria, but a chemical poison after all, is it necessary to assume that the poison cannot form except through and with the presence of bacteria? And is the bacterium the only poison? or the only source of the poison?

If deadly poison, such as we know to destroy life suddenly, or almost suddenly, and of such virulence as is reported in what was formerly believed to be legendary only, but which may be historical, will almost invariably originate in the dead body, is it so impossible that it may develop in the still living under certain circumstances? Have we not had enough yet of the monthly instalments of new bacilli which are the invariably correct and positive sources of a disease, and replaced by the next man who comes along? Have we not yet enough of the statements, that, as for instance several bacilli are claimed each to be the only cause of diphtheria, by several observers, that there may be several distinct bacilli every-one of which can produce the same scourge? Is it not just as safe to still presume, that, when several forms of bacilli are believed to be such sole causes, that the real cause is in neither?

Exactly so, neither in one nor in the other, notwithstanding it all appeared settled. For our journals are replete with the very latest authentic bacterium of diphtheria. This time it is neither Klebs nor Eberth, but Loeffler. Reports, discussions, and even editorials carry his name over the world. The very nature of diphtheria is said to be revealed again, as several times before; still, the discoverer admits that there are cases without the bacterium.

The matter is becoming ludicrous. I begin to fear something like the recent rebellion against piano-playing in a large European city. Is not music a godly art, and the piano a blessing to the musician? But the playing of fifty thousand beginners in a large city is a nuisance. When bacterio-microscopy in the hands of beginners becomes noisy like piano-playing—noisy in books, pamphlets, and journals—a gentle protest is permissible. That protest is not meant for the masters who know how to wait and to mature. I do not speak against Robert Koch and his peers, who all of them are more modest than their followers. When the kings build, the cartmen are kept busy—and boisterous.

A dozen years ago the coccus of whooping-cough was said to be discovered. There was no doubt about it. There was whooping-cough, there was a coccus, what was plainer and more conclusive? To cure whooping-cough, nothing is required but to kill the coccus. Quinine will kill a coccus, quinine cures whooping-cough. Since that time there is no more whooping-cough in existence; or, if a case would be malevolent enough to turn up, it could not last longer than until a few whiffs of quinine can reach it. That is ludicrous, is it not? But it was preached like gospel, and it was believed. Many more such have turned up, and will turn up, for coming years to smile at.

There is a peculiar feature in this bacteriomania. Its principal impetus it received in Germany at a time when great changes had taken place in its political and financial affairs. All at once there was an Empire, of which historians so much spoke, youth so much dreamed, romancers so much fabulated. All at once, at the same time and a decade before, an unusual industriousness, commerce, enterprise, and unwonted wealth, and still more expectations than wealth; all at once an influx of five thousand millions of francs, not earned by honest work, but conquered by war, which could not but turn the poor heads and unstable the solid foundations of regular development. From that time dates that lack of safety and steadiness in German financial circles. They have even invented a name for that period of swindling, "gründerthum." Speculation was rife—fortunes were made in a day from nothing but self-assertion and daring and lost as quickly.

The moral and intellectual atmosphere created by these tendencies is never breathed by one class of people only. If self-assertion can make a fortune in finance, why not in science? If a reputation may perhaps be made by a stroke of chance, why not try that chance? Speculation was rife. Any young man can look through a microscope, perhaps he will draw the prize in the lottery of alleged science. Looking would he all right,

[1] Would it be so impossible to judge that the bacterium is an accompaniment of a chemical poison and may be present, or absent, according to the changed condition of the poison? Such changes take place all the time in putrefying material as Salkowski has shown, and others after him. They probably take place in the living body also, during infectious fevers. In the incubation they develop, they are most poisonous and vehement during the height of the process, they gradually change into less dangerous combinations, into an indifferent state, and finally a really disinfectant material. Thus it may be that the floating poison may become even beneficial. Is it for that reason that patients who have outlived a serious attack of typhoid fever, are endowed with better nutrition and more vigor afterward than they ever enjoyed before?

if he would not write. Medical life would be easier if there were less journal articles containing the latest infallible discoveries. Thus it has come to pass that German medicine has a two-fold aspect nowadays. The days of her superiority are not over yet, her greatest men still live, and the toiling thinkers are at work, but the number of speculators is immense. A great many of the articles printed in the journals of the last ten years have been prematurely published, the number of preliminary notices announcing discoveries under way is very large. The great embryo cannot wait. He is afraid of having his celebrity snatched away from him by the next door microscopist.

Thus it is that we often find a difficulty in keeping our eye on the great lights, whose rays are always welcome. If learned and thoughtful specialism has its justification anywhere, its field is the solution of the mooted questions alluded to. Thus far I claim, however, that in regard to bacteriology, the main questions are before the medical world still. I firmly hope the Academy will prove the centre of critical researches by which the problem, whether bacteric or chemical poison, still a mystery, will be carried nearer its solution.

In this expectation I am justified by a reference to the historical fragments you permitted me to sketch to-night. There has been no deviation from the empirical and clinical tendency of Anglo-Saxon medicine from the beginning. It was so strong that it gave character to the medicine of the eighteenth century. In the words of the Testament I might say, Sydenham begot Boerhaave, Boerhaave begot van Swieten, van Swieten begot John Peter Frank. Sydenham and his generation of followers are the flower of the whole century and their spirit penetrates everywhere. In those times the senses alone were the diagnostic apparatus. The exact methods of the following decades have sharpened the senses of the English and American medical men, and rendered their observations more accurate and their results more correct. Live and learn, has been their pass-word. No new methods have ever been neglected, only unfounded theories ought not to find root in the regular medical profession. As the best features of all experience and wisdom of all ages and all nations have been utilized in the establishment of our political system, thus the American medical mind has received, appropriated, and critically digested the results of foreign scientific labor and added of its own. It is with sincere pleasure that I have again read that interesting collective volume containing a century of American medical history. In it those of you who have not read it will find many a good reason to be proud of the achievements of our country. It is so modest in its tone and contents that many more names might have appeared in the enumeration of men and labors, not to speak of those who have added materially to our wealth of intellectual productions since. Its perusal will be a revelation to many who are in the habit of looking for everything new and trustworthy, and—that is the technical term now-a-days—epoch-making, from abroad. If there is anything which teaches us both justifiable pride and desirable modesty, it is the history of our science in our whole country. For besides a great many of the former and present members of this Academy who have accomplished lasting results, there are a great many other Americans in other states and cities who stand on a level with the best of all nations.

From the reading of old journals I learned but lately that four years before Semmelweiss proclaimed the contagious character of puerperal fever, against the protest of the official standard-bearers of obstetrics in Austria and Germany, our own anatomist, our philosopher, our poet, our autocrat, our own Oliver Wendell Holmes, taught, it is true, against the ridiculing sneers of Hodge and Meigs, the frequent transmission of puerperal fever by physicians and nurses. I might go on a long time, but I do not stand here to extol America or American medicine. Still I feel strongly that we may be well satisfied with what we, not protected by governmental interference, unaided by a slow growth through centuries, have accomplished in a proportionally short time. The last few decennia gave us the library of the Surgeon-General's office, the "Subject Catalogue," "The Medical and Surgical History of the War," standard books, recognized as such in Europe, great journals, and a goodly array of valuable monographs, and vastly improved college education; they have raised great surgeons and clinicians of universal reputation, and a progressive profession whose aim and best efforts are directed toward the improvement of medical training, and the sanitary condition of the people.

All this I firmly believe is true. If it were not, let us make it so. If it be, let us still rise and work, and with all that, let every man among us feel what Holmes said forty years ago: "I am too much in earnest for either humility or vanity."

Original Articles.

PNEUMONIA IN YOUNG CHILDREN.

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A COMPLETE description of a disease like pneumonia, even if we limit it to early life, is not possible within the limits of a paper like this. I shall confine myself mainly to the clinical features of the disease, as deduced from a comparative study of eighty-six cases, which I have had under personal observation and whose histories have been carefully recorded.

As these cases are taken indiscriminately from private and dispensary practice they can be assumed fairly to represent the disease as it is seen outside of large institutions for children. As my object is not to establish the value of any particular line of treatment, the cases have been taken consecutively, and include all those I have seen during the period covered, at whatever stage and for howsoever long a time under observation.

I much prefer and shall use the terms lobar and broncho-pneumonia, instead of croupous and catarrhal, or lobular, to designate the two varieties. The latter terms though fairly descriptive are rather misleading than otherwise.

While broncho-pneumonia is the form essentially peculiar to early life, the lobar variety occurs often enough to demand a portion of our consideration.

Some idea of their relative frequency may be gained from the fact that of seventy-four cases under five years, eighteen were lobar and fifty-six cases of broncho-pneumonia, or about one to three. Baginsky, from a much larger number of cases, finds the same proportion. It is a mistake, then, to say that lobar pneumonia is rare under five years.

As it occurs in young children it presents the same general features as in the adult. We note its prevalence during the months of March, April, and May, its sudden invasion, its typical course, and its rapid defervescence on the sixth to the tenth day. Yet there are certain peculiarities, owing to the absence of some of the diagnostic symptoms present in adults, and the existence of certain new ones dependent on the conditions of childhood, which render the diagnosis difficult, and may cause it to be overlooked altogether without a careful physical examination. The following may be taken as an illustration of a simple uncomplicated case of average severity.

A well-nourished female child, aged ten months, after an exposure in the afternoon was taken in the evening of March 15th with vomiting, high fever, great restlessness, and cough. She was seen March 17th, with temperature, 103½°; respiration, 68; pulse, 170. Face was flushed; there was a good deal of general prostration. A patch of consolidation was found at the inferior angle of the left

scapula. Signs: Marked dulness, bronchial breathing, no râles; signs elsewhere normal in both lungs. The next day the signs of consolidation had extended over the whole left lung except the extreme apex. The fever continued high until the 19th, when a marked decline took place, and after the 20th (sixth day) the temperature was normal. In a week's time almost complete resolution had taken place.

The disease is usually primary, and occurs more frequently in stout, robust children; males a little more often than females. A distinct prodromal stage is rarely present. The disease begins suddenly; it is ushered in most frequently with repeated attacks of vomiting. This was the mode of onset in about half my cases. Next to this, convulsions seem to be the most common. A distinct chill in a young child I do not remember to have seen in a commencing pneumonia. After six or seven years it is more frequent. High fever sets in almost at once. The temperature rises to 104°, or even higher, the respiration to 50, 60, or 80 a minute, and the pulse to 120 or 160. There is great thirst. If still at the breast, the child desires to nurse almost incessantly. It seizes the nipple eagerly, pulls violently a few times, drops it for a moment, takes a few deep, quick respirations, and then catches it again. When not nursing the respiration is peculiar. There is a short, quick inspiration, a moment of suspension, and a forcible expiration with a slight moan or grunt. The expiration is accentuated, and is an active, rather than a passive, movement, as it seems to be in health. The cry, like the breathing, is short, quick, and interrupted. The cough partakes somewhat of the same character; it is teasing, hacking, persistent, and always dry. There is great restlessness and irritability, and occasionally the child complains of distinct thoracic pains. There is marked general prostration, the cheeks are occasionally flushed, but more often not, and the face is then pale and the expression apathetic. The temperature fluctuates slightly during the day, being 102° to 103° in the morning, and 104° to 105° in the evening, until the sixth or seventh day, sometimes not until the tenth, when it suddenly falls to or near the normal, and convalescence is rapidly declared. The crisis often comes with a copious diaphoresis. Although very ill as these children appear, and in fact really are, the mortality is very small. In twenty-five cases I have had but one death. The case was as follows:

A boy, aged nineteen months, rather delicate, was taken, on the evening of February 6th, with convulsions. He had lain in a drowsy, semi-stupid condition up to the time I saw him, February 8th, with a continuous high fever. There had been frequent vomiting. The temperature was 104¾°; respiration, 50; pulse, 195. Respirations were a little irregular. There was no paralysis, the abdomen was natural, the pupils normal, a few coarse râles only in the lungs, and very little cough. The next day the signs of consolidation were found in the left lower lobe posteriorly. Temperature, 104½°. On the following day—the fifth of the disease—the temperature was nearly 105° all day; once, at noon, touching 106½°. Still he seemed to be holding his own. On the sixth day the nervous symptoms became still more severe; he had screaming fits during the night, was excessively irritable, boring his head in the pillow. There was, however, no true stupor, he recognized the mother, and at times was bright. His respirations were not specially quick, 56 being the highest; there was no dyspnœa, and no cyanosis. His pulse was feeble, and rose in the evening to 200 a minute, and the temperature to 106¾°. The signs of pulmonary œdema were then present, and he died from this cause five hours later. Throughout the course of the disease the general symptoms were very severe, and apparently out of proportion to the extent of lung involved, which was only half of the left lung posteriorly. This case corresponds pretty accurately with a form described by some writers under the head of typhoid pneumonia. Unfortunately no autopsy could be obtained.

The cerebral symptoms are often so prominent as to mask completely the rational symptoms of the pneumonia. The initial convulsions may be succeeded by an active delirium, general hyperæsthesia, vomiting and constipation, or by drowsiness verging on a true stupor, with slight opisthotonus and retraction of the abdomen. The cough is often absent in such cases, and the rapid breathing may be the only symptom to call attention to the lungs. A positive diagnosis is only reached by the physical signs. These cerebral symptoms may disappear after two or three days, or may last until the crisis, when they vanish with the fall in the temperature and the beginning of resolution, as in the following case.

A delicate little girl, two years of age, was seen on the fifth day of a pneumonia complicating whooping-cough. There had been constipation, vomiting, extreme irritability, great prostration, loss of flesh, and complete anorexia. The temperature was 103⅘°, and the respiration 60. A patch of consolidation was found in the right lung anteriorly. For the three days succeeding, she presented the following symptoms: Great drowsiness, this being disturbed only by the cough, opisthotonus with rigidity of the muscles of the neck, retraction of the abdomen, the pupils responded sluggishly, the urine was scanty, the bowels constipated, the tongue dry.

This combination of typhoid and cerebral symptoms were the grounds of a grave prognosis, which was given. Yet with the occurrence of the crisis on the eighth day they all disappeared, resolution took place quite promptly, and the case made a good recovery.

Gastro-intestinal symptoms at the outset may be so severe as to engross the whole attention of the physician, and it may be several days before any pulmonary disease is suspected, as in the following case, where the pneumonia was only discovered by accident:

A stout boy, seven years of age, was taken on December 13th with severe vomiting and purging, and pain in the left hypochondriac region. I saw him at the dispensary on the 15th. He did not seem very sick, and had not been confined to bed. His tongue was heavily coated. The vomiting had ceased, but he was having from six to eight diarrhœal passages a day. Nothing was disclosed by the rather superficial examination made, and an astringent diarrhœal mixture was ordered. Two days later he was brought back by the mother, looking so sick that his case was more carefully investigated. His diarrhœa had not been in the least relieved by the prescription. He had had four passages that morning. The history of a high fever the night before, followed by a profuse sweat, led me to examine his spleen with a view to some possible malarial complication. Finding no enlargement, I casually listened to his lungs, and was greatly surprised to find all the signs of consolidation at the left apex. His temperature was 102⅘°, respiration 48, pulse 120. I ordered him to be kept in bed, and I saw him daily at the house. The diarrhœa ceased the next day, practically without treatment. The disease ran thereafter a typical but somewhat severe course, the temperature being continuously high until the night of the eighth day, when it fell to normal with a profuse sweat. Quick resolution took place.

Regarding the *seat of the disease*, lobar pneumonia in children presents quite a marked contrast with what is found in adults. My own cases are too few to give any statistics of value upon the relative frequency with which the different parts of the lung are involved. They accord, however, with those given by Rilliet and Barthez and Baginsky, that the order of frequency is, first, the right apex; second, the left apex; third, the left base; fourth, the right base. Of 408 cases from the first authors, 170 were at the right apex. Of 50 cases from the last author, in 26 the right apex was involved, though not exclusively in all.

Physical signs.—Generally speaking, these do not

differ essentially from those in the adult. The fremitus of the cry is usually increased; dulness is as a rule quite marked, though if the consolidated area be small, we may get exaggerated resonance over the whole chest. The subcrepitant râle, is, I think, more frequent than the crepitant; in fact, the latter I have rarely heard. The resonance of the cry is prolonged and intensified, the breathing is broncho-vesicular, and then bronchial. Usually pleuritic friction-sounds are heard.

The frequency with which the apex is involved should be borne in mind, and the region high in the axilla carefully examined, as it is here perhaps that the disease is most often overlooked. It is not infrequently the first, and may be only place, in which bronchial breathing is heard.

This frequency is also, perhaps, an explanation why pneumonia with cerebral or typhoid symptoms, and also central pneumonia, are comparatively so frequent in early life.

Before leaving the subject of physical examination, I wish to say a word about the use of the stethoscope. It is extremely difficult, well-nigh impossible in an infant, to examine the supra- and infra-clavicular and the high axillary regions satisfactorily and thoroughly with the naked ear. And these are just the parts we wish to be particular about. It can be done with great ease by the stethoscope. Children are less likely to be frightened into crying by the instrument, than by the head of the physician. In children of two or three years old this objection may not have the same force.

Diagnosis.—Although in most cases this is easy, it presents in some very great difficulty during the first two or three days before positive signs of consolidation appear. In central pneumonia this difficulty is greatly enhanced. In one case, in a boy of two years of age, there were absolutely no physical signs until the seventh day. Yet the rational symptoms, particularly the continuous high temperature, it being 105° and over, left very little doubt in regard to the diagnosis. The chest was carefully examined every day. The consolidation finally appeared at the extreme right apex.

Practically I have found lobar pneumonia difficult to distinguish from scarlet fever, typhoid, meningitis, tonsillitis, malarial fever, pulmonary congestion, and broncho-pneumonia.

The invasion of pneumonia and scarlet fever are very similar. We must wait for the physical signs of the one or the rash of the other before pronouncing a positive opinion. With reference to typhoid, it must be borne in mind that its course is less regular in children, and that a high temperature is more common at the outset than in adults. Considering the frequency of diarrhœa and typhoid symptoms in pneumonia, it will be seen that the physical signs and the course of the disease are the only positive means of differentiation. A source of error in the physical signs will be mentioned in another connection.

The cerebral symptoms of pneumonia are rarely so intense, so prolonged, so continuous, or so progressive as those of meningitis, although almost every individual symptom of the one may be present in the other.

I have several times mistaken the invasion of a simple tonsillitis for a commencing pneumonia. This error is likely only in those cases where the severe general symptoms are out of all proportion to the local throat changes, and precede them by a day or two. It is often hard to convince one's self that the patient has nothing more grave than a simple sore throat. This is especially common when the disease prevails as a sort of epidemic, as it does every now and then.

I have mentioned pulmonary congestion as one of the conditions with which pneumonia may be confounded. The following case may serve to make my meaning clear.

I saw, in October last, a girl, seven years of age, with a temperature of 104⅘°, respiration 55, pulse 150. She had been sick a week; mode of invasion not accurately determined. There had been headache, cough, and continuous fever, but no special diarrhœa, no epistaxis. She had been in bed most of the time. There was no characteristic eruption. Examination of the lungs gave evidence only of slight bronchitis. Typhoid was diagnosticated, though with some hesitation. The next day the lungs were again examined, and high in the left axilla bronchial breathing and bronchophony were present, and so distinct as to be undoubted. There was no special dulness. I said to a medical friend, "My case of typhoid fever has turned out to be an apex pneumonia." On the following day, greatly to my surprise, the signs at the left apex had entirely disappeared. Further examination revealed the fact of distinct bronchial breathing and voice, and slight dulness over an area half the size of my hand at the right base behind. These signs were not present the day before. I said to my friend, "I was deceived regarding the diagnosis in that case, it is pneumonia, not, however, in the left apex, but at the right base. The signs to-day are unmistakable."

At an examination made the next day I was again compelled to retract, as the signs at the right base had vanished completely. I returned to my original diagnosis of typhoid, which the subsequent course of the disease proved unquestionably to be the correct one. No further signs of lung consolidation appeared.

I could multiply illustrations of this point. These congestions, sometimes affecting a whole lung, sometimes the base, sometimes the apex, I have seen under many circumstances, most often with malarial fever. Occuring in the course of pneumonia they lead to the belief in a sudden extension of the disease. In one case the signs of consolidation had been limited to the left upper lobe in front and the extreme apex behind. On the day before the crisis they were present over the whole left lung posteriorly. The general symptoms were so much worse I thought there could be no doubt of an extension of the disease. However, as the temperature fell the next day they all disappeared, leaving the signs exactly as they had been two days before.

This subject is one of exceeding interest to me; I wish I could dwell upon it more at length. I hope in the discussion which follows some one may throw additional light upon these obscure cases. I think it is impossible by any physical signs to differentiate between congestion and lung consolidation. Congestion is only recognized by its inconstancy, its mobility, and its evanescent character, rarely lasting more than a couple of days.

The onset of malarial fever and pneumonia are very similar; both usually begin abruptly with vomiting, convulsions, or a chill; in both we have the sudden rise of temperature to from 103° to 105°. When pulmonary congestion is associated with malaria we get the same accelerated breathing as in pneumonia; and it may be even more rapid than in the latter disease. I have in several cases seen it one hundred a minute. In this condition all the physical signs of commencing pneumonia may also be present. A differential diagnosis in these cases is absolutely impossible at the first examination. Observation of the patient for a day or two, especially noting the temperature curve, usually clears up the case beyond all doubt. In malaria there is almost invariably a marked morning remission. If the lungs are examined then, the physical signs will be found in many cases to have vanished completely, or at least to be insignificant. There is one symptom which has in several cases saved me from unreserved diagnosis of pneumonia in these malarial cases. This is the amount of general prostration; it is almost never so marked as in pneumonia.

The differential diagnosis from broncho-pneumonia will be considered under the latter disease.

BRONCHO-PNEUMONIA.

By this term I understand an inflammation which affects the mucous membrane and the walls of the bron-

chi, the air-cells, and the interstitial tissue of the lung. The bronchial element predominates, in fact forms the characteristic feature.

Dr. Francis Delafield mentions ("Pathological Studies," 1883) certain anatomical peculiarities of the child's lung which in part account for this. He says, "the bronchi occupy relatively a larger portion of the whole organ; the interstitial tissue is present in larger amount; the cavities of the air-cells are smaller and their walls thicker."

All the latest writers upon the pathology of this disease agree that we can no longer draw the line between broncho-pneumonia and that condition formerly described as capillary bronchitis. The terms are used synonymously. This form is spoken of as generalized, diffuse, or disseminated pneumonia.

Without going fully into a description of the lesions of this disease they may be summarized briefly as follows: 1, Inflammation of the mucous membrane of the bronchi of all sizes; 2, infiltration of their walls with inflammatory products; 3, acute dilatation of the small bronchi from these changes; 4, zones of hepatization and congestion surrounding the bronchi; 5, collapse of groups of air-cells from bronchial obstruction; 6, extensive congestion of areas neither collapsed nor hepatized; 7, more or less diffused areas of hepatization; 8, exudation of fibrine on the pleura; 9, infiltration of the bronchial glands.

In addition, it is necessary to remember certain conditions affecting the organs of respiration and circulation in children, which do not obtain in adults. The right ventricle of the heart is at birth as thick as the left. Throughout childhood it is relatively much more powerful than in adult life. Hence, it is better able to perform the increased work thrown upon it, by the obstruction to the pulmonary circulation in pneumonia. In this respect the child has a decided advantage over the adult.

Precisely the opposite is true with reference to the respiration. A healthy child produces, according to its body weight, about twice as much carbonic acid as an adult. The pneumonia renders a certain portion of the lungs practically useless for the time, while the febrile process increases the production of carbonic acid, far beyond the quantity in health. Hence, although the child needs more breathing space it actually has much less. Again, the respiratory muscles are not so well developed in early life, and these are weakened by the disease itself. Furthermore, a great amount of the muscular force exerted is lost, because of the yielding chest-walls and the great bronchial obstruction. The latter is due, not only to swelling and the accumulation of secretions, but also to spasm, which plays no unimportant part in a large number of cases. With each inspiration the bronchial secretions are drawn further and further toward the alveoli. The expiratory force being stronger than the inspiratory, more and more air is forced from the air-cells, until they collapse in great numbers, and the chest muscles become exhausted by vainly trying to lift its walls against the atmospheric pressure.

From the facts I fully agree with the conclusion reached by Baginsky, "Pneumonia und Pleuritis," p. 42, that while adults die in pneumonia mainly from heart failure, in children it is the failure of the respiration. This point has, I think, an important practical bearing.

The sexes in broncho-pneumonia are about equally affected, possibly there is a slight predominance of females.

Of fifty-three cases it was presumably primary in seventeen, or about one-third. In ten it complicated whooping-cough; in nine, measles; in nine it followed a primary bronchitis; in the remainder it was secondary to cholera infantum, scarlatina, vaccinia, or malaria, dentition co-existing in several instances.

Only some of the cases were over three years of age. Both lungs were almost invariably involved, although generally to a different degree. The disease is always more intense behind than in front.

The clinical picture presented by broncho-pneumonia is a decided contrast to the lobar form in most of the prominent features. It is nearly always secondary; attacks children debilitated by previous disease; its onset is gradual; it rarely terminates by a crisis, and has no typical course. When it supervenes upon an attack of bronchitis it may be so gradually that it is difficult to tell exactly when the extension took place.

The temperature curve is an exceedingly variable one. It is not so uniformly high as in lobar pneumonia. The diurnal variations are usually greater. The most common course is for it to run from 101° or 102° in the morning to 103° or 104½° in the evening for about ten days, when it subsides gradually, being a week or ten days more before it finally remains normal. Very often the duration of the febrile stage is four weeks instead of three.

In one-fourth of my cases it reached 105° or over. In three it was 106⅝°; one of these cases recovered.

While in general it is true that the disease is dangerous in proportion to the height of the temperature, yet I have seen death occur as early as the tenth day where the temperature was only once above 101°.

The respirations are always much accelerated. They are more rapid and more labored than in lobar pneumonia. They usually range from sixty to eighty per minute. In severe cases their number rises to ninety, one hundred, or even one hundred and twenty, as I saw in one case.

Let any one try to breathe even eighty times a minute for a few minutes, and he will understand why these children become exhausted.

The pulse generally rises with the temperature and the respirations; it reaches one hundred and fifty to one hundred and eighty. I have several times seen it two hundred and over.

The amount of general prostration is not so great at first, perhaps, as in lobar pneumonia; but as the disease progresses it becomes extreme. The children lie preferably upon the back, often too weak or too apathetic to make any resistance to examination. The cough is nearly always distressing. But I know of few things more painful to witness than a child exhausted with pneumonia struggling with a paroxysm of whooping-cough when this complication exists. It seems as though every seizure would be the last.

Toward the close of the disease the drowsiness is much increased, probably from carbonic-acid poisoning; true coma rarely is present. Other patients continue in a state of extreme nervous irritability, tossing from side to side in great distress, making violent but ineffectual efforts to get more air into the lungs. Sometimes convulsions develop; these usually end the scene.

The face is quite characteristic; it is pale and indicative of suffering and anxiety. The alæ nasi dilate with each inspiration. Later the lips become livid, and the face slightly cyanotic.

The cry is short, and usually feeble and whining.

The disappearance of the cough is always a bad symptom, and is an indication of general blunting of sensibility from the blood-poisoning.

Death usually occurs during the acute stage from asphyxia and exhaustion, the heart failing after the respiration.

Physical signs.—In all cases of thoracic disease in infants and young children we encounter difficulties not met with in the adult. These are partly incidental, depending on the irritability of the child and its resistance to the examination, and partly inherent, from the fact that the child cannot give us assistance by regulating at will the frequency and the depth of the respiration, and also that the voice sounds are but imperfectly replaced by the cry. The very rapidity of the respiration itself becomes a source of embarrassment.

Palpation.—The information afforded by this sign is not of great value. The thin chest-walls allow the transmission of all vibrations with distinctness, whether they are nasal, laryngeal, tracheal, or bronchial in their origin. When this fremitus is felt all over the chest it sig-

nifies little; when exaggerated in areas distinctly circumscribed, it has the same value as in the adult.

Percussion.—Can only give positive information when the lobules hepatized are numerous and close together. When a large part of a lobe is involved, we get dulness which may be as marked as in lobar pneumonia. When the patches are smaller and scattered, which is more frequently the case, the dulness is slight. In those cases where the pneumonia is generalized, involving a large part of both lungs to the same degree, the whole chest may be extra-resonant. The emphysema which always exists about the patches of consolidation, modifies the percussion note behind, and produces the exaggerated resonance almost invariably present in front and over the apices. It is upon *auscultation*, then, that we must mainly rely in the diagnosis of this disease.

The sibilant râle is usually the first sign in the generalized or "suffocative" cases. It then develops very rapidly and may be heard over nearly the whole of both lungs. Vesicular breathing may be almost absent from the obstruction in the bronchi. These râles, when thus generalized, are replaced in a day or two by mucous clicks and moist râles of all sizes equally diffused. These may be the only signs during life.

The respiratory murmur in some cases is simply very much exaggerated or ultra-puerile, so that the breathing usually heard in front and at the apex is heard all over the chest. This is especially in cases where the breathing is very rapid. It may vary from this, through all the degrees, vesiculo-bronchial and broncho-vesicular, to pure bronchial breathing. Absence of vesicular breathing does not always mean hepatization. It may be due to great obstruction in the bronchi with collapse of the air-cells, or to congestion. Pure bronchial breathing, such as is heard in lobar pneumonia, does not usually exist. When it does it is combined with the other signs, marked dulness and increased resonance of the cry, which are found in that disease.

Usually we have a commingling of pulmonary and bronchial sounds, and either element may predominate. The breathing, in most cases, is only broncho-vesicular, high-pitched, particularly the expiration, which is prolonged. Sometimes the râles may completely obscure the breathing sounds. The pitch of the râles thus gives valuable information. When consolidation exists this is high, and they have a sharp, metallic character. The exaggerated resonance of the cry is also valuable here. Auscultation during, or immediately after a paroxysm of coughing, may serve to disclose signs of consolidation not otherwise perceived. As râles over the upper lobes are generally less abundant, changes in respiration here are more easily made out.

Where the pneumonia supervenes upon a bronchitis it is impossible to tell precisely by the physical signs when this extension occurs. Signs of consolidation rarely appear before the third day, and often not until the seventh or eighth.

When a consolidated area exists in one lung the transmission of the sounds to the opposite side may be so distinct as to lead to the supposition of disease there. Percussion usually enables us to correct this mistake. A more common source of error is that, when the breathing is very rapid, and consequently very superficial, laryngeal and tracheal sounds, and those produced in the primary bronchi, are transmitted and audible over the whole chest, but are particularly loud in the interscapular regions. Here they closely resemble bronchial breathing from consolidation. The fact that the same thing is heard upon both sides, and that there is no dulness, usually suffices to distinguish it from the latter condition. In all cases the signs vary greatly from day to day, changing with the depth of the respiration, the position of the child, etc. Repeated examinations are always necessary before pronouncing positively in regard to the condition of the lungs.

(To be continued.)

ON THE LOCALIZATION OF THE CORTICAL MOTOR CENTRE OF THE LARYNX.[1]

By D. BRYSON DELAVAN, M.D.,

[NEW YORK.

In the light of important discoveries made in recent years by such investigators as Ferrier, Charcot, Hitzig, and others, the theory that there reside in the cortex of the brain definite centres of muscular action, has slowly but steadily gained a strong position in physiological science, and has attracted the support of a large and constantly increasing number of competent observers.[2]

Although, as the outgrowth of these studies, much has been done to determine the motor centres of other organs, general and special, the centre for the human larynx has, up to the present time, remained an unexplored field.

It will be the object of this paper, therefore, to call attention to certain anatomical, physiological, and pathological considerations, which, if they do not actually prove, at least strongly suggest, the probability that such a centre does exist, and, secondly, to indicate, as nearly as may be, the precise location of this area.

I. In regard to the anatomical considerations, it has long ago been shown that the cortical centre for the lower limbs is in the region of the superior part of the fourth frontal and the ascending parietal convolutions; that for the arms in the middle part of the ascending frontal; that for the face in the inferior part of the ascending frontal; while that for speech occupies the lower part of the third left frontal, toward where it joins the ascending frontal.

By analogy, it would be natural to expect to find the centre for the larynx in the vicinity of the centre for the movements of the face and for speech.

As to its nutrition, this whole motor region, adjacent to the fissure of Rolando, is supplied by one of the branches of the middle cerebral artery. According to Quain,[3] the main trunk of the middle cerebral artery passes upward and outward to the fissure of Silvius, until it reaches the Island of Reil, on the surface of which it divides into four branches. The first branch is limited in its distribution to the outer part of the orbital surface, and the adjacent inferior frontal convolution. The second branch supplies the posterior part of the middle frontal, and the chief part of the ascending frontal convolutions. The third branch passes in the fissure of Rolando to the rest of the ascending frontal and to the ascending parietal convolutions, and to the anterior part of the superior parietal lobule; and the fourth, lying in the posterior branch of the fissure of Silvius, supplies the inferior parietal lobule and the superior temporo-sphenoidal convolutions. Again, the cerebral arteries anastomose but sparingly at their extremities, so that each branch supplies, as it were, a territory of its own.[4] "All of the nutritive arteries are end arteries,"[5] while some of the smaller branches distributed to the cortex are also of this nature.

II. *Physiologically.*—At a meeting of the Physiological Society held in Berlin, November 23, 1883,[6] Dr. Herman Krause stated that he had, in the laboratory of Professor Munk, investigated experimentally the supposition that the voluntary muscles of the larynx would be found to have a cortical centre, and had confirmed it. On exposing a dog's larynx, and irritating a certain section of the cortex by moderate electrical currents, he invariably noticed the rise of the larynx, the movement of the vocal bands to a position midway between expiration and phonation, the rising of the palate, the contraction

[1] Read before the Laryngological Section of the International Medical Congress, Copenhagen, August 14, 1884.

[2] Of the practical value of a complete knowledge of the functions of the brain-cortex in the diagnosis of pathological conditions of that organ, both medical and surgical, it is not necessary here to speak. For a most graphic and interesting exposition of the subject in general in its relation to surgical diagnosis, the reader is referred to the excellent work of Dr. J. Lucas-Championnière, Paris, 1878, entitled La Trépanation Guidée par les Localisations Cérébrales.

[3] Quain's Anatomy, vol. i., p. 379. [4] Ibid.
Coats' Manual of Pathology, p. 414.

[5] Archiv fur Anatomie und Physiologie, Physiologische Abtheilung

of the constrictor pharyngis, and movements at the base of the tongue.

That the part of the cortex in question was the centre of the laryngeal movement was further confirmed by experiments of extirpation, which were performed successfully on both sides in ten dogs.

The cortex was experimented on, first on one side and then on the other, and after all the inflammatory symptoms had subsided, and the cerebral wounds were cicatrized, or in process of cicatrization, it was found that eight dogs had entirely lost the power of barking, and, on attempting to bark, uttered either no sound or only a hoarse whine. In the case of the two dogs which, after the operation, continued able to bark, it was shown that the excision had not been properly performed.

From these experiments it would appear that there is, in the brain of the dog, a cortical centre for the muscles of the larynx.

III. With the foregoing data at our command, the significance of the pathological evidence offered by the following very rare cases is particularly striking.

Case I.—Male, aged sixty; retired merchant; family history excellent, except for rheumatic diathesis. Has always been very strong and healthy, of regular habits, and strictly temperate in the use of alcoholics, but an immoderate tobacco smoker. Since middle life has suffered much from rheumatism, and has rapidly accumulated fat, but gives no history of any other diathesis. Has also suffered from naso-pharyngeal catarrh. Is right-handed.[1] In 1876 had a slight attack, attended with vertigo, partial insensibility, and numbness, but without any distinct paralysis. A year later was again attacked, this time with well-marked hemiplegia. Although complete insensibility was at no time present during the attack, there was intense pain in the back of the head and in the nose on the left side, numbness and impairment of motion of the left arm, side, and leg, almost total inability to swallow, and, finally, a remarkable change in the quality of the voice, which, from having been full, deep, and sonorous, was reduced to a cracked, piping, and uncertain tone, which rendered its use almost impossible. Articulation was also impaired, the patient for months afterward being obliged to pronounce each syllable separately, speaking slowly and with difficulty. There was at no time or to any degree aphasia.

There was distinct ptosis, with paralysis of the left side of the face and tongue. After continuing two or three days the general symptoms began to subside, beginning with the leg, then the arm, and last of all the face, and slow but steady improvement continued for many months in all the above-mentioned conditions except the voice. In this there was little apparent change for some time, but by degrees it became more readily controlled and less discordant, although the high-pitched quality has continued up to the present time, together with the loss of power and inability to force it. In 1882 a laryngoscopical examination showed the existence of a complete paralysis of the left vocal band, the position of which was, apparently, in the median line. The larynx was remarkably easy of demonstration, and the diagnosis was afterward confirmed by Dr. Clinton Wagner. Laryngoscopic examinations made at intervals since 1882, the last one on June 12, 1884, have demonstrated no change in the position of the cord. Efforts made to determine the electrical "reaction of degeneration" have not, thus far, proved successful. To summarize, in a case of common left hemiplegia, in which pharyngeal and laryngeal paralysis were especially well marked, all of the symptoms have disappeared in regular order except those relating to one set of muscles, namely, the laryngeal abductors of the left side; and these have continued paralyzed for a period of seven years.[1]

Case II.—Seguin[2] reports a case in which, with common hemiplegia of the left side without loss of consciousness, speech was much impaired by defect in articulation. The paralysis passed away rapidly, but the power of articulation was never wholly regained, the patient never afterwards being able to control the pitch of the voice, apparently from a lack of proper action of the muscles of the pharynx or larynx. No laryngoscopic examination was made. Later, the patient died from another hemiplegia, this time of the right side and complete, with absolute aphasia.

Autopsy.—Membranes and sinuses of brain normal. Surface of third frontal convolution of the right side yellow in color, with a tough elastic feel. This lesion, extending through the gray matter, was about an inch square and a quarter of an inch thick. The same change, but to a less extent, was found in the same location on the left side. The left middle cerebral artery was plugged by an embolus at a point one-half an inch from its origin. A spot of brain about one-half an inch in diameter, supplied by this artery, was in a softened state.

"An interesting feature of the case," says Dr. Seguin, "is in connection with the very localized lesion in the right hemisphere and the first attack of hemiplegia, characterized by slight and transitory paralysis of the limbs, and by very great defect in articulation. Indeed, the patient never recovered the full use of her vocal organs. From this we may infer that the function of the third frontal convolution, on the right side in right-handed human beings, is intimately connected with the muscles governing the movements of articulation and phonation."

The diagnosis made in Case I. was, endarteritis of the third branch of the middle cerebral artery. From the reference before made to the anatomy of the brain it is evident that the motor-centres supplied by this artery were affected, namely, the centres for the leg, the arm, and the face. That the larynx was also paralyzed indicates that the motor-centre for the larynx was in the course of the occluded vessel. The blood-supply of the region, gradually restored by anastomosing branches, first returned at the terminal extremities of the anterior branch. Hence the leg was first to regain its normal function, afterward the arm, and later still the face. That the laryngeal centre was permanently paralyzed may be explained on the supposition that the arterial branch supplying it was an "end-artery," given off remotely from the distal or terminal extremity of the main trunk, so that anastomosis was not present, and its circulation could not be re-established. That the same accident may have happened in Case II. is conjectured by the position of the lesion found *post-mortem* upon the right side of the brain, as well as by the marked similarity of the resulting symptoms. In reviewing the above several points are worthy of especial mention:

a. The lesion was in both cases upon the right side of the brain. Irritation of the corresponding part upon the left side, in right-handed persons, produces aphasia.

b. In both cases the same muscular groups were affected, and in apparently the same manner.

c. In both the general symptoms in the same manner disappeared.

d. In both paralysis of the larynx was permanent.

Of course, while it must be admitted that upon a basis so slender as that afforded by these two cases, unique in the history of the subject, it is impossible to build any certain and unimpeachable deductions. Still, in the light of our present knowledge, and from the study of the considerations herein adduced, anatomical, physiological, and pathological, the following conclusions seem justifiable:

1. That there is a cortical centre of motion for the human larynx.

2. That this centre is in the course of the third branch of the middle cerebral artery.

3. That it is toward the proximal end of this vessel.

4. That it is in the vicinity of the convolution of Broca.[1]

[1] Case I. has already been reported in the New York Medical Journal.

[2] Transactions of the Neurological Association, 1877, p. 102.

[1] East Thirty-third Street.

[1] The writer desires to express his indebtedness to Dr. M. Allen Starr, of this city, for valuable assistance in the preparation of the above paper.

JEQUIRITY AS A REMEDY FOR GRANULAR LIDS WITH PANNUS.[1]

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My object in this brief paper will be to call your attention, as general practitioners, to a remedy the use of which has hitherto been confined, almost exclusively, to the specialist. Probably every physician residing at a distance from the larger cities has encountered, at one time or another, one or more cases of obstinate and inveterate granular lids with pannus, which have wearied his patience and baffled his every attempt to cure them. When possible, the general practitioner refers these cases to the specialist, and is glad to be able thus to shift the responsibility for their care. But not infrequently circumstances render such a disposition of the patient out of the question, and the physician has to struggle along with the case as best he may. After many months of treatment with sulphate of copper, nitrate of silver, and the various astringents, the eyes meanwhile getting no better, but if anything, worse, the doctor gets tired of seeing the patient whom he feels that he is not benefiting, and the patient gets tired of going to see the doctor, from whom he feels that he is receiving no benefit; so scientific treatment is abandoned and perhaps the eyes are lost, or the patient becomes the ready prey of the peripatetic vender of eye salves, eye-waters, and other nostrums.

It is to such cases as these that jequirity is applicable, and in many such cases its curative effects will be found to be little short of the marvellous.

The remedy is not entirely free from danger, however, and should always be used intelligently and with care. Some of the most skilful ophthalmic surgeons, at home and abroad, have lost eyes from its use; but that was when not so much was known of the effects of the drug as at present, and when they were experimenting with stronger solutions, and in many different kinds of diseases of the eye.

I think if the physician will observe the following rules he will find the remedy efficacious, without being very dangerous: 1. Use the drug only in cases in which considerable pannus exists. 2. Use nothing stronger than a one-fourth of one per cent. solution. 3. Make the application only once a day, and do not repeat it after the characteristic inflammatory reaction begins to show itself.

Dr. G. W. Hale, Assistant House Surgeon of the Manhattan Eye and Ear Hospital, weighed several of the jequirity beans in my presence, and found that the average weight of each bean was almost exactly one grain and a fourth. If we use, then, one jequirity bean to the ounce of water in making our infusion, we get a solution of very nearly one-fourth of one per cent. in strength. As the preparation is apt to become worthless after it has stood for more than a week, it has been my practice to have it made up fresh for each patient, and for this one jequirity bean, finely powdered and put in an ounce of cold water, is sufficient. After standing from four to six hours the solution should be filtered and is fit for use.

The infusion should be applied very thoroughly. I usually paint some of it upon the everted eyelids by means of a little cotton twisted about the end of a small stick, and then let the patient bathe the lids with the rest of the infusion for five or ten minutes. This process should be repeated once a day until the jequiritic inflammation is produced. Generally only one application is needed. The next day the patient will show more or less general febrile disturbance, the eyes will be irritable and watery, the lids more or less swollen, and the conjunctiva covered with a thin whitish membrane.

As before stated, this condition being brought about, I do not repeat the application. If the symptoms are not severe, I do nothing but have the eyes bathed from time to time with hot water. If there is considerable pain and a good deal of swelling of the lids, I apply iced cloths and atropine. The inflammation subsides in a few days, and with its subsidence the granulations and the pannus rapidly disappear. If after a month or two the improvement seems to have ceased, and the cure is imperfect, some vascularity of the cornea still remaining, the application may be repeated with further benefit.

The remedy has been used in many cases in the Manhattan Eye and Ear Hospital, by my colleagues as well as myself, and I have yet to learn of any case in which we regretted having used it. Of course it does not cure in all cases.

[1] Read before the Medical Society of the State of New York, February 3, 1885.

Clinical Department.

COCAINE IN GENERAL PRACTICE.

THE more cocaine hydrochlorate is tried in general practice, the wider is found to be its range of applicability, until now it bids fair to step into the front rank of therapeutical agents, elbowing opium, quinine, and the other few indispensable drugs. It is, of course, of exceeding value to the ophthalmologist, but it promises to be of even greater value, because benefiting the greatest number in the hands of the general practitioner. The following reports are corroborative of this prediction.

In dental practice.—Dr. B. W. Jones, of Vulcan, Mich., writes that he was called to see a lady suffering from pain and hemorrhage consequent upon the extraction of a tooth. The tooth had been removed three days previously, and had been broken in such a way as to require considerable cutting away of the alveolar process to permit of its extraction. When first seen, the patient was suffering intense pain and was very weak from loss of blood. She stated that the pain and hemorrhage had continued without remission for twelve hours. The wound was inflamed and angry looking. A pledget of cotton soaked in persulphate of iron solution was pushed into the wound with the effect simply of increasing the pain. The application was repeated a second time without lessening the hemorrhage. The wound was then cleansed of all clots, and some cotton wet with a four per cent. solution of cocaine inserted into the opening. In less than three minutes the pain ceased entirely, and at the end of ten minutes, when the cotton was removed, it was found that the bleeding was also arrested. The wound looked clean, there were no clots, and there was no sen sation on slight pressure. A second application was now made, and the patient experienced no further inconvenience.

In venereal practice.—Dr. W. C. Wile, of Sandy Hook Conn., sends the following note: "I have had two cases recently of chordee, accompanying gonorrhœa, in which the trouble yielded readily to the soothing influence of an injection of the hydrochlorate of cocaine. The first case was one of those obstinate cases that we sometimes meet with which seem to defy all treatment, and I had tried almost everything in my efforts to relieve. I gave this man an injection of ten drops of the four per cent. solution diluted with thirty drops of water, working the fluid along the urethral canal until all the mucous surfaces were bathed in it, and allowing it to remain in contact with them for a few minutes. From this time I had no further trouble with either my patient or his chordee. In the second case a similar result was obtained.

In neuralgia.—Dr. W. B. Brown, of Bath, N. Y., injected hypodermically five drops of a four per cent. solution for the relief of a paroxysm of neuralgia involving the area supplied by the supraorbital nerve. The patient had suffered for several weeks from violent and long-continued paroxysms, which could be controlled only by large and

frequently repeated doses of morphia. The injection was made deeply in the immediate vicinity of the superorbital foramen, with the result of cutting short the attack within fifteen minutes. Since that time the trouble has recurred but twice, and then in so mild a form as to require no treatment. Dr. Brown suggests a similar use of cocaine in sciatica, in place of injections of chloroform, which he has found of no value.

In teething of infants.—Dr. James Erwin Baker, of Lancaster, Pa., praises cocaine for its quieting effect in the peevishness of teething infants, and for its value in procuring sleep in such cases not only for the baby, but for its parents as well. He writes that he used the drug in the case of his own child, who was cutting his first teeth, and was very restless and irritable. A four per cent. solution was rubbed on the mucous membrane firmly by means of absorbent cotton. "After two applications, two minutes apart, the child ceased screaming, went to sleep within five minutes, and slept for three hours uninterruptedly." During the following day two applications were made with the result of quieting the child almost instantly, and without inducing any bad effects. A certain stiffness of the tongue was noticed after the application, due probably to the anæsthetic effect of the drug. A whitening of the mucous membrane, caused by the capillary contraction, was also observed. Dr. Baker adds that the results obtained in this case suggest the employment of cocaine in the diarrhœa due to the reflex irritation from teething, and he proposes to try it at the earliest opportunity.

As an inhalation in phthisis.—Dr. James E. Baker writes further that he has used cocaine with happy effects in phthisical cough. Five minims of the four per cent. solution, with a like amount of chloroform, were dropped upon an inhaler and thus taken at bedtime. In two cases of this kind he succeeded in giving the patients a better night and making them more comfortable than he had been able to do by any other mode of treatment.

In operation for entropion.—Dr. Walter B. Johnson, of Paterson, N. J., operated upon a man, seventy years of age, for the correction of entropion by removing a parallelogram of skin from the infra-ocular region. On October 18th he operated on the left eye; "used the two per cent. solution of Merks' hydrochlorate of cocaine, dropping in six or eight drops every five minutes for fifteen minutes, and although the patient complained of the operation hurting him, it was evident from his actions that the pain was not as severe as is usual in such cases. On October 21st, the right eye of the same patient was operated upon in the same manner, except that the cocaine was used hypodermically; three minims were injected below the inner canthus, and three minims below the outer canthus. The operation was then proceeded with, and upon its completion the patient said 'it did not hurt him anything to speak of,' and he exhibited, during the operation, no evidence of pain."

Regarding operations upon the eye itself, Dr. Johnson writes:

"Operations for removal of foreign bodies were all done without any pain whatever, when the two per cent. solution of Merks, or the two or four per cent. solution of Foucar, was used. In most cases, however, patients complained of smarting on the instillation of Foucar's solution. An operation for squint, one for iridectomy, one for symblepharon, and a cataract extraction, were all done, pain not being present, and the patient all the time controlling his or her eye and keeping it in any position directed by the operator."

As a mydriatic.—Dr. H. B. Grove, assistant surgeon to the Buffalo Eye and Ear Infirmary, sends an account of the results of upward of a hundred observations made by him of the mydriatic properties of cocaine. He used solutions of the strength of one, two, and four per cent. in his own and patients' eyes, and also in the eyes of rabbits. He made his own solutions and found that they remained clear for about two weeks, after which time a fungoid growth appeared. This weakens the anæsthetic power of the drug, but does not apparently influence its mydriatic properties. As far as dilatation of the pupil goes, a one per cent. solution acts as energetically as a four per cent. Dilatation begins in from four to twenty minutes, and, with a one per cent. solution, reaches its maximum in thirty minutes; it remains stationary for about an hour, and then gradually diminishes, but does not wholly disappear until the expiration of about fourteen hours. With a four per cent. solution the maximum is attained in thirty-five minutes, and the pupil does not return to its normal size under twenty-four hours. With four per cent. solutions there was partial paralysis of accommodation, for the near point of acute vision receded two inches. One curious fact observed by Dr. Grove was the difference in time required for the dilatation of the irides of different colors. In dark-brown eyes dilatation did not begin until the expiration of from ten to twenty minutes, usually about fourteen. But when the irides were blue never more than ten minutes were required. In ordinary cases, the writer thinks that cocaine is an efficient mydriatic for ophthalmoscopic examinations, but where extreme dilatation is needed atropine should be used. Dr. Grove notices the same fact that was reported by Dr. R. McDonald, of Chelsea, Mass., in a previous issue of THE RECORD, as occurring in his own person. He writes: "In granular lids, with and without pannus, I have used cocaine often, causing perfect anæsthesia to the application of the copper crystal. As a rule, however, severe pain came on in fifteen minutes, and continued much longer than at those times when the drug had not been employed."

Progress of Medical Science.

CHOREA CURED BY HYPNOTISM.—Dr. Beaunis reports the cure of a case of chorea through the influence of hypnotism. The patient was a girl twelve and a half years of age, and was suffering from her fifth attack of chorea. Dr. Beaunis had been informed by Prof. Bernheim of the result of hypnotism in a similar case, and decided to have it tried. The result was that as soon as the child was hypnotized all choreic movements ceased, and when asked to write, instead of meaningless scrawls, her writing was steady and legible. The séances were continued for some days, and the child was cured completely.

PRIMARY TUMORS OF THE SOFT PALATE.—At a recent meeting of the Pathological Society of London, Mr. Treves (London *Lancet*) exhibited two cases of primary tumor of the soft palate. The first patient was a man sixty-eight years of age. The tumor occupied the whole of the left side of the soft palate. It was first noticed eight months before the man came under treatment. A precisely similar growth had been removed from the same part of the palate, thirty-seven years ago, by the late Mr. Luke. Mr. Treves ligatured the left common carotid, and removed the growth, together with the whole of the left half of the palate. The tumor had been examined by Mr. Eve, and proved to be an alveolar sarcoma. The mass was faintly encapsuled, and there was no glandular implication. The patient made a rapid recovery. The second patient was a man fifty-six years of age, who presented a tumor the size of a chestnut on the right side of the soft palate. It had been first noticed two months before the man's admission into the London Hospital. Mr. Treves ligatured the right common carotid and removed the tumor as in the previous case. The patient made an excellent recovery. Mr. Eve had reported that the tumor was an adenoid carcinoma. Mr. Treves alluded to the great rarity of primary tumors of this part. He had found isolated records of all forms of connective tissue tumor in this region, of adenoid cancer, of so-called myomata, of vascular growths, of pure papillomata, and of dermoid cysts.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, February 14, 1885.

THE THIRTY-EIGHT STATE MEDICAL SOCIETIES AND THEIR TRANSACTIONS.

WE have before us an ominous pile of documents of which the titles are "Transactions of the State Medical Society of," etc., at the annual session in 1884. For many years now, we have watched the gradual heaping up of similar volumes, as they came in month after month, until at last the genetic activity of spring became crowned with the happy and complete parturiency of winter. We have laid them away with respect and tenderness, enjoining for them the Nirvana of a complete isolation and repose, which is the true immortality. Even the gentle flap of the dust-brush was proscribed. Now, however, we fear that these quiet days are over. The "Transactions" are increasing in number, doubling in size, enlarging in scope, improving in typography, putting on delicate tints of gray, and lavender, with stiff covers, steel plates, and gilded tops. We have felt obliged to peer into the heretofore virgin recesses between the covers, and vicariously, through our literary critic, to consult some of the articles there found.

The number of State Medical Societies is now thirty-eight, viz., two in New York, and one in every other State except, so far as we can learn, Nevada. The work which these organizations are doing is unquestionably improving in each successive year. This is shown not only in the better quality of the papers read, but in the greater unity and more agreeable social relations of the profession, as well as in the increased political and legislative influence in which such work has resulted. This progress appears most decidedly marked in some of the Western societies, the contents of whose Transactions is generally of a better quality than that of many of the Eastern and Southern associations, where one sees, unfortunately, too much evidence of old fogyism and the "machine."

Every one who has had some experience in the matter knows that it requires a great deal of skill and labor to conduct a State medical society so that its meetings shall accomplish the most possible good. Like all organizations in these days, it is liable to be captured and "run" by a few who have a certain natural capacity for "affairs." All such societies, to be sure, must be conducted mainly by a few who have an aptitude for the work, and who are willing to sacrifice some of their time in devotion to it. And these individuals deserve prominence and consideration for their services. The danger lies, however, in their finally substituting too largely their own interests and ambition for those of the society.

Another difficulty lies in satisfactorily disposing of a certain class of men who are always on hand with prolix papers and tedious talk.

Looking over the two or three hundred articles which appear in the various Transactions of last year, one is forced to conclude that but a very small proportion of them actually contribute to the progress of medical science or art. Most of the papers are, rather, gossipy accounts of personal experience, and expressions of personal opinion which may or may not have value. We would not, however, judge these contributions harshly, but are quite aware that State Medical Societies have it as one of their objects the relation of such experiences. Dr. A. wishes to learn how Dr. B. treats diphtheria, what Dr. C. gives in typhoid fever, and how often Dr. D. is performing version or using the forceps. In this way he is kept *en rapport* with his fellows, and an important object in the meetings of medical societies is accomplished.

A good deal of time and paper seems often to be wasted in presidential addresses, which ought in reality to be simply messages directing the attention of the society to the various measures which it should pursue. But the old-fashioned oration, with its fine allusions to the nobility of the medical calling, its illumined past and roseate future, is something that custom has made part of a State society's being, and any change must come slowly. Perhaps, after all, it is a good thing to have the heroic and poetical side of our too realistic calling occasionally portrayed.

The thirty-eight State Medical Societies will soon begin their work, and we shall record, as fully as need be, their proceedings. We confidently believe that when the year is out the evidence of a progressive usefulness of these organizations will be plainly shown.

THE EXPECTATION OF SICKNESS.

WE hear much of death-rates, but comparatively little has been known or written about sick-rates, which, after all, ought to interest the physician more.

Dr. Cl. T. Campbell, in the February number of the *Popular Science Monthly*, has called attention to the facts which can be gained regarding this latter subject by a study of the returns of benefit societies. This is particularly the case in England, where these societies are under government supervision, and are obliged to make regular returns. In America the case is different. Dr. Campbell has, however, succeeded in collecting a good many data regarding the Society of Odd-Fellows. This is one of the oldest and largest benefit societies in the country, it having been in operation for sixty-four years, and its membership being about half a million. This membership consists of healthy white males of twenty-one years and upwards. From a careful study of these records Dr. Campbell deduces the conclusion that the death-rate of the average adult male population is about 12.7 per 1,000. The actual mortality for the whole United States as estimated in the last census was about 18 per 1,000. Dr. Campbell finds that on the most favorable estimate the death-rate of the better class of adult males in the tropical States is twice as high as it

is in the temperate zone, being for the former 30 per 1,000, for the latter 15 per 1,000. If this is correct, it seems incredible that the census estimate of 18 per 1,000 is not too low.

Taking up, then, the subject of sick-rates, the following table is prepared, exhibiting the death-rate and the weeks' sickness per member among about four hundred and fifty thousand individuals :

Locality.	Deaths in 100.	Weeks' sickness per member.
Northern States.....	.70	.266
Central "	.90	.439
Western "	1.08	.665
Eastern "	1.11	.754
Southern "	1.42	.946

From studies of special returns, and by making proper allowances, Dr. Campbell reaches the conclusion that the average sickness of the better class of the adult male population of the United States and Canada is one week and a half each year.

Finally, a very interesting and useful table has been compiled from the returns of the Society of Odd-Fellows with regard to the expectation of sickness for each year of a person's life. Since a physician's scientific and personal interests are so closely dependent upon "expectation of sickness," we present the table in full. It will be seen that the amount of sickness to be expected increases with each year of life, so that while the young man of twenty-one is ill only half a week, the man of sixty is ill about two weeks and three-quarters every year.

Age.	Expectation of life—years and decimals.	Expectation of sickness for that year—weeks and decimals.	Age.	Expectation of life—years and decimals.	Expectation of sickness for that year—weeks and decimals.
21.....	41.5	.450	41.....	27.4	.763
22.....	40.8	.455	42.....	26.7	.803
23.....	40.2	.460	43.....	26.0	.843
24.....	39.5	.465	44.....	25.3	.885
25.....	38.8	.470	45.....	24.5	.930
26.....	38.1	.476	46.....	23.8	.980
27.....	37.4	.483	47.....	23.1	1.035
28.....	36.6	.491	48.....	22.4	1.095
29.....	36.0	.499	49.....	21.6	1.166
30.....	35.3	.509	50.....	20.9	1.230
31.....	34.6	.520	51.....	20.2	1.308
32.....	33.9	.532	52.....	19.5	1.396
33.....	33.2	.545	53.....	18.8	1.494
34.....	32.5	.560	54.....	18.1	1.604
35.....	31.8	.578	55.....	17.4	1.730
36.....	31.1	.599	56.....	16.7	1.875
37.....	30.3	.624	57.....	16.0	2.040
38.....	29.6	.653	58.....	15.4	2.230
39.....	28.9	.686	59.....	14.7	2.450
40.....	28.2	.723	60.....	14.1	2.700

THE INFLUENZA COCCUS.

The micro-organisms of disease continue to claim a large share of the attention of the medical profession. New bacilli and cocci are described in such rapid succession by the experimenters and scientists who devote themselves to bacteriology, that the general practitioner experiences considerable difficulty in keeping pace with the latest discoveries. The coccus of influenza is one of the most recently discovered microbes. Fortunately we are not asked by its prudent discoverer to at once accept it as the undoubted cause of the malady.

Dr. Seifert, of Würzburg, who first saw the microbes in question, merely gives an account of his observations, which were limited and do not in the least warrant any decisive or final opinion. His observations relate to a small outbreak of epidemic influenza that happened recently at Würzburg. They are published in No. 240 of the *Sammlung Klinischer Vorträge*. The author states that, in all cases examined by him, microbes were discovered in the patient's expectorations. He has bestowed upon them the name of influenza cocci. They occur both in chains and in pairs, as well as being scattered singly. They measure one and a half to two micro-millimetres in length, and one micro-millimetre in breadth. These microbes were also found in the secretion from the nose in every instance, but could not be discovered in that from the eye, nor in the blood. They appeared to have no connection with the pus-cells, occurring rather between than within or upon them.

The sputum from cases of ordinary bronchial catarrh was examined at the same time, but did not show these organisms. The only experiment seems to have been the inoculation of guinea-pigs, which failed to produce the symptoms of the disease. Until other observations and positive culture experiments have been made, we must regard the rôle of this new coccus and its pathological properties as still sub-judice.

A PLEA FOR THE SPECIALIST.

Specialism is an established feature of modern medicine. It is something which cannot be cried down, for already, in the face of opposition and distrust, it has steadily increased, and will surely continue to do so. It is not an artificial addition to medicine, but a natural and inevitable development. It has its dangers, against which we can utter warnings ; it has its defects and insufficiencies, which should be pointed out. But to attempt to check its growth would not only be useless, but would work an injury to the profession. It is, perhaps, but fair to say that the principal advances in medical science to-day are being made by specialists, that these gentlemen are, as a rule, more thoroughly educated, more carefully trained, more persistent, industrious, and enthusiastic workers than is the average general practitioner. The specialist chooses for himself a life which involves hard work, the strife of active competition, and late rewards.

Undoubtedly there is danger in specialism, lest it lower the general standard of professional honor and dignity. All quacks are specialists, and alas ! some specialists are quacks. There is danger to the patient, also, in the specialist's losing sight of the man in pedantic investigations of the "case." These are things which medical educators and a wise professional feeling should try to prevent. For they are incidentals, not essentials, of specialism, as the fact that the majority of the leaders of our profession to-day shows.

THE LEGAL VALUE OF EXPERT TESTIMONY.

The question of expert evidence and its value is a perennial one, and a recent statement of a Western court will be of interest. In this case the trial judge had directed that the expert testimony "should be received and weighed with caution." Upon an appeal the higher court said : "We think that such testimony should have been given due and proper weight, and should not have

been 'received and weighed with caution.' In the case of Carter *vs.* Baker, 1 Sawyer, 512, the presiding judge laid down the following rule: 'The testimony of experts is to be considered like any other testimony; it is to be tried by the same tests and receive just as much weight and credit as the jury may deem it entitled to, when viewed in connection with all the circumstances.' We think this is probably as good a general rule as any that could be adopted."

Mr. Lawson, in his work on "Expert and Opinion Evidence," page 240, states the rule as follows: "The testimony of experts is entitled to the same credit; is to be tested by the same rules as are applied to the evidence of other witnesses, and should have weight with the jury according to their opportunities and qualifications, but it is not conclusive. . . . While many courts speak disparagingly of some kind of expert testimony—that with regard to handwriting, for instance—yet we think that all courts hold that the testimony of competent medical experts is entitled to great respect and consideration."

The case was, therefore, reversed on the point of improper instruction in regard to expert testimony, and a new trial granted.

INOCULATION OF TUBERCLE IN THE HUMAN SUBJECT.

THE number of successful experiments made upon the lower animals to demonstrate the inoculability of tuberculosis is so large as to leave no doubt concerning the fact that the disease can in them be so transmitted. But as regards man, the demonstration by experiment is naturally wanting, and although the evidence of clinical experience in favor of the theory of contagion is sufficient to convince most minds, there is, nevertheless, no such overwhelming proof of this assumption as exists in the other case. We do not remember to have seen recorded hitherto any instance of direct inoculation in man that could justly be regarded as a fact beyond all gainsaying. But this missing evidence would seem now to have been supplied by Dr. E. A. Tscherning, of Copenhagen, in a case related by him in the *Hospitals-Tidende* of December 17, 1884. The subject of the report was a young woman, twenty-four years of age, employed as cook in the family of a certain Professor H. She was a strong healthy girl who had never had a suspicion of any scrofulous or tuberculous affection, and who gave an unexceptionable hereditary history free from the slightest taint of tuberculosis. Professor H. died in July of last year of pulmonary phthisis, after an illness of only five or six months' duration. Toward the close of his life the sputum, it is stated, was so loaded with bacilli as to constitute almost a pure culture of these organisms in pus. A few days before her master's death the cook broke a glass which the patient had used to expectorate in, and ran a small sliver into her left hand, receiving a punctured wound on the palmar surface of the first phalanx of the middle finger. Fourteen days later she presented herself at Professor Studsgaard's clinic with what seemed to be a commencing felon. Carbolized compresses were ordered, and at the end of weeks the finger seemed to be better; there had been no suppuration. But at this time a little nodule, scarcely half as large as a pea, was felt in the subcutaneous connective tissue. During the following week this remained stationery in size, but became somewhat tender and was surrounded by an œdematous area. The nodule was now excised, and was found to consist of granular matter lying between the sheath of the tendon and the skin. The wound healed by first intention.

At the beginning of October the patient again presented herself, complaining of pain on flexing the finger. The subcutaneous connective tissue on the palmar surface of the hand, as well as of the affected finger, was swollen, but no distinct tumor on the sheath of the tendon was discoverable. A month later, however, a distinct thickening of the sheath of the tendon was to be felt. Two cubital and two axillary glands were also enlarged. An operation having been decided upon, Professor Studsgaard disarticulated the middle finger at the metacarpo-phalangeal joint, and dissected away the tendon with its thickened sheath as far as the middle of the palm. The swollen glands at the elbow and in the axilla were also removed. Examination showed the sheath of the tendon filled with pale granulations. No pus nor cheesy matter was to be seen, nor was there any disease of the bones or joints of the amputated finger. The granulations, hardened in alcohol and stained with picrocarmine, when placed under the microscope were seen to be composed of tubercles, with, in some cases, central caseous degeneration, numerous large cells, and many beautiful, in part, central giant-cells. The extirpated glands looked to the naked eye as simply hypertrophied, and free from pus or caseous matter. Under the microscope large-celled hyperplasia, and here and there isolated tubercles were found. In every section, either of the sheath of the tendon or of the lymphatic glands, numerous tubercle bacilli were seen lying either in the giant-cells or at the edges of the microscopical points of necrobiosis. The bacilli were usually isolated, but here and there two or three were found together; in many cases they were seen to be provided with so-called spores. These appearances, Dr. Tscherning states, were the same as those observed by him in upward of thirty other cases of localized tuberculosis. Unfortunately there were no dogs at hand upon whom he could observe the effect of inoculation, but the microscopical examination sufficiently established the tubercular nature of the affection. This very interesting case would seem to fill a gap hitherto existing in the study of tuberculosis between the results of experiments upon the lower animals and the evidence afforded by clinical experience in man.

DR. DELAVAN ON THE INTERNATIONAL CONGRESS.

THE social element of large medical bodies is, perforce, apt to remain unwritten, but Dr. D. B. Delavan has done well in breaking the rule and giving, in a small octavo volume, the "Social History of the Eighth International Medical Congress," held in Copenhagen in August of last year. Their Majesties the King and Queen of Denmark were not satisfied with opening the Congress, but received, together with all the royal household at that time in Copenhagen, the delegates in a most sumptuous manner. The unparalleled hospitality of the Scandinavians, the absence of conventionality at their dinners, the happy

ubiquity of their "skaal," or toast of individual recognition at table, all attest the unbounded *bonhomie* of their character.

When our Danish friends respond to our invitation to Washington in 1887, though we have not royal palaces, court jewels, and a court pageantry by way of entertainment, let us not forget that what most interests foreigners in the United States is the marked intellectual individuality of American institutions and American scenery, than which latter there is none grander in the world, and let these be offered as social entertainment to our last year's hosts with true American hospitality.

THE NEW YORK STATE MEDICAL SOCIETY.

The meeting of the New York State Medical Society last week was in some respects a more notable one than usual, for the Society succeeded in coming to an agreement regarding the bill to establish a Board of Medical Examiners—a consummation which should be a subject for much congratulation. Medical legislation in this country has been, and must for some time be, largely experimental and not always satisfactory. Nevertheless, the general principle at which the Society's bill aims is based on good sense and on experience in other lands besides our own.

The number of members present was less than last year, as would be expected. The number of carefully prepared and meritorious papers was, however, somewhat larger than usual, showing that the old Society has lost none of her vigor. The scientific contributions would be more symmetrical, however, if the ophthalmologists did not feel the burden of the duty of paper-reading quite so heavily.

Every year the inquiry is renewed why the State Society holds its meetings in the busiest month of the year, and in a city so full of pneumonia-haunted bedrooms and dyspepsia-making hotels.

THE MADNESS OF McCULLOUGH.

Either the tragedian, Mr. John McCullough is sane and should be so treated, or he is insane and should receive such care as might restore him. At present, his mental condition has become an affair for managerial trickery and newspaper polemics, while the unfortunate sick man himself is subjected to irritations which are anything but curative. It is reported to us, and we believe the report, that Mr. McCullough is in the incipient stage of a grave cerebral disease. Only the most judicious care will ever enable him to act again. This he is plainly not receiving.

THE CHEESE BACILLUS AND CHOLERA.

We read the accounts of Dr. Deneke's discovery (*Deutsche Medizinische Wochenschrift*) in cheese of a bacillus almost absolutely identical in form and mode of growth with the cholera bacillus of Koch. Dr. Deneke made his investigations at the Hygienic Institute at Göttingen. The bacillus which he found in stale cheese is very slightly different morphologically from the cholera bacillus. It will not grow on potatoes and in some other media which favor the cholera bacillus but its development in blood-serum, agar-agar, and gelatine is almost identical with that of the supposed specific bacillus.

Pure cultivations, however, when injected into guinea-pigs were harmless, while similar cultivations of the cholera-bacillus in one case produced choleraic symptoms and death. Dr. Deneke does not think that the cheese bacillus and cholera-bacillus are physiologically identical; but it is apparent that his discovery makes it more difficult to attach a diagnostic value to Koch's micro-organism.

News of the Week.

Dr. E. C. Spitzka has resigned the Chair of Neuro-Anatomy and Physiology at the New York Post Graduate School.

A Death from Nitrous Oxide Gas, administered by a dentist in Paris, is reported.

A Medical Centenarian Dead.—Dr. Christopher Columbus Graham, of Louisville, Ky., died on February 3, 1885. He was one hundred years old last October.

Reappearance of Cholera in Italy.—It is reported that cholera has reappeared at Gaëta, Italy.

A New Modification of the Operation for Resection of the Stomach has been recently devised by Billroth. He cuts the duodenum squarely off and sews up the end. The cancerous part of the stomach is then removed and the resected stomach sewed to the lower end of the duodenum. A successful application of this method has just been made.

Dr. Hutton, of Fergus Falls.—We learn with regret that Dr. Hutton, of Fergus Falls, Minn., whose vigorous presentation of the subject of diphtheria, from a frontiersman's point of view, attracted some attention last year, is himself suffering from the disease. Dr. Hutton is contented with an application of nitrate of silver to the throat, a chlorate of potash gargle, and stimulation.

Orthopædic.—The New York Athletic Club has for its seal a winged foot. Though beautifully proportioned it is undoubtedly a club foot.

Quacks and Medical Women.—We have received from M. Putnam-Jacobi a letter upon this subject, which we regret we have not space to publish in full. Dr. Jacobi contends that the cause of the disproportionate number of uneducated and irregular women-physicians lies in the fact that the larger and better class of medical colleges refuse to admit female students.

Sensory Nerves of the Lungs.—Mr. Elwin F. Beckwith, of Columbus, O., writes us that he has demonstrated the sensory nerves of the lungs with their ganglia and terminations. As the lungs, apart from the bronchial mucous membrane, have no sensory but only excito-reflex nerves, Mr. Beckwith has plainly accomplished a considerable feat.

Symmetrical Gangrene.—A correspondent who asks for the literature of this subject will find an article upon it in the *Boston Medical and Surgical Journal*, January 16, 1879, p. 76.

Non-Restraint in Insane Asylums.—Dr. H. Washburn writes us regarding this subject, and ventures the opinion, based upon his personal experience, that Insane Asylum Superintendents have not changed their views regarding this matter of late, but have come to use restraint less because they have been better supplied with attendants. This theory, however, by no means explains the fact that many Superintendents have openly declared their disbelief in total non-restraint, and that in some of the best equipped asylums cribs and other restraining apparatus are still used. The plain facts are that many Superintendents are too busy with the farm accounts, or too pig-headed to learn what non-restraint can really do, and how practicable a therapeutic measure it is.

Dartmouth Medical College.—The Dean of the College, Dr. C. P. Frost, writes that there is no purpose on the part of Trustees or Faculty to remove the College from its present location. The project was conceived by an outsider.

The Schweninger Scandal has reached public proportions, and the news is cabled that a hot discussion has been excited in the Bundesrath over a proposition to pay the new Professor 3,600 marks.

Schweninger has become the best advertised doctor in Germany, and has, we are told, an enormous practice. In his earlier years, while in Munich, he had a too erotically aggressive affair with a woman, for which he was imprisoned, and subsequently expelled or dropped from the medical societies. The reports now circulated of his experience as a Don Juan, however, have, it is said, made him particularly popular with the ladies.

Klein Mercilessly Annihilates Koch.—A cablegram announces that Dr. Klein read a report of the investigations made in India by Gibbes and himself, before the Royal Society last week. He mercilessly criticised the cholera bacillus theory of Koch.

A candid correspondent of a leading Western medical journal writes: "I do not want your journal, especially if I have to pay for it! With as much respect as I can have for any one engaged as you are, I subscribe myself, etc." Such are the interruptions into the riotous ease of the medical editor's life.

Dr. E. A. Gatchell, of Asheville, N. C., writes: "Following the Appendix to Parkes' Manual I misstated the distance between Aiken and Atlanta, the true distance being 188 miles. By some inadvertence also, in the second mention of the winter precipitation at Asheville, I gave it as 13.5 instead of 9.5 inches; the annual precipitation being, at Asheville, 40.2; at Aiken, 55.0; Atlanta, 62.7; and Jacksonville, 65.5 inches."

Religious Newspapers and Quack Advertisements.—The English medical journals are beginning to call attention to the present extensive prostitution of religious journalism to quackery. The *Lancet* says: "Some of the best friends of religious newspapers, and even of missionary journals, are becoming seriously scandalized at the growth of the advertising of quack medicines in their columns. The feeling of disgust is not confined to the medical profession; nor, we must admit, is the scandal of quack advertisements confined to the class of papers in question. But the scandal is most striking and most unseemly in them. When a man sees in his religious newspaper an advertisement of a man or a medicine as pretending to cure a disease in his child or his wife beyond the bounds of the medical art, the pretension being backed perhaps by a great name, he is apt to yield to the temptation, and when the coarse pretension is refuted by the death of the patient, he has a sense of injury."

New York Polyclinic.—The number of practitioners who have thus far studied in the Polyclinic as members of the class is 463. The attendance for the present session is twenty-five per cent. in excess of any former year.

Medical Society of the State of New York.—On the last page of our report of the proceedings of this Society (February 7, 1885), it was said that "County Societies" were requested to hold their annual meetings "in other than the first three months of the year." It should have read *only within* the first three months—that is, January, February, March. Dr. Low read a paper on "Ovariotomy," etc., not Craniotomy. Dr. Sawyer was unable to attend, and Dr. Jacobi, of New York, presided at the meeting on Wednesday evening. For these and other errors, the telegraph operators must take a share of the ——

Security for Doctors' Bills.—Four physicians of Hart County, Ga., have signed and published a card, stating that all persons desiring professional services who have not heretofore paid their medical bills promptly must give some guarantee that their bills will be paid as they fall due. Tenants who have no real estate or other property which is a good security for the payment of their bills must obtain orders from their landlords, who will become responsible for the payment of all bills made by tenants.

Commissioner Charles F. Peck on Child Labor in New York.—Mr. Peck finds that nearly one-third of the 1,685,100 school-age children in this State do not attend school; that the system of child labor exists in this State in its worst forms; that the compulsory education law of the State is, to all intent and purpose, a dead letter; that the moral and mental conditions of child wage-workers are of a low standard; that the sanitary condition of a large number of the mills and tenement-house factories, in which children are employed, is a disgrace to civilization, and that the proper safeguards to protect employees from accident by machinery, or their lives from jeopardy in case of fire, are sadly insufficient. His remedy is compulsory education.

Voluntary Sanitary Organizations are now the order of the day in this city. Besides the Sanitary League, various Ward Associations are being organized. One of the most active of these is the Tenth Ward Association, which is starting a sanitary lodging-house where the tramp is obliged to wash and sleep in a night-shirt.

Dr. Theodore R. Varick will read a paper on "The Protective Treatment of Wounds," at the next meeting of the New York County Medical Association, on Monday evening, February 16th, at the College of Physicians and Surgeons.

Presbyterian Hospital Clinics.—Regular Saturday clinics will be held at the Presbyterian Hospital, Seventieth Street and Madison Avenue, commencing at 2.30 o'clock. The surgical clinic will be in charge of Dr. George F. Shrady, and the medical clinic will be conducted by Dr. A. H. Smith. Advanced students and practitioners are invited.

The British Army in Egypt under General Wolseley is suffering from a severe type of typhoid fever. The etiology of the disease is obscure, as the water used is good and there are no unsanitary cities or towns where it could be contracted.

Misuse of Official Position.—We have before us the engraved copy of a letter from the Commissioner of Health, of Baltimore, certifying to the merits of a secret cough nostrum. When a physician lends his name to such purposes, he not only does public injury, but he destroys his professional standing. We can but hope that Dr. Stewart has been himself imposed upon.

The Corset.—Dr. Samuel W. Francis says that if women spelt corset with a "P" (Corpset!) they would live longer and there would be fewer physicians.

Free Medicine at Atlantic City.—We are credibly informed that it is a common practice among the physicians of the well-known health resort, Atlantic City, N. J., to treat the boarding-house and hotel-keepers with their families free of charge on the very distinct understanding that in the summer their guests will be sent to the accommodating physician. The competition is so brisk that this practice has reached unhealthy limits. It is not elevating and smacks unpleasantly of pure business. We trust that the County Society will examine into the matter and try to correct the abuse.

Mercy Hospital, Big Rapids, Mich.—It is a question whether, in publicly advertising the needs of this apparently excellent hospital, it is necessary or in good taste for the medical staff to figure so largely as they do. The hospital has one hundred beds and treated seven hundred and forty patients last year.

The Homœopathic Medical College for Women in New York City.—We are asked to correct a statement which we made regarding the "shorter and cheaper course" which the above College has heretofore offered, as compared with that of the regular medical school. Our statement was correct for the past, but we take pleasure in stating that with the present year the course in question has been made compulsory for three years. We trust that this may help to lessen the number of women quacks, but we very much doubt it. It may be laid down as a general rule that whenever a poor medical college feels particularly poor, it opens its doors to women. It is applauded as liberal and gets a few more students.

"English as She is Spoke."—The following choice specimen of English is said to have been copied, *verbatim et literatim*, from the notes of a clinical lecture made by a student in one of our medical colleges: "Straned himself and spit of a brite red collor. Have you had any feaver or nite swets? No. Very little expanshun of scapular on rite. Fisical examenashun, exagerated breading. herd fricton sounds. Herd snores valves. Fibrous teases. Cant be cured but can be sent to mexico."

New York Infant Asylum.—Dr. E. C. Wendt has been appointed pathologist, with a seat on the Medical Board, to the Maternity and House of Reception, *vice* Dr. Wm. H. Welch, resigned.

Bacilli in Chains. — A correspondent humorously writes: "I am delighted to find in The Medical Record of to-day, p. 128, second column, that '*Micrococci in chains*' have been found! I hope they will be *kept* in chains and for a long time. If the other silly bacilli could share the same fate, how nice it would be! I suppose we shall have bacilli soon for all the different kinds of fractures and dislocations, and also for color blindness? What a beautiful sight, all these different bacilli, on *exhibition*, each having his own little *cell*. Even when the dear things are dead, they would make such a nice pretty collection, stuffed and labelled, and placed in glass cages! The dear little things!"

Druggists as Lieutenants.—A bill has been introduced into the House of Representatives (H. R. 8017) providing that the apothecaries in the army and navy shall receive a commission, those of the army to have the relative rank of second lieutenant, those of the navy to have the relative rank of ensign. These commissioned pharmaceutists are not to be in the line of promotion. The scheme of the bill is neither a necessary nor a wise one, and it will undoubtedly fail.

The Legal Status of Antiseptic Surgery.—In Germany, according to the Philadelphia *Medical Times*, the papers report a recent case where a physician used the old methods of treating wounds instead of the modern antiseptic dressings, and the patient died under circumstances making it probable that if a different treatment had been adopted his life would have been saved. The physician was sued for malpractice, and convicted, the court holding that "every practitioner should keep himself informed on the accomplished progress of science, and have an exact knowledge of modern systems of treatment."

A Hospital in the Adirondacks.—A correspondent of the *Boston Medical and Surgical Journal* writes that there has been established a Sanitarium at Saranac village in the Adirondacks. It is intended for the poorer class of consumptives, and the sum of three dollars a week is charged for board. The remaining expense is to be made up by the contributions of charitable people.

The Inventor of the Hypodermic Syringe, Dr. Wood, died recently at his residence in Edinburgh.

State Medical Examiners in Pennsylvania.—The bill for the creation of a State Board of Medical Examiners and Licensers, which resembles somewhat the Illinois bill, has been considered by both the Philadelphia County Medical Societies (regular and homœopathic). It has not been fully approved by either of them, the principal difficulty being in regard to the representations of the different schools of practice on the Board. Several of the other County Societies of the State have approved the bill.

Drs. S. Weir Mitchell, Charles K. Mills, and H. C. Wood have been appointed Consulting Physicians to the Insane Department of the Philadelphia Hospital.

American Medical Diplomas for the English.—The *Hospital Gazette and Students' Journal* is authority for the following extraordinary statement: "The authorities of the University of Vermont, United States, have announced that they will grant the M.D. degree

to British registered medical practitioners of good standing who pass a satisfactory examination in medicine, surgery, and midwifery. No residence is necessary, and the examination may be passed in three days. The fee for the examination is only £6. The first examination under these regulations will take place in June next, and I have no doubt that a goodly number of English practitioners will be induced to take a trip to the States in order to obtain the legal right to assume the title 'M.D.' Hitherto Brussels has enjoyed almost a monopoly in granting the M.D. to English practitioners, but in future it will find Vermont a formidable competitor for the English guineas." We believe that friends of the college in question will regret that it has gone into a purely money-making business like the above.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—The Medical Record, New York.

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Low Temperature in Disease.—Extremely low temperatures are met with under several conditions: Drunkenness, with exposure, illustrated by the well-authenticated case of Renicke, in which recovery took place after a temperature of 76° F. In mania (particularly of old people), in melancholia, and in progressive paresis, temperatures as low as 74⅘° F. have been recorded. In injuries and disease of the cervical part of the cord a decided reduction has been noted, although more frequently there is an elevation of temperature. The lowest rectal temperature on record is 73⅖° F., in a case of limited hemorrhage into the medulla. The man lived twenty-four hours after, and the temperature did not rise above 82⅖° F.—*Canada Medical and Surgical Journal*, November, 1884.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 5, 1885.

FORDYCE BARKER, M.D., LL.D. (EDIN.), PRESIDENT, IN THE CHAIR.

THE evening was devoted to the addresses of the retiring and of the incoming Presidents. DR. BARKER's valedictory has already appeared in the columns of THE RECORD for February 7th, and the inaugural address of DR. A. JACOBI appears in the columns of this number.

There were seated upon the platform: Weir Mitchell, M.D., and Theophilus Parvin, M.D., LL.D., of Philadelphia; John S. Billings, M.D., LL.D. (Edin.), of Washington; George B. Shattuck, M.D., and James R. Chadwick, M.D., of Boston; James Anderson, M.D., ex-President, and Alfred C. Post, M.D., LL.D.

At the close of Dr. Jacobi's address, DR. CHADWICK presented a photograph of Oliver Wendell Holmes, accompanied by the following letter addressed to Dr. Barker:

AN OPEN LETTER.

BOSTON, February 4, 1885.

MY DEAR DR. BARKER: You must allow me to join my best wishes to those of the friends who will surround you as you take leave of the office which you have filled so ably and happily.

I trust that you have not forgotten the day when you were with us at the opening of our Boston Medical Library. I know full well that we remember your presence, and how much it added to the pleasure of the occasion. Our Library Association, I hardly need tell you, has proved eminently successful—I want to say because you smiled upon its birth, but I dare not, for you have smiled upon a great many births, not every one of which, perhaps, has had the good fortune of the infant institution which you joined us in welcoming.

You may have learned some of our secrets during that visit, who knows? There are sparks of intelligence still left among us. At any rate, ever since you left Boston we have kept an eye upon you. As soon as it was learned that you had been spending some little time here, you were made President of the New York Academy of Medicine. As soon as you got back, for *some* reason, the Academy took a new start and has been flourishing ever since. All my informants agree about the fact, and they add that it is due to your own faithful administration and energetic efforts.

We of Boston congratulate our brethren of New York that they have had the great advantage of your services during these last eventful years. The gratitude of the medical profession will keep alive the memory of its benefactors. We must trust the future for its *vis a fronte*, but in the broadest and loftiest period of progress the leaders will look back to the days of up-hill work when you, our honored friend, lent all your vigor to that *vis a tergo* which they will feel pressing them forward to larger and higher achievements.

Pardon me for addressing this open letter to you. You can retire "to blush unseen," while some friend is reading it, if it is thought worthy of that honor.

Always faithfully yours,

OLIVER WENDELL HOLMES.

To FORDYCE BARKER, M.D.,
President of the New York Academy of Medicine.

THE DISCOVERER OF DIAPEDESIS.—The discovery of the diapedesis of blood-corpuscles has always been attributed to the late Professor Cohnheim. M. Cornil recently put in a claim for a French scientist, M. Dutrochet, who described this process in his work on the microscopic structure of animals and vegetables published in 1824.

NEW YORK PATHOLOGICAL SOCIETY.

Anniversary Meeting, January 14, 1885.

(Concluded from page 164).

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

DR. W. M. CARPENTER presented, in behalf of a candidate, a specimen of *cancer of the intestine*.

It was referred to the Committee on Microscopy.

DR. W. GILL WYLIE presented

ELEVEN SPECIMENS REMOVED BY TAIT'S OPERATION,

with a brief history of fourteen cases. [See page 161.]

DR. PUTNAM-JACOBI referred to a case in which the patient was operated upon in Philadelphia, for dysmenorrhœa, and one ovary removed. She recovered from the operation rapidly, but her suffering was precisely the same as before it was performed.

DR. E. C. WENDT had seen three or four cases of hysteria, supposed to be of ovarian origin, in which the ovaries with the tubes were removed, but without affording relief in a single instance. In each case there was cystic degeneration of the ovaries. As for the matter of the occurrence of small cysts in the ovaries, it was so frequent that he did not think it was of much pathological significance. Cystic degeneration of the ovaries, in animals, was exceedingly common.

DR. PUTNAM-JACOBI regarded the accompanying conditions, inflammatory in character, as more important than the cystic degeneration of the ovaries.

DR. WENDT was of the same opinion.

DR. WYLIE said that in these cases the cysts were much more numerous than usual; so much so that the entire ovary was commonly occupied by cysts. He had not yet seen a case of marked hystero-epilepsy in which this operation had been performed, and the ovaries were not especially cystic, when compared with the average cystic degeneration of these organs; whereas, in cases in which there was no hystero-epilepsy or hysteria, there were no cysts.

In most of the cases he had given, the patients were operated upon for the relief of pain, and while, without a single exception, there was evidence of old pelvic peritonitis, he regarded it as secondary to the disease of the tubes.

DR. COE regarded it as important to notice whether the cysts were peripheral or central. If simply central, it did not signify very much; but if the ovary was cystic throughout, that fact was very good evidence that there had been such an increase of interstitial tissue that the cysts had not been able to reach the periphery, and had been confined to the central part of the organ. It was this condition only which, strictly speaking, should be called cystic degeneration of the ovaries.

SARCOMA OF THE LOWER JAW.

DR. JOHN A. WYETH presented the patient upon whom he had operated and removed the specimen presented to the Society at the last stated meeting. [See MEDICAL RECORD, January 25, 1885, p. 111.]

No interdental apparatus had been worn by the patient, and yet the jaw was on a direct line.

The Society then went into executive session.

EARLY RISING FOR LITERARY WORKERS.—Rev. Mr Haweis, an English writer of some note, says: "Morning literary work is usually characterized by freshness, continuity, grasp, and vigor; night-work by fever, excitement, and less condensation. This I believe to be the rule; and with exceptions, in speaking thus generally, it is of course impossible to deal." If this view is true, and we are inclined to believe it is, we can recommend doctors to adopt it. It would be a desirable thing to secure more "continuity, grasp, and condensation" for medical writings.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE DEBATE ON BACILLI AND THE PATHOLOGY OF PHTHISIS AT THE MEDICO-CHIRURGICAL SOCIETY—SPEECHES BY SIR ANDREW CLARK, DRS. GREEN, WILSON FOX, AND MOSCOW—DEATH OF DR. BAXTER.

LONDON, January 17, 1885.

A VERY interesting discussion on the tubercle bacillus and the pathology of phthisis is at present going on at the Medico-Chirurgical Society. It was opened at the beginning of December by Dr. Percy Kidd, who read a paper on the "Distribution of the Tubercle Bacilli in the Lesions of Phthisis." Dr. Kidd supported Koch's views on the whole.

In the discussion which ensued Dr. Creighton questioned the validity of Koch's method, which was defended by the next speaker, Dr. Theodore Williams.

Sir Andrew Clark said he could not concur in the statement that the bacillus was sufficient to explain all the lesions of phthisis. He defined phthisis as the assemblage and progression of states associated with or dependent upon ulcerative or suppurative destruction of more or less circumscribed non-malignant deposits or consolidations of the lungs. Under this definition would also fall chronic interstitial pneumonia or fibroid phthisis, for ulcerative or suppurative destruction of tissue occurred, together with symptoms which could not be distinguished from those of ordinary phthisis, and yet in the lesions no bacilli could be found. No bacilli were found in some cases of acute miliary tuberculosis; and, further, in some cases no bacilli were to be detected until softening had taken place. These facts led him to doubt the casual relation of the bacilli to phthisis.

The discussion was resumed on Tuesday last, January 13th. Dr. Kidd's specimens were again on view, and speeches were made by Drs. Hermann Weber, T. Henry Green, Wilson Fox, and Moxon. Mr. Watson Cheyne also spoke and gave a very instructive demonstration of the bacilli of tubercle, and the methods of cultivating them. Numerous specimens and photographs were also shown by Mr. Watson Cheyne.

Speaking broadly, it may be said that at the debate of last Tuesday all the speakers avowed more or less allegiance to Koch's views—some almost unreservedly.

Dr. T. Henry Green said Dr. Kidd's paper was another addition to the facts already in our possession which tended to show that bacilli were present in all those pulmonary lesions we regard as phthisical, and absent in those which are not phthisical. He suggested that we might define clinical pulmonary phthisis as including all cases of pulmonary consolidation in which the three following characters were present: 1, Distribution more or less apical; 2, tendency to undergo softening and disintegration; 3, possession of infective properties and hence of a tendency to spread.

This definition excluded many chronic lung diseases sometimes considered phthisical, but he thought this clinical and pathological distinction between phthisical and non-phthisical forms of lung disease was justifiable apart from any question of bacilli. It was also, he believed, in complete accord with Koch's discovery. The unity of phthisis seemed to be established by the observations of those who had worked on the subject. For his part, he doubted the existence of non-tubercular apical consolidations.

Dr. Wilson Fox said the characteristic bacteridia had been found in nearly every form of tubercle, and in pus proceeding from tubercle, and so far the evidence in favor of Koch's views was strongly confirmatory. The failure to find bacteridia in some cases would not destroy the phthisical nature of the disease, for one would not expect to find the active agent in all cases. Leyden had pointed out that the fallacies of the histology of the sputa in relation to the bacilli were more numerous than surrounded the older methods of investigation. Tubercle was an inoculable disease and almost nothing else is so inoculable. Cheyne and Dawson Williams had proved by experiments that tuberculosis could only be obtained by the inoculation of specific material. Diseases due to bacteridia were mostly contagious, but it would be a grave step to assert that tubercle also was contagious. The evidence to prove that tubercle was contagious in man was of the most difficult kind. Dr. Wilson Fox said he thought that, although the evidence in favor of Koch's views was so strong, yet looking to the constant change in our views on phthisis, and seeing how the pathology of tuberculosis has biennially, triennially, or quinquennially been swayed by histological dogmata, it would be well if we waited before definitely accepting all that the new views implied.

Dr. Moxon said he had long held the opinion that all phthisis was the same disease, and had done so from anatomical considerations. He had long observed that tubercle was always spherical, and thought there must be some reason for this. In masses of tuberculous growth, the periphery was living and the centre was dead. He had compared them to fairy rings though he did not mean much by the term; it was almost poetical. He thought we had now revealed the factor which makes phthisis one and the same thing. He believed Koch was right. But nevertheless we could not expect to always find a bacillus in the sputum at any stage and in every case of phthisis. The life of a tubercle was not equal in duration to that of a case of phthisis. Three months was about the duration of the life of a tubercle; that of phthisis might be twenty years. He said he had come to the conclusion that phthisis was a compendium of every disease in pulmonary pathology excluding cancer and including embolism. Pregnancy, heart disease, and, in fact, all venous conditions disfavored phthisis. Hence tubercle did not usually exist in the region of the Pacchionian bodies, never occurred in the liver, but was common at the base of the brain. We could explain much by considering the delicate conditions requisite for the growth of the bacilli. The life of a parasite was not so easy as it seemed at first sight to be. The aphis of a rose did not live in a westerly wind. So, though we might catch tubercle bacilli at every moment, yet a favorable soil might be wanting.

Last week I recorded the death of an eminent physician, Dr. Herbert Davies. I regret to have now to register that of Dr. Buchanan Baxter. Dr. Baxter was not so well known as Dr. Davies, and cannot be said to have attained equal eminence, but he was as yet only a young man, comparatively speaking, and there is every prospect that he might have made a considerable mark had death not taken him from us. A distinguished graduate of the London University, he became Assistant Physician to Kings College Hospital, and succeeded Dr. Garrod as Professor of Materia Medica. He also became examiner in the latter subject at the University, and edited Dr. Garrod's well-known manual. He also edited "Rindfleisch" for the New Sydenham Society. He won considerable repute some ten years since by writing some special scientific reports for the Privy Council.

TOLERANCE OF LARGE DOSES OF POTASSIUM IODIDE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: I report the following case as an instance of large doses of the iodide of potash continued for four months, the patient thriving on the medicine, and gaining in flesh and strength daily. The case is peculiar in other respects also, in that, although there was no history of syphilis, and scarcely a symptom, still the rapidity with which the lesions disappeared under specific treatment appeared almost miraculous. Mrs. W—— applied for treatment

for skin disease on July 3, 1884. History as follows: American; aged fifty-four; married to second husband; four children living, and all healthy; three by first husband, and one by second. Patient is a short, spare woman, seemingly quite emaciated and weakened by disease. Twelve years ago she began to be afflicted with the disease for which she applied for treatment, and for which she has been treated off and on ever since, at times receiving some benefit, but more often none. At the time stated, twelve years ago, abscesses, simulating furuncles at their commencement, began to form on her lower legs over tibia, and on her chest over sternum. These abscesses pursued a very slow course, it sometimes (and generally) being months before they opened, and as many months and more before the discharging sinuses left by them completely healed. During their evolution there was great pain, and even when they had opened, and a free exit was formed for the pus, the pain still continued, more especially at night. Six years after their first appearance on her legs and chest, the same peculiar abscesses made their appearance on her forehead, and not only increased her discomfort by the greater pain produced by them in this situation, but by the disfigurement compelled her to live entirely within doors. On July 3d, when I first saw Mrs. W——, there were visible two discharging sinuses on right leg over tibia, near the ankle; two ulcers on forehead, very close to margin of the hair; and one *cold* abscess on crown of head, which differed from previous abscesses by so far having given rise to no pain; besides numerous and depressed scars on both legs over tibia, on chest over sternum, and on forehead; in fact the latter had the appearance of one large cicatrix, the abscesses having been so numerous that scarcely a healthy piece of integument was to be detected. Upon further examination found heart and lungs normal; urine, sp. gr. 1.011, acid, pale, with no sediment, and a slight trace of sugar by bismuth test; appetite poor; bowels constipated. Patient stated that she passed large quantities of urine, especially at night. Reserving my diagnosis, I put her upon Wyeth's elix. iron, quinine, and strychnine before meals, and tr. valerian after meals; morph. sulph., q. s. for relief of pain. On July 17th patient had quite a severe attack of cholera morbus, and treatment ceased until July 23d, with the exception of the application of Martin's rubber bandage, which, thinking it might possibly ease the pain, I had ordered on July 14th. On July 25th, finding there was great pain on pressure over the shins, and the hypersecretion of urine having ceased (sp. gr. 1.020, acid, no albumen, no sugar), I decided upon a radical change in the treatment, and began the administration of the iodide of potash in increasing doses. I ordered for her the following preparation:

℞. Potass. iod..... ʒ j.
Aquæ.....q. s. ad. f ℥ j.

Beginning with eight drops, representing grs. viij. of the iodide, t. i. d., I increased the dose by one drop (gr. j.) daily, until she reached the maximum dose of thirty drops, representing half a drachm of the potassium iodide, after each meal (t. i. d), in half a glass of water. On August 2d Mrs. W—— was taking grs. xvj., t. i. d., and the pain in limbs had to a large extent ceased; the abscess on occiput had inflamed, and was slightly painful. On August 3 I opened this abscess, evacuating probably half an ounce of thick, creamy pus, and dressing with carbolized cotton (absorbent) compress. On August 13th, ten days after the opening of this abscess, and nineteen days after the first dose of the iodide was taken (grs. xx. being the regular dose at this date), all pain had ceased, the abscess on the crown of head had stopped discharging and was healed, and sinuses on leg likewise. The only remaining lesions were the two ulcers on forehead. Believing that these were prevented from cicatrizing by the irritation produced by Mrs. W's—— bang, I prescribed ung. zinc. oxid., to be applied on cotton; and, on August 20th, I found that I was right, and that they too had healed. Mrs. W—— now continued taking her regular dose of twenty grains of iodide of potash thrice daily (with the addition of a dessertspoonful of Wyeth's elixir of gentian, with the tincture of the chloride of iron, before meals, from August 20th to November 1st, occasionally, and for two or three weeks at a time, increasing the dose to ʒ ss. t. i. d. On November 1st Mrs. W——, having had no symptom nor manifestation of her previous disease since August 20th, was discharged, to all intents and purposes, cured. I, however, advised her to continue the iodide for another month, which she has done. On December 1st I gave her a prescription for pil. hydrarg. bichloride (gr. $\frac{1}{10}$), to be taken after meals, and continued the tonic before meals. Patient has now gone South to spend the winter months.

This is an instance, most positively, of the toleration of large doses of the iodide of potash, an average daily dose of one drachm being taken for a period of four months, with no symptom of gastric irritation, but, on the contrary, the appetite improving, bowels becoming regular, and patient rapidly gaining flesh and strength. My diagnosis, at first reserved, is still reserved—so far, at least, as regards *naming* the disease; and if any of my professional brethren are familiar with a similar complaint, and can *name* it, they would confer a favor by addressing me.

Mahlon Hutchinson, M.D.
Chicago, Ill.

THE TRUE "POISON IN THE COFFEE-CUP."

To the Editor of The Medical Record.

Sir: Some few months ago the papers throughout the country published an article headed "Poison in the Coffee-Cup" referring to the polishing and coloring of coffee, our "Board of Health" claiming that the material used to give the coffee a bright green appearance contained enough poison to make the so-colored coffee injurious. Those connected with the coffee trade, however, knew that a "mountain was being made from a mole-hill," and that a much greater evil was being carried on without the interference of the health officers in the sale of what is known in trade parlance as "poor skimmings."

"Skimmings" coffee is that which has been damaged—and decayed Java coffee is usually brought here in sailing vessels taking a voyage of from three to four months, during which time the coffee goes through a sweating process, which gives it the rich brown color so much sought after. But during this process the steam arising from the coffee condenses and drips on parts of the coffee, which, in consequence, becomes decayed. On arrival at port this is separated, put into packages, and called "Java skimmings."

Similar damage is also often caused by sea-water, especially on Rio and other coffees brought by steamer. I send you with this a sample from one hundred bags of Rio "skimmings" sold last Friday by a leading auction house for three-fourths of a cent per pound. You will notice that the berry is perfectly decayed, not a particle of it being sound, and that the odor is very offensive. Three years ago the steamer Pliny, from Rio, with a cargo of over thirty thousand bags of coffee was wrecked on Deal Beach, N. J. Thousands of bags of decayed coffee were gathered from the beach and sold on this market.

The "skimmings," when dried, are mixed with sound coffee and sold mostly to the poorer classes. There can be no doubt that a much greater evil is done by the sale of this decayed coffee than by the sale of polished coffee, which is mostly a Rio coffee and used West and South, but seldom in our city. * * *

New York City, January 20, 1885.

[We have examined a package of these "skimmings." They are mouldy, discolored, and ill-smelling.—Ed.]

New Instruments.

REMARKS ON HÆMOSTATIC FORCEPS.

By ROBERT F. WEIR, M.D.,

SURGEON TO THE NEW YORK HOSPITAL, ETC.

In the endeavor to render bloodless, or comparatively so, operations in portions of the body to which Esmarch's elastic bandage cannot be applied, and particularly in the neck, where often difficult and careful dissection is required, a marked improvement is to be seen in the surgery of the present day. The removal of a tumor of the neck overlying the vessels and nerves at the upper or lower part of this region, or even of the enlarged thyroid gland with its numerous thin-walled veins, can be accomplished nowadays with not only the saving of blood but without the

Fig. 1.—Billroth's Forceps.

obscuration resulting from the general outpouring from small vessels, which in previous times were allowed to check themselves by their own contraction and plugging.

By using a large incision and by keeping the wound free from blood the favorable progress of a difficult operation is much enhanced. To accomplish this, no sooner does a vessel spirt or bleed freely than a hæmostatic forceps is applied to it by the surgeon or his assistant. If, as is often the case in the deeper dissections, an artery or vein is recognized, it may be seized by the forceps, and then divided between there and the end; if of a

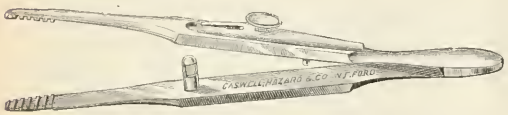

Fig. 2.—Esmarch's Forceps.

large vessel, tied immediately, or, as is much better, the vessel may be tied with two ligatures and cut between them. Generally as each vessel is caught by the forceps, or clamps as they are also called, the instrument is either allowed to hang in the wound, or is held aside by an assistant. When there are so many of such clamps in the wound as to hinder freedom of action the vessels are tied, still held by the clamps, with catgut, when the forceps are released, otherwise the ligation of the vessels is postponed until the operation is completed. Some surgeons, as Spencer Wells, will have their ring-handled clamps so constructed as to give at least twenty-five pounds pressure (whence their name force-pressure forceps), with the in-

Fig. 3.—Hahn's Forceps.

tention of obviating the use of any subsequent ligature, but in practice the failures to do this more than equal the successes. Hence most operators, instead of disengaging the clamps to see if the bleeding will continue, will forthwith proceed to apply the catgut ligature to all the points that have been seized as a more speedy and blood-saving procedure. Of the variety of such forceps to be recommended, experience has shown that the several kinds herewith represented are the most serviceable.

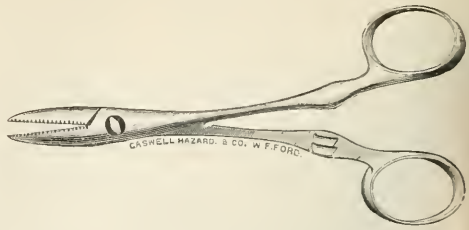

Fig. 4.—Tait's Forceps.

They are of two shapes—Figs. 1, 2, and 3 are patterned after the ordinary forceps, and have strongly marked serrated teeth and sliding catches to hold the grasp when made. Billroth's are the lightest and are usually made of nickeled steel, as are all the others save Esmarch's, which are of German silver and therefore a little heavier. They, however, do not so readily tarnish as the others. Of the two forceps with the sliding catches I prefer those of Esmarch; but the objection applies to both of them, and also to the narrow or sharp-ended ring-handled ones of Pean and Spencer Wells, that it is not always safe to

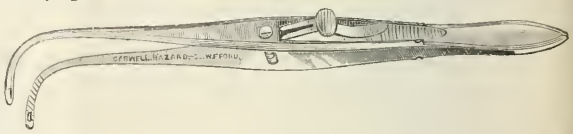

Fig. 5.—Weir's Forceps.

tie a vessel when caught by such forceps. Where the artery, for example, is near enough to the edge of the wound to allow the point of the forceps to be lifted a little from the cut surface by direct traction, or better still by tilting the forceps strongly to one side, the ligature can readily be applied; but when the vessel caught is deep in a wound, the forceps known as Hahn's or Tait's, Figs. 3 and 4, are the best. Their rounded ends completely prevent the ligature being caught in the forceps. These are therefore to be recommended for general use. A further point worthy of note in all these forceps is that all the slides or catches are readily de-

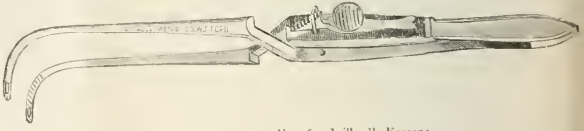

Fig. 6.—Juillard's Forceps.

tached for cleansing; this is separately shown in Fig. 3. In Tait's forceps the blades come apart on wide expansion. In certain cases where the depth of the wound or other reasons forbid the application of the ligature, the forceps can be left *in situ* for several days, covered by the final antiseptic dressing. This expedient is more likely to be resorted to in rectal and uterine operations.

Two other forceps, Figs. 5 and 6, are also presented as particularly serviceable, not as clamps but as facilitating the carrying of ligatures around deep vessels which are to be divided between two ligatures. They are, in fact, an aneurism needle and a forceps combined. I have for several years used one with great satisfaction, not always threading it but more often grasping the double ligature, wriggling the forceps under the vessel, then seizing the ligature, withdrawing the forceps and tying the vessel as desired. Julliard, the distinguished surgeon of Geneva, in his large experience in the removal of bronchoceles found

a somewhat similar instrument, Fig. 6, of great service. It works with an action the reverse of mine. When untouched it remains closed: it can, however, be held open at any point by a graduated ratchet, which is occasionally an advantage.

I have not intended to present all the different forms of hæmostatic forceps, but those which observation and experience have shown to be the best, not only in my own hands but in those whom I have seen use such at home and abroad. To those, too, who are familiar with hospital surgery there is nothing of novelty in the points here made, but to the general practitioner it is believed the subject will be of interest.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from February 1, 1885, to February 7, 1885.

WATERS, WILLIAM E., Major and Surgeon. Granted leave of absence for one month. S. O. 24, Department of the East, January 31, 1885.

WILSON, WILLIAM J., Captain and Assistant Surgeon. Ordered for duty as Post Surgeon, Fort Preble, Me. S. O. 27, Department of the East, February 5, 1885.

WOODRUFF, EVRE, Captain and Assistant Surgeon. Ordered from Willet's Point, New York Harbor, to Department of Dakota.

TAYLOR, MARCUS E., Captain and Assistant Surgeon. Ordered to Department of the Missouri. S. O. 30, A. G. O., February 5, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending February 7, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
January 31, 1885.....	2	12	80	5	157	48	0	0
February 7, 1885.....	0	4	88	7	140	63	0	0
Deaths.								
January 31, 1885.....	0	6	11	5	36	24	0	0
February 7, 1885	0	1	15	7	31	26	0	0

NOTES ON THE CLIMATES OF NASSAU, GEORGIA, AND FLORIDA.—Dr. J. W. Dart, formerly of this city, writes us from Jacksonville, Fla., under date of January 3d: "Supposing," he says, "that a patient desires to get into a country where the months of December and January are like that of July in New York City and vicinity, he cannot find it short of the Bahama Islands (Nassau, N. P.). In Georgia, the cold lowers the thermometer during these months below 0°, at times. It has been 13° F. this winter there already. The temperature of Florida rarely goes below 32° F., and as Key West is approached it rarely goes lower than 44° F. Frosts are said to have occurred even below the so-called 'frost line,' at the latitude 29°, near Indian River, on east, and Pampa, on west, in Florida, so that there is no immunity from an occasional frost until below latitude 25° (KeyWest, lat. 25°), and this is about the location of the Bahamas. Last winter frosts occurred in the northern part of Florida. When it was 4° F. in New York City, last winter, it was 22° F. in Mobile, Ala. At Nassau, on the Bahama Islands, the heat ranges from 70° F. up, and is about the same in January as in July. It is said to be cool enough in the shade almost any time. The society there is sometimes poor, but a delightful summer climate and prices no higher than those of Florida are attained. The changes which occur in the climate are very trifling. Gainesville, Fla., is situated on the high ground of the State, yet but little high ground is in the State of Florida. If a patient desires to secure summer weather, let him go first to Nassau and stay there December and January, and then go to Florida, and go north gradually, according to season. Nassau can be reached by the Ward Line of steamers. Fare, $95, round trip from New York, including meals, and $70 from St. Augustine, Fla. A four or five days' sail from New York is to be thought of in the case, and a one or two days' sail from St. Augustine. Nassau is the nearest place for this climate from New York, and the most reliable for the invalid seeking absolute summer weather and slight changes of heat and cold. The island of New Providence is built upon coral and lime, and rapidly absorbs moisture (the *Nassau Almanac* gives full particulars of the city of Nassau). Population about 10,000. A schooner sometimes sails from Jacksonville, Fla.; fare, $20; and also one from Key West. It can be reached also from Cedar Keys. The *Florida Annual* for 1885, published at 140 Nassau Street, New York, gives a good description of Florida and its climate. Mr. Barbour has written a good book on Florida. Florida, in the region of Jacksonville, is damp during December, and January a part of the time, yet preferable principally because it is a city. New York papers reach here about one day late. There is a theatre here (Park Theatre), and several large hotels. Its population is from 7,000 to 13,000, or perhaps more, as it has a large floating population in winter. The trees are all green on this (January 3d) day of writing."

IS IRON GIVEN ALONE OF ANY THERAPEUTIC VALUE?—Dr. S. Bradbury, of Oldtown, Me., lays down a proposition which strikes at the very foundation of our therapeutics. He writes: "I was very much interested in one of your last editorials on 'The Assimilation of Iron,' as I have contended with my fellow-physicians, for the last ten years at least, that iron as given to patients for anæmia has not the slightest effect. I had come to this conclusion for the following reason, namely, *when tried strictly on its own merits, I never could see any results from iron.* Of course, used with quinine, with air and exercise, the anæmic patient would improve, but really, did not the great reputation of iron spring from *theory* instead of from *experience?*"

PREVALENCE OF CANCER.—Forty years ago, Mr. Thomas Wilkinson King drew the following results from some one thousand *post-mortem* examinations performed at Guy's Hospital: "Of all females who die about forty-four years of age, nearly one-half have cancers; of males, one-eighth. Of males above sixty-five, one-fifth of all who die are cancerous."

AMORPHOUS BORATE OF QUININE.—A number of successful experiments with this preparation have recently been made in the medical clinic of Bonn. It appears under the form of an amber-colored crystalline powder, of a not unpleasant odor, of a bitter taste, not so intense, however, as that of the muriate, and soluble in an equal quantity of water. Drs. Finkler and Prior state that this preparation of quinine is much better tolerated, even by the most irritable stomach, than any of the other salts. It has acted well in typhoid fever, septicæmia, pneumonia, phthisis, and in one case of periodical neuralgia. In every case its action was in no way inferior to that of the sulphate or the muriate of quinine. It seems also to produce less ringing in the ears.—*Rivista Internazionale di Medicina e Chirurgia*, November, 1884.

Riots of Students in Madrid.—The *Revista Médica de Sevilla* contains an account of the origin of the students' riots occurring recently in Madrid. It seems that one of the professors, Sr. Morayta, was excommunicated by the Bishop of Avilla on account of some heretical opinions expressed in one of his lectures. A protest against these opinions was drawn up and presented to the students for their signatures. A few signed the paper, but the majority refused to do so, and proceeded to get up a counter-demonstration supporting the excommunicated professor. Numbers of the liberal students marched to the house of Sr. Morayta and cheered him, denouncing the action of his opponents. When the demonstration became a little too noisy, the crowd was dispersed by the police. The students then returned to the University and collected in crowds in the streets, shouting and denouncing the conduct of the police. Upon a second attempt being made to disperse them, they resisted, and became riotous. It would appear that the police acted too hastily, and had they been a little less intemperate in their zeal, the students would have expended their efforts in shouting, and bloodshed would have been avoided.

The Pathogenesis of Cholera.—We find in the *Rivista Internazionale di Medicina e Chirurgia* for November, 1884, a short communication from Drs. Ceci and Klebs regarding their joint investigations into the nature of cholera. They were unable always to find the comma-bacillus in the intestines and in the discharges of cholera patients, hence they conclude that, whatever may be its genetic importance, its diagnostic value is at least doubtful. They have confirmed the opinion expressed in The Record last summer, that the comma-bacillus is really but a form of spirillum. It was found that when the choleraic discharges were left in ordinary temperatures for three or four days, there was developed a pure culture of spirilla, some of which were of the extraordinary length of ten, twenty, or thirty coils. At another time a number of spirilla were seen in the process of division into five or six comma-bacilli at one extremity, while at the other they remained unbroken. No spores were ever observed in the spirilla. As a result of their investigations, the authors conclude that in Asiatic cholera there is probably produced some substance which attacks the cellular protoplasm; and this substance, formed perhaps through the action of the spirilla in the intestines, is reabsorbed. When it is absorbed in dilute form, coming in contact with the tissues, it causes an atrophic condition (of the spleen, liver, cutaneous tissues, etc.); when concentrated, it leads directly to necrosis of the parts. They seem to regard this substance, whatever it may be, as the true *materies morbi*, and look upon the comma-bacillus or spirillum as of less interest. Indeed, they do not regard this as characteristic of cholera. Ceci asserts that the bacilli and spirilla of Asiatic cholera, as far as regards their morphological characters, are identical with the bacilli and spirilla obtained by Finkler and Prior in cholera nostras; and Klebs maintains that he has seen these same forms of spirilla in the diarrhœic stools of a person suffering from pneumonia.

Why Trousseau was Miserable.—Dr. Marion Sims, in his autobiography, gives the following interesting account of Trousseau: "Trousseau was one of the greatest physicians of the age—a man endowed with physical beauty as well as fine intellect, the philosophic physician, the classical littérateur, the elegant teacher, the successful practitioner. He was without a rival. I had never known such a grand man who was purely a physician, and yet he was a very miserable man, and why? Had he not reached the highest distinction in his profession? Was he not exhibited as the highest authority in medicine all over the world? His lectures were translated into all languages, and then he was the leading practitioner, the great consultant, the fashionable doctor in Paris, and had accumulated a large fortune. Everybody spoke well of him, everybody admired him as a man; his private character was above all reproach; he had no children whom he could not recognize as his own. As the world saw the man they had the right to think and to see that he ought to be one of the happiest of men. True, he was not Court physician, but every other ambition of his life had been fully gratified, and yet he was unhappy, and why? His wife was an elegant and accomplished woman, of great beauty and fine intellect, but they were separated. He had a daughter, one of the most beautiful women in Paris, who married a man too much her senior. They were incompatible and separated. He had an only son who was a scapegrace. He was a gambler and everything else that was bad. His father was worried to death with his dissoluteness and foolish extravagance, and had to pay enormous sums of money to extricate him from his disgraceful orgies and gambling complications. He was married to a fine woman who ought to have made any man happy, but he neglected and made her miserable. . . . Trousseau had not seen his son for a long time before he died. About a fortnight or three weeks before this event, his son went to one of the gambling hells of Paris and lost all his money and more than he could pay besides. His poor father died soon after this, and his unworthy son saw a notice of his death in a London paper the next day, and I saw the tall, handsome, wretched man bending heartbroken over his good father's coffin in the Madeleine, whence he followed it to its final resting place in the Père la Chaise. We are happy or unhappy in this life as our children choose to make us."

Chloroform in the Treatment of Tape-worm a Failure.—Dr. M. B. Mattice, of Elkton, Dak., sends the following note: "Mrs. C——, thirty-five years of age, American, consulted me three months ago for tape-worm. Prescribed filix mas without success. Then prescribed ℞ chloroformi, ʒ j., simple syrup, ℥ j. M. One-third given at 7, 9, and 11 o'clock A.M., followed by ol. ricini, ʒ j., at 12 o'clock. Four hours later five feet of the worm passed. Ten days later repeated the dose and succeeded in getting but two feet more. The head still remains."

The Achievements of American Surgeons.—Ephraim McDowell, of Danville, Ky., performed ovariotomy in 1809, and the woman lived until the year 1841. Valentine Mott, in 1818, was "the first to execute the bold, brilliant, and difficult feat of taking up the innominate artery for aneurism of the subclavian." Dr. A. W. Smyth, of New Orleans, in 1864, tied simultaneously the innominate, and the common carotid arteries for subclavian aneurism, and averted death from secondary hemorrhage by ligating the vertebral artery on the fifty-fourth day. In 1833, Mott tied both carotids simultaneously, and in 1820, the first time, the common carotid for aneurism of the innominate artery. In 1845, Dr. J. Kearney Rodgers, of New York, first practised ligation of the left subclavian artery in the first portion of its course. Dr. William Gibson, of Baltimore, in 1812, first tied the common iliac artery for gun-shot wound of that vessel. For aneurism of the external iliac, Mott, in 1827, was the first to tie the common iliac artery. Dr. Robert Battey, of Rome, Ga., in 1872, successfully removed the ovaries for obstinate neuralgia. Dr. Warren Stone, of New Orleans, in 1874, cured a traumatic aneurism of the second part of the subclavian artery, by digital compression of the third division as it passes over the first rib. In 1860, Dr. E. B. Wolcott, of Milwaukee, Wis., performed extirpation of the kidney, the patient surviving the operation fifteen days, and then dying of exhaustion from profuse suppuration.

Dr. R. A. Kinloch, of Charleston, S. C., in 1863, performed enterectomy for artificial anus, according to a method urged by the late Dr. Samuel D. Gross, in 1847—namely—to excise a portion of the bowel and suture the divided ends. The prevention of hemorrhage during operations upon the extremities, by rendering them bloodless, is really an American procedure, and was practised

by the elder Pancoast and elder Gross. The employment of absorbable animal ligatures, which would not give rise to suppuration or interfere with the healing of wounds, is also of American origin. In 1814, at the suggestion of Dr. Physick, Dr. J. S. Dorsey successfully ligated a large artery in a horse with a buckskin ligature, and Dr. Joseph Hartshorne, soon afterward, at the Pennsylvania Hospital, secured the vessels, after amputation of the thigh, with strips of parchment. Concerning affections of the bones and joints, systematic manipulations in the reduction of dislocations, operations upon the nerves, the treatment of affections of the urinary and generative organs, especially the treatment of vesical calculus by rapid lithotrity, American skill, daring, and ingenuity have been displayed to the enduring credit of American surgery.—*American Supplement to Braithwaite's Retrospect.*

Patent Medicines and the Prophylaxis of Old Age.—Fourteen persons died of "old age" in Philadelphia last week, and only three of small-pox. The former appears to be the more fatal disease, but we don't hear of persons getting vaccinated in order that they may not catch it. Of the several thousand patent medicines advertised, not one is warranted to prevent a person from dying from the apparently incurable disease of "old age," and yet hundreds of these nostrums will effectually ward off the malady.—*Norristown Herald.*

Impervious Corks.—Corks may be made impervious by soaking them—best quality—for several hours in a solution of one-half ounce of glue or gelatine in a mixture of three-fourths ounce of glycerine and one pint of water, heated to a temperature of about 50° C. Such prepared corks may be rendered nearly proof against acids and other chemicals if they are dipped, after thorough drying, for ten or fifteen minutes into a melted mixture of four parts of paraffine and one part of vaseline.

Cannabis Indica as a Local Anæsthetic.—A. Aaronson writes, in the *British Journal of Dental Science*, that tincture of cannabis indica as a local anæsthetic is perfectly satisfactory. He has extracted with its aid as many as twenty-two teeth and stumps at one sitting. His plan is to dilute the tincture some three to five times, according to the probable duration of the operation. The diluted tincture is then applied in cotton-wool to cavities, if such exist, and also about the gums of the affected teeth. The beaks of the extracting forceps are also, after being warmed, dipped in the diluted tincture. In cold weather it is wise to dilute the cannabis indica.

The Practice of Medicine in Russia.—The number of medical men in Russia, according to the official statistics for 1883, is 15,231, the majority being residents of cities, and the country very badly supplied. There are medical faculties in Kief, Kazan, Charkov, Moscow, Warsaw, Helsingfors, and Dorpat, the first five of which give instruction in the Russian language, while at Helsingfors Swedish is spoken, and at Dorpat German. There is, besides, an army medical school. In the Russian schools there is a five years' graded course, with yearly examinations. At the end of this course an examination must be passed for the title of physician, after which, if it is so desired, the candidate may pass on to the doctorate examination, in order to obtain which degree a more exact knowledge of theoretical subjects is necessary than that required at the examination for the title of physician. A doctor ranks as eighth in the classes defined by the State, while a physician is one step farther down the scale. Russian medical societies are not very flourishing, owing to an every-man-for-himself spirit that exists among the physicians there. The oldest is the Society of Russian Physicians, founded in 1833. The members of this society are intensely national in their feelings, as was evidenced in one of the addresses at their semi-centennial celebration, when the speaker congratulated his hearers that at last Russian medicine had thrown off the German yoke. This feeling was also exhibited in an order recently promulgated by the Minister of War, to the effect that not more than four per cent. of the army surgeons should be Jews. There are five other societies, one of them composed chiefly of German physicians, in St. Petersburg, and seventy-three in the provinces. Considerable progress has been made in the last decade in medical journalism. The leading journal is the *Vratch*, founded by Manassein in 1880. Next to the *Vratch* comes the *Russkaya Medicina* and the *Meditsinski Vestnik*. Another journal, composed principally of abstracts, but containing also some original articles, is the *Meditsinskoye Obosrenoye*. The organ of the German physicians is the *St. Petersburger Medicinische Wochenschrift.* —*Lancet.*

Origin of Germ Theory of Disease.—A claim has been advanced in favor of Athanasius Kircher in connection with the origin of the germ theory of disease. In his work on "The Plague," published in Rome in 1658, he attributes the origin of epidemic diseases to animalculæ (germs?), and maintains that each kind of putrefaction possesses a peculiar virus which produces a definite kind of illness.

An Excuse for Delayed Calls.—This story is told as illustrating the ready wit of the late Dr. Howard, of Chelmsford. He had for a patient a very pious woman who lived in Billerica, who sent for him one day quite urgently. He did not respond so promptly as his patient desired, and when he did arrive she upbraided him sharply. "When I send for a doctor," she said, "I expect him to come right away." "But, my dear madam," he replied, "what does the Good Book say about it?" "I didn't know the Good Book referred to the subject," she testily replied. "Yes, it does," retorted the doctor, "it says the expectation of the wicked shall be cut off." The old lady was mollified.—*Lowell Courier.*

Poisoning by Aconite.—A report was lately circulated in French medical journals regarding the fatal poisoning of a person with aconite through the mistake of a druggist. Captain M. J. Farrell, of New Orleans, died the other day from a dose of aconite given through a druggist's mistake. A man in Minneapolis has escaped death from a similar cause almost by accident. A druggist there put up by mistake an ounce of tincture of aconite in a prescription brought to his store by a young man whose residence was unknown. The whole of the medicine was taken, but fortunately without evil results.

Medical Advice by Telephone.—*Husband*—My wife has a severe pain in the back of her neck, and complains of a sort of sourness in the stomach.

Physician—She has malarial colic.

Husband—What shall I do for her?

[The girl at the "central" switches off to a machinist talking to a saw-mill man.]

Machinist to Husband—I think she is covered with scales inside, about an inch thick. Let her cool down during the night, and before she fires up in the morning, take a hammer and pound her thoroughly all over, and then take a hose and hitch it to the fire-plug, and wash her out.

Husband has no further need of this doctor.—*Leonard's Med. Jour.*

The Ideal Physician.—Professor Gairdner thus describes him: 1. He must be careful and accurate, and at the same time a keen and quick observer of nature. 2. He must be able to connect his isolated observations of fact by rapid, and at the same time trustworthy, processes of reasoning. 3. He must, in dealing with emergencies, endeavor to have always presence of mind. 4. He must, as a surgeon, have much deftness of manipulation—manual dexterity, as we call it; or perhaps, still better, ambidexterity. 5. He must treasure in his memory, and be constantly increasing from day to day, large stores of various reading in his own and other languages, in order that not only past observations, but also the

vast field of scientific progress in its relation to his art, may be constantly before him, or at least freely accessible when wanted. 6. He must be able to write, at the very least in his own language, with vigor, compactness, and lucidity. 7. He must have a soul above mere money-grubbing, must on no account degrade his profession into a trade, but must be, as far as is possible to human nature, the disinterested friend, the companion—the good genius, I had almost said—of all his patients. 8. For this reason, if for no other, he must in every case have in him the distinctive essence of what is called a gentleman; and if his practice is, or is ever to be, among what are called the upper classes, he must be a gentleman, not only in principle, but in detail—not necessarily what is vulgarly and falsely often styled a fine gentleman, but a gentleman in outward manner as much as in the inner spirit. 9. He must be a man endowed with a deep sense of moral responsibility, so as to beget confidence and unfailing trust in him on the part of his fellow-men—responsibility, therefore, to them in the first instance; but underlying that, and sustaining it as surely as the root and the stem sustain the flower, a deeper and more latent responsibility to Him who is the source of all good, and therefore of all moral principle and moral responsibility whatever.

The Relation of Certain Diseases of the Eye to Gout.—Mr. Hutchinson, of London, believes that iritis, relapsing cyclitis, optic neuritis, glaucoma, and hemorrhagic retinitis may all in some cases be due to gout. He also attributes to the same cause a condition which he denominates "hot eye." He has observed this affection in those who suffer from "quiet" gout: *i.e.*, gout in which acute paroxysms never occur. Many gouty persons also suffer from ocular shooting pains, the nature of which they well understand themselves. Mr. Hutchinson also remarks that many cases of irritable hyperæsthetic and easily tired eyes in young persons are in association with inherited gout. Slight hypermetropia may be found, but glasses do no good in such cases and only increase the irritability. Referring to so-called "gouty deposits" in the eye, Mr. Hutchinson says the nearest approach to proof of gout-deposit is the occurrence of what are known as "transverse calcareous bands" in the cornea. No one has, however, yet proved that the salt deposited is that of gout. It is usually calcareous, and there is little or no evidence that urate of soda is ever deposited in the eye. In conclusion, Mr. Hutchinson disclaims a wish to see "gout in everything;" but he maintains that the gouty constitution exists, is very common in England, potent in causing disease, and remarkably hereditary.

Cocaine and its Use in America; "The Record" the First in the Field.—A London correspondent writes: Cocaine has been in use here for some little time now, and with satisfactory results, as I can testify from personal experience. Several operations—especially ophthalmic—have been performed by its aid without employing general anæsthesia. Our journals, however, are much behind The Medical Record, in which I have recently observed with interest the reports of several American experimenters with this new agent. *The Lancet* of this week contains the first communications on the subject by English observers. I note, though, that one of the articles is by an American ophthalmologist. One of our writers calls attention to the fact that Sir Robert Christison wished to call the drug cuca, and urges that cucain would be a preferable term for the alkaloid.

Gangrene from a Hypodermic Injection of Quinine.—Dr. F. Tipton, of Selma, Ala., has had a bitter experience with quinine. He had a patient suffering with a violent form of quotidian ague. Nothing would stay on the stomach, or in the rectum, so he injected into the outer aspect of the leg ten grains of quinine dissolved in water with half a grain of tartaric acid to each grain of quinine. After three days, the leg began to swell and became red; then acute spreading gangrene set in. For several days life and limb were threatened, but finally a line of demarcation appeared. The gangrenous area covered a space equal to that of both hands. Dr. Tipton writes that he had seen the injection which he used administered in about one hundred cases with no injury at all. In this case the patient showed a tendency to suppuration, even when he received slight injuries, or scratches. Our correspondent is very positive that he will not again run the risk of any such accident as the above.

Save the Fingers.—Dr. William D. Ronaldson, of Philadelphia, writing to us on the subject of conservative surgery, reports two cases which show it is often better not to yield to the impulse to cut off a bad-looking finger. A. B——, a brakeman on a railroad train, had his finger caught between the bumpers of the cars while endeavoring to couple them. The nail and flesh were torn completely off, leaving the distal extremity of the bone exposed. The injury was of such a nature that amputation of the ungual phalanx would have been permissible, but having cleansed the wound thoroughly with tepid water, a dressing of carbolized oil (1 to 15) and vaseline was applied. The finger healed in three weeks and, except for the loss of the nail, was as serviceable as before. The second case was similar to this one in treatment and results.

Hair-pin in the Uterus.—Dr. C. C. Stockard, of Columbus, Miss., writes: "In December, 1883, in the absence of her regular physician, Dr. Vaughan, I was asked to see a lady who had been told by a friend that she could introduce a hair-pin into the mouth of the womb and probably remove a clot, which was supposed to be the cause of a delay of her period. I was told that the hair-pin had slipped from the fingers and was still in the womb." Dr. Stockard introduced a probe, detected the hair-pin, and then introduced a sponge-tent. After dilatation he, with Dr. Vaughan, tried to extract the pin, but unsuccessfully. Other futile efforts were made. In a few days there was a bloody discharge, and this continued and increased till the hair-pin was removed with the forceps, fifteen days after its introduction. After the extraction the patient had no further trouble whatever.

Correcting Clinical Thermometers.—At the Yale Observatory six thousand three hundred and twenty-six physician's thermometers were corrected last year.

A Congenital Sarcomatous Caudal Growth.—Dr. W. Snowball reports in the *Australian Medical Journal* of December 15, 1884, the case of a child born with a growth attached by a pedicle to the coccyx. It was four inches long and seven in circumference. It did not communicate with the spinal canal. It was removed and found to be of a sarcomatous nature. The child died.

Priority in the Discovery and Use of the Bismuth Test for Sugar.—Dr. O. A. Fliesburg, of Stillwater, Minn., writes: "I *positively* know that this test was practised and used by Prof. A. Almén, of Upsala, Sweden, as early as 1866 or 1867, and described by him at that time, I think, in *Nordiskt Medicinskt Arkiv* or *Hygiæa*." Dr. F. himself has used this test as early as 1868, and it has been in common use in Norway, Sweden, and Denmark since that time.

Twins Born Four Days Apart.—Dr. James Douglas, of Morristown, N. J., writes: "A very unusual occurrence in the birth of twins has happened lately in my practice, one of the twins, a girl, being born at half past nine on Friday night, January 2, 1885 (breech presentation), and the other, a boy, on the following Tuesday afternoon at twenty minutes to three (head presentation), a difference of three days, seventeen hours and ten minutes. They are eight months children, the girl weighing four and one-half pounds, the boy six pounds. There was only one placenta. The mother is a healthy young woman twenty-two years of age."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 8 — New York, February 21, 1885 — Whole No. 746

Original Articles.

ANATOMICAL GEOMETRY AND TOPONYMY:

An Introduction to the Scientific Study of Deformities.[1]

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Next in importance to the notation of physical facts is the determination of their quantitative relationship to other facts—their mensuration.

Geometry teaches the measurement of lines and angles. The measurement of anatomical angles, some of which are herein considered, has not only a scientific bearing upon the progress of medicine, but is of direct practical importance to every practising physician and surgeon.

Toponymy.—Desirous of accuracy and facility in our description and comparison of the attitude of individuals and the position of component parts, it is essential that we have some conventional language to represent the things and conditions dealt with. Within the limits of practical feasibility the terms used should have an intrinsic value. Words of common occurrence in medical writings, and more or less ambiguous as ordinarily used, may still be retained for the purposes of accurate description, if used with reference to some standard attitude.

Only a few toponymical terms, useful in describing deformities, are herein made mention of. The object of the present brief tentative remarks upon this subject is simply to direct attention to the importance of using such terms. The examples given are for the purpose of illustration.[2]

The surfaces or aspects of the body and their names.—As a basis for a scientific nomenclature, the body proper should be regarded as a solid having six surfaces, two ends and four sides, as shown in Fig. 1.

That end of the body which is nearer the head is called the *cephalic* end or aspect, while the opposing end of the body is termed the *caudal* aspect or end.

The surface of the body corresponding to the back is designated the *dorsal* surface or aspect, while the opposing parallel surface is termed the *ventral* aspect.

The two remaining surfaces corresponding to the right and left sides of the body, are called the *right* (*dextral*) and *left* (*sinistral*) aspects.

The surfaces or aspects of the segments of the limbs and their names.—The segments of the limbs, that is, the arms, legs, thighs, etc., like the body proper, should be regarded as six-sided solids, as indicated for the left thigh in Fig. 1.

Of the two opposing ends of any of the segments of the limbs, as, for instance, those of the thigh, that one which is attached the nearer to the body is called the *proximal* end or aspect of the segment. The opposing end of the segment is termed the *distal* aspect. In Fig. 1 the proximal end of the left thigh is indicated.

That surface of any of the segments corresponding to the extensor aspect of the limb, may be termed the *extensor* aspect of the segment, while the opposing flexor surface may be termed the *flexor* aspect of the segment. In Fig. 1 the *extensor aspect* of the left thigh is shown.

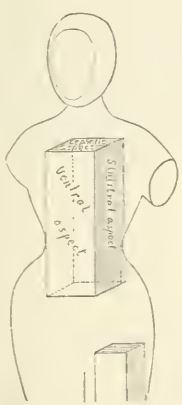

Fig. 1.

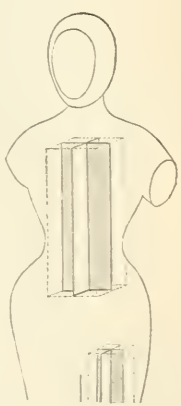

Fig. 2.

The two remaining surfaces of the segments of any of the limbs corresponding to the right and left sides of the body may be termed the *right* (*dextral*) and *left* (*sinistral*) aspects of the segment. In Fig. 1, the *sinistral* aspect of the left thigh is indicated.

The planes of the body and their names.—The planes of the body are imaginary longitudinal divisions of it into equal lateral halves, and equal dorsal and ventral halves, as indicated in Fig. 2.

That plane of the body which passes lengthwise through it from its dorsal to its ventral aspect, dividing it into two equal lateral (right and left) halves, is designated the *mesial* (*mesal*) plane of the body.

The plane which passes lengthwise through the body from the right to the left side dividing it into two equal halves (dorsal and ventral), is called the *dextro-sinistral* plane of the body (see Fig. 2).

The planes of the segments of the limbs and their names.—The planes of the segments of the limbs, as, for example, those of the thigh, are imaginary longitudinal divisions of it into equal lateral (right and left) halves, and equal flexor and extensor halves, as indicated in Fig. 2.

That plane of any of the segments of the limbs which passes lengthwise through it from its flexor to its extensor aspect, dividing it in two equal lateral (right and left) halves, is termed the *mesial* (*mesal*) plane of the segment.

The plane which passes lengthwise through any segment from its right to its left aspect dividing it into two equal (flexor and extensor) halves, is called the *right and left*, or *dextro-sinistral* plane of the segment. In Fig. 2 the dextro-sinistral and mesial planes of the left thigh are indicated.

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[1] Read before the Medical Society of the State of New York, February 3, 1885. The right to republish this article is reserved by the author.

[2] Those who are interested in the subject of anatomical terminology should not fail to consult the excellent work of Wilder & Gage on Anatomical Technology, pp. 10–45. New York, 1882. In it will be found a very complete list of terms of general applicability. Some of these have been adopted in this article. From the standpoint of the practical surgeon, however, the writer does not yet feel prepared to recommend the adoption of all the terms suggested by these authors.

The standard attitude for man.—Viewing the human subject with the object of ascertaining the position of the body and its component parts, it may be laid down as true and self-evident:

First.—That the determination of the position of the body, as a whole, depends upon a knowledge of its relationship to external surroundings.

Second.—That the determination of the position of any part of the body, with respect to other parts of the body, depends upon a knowledge of its relative relationship to those parts.

If, now, we desire to study the normal condition of the human body as to its form and symmetry, and the extent of mobility of its component parts, so as to enable us to detect and describe pathological deviations therefrom, it becomes a primary necessity to determine upon some uniform position of the body as a standard for comparison. The most commonly accepted attitude for such purposes is that which is assumed with respect to the earth's surface during locomotion. Among different vertebrates the relative position of component parts, while maintaining the attitude assumed during walking, would manifestly be subject to wide variation. In this sketch, however, we are only concerned in determining upon a standard attitude for man. This may be taken as the one assumed when standing erect, resting equal weight upon both feet, with the soft parts over the femoral condyles and malleoli in contact or equidistant from each other, the feet slightly everted, and the head, trunk, and extremities forming practically an unbroken column (see Fig. 3 [1]).

Fig. 3.

It should be borne in mind that it is possible for a given individual to maintain this standard attitude and yet not possess for each of his movable articulations the normal range of motion. Hence, the importance of knowledge regarding the extent of physiological mobility of joints.

The planes of the lower extremities.—When the individual assumes the standard attitude indicated in Figs. 3 and 4, the *mesial* plane of the lower extremity may be indicated as follows:

From a point situated at the junction of the middle with the outer third of the distance from the anterior superior spine to the symphysis, draw a line along the extensor aspect of the thigh, over the middle of the patella, to a point midway between the internal and external malleoli. In Fig. 4 the mesial plane of both lower extremities is shown.

The *dextro-sinistral* plane of the lower extremity may be indicated by drawing a line from the centre of the great trochanter midway between the flexor and extensor aspects of the limb down to a point indicating the external malleolus.

The planes of the body and those of the lower extremities not parallel.—By reference to Fig. 4 it will be seen that when the healthy individual assumes the standard attitude, the mesial planes of the lower extremities are not parallel to each other, nor to the mesial plane of the body.

The lines upon the extensor aspect of the lower extremities converge, so that were they extended they would ultimately meet and cross an extension of the line indicating the mesial plane of the body. The extent of convergence is estimated by measuring the angle formed at the junction of a line indicating the mesial plane of the leg with one parallel to the mesial plane of the body. In Fig. 4, the dotted line *r b* is parallel to the mesial plane of the body, and the angle between it and the line *r a* indicates the normal degree of longitudinal inclination toward the axis of the body (adduction) of the mesial plane of the leg. Owing to the greater proportion of breadth of pelvis in females, the degree of convergence of the lines indicating the mesial planes of the lower extremities in them is greater than in males. It is also more marked in well-developed adults than in very young females.

Not only are the distal ends of the mesial planes of the legs much nearer together than the proximal ends, but the lines upon the flexor aspect of the limbs, indicating the mesial planes, are closer together than the lines indicating these planes upon the extensor aspect of the limbs. The mesial planes of the lower limbs are thus inclined toward the mesial plane of the body in an extenso-flexor direction, *r c*, Fig. 4.

Thus it will be seen that there is not only a longitudinal convergence of the planes of the lower extremities, but there is an extenso-flexor convergence. As will appear later, these facts have an important bearing upon observations, when endeavoring to determine by instruments of precision the extent of outward or inward rotation of the limb or the extent of abduction or adduction. The normal angle of extenso-flexor convergence, or outward rotation of the thigh, is indicated by the lines *r c d*, Fig. 4, for the right limb, while the angle of normal proximo-distal convergence, or adduction of the limbs in the standard attitude, is represented by the lines *r a b*, same figure.

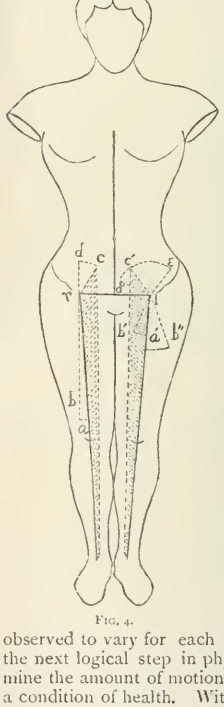

Fig. 4.

Mensuration. — Just so soon as a *qualitative* estimation of facts, physiological or pathological, is possible, the scientific physician should proceed to their *quantitative* estimation. Gold having been discovered in a given specimen of ore, the next business of the assayer is to determine its amount in coin or bullion. In a like manner, the range of normal articular mobility having been observed to vary for each individual joint of the body, the next logical step in physiological inquiry is to determine the amount of motion which each joint possesses in a condition of health. With this information at hand, we can proceed to estimate the amount of pathological deviation therefrom in any given case of disease.

In the present communication I have pointed out certain qualitative relationships which exist with regard to the planes and aspects of the body and limbs in health, and have indicated how to quantitatively define these relationships, viz., by measuring the angles which these planes make with each other, or the angle of divergence of these planes from one another. We have yet to consider some pathological deviations.

Diastrophometry.—Diastrophometry (from διαστροφή, a distortion, and μέτρον, a measure) is the word, which, with the aid of my friend, Dr. Frank P. Foster, I have determined upon to indicate the *science of measuring deformities.*

Outward rotation of the thigh and leg (Eversion).—Any increase of the angle *r c d*, Fig. 4, would necessitate the still nearer approach of the mesial lines on the

[1] Modified from the figure on the anthropometrical chart of Charles Roberts, F.R.C.S.

flexor (posterior) aspect of the limbs and a corresponding departure of the mesial lines on the extensor (anterior) aspect of the limbs, owing to the outward rotation (eversion) of the lower extremity. Such an increase, if due

Fig. 5.

Fig. 6.

Fig. 7.

to structural changes, would constitute a deformity, and the extent of deviation from the normal should be stated in the record of the case after having measured it by an instrument of precision. The angle to be measured is indicated by dotted line *l c' d'*, Fig. 4.

Inward rotation of the thigh and leg (Inversion).—Any decrease in the angle *r c d*, Fig. 4, or addition to it on the other side of the normal mesial plane, as indicated by line *l' c' e*, would constitute inversion of the limb, and the extent of deviation from the normal should be made the subject of actual mensuration as before.

Adduction of the thigh and leg.—If the angle at *r a b*, Fig. 4, is increased in consequence of structural tissue-changes, it would constitute a deformity, as indicated by line *l a' b'*, which represents the angle to be measured.

Abduction of the thigh and leg. — Any considerable decrease of the angle *r b a*, or addition to it on the other side of a line parallel with the mesial plane of the body, when the individual assumes as nearly as possible the standard attitude, indicates an abnormal condition, and the extent of the deformity should be measured. This angle is indicated by the lines *l a'' b''*, in the figure.

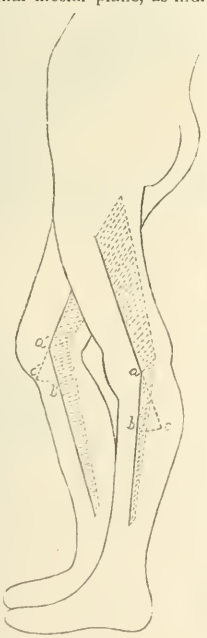

Fig. 8.

Tilting of the pelvis.—When the subject of observation standing on a level surface, endeavors to assume the standard attitude, and the anterior superior crests of the ilii are not on the same level, the condition known as tilting of the pelvis exists, and its extent should be accordingly determined. The lines *m l e*, Fig. 5, indicate the angle to be measured under such circumstances. In the same figure adduction of the right leg, *r b a*, and abduction of the left limb, *l b' a'*, are indicated. The dotted lines *r a* and *l a'* represent the normal direction of the mesial planes of the lower extremities. The determination of the pelvic tilt and of the existence of pathological abduction and adduction, are of diagnostic value in many examples of orthopedic maladies. The importance of knowledge regarding these points has been made the subject of an interesting paper by Dr. William S. Halsted.[1]

Flexion and extension of the thigh.—The surface lines indicating the right and left (dextro-sinistral) planes of the body and thigh, Fig. 6, are continuous. Any deviation of the femoral line in a flexo-extensor direction, as indicated by the arrow in the figure, when the individual is trying to assume the standard attitude, indicates an abnormality of flexion. The angle to be measured is indicated by the lines *r a b*, Fig. 6. The error is often made of regarding the angle *r b d* as that indicating the degree of flexion.[2] The lines *r c a*, indicate the angle to be measured in extension of the thigh.

Flexion of the knee.—In health, with the leg straight, the mesial and dextro-sinistral planes of the lower extremity cross each other at right angles and are continuous throughout the entire length of the limb, as represented in the right extremity, Fig. 7. If, however, the knee is flexed, the planes of the thigh and leg are no longer continuous, and the degree of flexion is to be determined by measuring the angle formed by the junction of the dextro-sinistral plane of the thigh with that of the leg, *a b c*, Fig. 7.

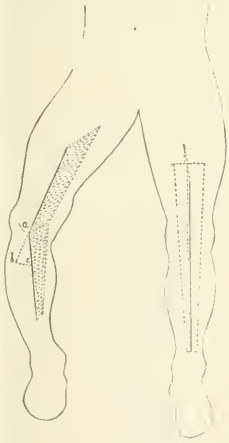

Fig. 9.

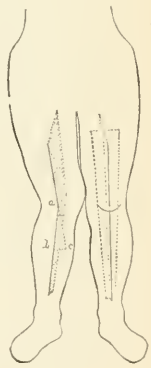

Fig. 10.

Hyperextension of the knee.—In hyperextension of the knee, Fig. 8, *a b c*, the angle to be measured, is upon the flexor aspect of the dextro-sinistral plane instead of being upon the extensor aspect, as in flexion *a' b' c'*.

Abduction of the knee.—In out-knee, or abduction of the knee, the mesial planes of the thigh and leg are inclined away from the axis of the body. The angle to be measured lies upon the external aspect of these planes, and is indicated in Fig. 9 by the letters *a b c*.

Adduction of the knee.—Fig. 10 illustrates the condition known as in-knee. In this deformity the mesial planes are inclined toward the axis of the body, and the angle to be measured, *a b c*, lies upon the internal or adductor aspect of these planes.

Adduction of the knee with hyperextension.—When in-knee deformity is complicated by hyperextension of the joint, as is not infrequently the case, the angles formed at the junction of the mesial and dextro-sinistral planes of the thigh, with the corresponding planes of the leg,

[1] The Effects of Adduction and Abduction on the Length of the Limb in Fractures of the Neck of the Femur. New York Medical Journal, March 22, 1884.

[2] *Vide* The Hip and its Diseases, by V. P. Gibney, A.M., M.D., p. 29.

must be determined in order to correctly state the extent of the deformity. The angles to be measured are indicated by the lines *a b c*, and *a' c b'*, Fig. 11.

FIG. 11.

FIG. 12.

Adduction of the knee with flexion.—When the deformity is one of in-knee with flexion, the angles to be measured are those indicated in Fig. 12 by the lines *a b c* and *a' c b'*.

Adduction and flexion of the knee with outward rotation of the leg.—When the complicated condition of in-knee, flexion, and outward rotation of the leg exists, it becomes necessary to measure the three angles indicated in Fig. 13 by the lines *a b c*, *a' c b'*, and *d e f*.

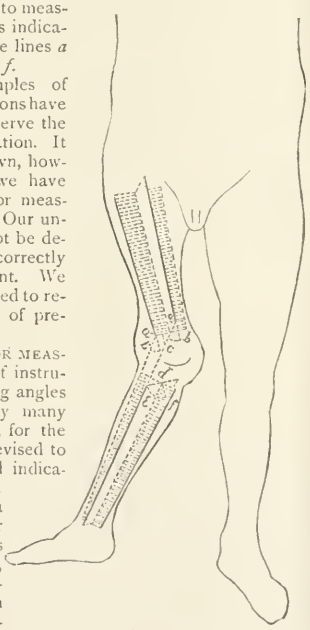

FIG. 13.

Sufficient examples of pathological deviations have now been cited to serve the purposes of illustration. It remains to be shown, however, what means we have at our command for measuring these angles. Our unaided senses cannot be depended upon to correctly estimate their extent. We are, therefore, obliged to resort to instruments of precision.

INSTRUMENTS FOR MEASURING ANGLES.—Of instruments for measuring angles there exist already many forms. They have, for the most part, been devised to meet other special indications than are herein mentioned, and, as a natural result, their range of usefulness is limited. When, therefore, we attempt to use them for the purposes indicated in this paper, we find them ill adapted or absolutely useless for making the desired observations. Hence it became necessary to invent new instruments for the specific purpose of more accurately and conveniently measuring the angles under consideration. To this work I have, during the past six years, given much time and careful consideration. Space will not here permit of entering into details. Out of a number of mathematical instruments which I have invented or modified for this purpose, I shall now describe only three.

The articular goniometer.—The articular goniometer, Fig. 14, was the outgrowth of my earlier endeavors to devise an instrument having a wider range of usefulness in the measurement of joint angles than those in common use. It has been in actual use in my hands about five

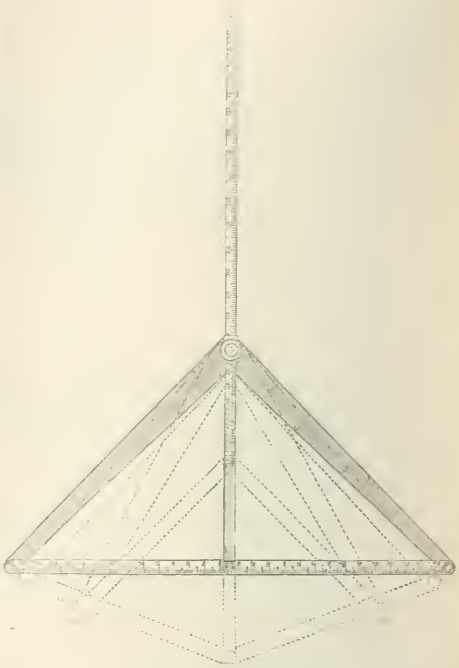

FIG. 14.

years. It is so constructed as to measure the mutual inclination of the mesial or dextro-sinistral planes of two adjacent segments of the limbs or body, or the inclina-

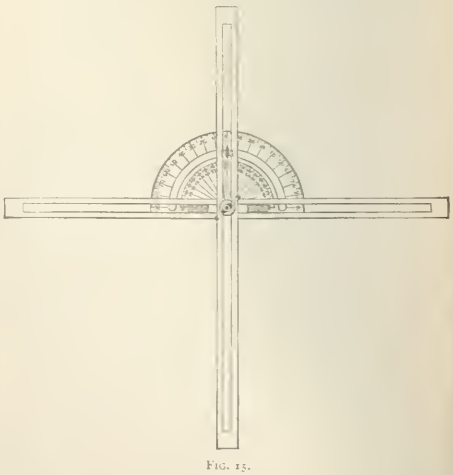

FIG. 15.

tion of the flexor or extensor aspects of the same, no matter how great the deviation from the normal may be, providing the deviation is confined to one plane. The

graduations on the arms of the instrument and its working are so well shown in the figure as to require no detailed explanation.

The adjustable protractor.—The instrument illustrated in Fig. 15 is a modification of one form of protractor already in use. Both arms are made adjustable. There are two sets of graduations and three series of figures marked on the face of the semicircle. With this instrument the tilt of the pelvis, the adduction or abduction of any member, whether upon the right or left side of the body, or the flexion or extension of one segment upon another, can be speedily and accurately determined providing the observation be limited to one plane.

It is the only protractor which I have met with, the arms of which can be made sufficiently short to record the angle of deformity in examples of spinal caries.

The epipedometer.—Fig. 16 represents an instrument which I have invented for simultaneously recording any combination of angular junctures of the planes of appendicular segments which can be found in the human body in health or disease.

The planes of the instrument, crossing each other at right angles correspond to the imaginary planes (*mesial* and *dextro-sinistral*) of the body and limbs already described. By means of the three graduated dials with which it is provided, the exact extent and direction of any deviation from the normal can be measured in degrees with the greatest facility.

A section of the instrument, amounting to one-half the length of the lower planes

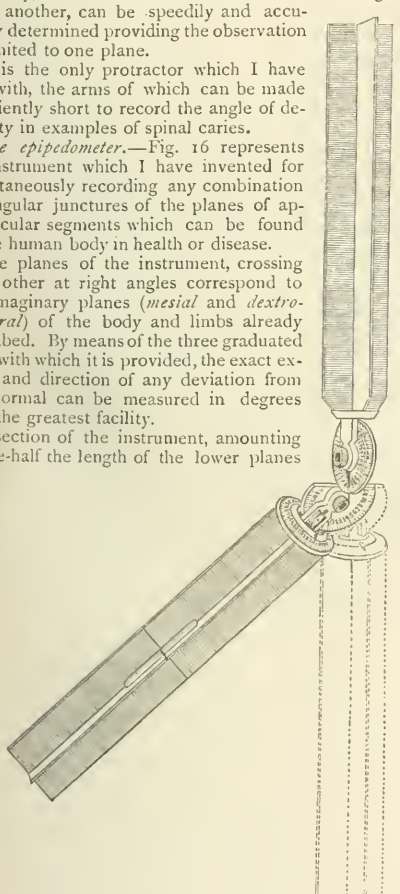

Fig. 16.

as indicated in the figure by a dark, transverse line, is made removable in order to render it more convenient of use in measuring the extent of deformity in cases of club-foot.

As this instrument measures the angle of juncture of the planes of the body and limbs, I have named it the *epipedometer* (from ἐπίπεδον, a plane, and μέτρον, a measure).

With the above instruments, and the requisite skill in their use, the orthopedic surgeon will find himself as thoroughly equipped for the accurate measurement of angular deformities of the body as the oculist is with his ophthalmoscope and set of trial glasses for the measurement of errors of refraction.

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PNEUMONIA IN YOUNG CHILDREN.[1]

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(Concluded from page 178.)

How does broncho-pneumonia terminate?—Of the fatal cases the vast majority die during the acute stage. Of those who survive this period by far the greater number resolve in from three to four weeks. Resolution is more rapid in those cases of disseminated pneumonia than where consolidated areas of considerable extent have formed. In these it is necessarily much slower than in lobar pneumonia, where the inflammatory products are wholly or chiefly within the alveoli and the bronchi.

The most interesting question is: What becomes of those cases (by no means few in number) which at the end of six weeks or two months have shown little or no tendency to resolve, the physical signs remaining as they were during the height of the disease? Three answers may be given:

1. They may become tubercular.
2. They may terminate in chronic fibroid induration.
3. They may recover perfectly.

First, then, in regard to *tuberculosis*. Is it common for a simple broncho-pneumonia to result in cheesy degeneration of the inflammatory products and the patient die of tuberculosis? I have not yet met with a single case which from the clinical history would justify such a diagnosis. Rilliet and Barthez, who are the authors of probably the best article upon the pneumonia of children in any language, state, in their last edition, that this never occurs. That if cheesy degeneration exist, the process must have been tubercular from the outset. Most authorities are not willing at present to go quite so far as this, but admit its possibility where the patient has a strong predisposition to tuberculosis.

We may, I think, safely take the ground that a case of unresolved broncho-pneumonia is extremely unlikely to develop tuberculosis, if there has been beforehand no sufficient grounds for believing the patient to be tubercular.

Secondly, fibroid induration.—Reverting to the pathology of the disease we find that there is in all cases more or less involvement of the fibrous walls of the bronchi, and the interstitial tissue of the lung. The greater the duration of the disease the more marked these changes are. The acute process may pass into a chronic one, with the production of new connective tissue. This may go on until a whole lobe or even a whole lung is converted into almost a solid mass of fibrous tissue, with obliteration of the air-cells, more or less complete dilatation of the bronchi, and thickening of the pleura. Such a lung is, of course, hopelessly crippled. This condition is generally the result of repeated attacks of acute inflammation, or of exacerbations of a chronic process. These patients suffer more or less from pulmonary symptoms, and frequently die in some of these exacerbations, or they may live on indefinitely.

Thirdly, complete recovery.—I know it is necessary nowadays, in speaking of recovery, to define exactly what is meant by it. I use the word in a clinical sense, not in an anatomical one. By recovery in the class of cases we are considering, I understand a condition in which the lung performs its functions normally, so far as we can judge from the patient's symptoms, and when the ordinary methods of physical examination fail to detect any material alteration of the signs present in health.

That it is possible for a lung in which consolidation from broncho-pneumonia has existed for several months to return to a condition in which no changes would be apparent under the microscope, I doubt very much. Using the term in the sense defined, I believe that the greater number of these cases ultimately recover perfectly. All

[1] Read before the Section of Obstetrics and Diseases of Children, New York Academy of Medicine, January 22, 1885.

branches of pathology illustrate the wonderful reparative powers of nature in young children. This is strikingly shown in diseases of bone. The lungs form no exception to this rule. Lung consolidations, which in adults would seem hopeless, are disposed of in the most surprising manner by nature in young children. I have followed many of these cases for two years and more, and have been astonished beyond measure in some of them to find how completely the disease had cleared up, sometimes under circumstances, too, anything but favorable. I have come to expect this result when the patient has not a strong tubercular predisposition, or when the surroundings were not hopelessly bad.

There are some special conditions which may always be expected to delay resolution. This is particularly true of whooping-cough. It seems well-nigh impossible for the lungs to clear up while whooping-cough continues.

Yet I have learned never to despair of these cases. The dangers are very great during the acute stage of the pneumonia, half of my cases died. If, however, the child does withstand the dangers of this period, I expect him to recover, except under the conditions just stated, although resolution may be delayed for many months. I cannot forbear mentioning a few cases under this head.

A boy, aged two and one-half years, came under observation in July, 1882, with whooping-cough. He developed an acute broncho-pneumonia, in the left lung chiefly. The lower lobe posteriorly became almost completely consolidated, and there were small patches of consolidation above. Then the right lung became involved, and the middle and lower lobes behind almost solid. After three or four weeks his fever gradually subsided, but his whooping-cough continued, and the lungs showed no disposition to clear up. He became much wasted, exceedingly anæmic, and the case seemed hopeless. Another physician, a well-recognized authority, saw the case with me. He concurred in the opinion I had already formed that the process in the lungs was tubercular, and the prognosis absolutely bad. The case passed from under my care, but I had an opportunity to examine the patient six months later. I found that the right lung had almost entirely resolved, while as yet but little change had taken place in the left.

One year from his attack I saw him again, there was good respiratory murmur over both lungs, a little higher pitched on the left side than the right, with slight dulness here, a few fine râles, and some old pleuritic friction. His general condition was excellent, he had grown plump and hearty. I have examined him at intervals of a few months since that time, and have noted a gradual disappearance of the abnormal signs. I saw him this present month, two and one-half years after his attack, and on a very thorough examination the only thing I could detect was an occasional coarse râle over the left base. There was no retraction of the chest, no dulness, the respiratory and voice sounds were normal. Nothing, in fact, existed to lead one to suppose that the lungs had ever been the seat of serious disease.

Another case, fifteen months old, had first whooping-cough, then acute broncho-pneumonia; after this had existed a week he came down with measles, which was farther complicated by thrush and a very obstinate diarrhœa. An extension of the pneumonia took place with the measles. There was consolidation at the left apex and in the right middle lobe behind and in the axillary region, with pretty generally diffused pneumonia along the posterior borders of both lungs. Despite all these complications, and extremely unfavorable hygienic surroundings, he disappointed us all by surviving. His fever, which was high at the outset, gradually wore away, and after a couple of months subsided altogether, and his lungs began slowly to clear up, and he made a good recovery. He was seen eighteen months afterward, and had grown to a stout, healthy boy, showing no signs of his previous disease.

But one more case: A boy, aged three years, came under my care in September, 1884, with whooping-cough which had already lasted six weeks, and for two weeks had been very severe. He developed acute broncho-pneumonia, involving the base of the left lung behind. As the acute febrile symptoms were subsiding an exacerbation took place, and a large part of the middle and lower lobes of the right side were invaded, with an extension of the disease in the left lung. The temperature had fallen nearly to the normal again, and the case began to look a little more promising, when I was called, October 28th, to find him with a temperature of 103°. The next day it rose to 105°, and a profuse eruption came out over the body, which a typical desquamation, beginning ten days later, proved to be scarlet fever. This was borne quite as well as could have been expected, and brought no new complication except that the consolidation in the lungs became a little more extensive and more complete. During desquamation a crop of furuncles appeared over the trunk, face, and extremities. This was only a side issue, and was disposed of in a few days. I should not omit to state that during all this time his whooping-cough continued. By means of chloral and belladonna it was much modified, but the minimum reached was eight or ten severe paroxysms a day. After the furunculosis he began slowly to gain in flesh, had very little fever, and in a few weeks was able to get about.

I examined him on December 19th, and found signs of complete consolidation over the whole of the left lower lobe, and almost complete over the greater part of the middle and lower lobes of the right side posteriorly. These signs were almost identical with those recorded early in October. His whooping-cough, however, had almost subsided.

At the next examination, made two weeks later, I was astonished to find that the right lung had almost entirely resolved. Upon the left side the dulness was very slight. The breathing over the lower lobe was broncho-vesicular, with moist râles, while before it had been pure bronchial with no râles, and the dulness had been complete. He is still under treatment, but in excellent condition, and bids fair to make as good a recovery as the first case related.[1]

The mortality in acute broncho-pneumonia is very high under all circumstances, and contrasts strongly with lobar pneumonia in children. The death-rate in my cases was forty per cent.; of the cases in which the disease was secondary, forty-six per cent.; of those presumably primary, twenty-nine per cent. died. These figures accord pretty well with those given by others. All agree that the prognosis is worst where the pneumonia complicates whooping-cough. Ziemssen gives the mortality of these cases as fifty per cent. Occurring with measles it depends much upon the character of the epidemic. Ziemssen gives thirty-three per cent. as the average death-rate. The younger the child, other things being equal, the worse the prognosis. It is also worse where any constitutional taint exists, such as syphilis, scrofula, or tuberculosis. Rickets introduces two elements of danger—the interference with respiration from mechanical causes depending upon deformity of the chest, and the enfeebled, flabby condition of the muscles, which are almost as characteristic of this disease as is the bone softening.

Of the special symptoms which indicate an unfavorable termination, should be mentioned a persistent high temperature, a pulse not only rapid but small and thready, cessation of the cough, convulsions late in the disease, an abundant diarrhœa, drying up of the secretions of the mouth, nose, or eyes, steady emaciation, great irritability, or the reverse, marked drowsiness, and slight cyanosis; but more than any other single symptom, the character of the respiration. Of sixteen cases in which the number of respirations reached eighty a minute, eleven proved fatal; of six cases in which it

[1] An examination February 16th, showed almost complete disappearance of all these signs.

was ninety or over, all died. Yet it is not always the rapidity of the respirations which is our best guide. Although not rapid, they may be feeble, jerking, superficial, or irregular, all of these characteristics being unfavorable.

Diagnosis.—Is it possible to make a diagnosis between lobar and broncho-pneumonia, and, if possible, is this of any practical value? I answer both these questions in the affirmative. In the matter of prognosis it is of very great importance, as the figures above cited show. In the vast majority of cases, the two diseases can be distinguished by the symptoms and physical signs.

The following are some of the most striking points of contrast. Under one year old, the chances are greatly in favor of broncho-pneumonia. Lobar, like the disease in adults, is much more prevalent in the spring months, while broncho-pneumonia, in so far as it is influenced by season at all, is quite as common late in fall and winter as in the spring.

Lobar pneumonia is usually primary, occurs most often in stout, robust children, and the onset is sudden and violent. Broncho-pneumonia is usually secondary, follows all debilitating influences, and is more often developed gradually or insidiously. Lobar pneumonia is usually limited to one lobe, often only a portion of a lobe, the area is sharply defined, the rest of this lung and the opposite lung being usually free. Broncho-pneumonia almost invariably affects both sides, and may be diffused through nearly the whole of both lungs; when consolidated areas exist they shade off gradually into the surrounding parts, and are irregularly scattered through the lung.

Râles in lobar pneumonia belong to the early stage, and then usually disappear till resolution commences; consolidation comes early. In broncho-pneumonia the signs of consolidation are always preceded for some days by those of capillary bronchitis. Consolidation comes later, or may not come at all. When present its signs are almost never pure, but bronchial signs are mingled with them, heard at its margins, and in the other lung. The persistence of the subcrepitant râle throughout the disease is almost of itself conclusive proof of broncho-pneumonia. If the pneumonia is primary and at the apex only, it can be pronounced lobar without hesitation.

In doubtful cases the mode of termination generally settles the question, being critical in lobar, gradual in broncho-pneumonia.

The diagnosis between broncho-pneumonia and tuberculosis is always a matter of great difficulty and attended with more or less uncertainty. The persistence of an afternoon fever, the more rapid progress of the disease, the greater emaciation, and a distinct tubercular family history—all point to this latter disease in the lungs. Symptoms of tubercular disease in the glands, bones, intestines, or brain, coexisting, increase this probability. In a large number of cases the question can only be decided in the dead-house.

Treatment.—I have not much faith in drugs in the management of pneumonia in children. I have tried most of those usually recommended very extensively, and am able to speak quite positively of what they do *not* do. Quinine and the other cinchona alkaloids, I believe, have little effect in aborting the disease, shortening its course, or in reducing the temperature. I have tried them in early and late stages, in small and in large doses, and, except in those cases in which there was an undoubted malarial complication, I have found them totally without benefit. Very large doses, such as twenty or thirty grains of quinine to a young child, I believe to be positively injurious, if not dangerous. It frequently upsets the stomach, is always difficult to administer, and renders more difficult the administration of necessary nourishment and stimulants. I feel sure that my cases have done better since I left off its use altogether, except as when indicated above.

Aconite in the very beginning of lobar pneumonia I have used considerably in very small frequent doses. Patients are usually rendered more comfortable by its use, and it adds no disturbing element; but that it essentially modifies the intensity or the duration of the disease I am very doubtful. I have seen enough benefit from it to encourage me to continue in its use.

The use of emetics in broncho-pneumonia when the dyspnœa is very great, the face slightly cyanotic, the extremities cold, and the tubes filled with mucus, as shown by large and small moist râles over the whole chest, I have tried in a number of cases. I cannot now remember a single instance in which any decided benefit followed; in several I am sure it hastened death. Ipecac was the emetic used. With local revulsive measures, which I will presently describe, and the free use of stimulants, I have been much more successful.

The treatment I have finally settled upon can be briefly summarized in a few words: *nourishment, opium, alcohol, local applications.*

If the child be at the breast it should be kept there, care being taken that it be not nursed too frequently. Of this there is danger from the great thirst which accompanies the fever; this may be allayed by water in which the stimulants are given. In older children a milk diet, as in other acute diseases.

Opium I believe to be worth more in acute pneumonia than all other drugs combined. It quiets the restlessness, relieves the pain and the cough, and, perhaps more important than all, sustains the nervous system under the strain which the disease produces, and in this way seems to exercise a beneficial effect upon the inflammatory process. I have found the tablet triturates of morphia, $\frac{1}{30}$ grain, a very eligible preparation; one may be given every two or three hours to a child a year old. Of late I have used a great deal, and have come to prefer the tincture of opium and ipecac, or the liquid Dover's powder to any other preparation of opium; it may be given in drop doses at the same intervals.

Alcoholic stimulants in a large number of cases of lobar pneumonia are never needed. In broncho-pneumonia they are often required from the outset. They should be given fearlessly, but of course intelligently. I have never regretted giving too much, but have often regretted beginning the larger doses too late. It is a mistake to suppose that children do not bear alcoholic stimulants well. The quantity must be regulated by the character of the pulse, the breathing, but most of all by the general aspect of the patient. From one to two ounces of brandy in twenty-four hours is the quantity I have generally given to a child a year old; double the amount for one two to three years old. In very bad cases it may be necessary to go much beyond these quantities, up to six ounces a day, or even more.

Local applications.—For the average case the following will be found to serve a very good purpose: next to the skin is placed a layer of cotton wadding an inch thick, enveloping the whole chest; over this is placed a tightly-fitting oiled-silk shirt, to which the cotton is sewed to prevent its slipping. This protects the chest against any atmospheric changes, and keeps it at a uniform temperature. When once applied it need not be changed for a week; the patient is not disturbed by the necessity of frequent renewal. Poultices, unless very carefully, intelligently, and conscientiously applied, are capable of doing quite as much harm as good. Cold poultices, poultices that have slipped from their places and lain for hours, perhaps, over the loins or over the epigastrium, who has not seen them? The exposure and disturbance of the patient which the frequent renewal of a poultice requires are decided objections. Yet, after all has been said, they are still, I firmly believe, when properly used, the most efficient means we possess in the severe cases, especially where the disease is diffuse or generalized. Their efficiency is much increased by the addition of mustard. In the condition above described, in speaking of emetics, where both lungs are in a state of intense engorgement and the heart is failing, much better results than by emetics

may be obtained by putting the child in a mustard bath up to its hips until the skin is reddened thoroughly, the application of a mustard poultice large enough to envelop the whole chest, and the internal administration of brandy in teaspoonful doses every twenty or thirty minutes. I have had the satisfaction of seeing several very bad cases saved, I think, by this treatment. One, a little girl of eight months, in which the temperature was 106.4°, the respiration 80, and the pulse 200.

Bearing in mind the fact that in broncho-pneumonia it is the respiratory function which first fails—this being followed by collapse and congestion—we should use every means in our power to sustain respiration and to remove every possible source of embarrassment. Friction of the chest, daily, with some mild counter-irritant, may be used in conjunction with the oil-silk and cotton. Every means possible should be employed to keep up a good peripheral circulation and to prevent congestion of the unaffected lung, which is so often the immediate cause of death. The child should not be allowed to lie too long in one position.

Carbonate of ammonia is very often of decided benefit both as a respiratory and a heart stimulant. It is best given frequently and in small doses. The use of oxygen inhalations I have never had an opportunity of trying when they seemed indicated. Many are loud in their praise, and it seems as though we might expect much from their use.

In one case of lobar pneumonia strikingly beneficial results were obtained from the use of the cold pack. The patient was a stout boy of two years, and the only part of the lung affected was the extreme right apex. After being above 105° for five days the temperature rose on the eighth day of the disease to 106¾°. The patient lay quietly, but was not stupid, with very great prostration. The pulse was 180 and weak. He was put first in a mustard bath for fifteen minutes without any apparent effect and then in a cold pack which was kept up eight hours. The temperature gradually came down to 103½° and did not again go above that point, though the crisis did not occur for three days.

In broncho-pneumonia, where the temperature was very high, other conditions have always been present, like intense pulmonary congestion and cyanosis, which made me afraid to use cold applications in any form.

To promote resolution in broncho-pneumonia in addition to the usual internal remedies employed, cod-liver oil, iron, etc., I have been in the habit of keeping up a mild counter-irritation over the chest by iodine or friction with some stimulating liniment.

23 Park Avenue.

Calomel in Acute Lobar Pneumonia.—Dr. H. B. Robinson, of Blount Springs, Ala., states that in the past thirty years he has treated pneumonia with mercury, opium, ipecac, quinine, blistering, and occasionally bleeding. He has lost but four cases during his practice. A strong young negro, suffering from the disease, grew progressively worse, and Dr. R. had about given him up when he concluded to dress a blister which he had drawn on his back with mercurial ointment. He did so, and next morning, to his surprise, the patient was much better, and finally recovered. A child, five years of age, nearly moribund with pneumonia (lobular?), had a blister drawn on the back. This was dressed with bismuth subnitrate, and next day the child began to recover. These cases simply show that even bad cases of pneumonia may suddenly take a favorable turn. It is a serious question if the treatment had anything to do with the favorable change in the case.

Dilute Phosphoric Acid is a pleasant acid in fevers, nd dissolves phosphates in the urine quite as well as the other mineral acids. It is well given in lemonade or syrup of raspberries.

WHAT WE KNOW ABOUT THE BACTERIAL ORIGIN AND TREATMENT OF ASIATIC CHOLERA.

By JOHN C. PETERS, M.D.,[1]

NEW YORK.

In 1854 Dr. Dundas Thomson found many vibrios in the atmosphere of wards filled with cholera patients, fewer in wards half filled, and very few in empty wards. They were also abundant in the air of sewers which was *alkaline*. I may add here that malarious soils are also *alkaline*. He also found vibriones in great abundance in the rice-water discharges, in the drinking-water of affected places, and even in the blood of some cholera patients. Although found in other disorders, these vibrios were vastly more abundant in cholera.

These probably were merely the bacteria of common putrefaction, with specfic ones, if there are any, concealed by the massive accumulations of the others, or not detectable by the microscopes or methods of those early times.

In the same year Dr. Hassall noted three conditions or circumstances which he supposed to be necessary for the development of vibriones: First, an alkaline fluid; second, organic matter in a state of decomposition; and third, a certain degree of warmth. Summed up this is heat, moisture, filth, or something in a state of decomposition, perhaps putrefaction, and germs.

He thought that these germs, when introduced into the alimentary canals of cholera patients, were brought into conditions highly favorable to their development. Their multiplication took place with almost inconceivable rapidity in twenty-five cases, seemingly because the rice-water discharges are *always* alkaline, offensive, and the bowels warm. He thought the fluids thrown out into the bowels were more than usually prone to decomposition and more than commonly *alkaline*. He even went so far as to suggest that these facts would account for the success of sulphuric acid in the treatment of cholera, which was then coming in great vogue. He regarded it as an antiseptic acid, which prevented decomposition and putrefaction, and also neutralized alkalies, while it was decidedly a refreshing and cooling remedy.

Hassall also found vibrios in the urine and upon the soiled clothes of cholera subjects, where they not only abounded, but were alive and very active. He did not suggest the disinfection of these clothes with dilute acids, like acetic or phosphoric, but I will do it for him. He thought these germs were common, not comma, germs, and killed merely from their numbers.

In 1872 Dr. Nedwetsky found bacteria, which he did not distinguish from common bacteria, in large quantities in rice-water discharges, and set about to kill them all in a rudely scientific, but exceedingly practical way. He always used two drachms of rice-water discharge in all his experiments, and found that one drachm of laudanum did not kill the bacteria in this small quantity; nor one drachm of tincture of nux vomica; neither did alcohol kill them; nor ten grains of quinine; nor thirty grammes of camphor; nor five or even ten drops of strong so-called carbolic acid, which is not an acid, but an alcohol; nor one drachm of tar; nor ten grains of calomel, between the particles of which the bacteria not only lived and moved, but on the fifth and sixth days new granular masses and new crops of bacteria had formed. The same had happened with camphor. One drachm of a strong solution of chloral did not kill bacteria, and it required one drachm of chloroform, and a saturated solution of sulphate of iron.

If there is any truth in science or sound reasoning, all these favorite remedies may be useful in other diarrhœas and in cholera morbus, but cannot be reliable in true specific choleraic diarrhœa, and we know they all fail in fully developed cholera. Physicians see very few cases of true cholera among the better classes, and every one supposes in cholera times that the least diarrhœa is chol-

eraic. Hence, perhaps the great reputation of these remedies. Unless a patient has been exposed to the poison of cholera, his or her diarrhœa is of no more importance, except for the anxiety, than at any other time; unless we admit that the poison rises into the air.

But Nedwetsky found that ten grammes of tannin killed bacteria, also weak chlorine water and dilute sulphuric, muriatic, and nitric acids. Scientifically these are the most reliable remedies, and all have been found useful. The use of dilute acids, especially acetic, lactic, and phosphoric, may prevent cholera by keeping the stomach acid, as it is always alkaline except when digestion is going on. Pepsine with the addition of acid eats up bacteria. Table-salt and vinegar are good germicides; the former is decomposed in the stomach and its muriatic acid goes to reinforce the acid gastric juice, of which lactic acid is also a constituent. Lemon-juice and vinegar are allowable and useful, but both contain potash; the former is a citrate of potash, the latter an acetate; still they are decomposed in the stomach and the acids liberated. If the stomach be kept reasonably acid by pure acids, not by the impure butyric, acetic, and others which prevail in indigestion, all bacteria will be killed before they reach the bowels, which are always alkaline in health.

Still clinical experience rules higher than pure, perhaps imperfect, science. The believers in camphor, calomel, and opium should only be less positive, or perhaps lessen the size of their doses when they have diarrhœa and combined fright and anxiety, not cholera to deal with. I will be loth to give up opium, and perhaps an occasional dose of calomel, but I certainly will give dilute acids also.

Next as to the quantities. To put a few drops or grammes of any medicine into stomach and bowels containing quarts, perhaps gallons of diarrhœal fluids seems folly. The thirst is great in cholera, and perhaps pints and quarts of very dilute acids may be given as common drinks. If the stomach is not yet affected, perhaps the absorption of small doses may take place. Tannin, calomel, and bismuth have the advantage that they can cling to and plaster themselves on the walls of the bowels and not be swept away as small quantities of liquids will be.

POLIOMYELITIS ANTERIOR IN THE ADULT.

By A. D. ROCKWELL, A.M., M.D.,
NEW YORK.

Since Dr. Seguin, in 1874, called renewed attention to that grave but somewhat rare disease, poliomyelitis anterior in the adult,[1] the subject has been somewhat better understood. Indeed, no one who has carefully studied the admirable analysis therein given of this disease need remain in doubt as to its distinctive character, nor hesitate long in the diagnosis. In the intervening time, however, comparatively little has been written about it, and I was therefore glad to see in a late number of the *American Journal of the Medical Sciences*, and in The Medical Record of February 7th, two independent reports of cases, accompanied by an intelligent discussion of the subject in all its phases, and especially in regard to differentiation. It would seem that no one ought to confound subacute or chronic atrophic paralysis in the adult with locomotor ataxia, and yet within a year I have met with two cases where the mistake was committed. Posterior spinal sclerosis has been so freely discussed of late years that it has become one of the familiar things in medicine, and the tendency among those who give little thought to the more obscure diseases of the central nervous system is to confound it with forms of paralysis having an entirely different origin. One of the two cases to which reference is made I should therefore like briefly to report, for the two-fold purpose of still further emphasizing the subject in regard to its differentiation, and to illustrate the very marked and rapid results of proper methods of treatment. The case is in itself, moreover, well worthy of record, from the fact that it was one of those rare illustrations where general paralysis of the most extensive and profound character prevailed; Duchenne, as remarked by Dr. McIntosh in his article, having met but five such cases out of a total of sixty-two observed.

Case.—Mr. F——, aged about thirty years, first observed in November, 1882, a momentary hesitancy in attempts to move, especially in going up stairs, and soon after was compelled to take to his bed because of what he termed "exhaustion." Improved somewhat, and in January, 1883, went to Europe. Returned the following March feeling generally much better, but still weak, and with the same undefinable sense of hesitancy in the limbs. This symptom gradually left him and he was fairly well during the summer, but after a while he again experienced the sudden "catch," as he termed it, when about to ascend the stairs. On one occasion, in August, when feeling quite well, he went into the surf and stayed an unusually long time. On coming out he felt giddy, stiff, and tired, and was never as well afterward.

One day in September, after a walk, he began to feel "very bad," and took immediately to his bed, from which he was unable to rise for many months. In a week's time he was completely paralyzed in every limb; he could with difficulty move even his head, and in addition he became afflicted with diplopia and an entire loss of voice.

He remained in this condition with no improvement excepting as to his voice and eyes, until I saw him January 10, 1884. At that time he could speak only in a whisper, and the eyes were yet somewhat affected. The paralysis was so complete that it was impossible to move even a finger or toe, and the electro-muscular contractility was lost equally to both the galvanic and faradic currents. This is a point to be especially noted, for in these cases it is seldom, according to my experience, that galvano-muscular contractility is entirely lost, although the reactions that do occur are likely to be the reactions of degeneration; and in this case, when some response to galvanism was finally observed, qualitative as well as quantitative changes were readily noticed, the anodal closing contraction being stronger than the cathodal closing contraction. In locomotor ataxia as is well known, there is little if any change in the electrical reaction.

All of the paralyzed muscles were atrophied to the last degree, but there was a notable absence of any tendency to bed-sores, spinal epilepsy, permanent anæsthesia, or paralysis of the bladder or sphincter ani. A word in regard to the treatment of poliomyelitis anterior as illustrated more especially by the case under consideration. Dr. Gustavus Eliot, in his very valuable article on this disease,[1] and in his enumeration of the various plans of treatment, remarks that massage and electricity should be used as soon as there is any evidence of improvement. If by this he means that counter-irritation and ergot, which come first in the list, should be used until there are evidences of returning power of motion, I should very strongly dissent. Just so soon as the acute symptoms pass away, and immediately in the subacute and chronic forms, it is proper to begin the application of galvanism. In less than two months under almost daily applications of galvanism, the patient in the case under consideration improved in the most marked degree. Electro-muscular contractility returned, the limbs greatly developed, while a very decided degree of power prevailed in all the extremities, the patient being able to throw his arms and legs in any direction.

When it is remembered that the paralysis had been profound and without the slightest evidence of improvement for three months, excepting as to the eyes and voice, the very positive and immediate effects of treatment will be better appreciated.

[1] Spinal Paralysis in the Adult. D. Appleton & Co.

[1] American Journal of the Medical Sciences, January, 1885.

INTUBATION OF THE LARYNX.

By E. F. BRUSH, M.D.,

PRESIDENT OF THE WESTCHESTER COUNTY MEDICAL SOCIETY, NEW YORK.

On the morning of January 5, 1885, I saw in one of the wards of the New York Foundling Asylum, a boy three and a half years of age, just recovered from measles, suffering from pneumonia and commencing inflammatory croup. I saw him again the following day. His breathing was labored, countenance distressed, and there was great restlessness. I saw him for the third time on the morning of the seventh; the face was pale, the eyelids were half-closed showing the whites of the eyes, the head was thrown back, the thumbs strongly flexed, breathing rapid and superficial, pulse small, intermittent, and too rapid to be counted, and other evidences of approaching coma. I was told that Dr. O'Dwyer was going to operate on the child. I asked permission to remain and view the operation, supposing, of course, that it would be tracheotomy. The boy was placed in the nurse's lap, an assistant held the head; a gag was put into his mouth. Dr. O'Dwyer passed the index finger of his left hand back into the child's pharynx, while his right held an instrument shaped like a small steel sound of the Van Buren pattern carrying on its distal end a gold-plated oval tube four-sixteenths of an inch in its long diameter, and two-sixteenths in its shorter diameter, and one and a half inches in length, collared around the upper extremity except at the anterior curve of the oval. In this uncollared portion was a small eyelet armed with a long silk thread. This tube was carried along the doctor's finger into the pharynx. There was a spasmodic coughing, a reddening of the face, the sound-like instrument was immediately withdrawn without the tube, the boy gave a long, deep inspiration, the thread was quickly withdrawn, and a marvellous change was instantly produced in the patient's whole condition. The intense redness caused by the first irritation gradually faded, a copious perspiration broke out over the forehead, the respirations became easy and quiet. I actually thought the child was dead; as the eyes were fixed in a stare of astonishment, and before the little sufferer had recovered from his amazement he was sleeping soundly.

As I watched him for an hour, the sleep was sound and deep, and only disturbed by occasional fits of coughing. His temperature at this time was 104°, pulse regular, 160, and the perspiration continued, but not so copious as at first. During that night the tube was coughed up, and immediately reintroduced; again coughed up on the following morning and again returned immediately. I saw him again on the thirteenth, immediately after he had coughed up the tube for the third time. At first the breathing was easy and quiet, but progressively growing difficult; at the end of twenty minutes it was painfully labored, the countenance became pale and anxious; in a piping cracked voice the little patient begged Dr. O'Dwyer to put the tube back, which the Doctor did, and again all the alarming symptoms immediately subsided. The tube remained *in situ* till the following day, the fourteenth, and was then immediately returned. Every effort to swallow liquids after the first introduction of the tube on the seventh, provoked violent coughing, solids and semi-solids were swallowed without difficulty. There has been a progressive improvement in the ability to swallow liquids, but they always provoke coughing. He can whisper quite distinctly, his pneumonitis is abating.

On the morning of January 13th I found in the croup ward, where the little patient just spoken of was domiciled, two other children suffering from severe inflammatory croup following measles. One was a little nurseling boy, thirteen months old. Measles had commenced ten days previous, croup had been progressing for twenty-four hours; the face was ashy pale, respiration superficial, with all the evidence of great obstruction. The child was unable to nurse, the mother held it in her arms and seemed greatly distressed. Dr. O'Dwyer directed the nurse to take the child into the adjoining room, and while there he introduced a tube, three-sixteenths by three-thirty-seconds, and one and four-tenths of an inch long. The operation was the work of a minute, the child was immediately returned to its mother, breathing quietly and relieved of all the distressing symptoms she had been so intently watching. She glanced hastily at the child, could see no disfigurement, no trace of blood, but the evidence of some great change which she did not understand. The child went to sleep in her arms immediately, and was only disturbed by occasional fits of coughing. At first the child could not nurse, but after twenty-four hours, it could nurse for five or ten minutes, with an occasional paroxysm of cough, but got plenty of nourishment.

The other patient in this room was a girl, four years of age, recovered from measles that followed whooping-cough. At this time she was suffering from quite extensive lobular pneumonia on both sides, croup had been progressing for twenty-four hours; the pulse was feeble, the temperature 105°, respiration was greatly obstructed, and in my opinion the child could not live many hours unless relieved from the great respiratory impediment.

In the absence of Dr. O'Dwyer, and in the great urgency of the case, Dr. Blodgett introduced a tube, four-sixteenths by two-sixteenths, and two inches long. I did not witness the introduction of this tube, but when I saw the patient the following day she was sleeping quietly, respiration being carried on without any difficulty whatever. I have seen one other patient in this institution wearing Dr. O'Dwyer's laryngeal tube. It is a boy six years of age, having extensive abscesses of the cervical glands, acute nephritis, following measles and scarlet fever, and pneumonia. The tube was introduced to overcome respiratory obstruction caused by œdema of the glottis. It was removed after twenty-four hours, but the patient begged piteously to have it reinserted. Although the tube was out only twenty minutes the boy was completely asphyxiated before the tube was returned. He rallied quickly and is now wearing it comfortably, but his recovery is somewhat doubtful, as the pneumonia and nephritis are still intense, and the patient refuses obstinately to take his medicine or stimulants, while the presence of the tube increases the difficulty of compelling him to do so. The only food he can be induced to take is ice-cream and condensed milk.

Previous attempts have been made to tube the larynx. In 1801 Dessault passed a tube through the nose and into the trachea, instead of the œsophagus as he intended. It was left there for several hours, and he only became aware of its situation when he began the injection of food through it. This accidental demonstration of the tolerance of a tube in the trachea for several hours suggested the propriety of treating laryngeal obstructions by a similar method. His first case was that of a man with some laryngeal affection; the catheter gave relief, but the man died the same day.

His second case was that of an adult with œdema of the glottis; the catheter was retained for a day and a half, and the patient recovered. These cases were reported by Bichat. In 1854 Dr. Horace Green created an intense excitement in the New York Academy of Medicine by his bold statement that he could swab out the trachea with a whalebone bougie armed with a sponge, and that he was able to pass a flexible tube through the larynx, and into the right or left bronchial tube at will, and inject strong solutions of nitrate of silver into tubercular cavities of the lungs. In 1858 Bouchut appeared before the Academy of Medicine at Paris, and advocated tubage of the larynx. He proposed the use of cylindrical tubes, 18 to 24 millimetres long and from 6 to 8 millimetres wide, introduced on the point of a hollow sound, and the tube allowed to rest on the vocal cords. A silken bridle was attached to the tubes to facilitate their withdrawal when necessary. He recited seven cases; five of them had died and two recovered after having tracheotomy performed. Notwith-

standing this unfavorable result of his experience, Bouchut, in commending tubage, declaimed against tracheotomy; consequently Trousseau, its strongest advocate at that period, condemned tubage, and Bouchut was never heard from again. Later, Schroetter proposed dilating the larynx through the mouth in chronic cases, using hollow, three-cornered vulcanized bougies.

Dr. Hack reports a patient with œdema of the glottis, in which case he introduced one of Schroetter's bougies, which gave relief. The bougie was removed and the patient was directed to go to a hospital, taking the bougie with him. On his way he was attacked with severe dyspnœa, and he himself introduced into his own larynx the tube that he was carrying.

In 1870 Weinlechner proposed the use of rounded tubes instead of the triangular Schroetter pattern, but he cites no cases. In 1880 Dr. William MacLean, of Glasgow, advocated the passage of a catheter into the larynx with the end protruding from the mouth to overcome respiratory obstruction from any cause. His cases are, first, a patient fifty-five years of age, in whom a surgical operation was performed. The catheter was passed into the larynx, one end protruding from the mouth; this was done to prevent blood flowing into the trachea during the operation. Second, a patient forty-two years of age, with œdema of the glottis; a No. 12 catheter was introduced and retained for thirty-nine hours, during which time the patient experienced no difficulty in drinking. Third, a patient, thirty-eight years of age, with œdema of the glottis; a No. 12 catheter was retained for thirty-six hours.

From the foregoing, which is all the testimony bearing on this subject which I was able to collect by a hurried search, it will be seen that Dr. O'Dwyer's operation of intubation of the larynx is not a revival of old methods. The nearest approach to his procedure was that of Bouchut, but the shortness of Bouchut's tubes, the shape, too, being cylindrical, and the fact that the tubes rested on the vocal cords and did not pass into the trachea, together with the additional fact that the tube was supported by a silken bridle, were evidences of the timidity with which Bouchut resorted to the procedure, and undoubtedly accounts for his total failure in the cases reported by him. Now Dr. O'Dwyer, on the other hand, uses a tube of sufficient length to drop into the trachea and reach a point as low, if not lower, than does the tube usually employed in the operation of tracheotomy. These he boldly introduces between the vocal cords with the upper flanges of the tubes resting on the cords. This tube is left *in situ* without any attachment whatever. By an instrument which he has designed he can remove the tube with the greatest facility.

Dr. O'Dwyer has been working on this subject for the past two years, but feels that he has not yet attained that pitch of perfection which he hopes some day to achieve; therefore I do not feel at liberty to describe the instruments he uses for inserting or withdrawing the tubes he employs, neither have I thought it right to ask him for his other cases, which he intends to give to the profession when he has perfected his instruments, and achieved that success which I am confident he will gain. From my own observation of the cases which I have cited, as witnessed by myself, I am fully convinced that intubation of the larynx is a more simple operation than that of tracheotomy; that the laryngeal tube is worn with greater ease to the patient; that the air which reaches the lungs is heated and moist, which is not the case with the tracheal tube; that coughing and expectoration are carried on with greater ease and more effectually than is possible with the tracheal tube, and that the absolute care and vigilant watching, which form such an absolute element of success in tracheotomy, are not called for in Dr. O'Dwyer's method of procedure. I may add that the most striking feature in this method, and which must be of the greatest comfort to the physician and to the parents, is the entire absence of mutilation or disfigurement. In the laryngeal diseases of infancy, which so often prove fatal under the very best conditions, parents and friends not infrequently imagine that it was the operation of tracheotomy that was the cause of death. The unsightliness of a dry, cracked mouth; the repulsive spectacle of a tube protruding from the trachea, often lined with, and having hanging from its orifice, expectorant matter; the necessity of informing the parents of the hopelessness of their child's recovery, and of requesting their consent to a desperate surgical operation as a kind of forlorn hope—all these painful elements are spared in the method adopted by Dr. O'Dwyer.

Mount Vernon, N. Y., January 20, 1885.

Clinical Department.

TRYPSIN AS A SOLVENT OF THE DIPHTHERITIC MEMBRANE.

Dr. B. M. Van Syckel, of 2091 Sixth Avenue, recommends a trial of trypsin as a topical application in diphtheria. Trypsin is one of the ferments of the pancreatic fluid. It will dissolve its own weight of fibrine in from five to ten minutes at a temperature of 37° Celsius (98.5° F.). It has been successfully employed as a solvent of the false membrane in diphtheria by Drs. J. Lewis Smith, of New York, and J. A. Keating, of Philadelphia, and at present several gentlemen are engaged in clinical experiments to determine its value for this purpose. Dr. Van Syckel has found that when the diphtheritic membrane, removed post-mortem, is immersed in a trypsin solution at a temperature of 37° Celsius, "it becomes transparent and slightly swollen, then breaking into fragments it is slowly dissolved, with the exception of a small residue consisting of cells and possibly bacteria. This settles to the bottom of the glass, leaving the solution slightly turbid and mucilaginous. In cases where the membrane is still adherent to the surrouuding tissue, the solvent action of the trypsin is slower, but no apparent change takes place in the healthy tissue." The solution is to be applied by means of the spray, applications being made every fifteen minutes if possible, or as often as the strength of the patient will permit, only a small amount of the liquid being used at each spraying. The importance of frequent applications should be impressed upon the parents or nurse, as upon this depends the success of the treatment. A leading pharmaceutical firm of this city is now employed in preparing a solution for use in diphtheria; but the writer states that the following extemporaneous preparation has been found very serviceable in his hands: 50 c.c. (℥ j. ℥ vj.) of a 1 to 1,000 solution of salicylic acid may be added to 5 grm. (℥ j. gr. xvij.) of "extractum pancreatis," and the mixture allowed to digest in a water-bath at a temperature of 37° Celsius (98.5° F.) for four hours, then filtered and made slightly alkaline by the addition of bicarbonate of soda. The solution should be made only as required, as it will not keep more than one or two weeks.

TELESCOPIC CATHETERIZATION.

Dr. A. E. Dugas, of Augusta, Ga., sends us an account of a method employed by him in cases of retention from so-called impermeable stricture of the urethra. He takes the largest size I gum-elastic catheter which will enter the meatus, passing it down until arrested at the narrowed portion of the urethra. It is then withdrawn, cut off just above the eye, the edges smoothed off, and then reinserted. When it has passed as far as it will go the end is cut off about an inch from the meatus, and the rest of the tube tied so as to prevent slipping from the canal. Now another catheter is chosen of a size that will just pass through the one *in situ*, and is inserted as far as it will go. It will probably pass farther than the first one, but if not, a smaller size must be selected. If this do not enter the bladder it is to be passed as far as

possible, and then the eye cut off as in the first case. Now a third catheter passed through number two will almost surely enter the bladder, except in the very worst cases. The larger or outer instruments serve, Dr. Dugas states, not only to ward off and exhaust the contractions of the urethra, but also act as a stiff handle to direct and guide the smaller and more flexible instruments passing through them.

In connection with this subject the writer states his belief that a great many more cases of retention of urine are due to some slight derangement of the kidneys than to the urethra. And he says that he has "frequently relieved such cases like magic by a dose of nitrate of potassa, say ten or fifteen grains, twice a day or oftener. The trouble is not that there is too much water in the bladder, but that what water is there is very irritating, and the urethra being more or less strictured revolts against its passage."

ILLUSTRATIONS OF THE INFECTIOUS NATURE OF ACUTE PNEUMONIA.

Dr. C. H. Smith, of Kenton, O., writes that a boy, aged eight, son of a farmer, died of pneumonia on March 25, 1882. A young man, aged twenty, who had helped nurse him was, in about a week, attacked with pneumonia and died. His mother, who nursed him, was also soon taken and died. A young lady who was in the house was attacked at about the same time and died. Some four or five others who were about at the time had mild types of the disease, but recovered. The cases were for the most part attended by homœopaths. Dr. Smith seeing some of them for a time.

Our correspondent writes that in 1870 he treated a boy, aged seven, suffering from pneumonia. He recovered. The father and mother contracted the disease, the former dying. Three other persons who had been about the house took the disease also, one only dying. In these cases the pneumonia was of a low type, and convalescence tedious. Dr. Smith did not note anything unusual about the season or the house in these latter cases.

VESICAL AND RENAL CALCULI—OPEN URACHUS—LITHOTOMY.

Drs. A. C. Benedict and E. M. Hermance, of Yonkers, N. Y., report the following very curious case: A carpenter, aged forty-three, suffered for several months from symptoms of vesical calculus, but would not allow the passage of a sound in order to verify the diagnosis. As the difficulty in urination increased it was noticed that some of the water was passed through the umbilicus, and it continued to pass in this way in small quantities for nearly a year. Finally the distress became so great that an examination was consented to; a stone was felt in the bladder, and the patient was admitted to St. John's Riverside Hospital for operation. Lateral lithotomy was performed and a slightly flattened egg-shaped stone, weighing two and three-fourths ounces, and measuring one and three-fourths by two and three-eighths inches, was removed entire. Convalescence was retarded somewhat by an intercurrent attack of epididymitis, but the patient finally was so far recovered as to leave the hospital and return home. At this time there was but a very slight exuding of urine from the umbilicus. About six months later the patient returned complaining of the same symptoms as before. No stone was detected by examination with the sound, and a diagnosis was therefore made of chronic cystitis. Despite appropriate treatment the patient failed steadily and died about three months later. At the autopsy the kidneys were found to be enlarged and to contain calculi. Upon incising the organs pus flowed out. About a dozen abscesses were found in each kidney, and also seven calculi, three of which were the size of a pigeon's egg. The ureters were enlarged. The bladder was of normal size and the mucous surfaces were healthy, but the walls were very much thickened. The urethra was normal. The urachus was pervious from the bladder to a point within an inch of the umbilicus, and thus the escape of urine from the umbilicus was explained. The nucleus of the calculus which had been removed by operation was the size of a filbert, and was made up of two different kinds of hair, viz., coarse dark hair and fine light hair. The question is how the hair was introduced into the bladder, and also whether the vesical or the renal calculi were first formed.

THROMBOSIS OF THE BRONCHIAL ARTERY.

Dr. S. E. Campbell, of Bay City, Mich., reports the case of a woman, sixty-five years of age, of previously fair health, who was suddenly seized, shortly after retiring for the night, with a severe pain in the left elbow passing up the arm into the chest. She also felt very cold and could not get warm until after several hours. When first seen, thirteen hours after the pain began, she was sitting up in bed. The pulse at the right wrist was strong and regular, but no motion was perceptible in either the radial or the ulnar arteries in the left side. The heart-beat was regular, and no bruit could be detected. Respiration was clear over all parts of the lung, but was somewhat jerky. The pain in the left arm was increased by pressure over the point of bifurcation of the brachial artery. A diagnosis was made of embolism of the brachial artery. The patient continued to sink, and died twenty-two hours after the commencement of the attack. The mental faculties were preserved until the end. At the autopsy a firm clot, about one and one-eighth of an inch in length, was found occluding the brachial artery at its bifurcation, and extending a short distance into the radial and ulnar branches. The heart was normal in size and appearance, and was surrounded by but little fat. A small cyst was found behind the bladder containing nearly an ounce and a half of thick, creamy pus. No previous history could be obtained beyond the statement that the patient had complained at various times of pains in the larger joints, and that she was not very strong. Dr. Campbell suggests that a case of occlusion of the arteries of the left arm with pain radiating into the chest might readily be mistaken for angina pectoris. And he queries whether, in the case related, death did not occur from shock.

TAPEWORM TREATED SUCCESSFULLY BY CHLOROFORM.

Dr. J. Walter Wood, of Port Richmond, S. I., has had an instructive experience in the chloroform treatment of tapeworm. The patient, a boatman, aged twenty-four, had suffered from diarrhœa and frequent desire to defecate. As he could not stop work, Dr. Wood directed him to take nothing but milk the following day, and nothing at all after 2 P.M. At 9.30 P.M. he came to the office, and was given two grains of calomel and immediately afterward one drachm of Squibb's spirit of chloroform in three ounces of mucilage of acacia. He was then directed to lie down, and in ten minutes was in a profound stupor from which he could not be aroused by shaking. The pulse, which was formerly seventy-two, was now reduced to forty. At the end of half an hour, electricity was applied and the patient aroused sufficiently to permit the administration of three drops of croton-oil enveloped in vaseline. He then relapsed into his former state and could not be permanently aroused until an hour had passed from the time of taking the chloroform. He complained of headache, staggered when attempting to walk, and compared his sensations to those of a man recovering from a debauch. Half a grain of podophyllum was then given, and the man allowed to go home. He was directed when going to stool to use a pail half filled with

water so as to avoid breaking the worm, and not to disturb the contents of the vessel. At a quarter past two o'clock in the morning a tape-worm measuring twelve feet in length was passed entire. Dr. Wood states that he shall in his next case use a much smaller quantity of chloroform.

Progress of Medical Science.

Intermediate Hospitals for the Treatment of Acute Mental Diseases.—The nervous system has of late years claimed the attention and study of the best medical minds of all countries, and it is now an evidence of a still further progress in this direction that mental diseases are no longer allowed to remain in the hands of asylum superintendents, but are beginning to demand the care and investigation that they undoubtedly deserve from a larger and more active class of specialists. It is by the medium of this development that Dr. John Van Bibber, of Baltimore, has been led at various periods, during the past five years, to investigate the plan of treatment and the management of insane asylums, both in this country and in Europe, the results of which are given in the January number of *The American Journal of the Medical Sciences*. It is a curious tradition, which is blindly accepted by most people, that insanity differs entirely from any other form of disease; that it must be removed from sight, and, if possible, from remembrance, and treated only by medical men who live within the walls of an asylum, and devote their lives to the care of this class of patients. No less is it a matter of general belief that the institutions in which this malady is treated are not hospitals, but asylums; that their use and purpose, though known, are in some way mysterious, and that their existence stands outside and apart from the ordinary ministrations of men. This uncanny reputation is clearly the result of prejudice, and to some extent the result of the present system of treating and caring for a most unfortunate class of sufferers. It is the remnant of that feeling which, years ago, built prisons for the safe-keeping of lunatics, and which employed chains and manacles in the treatment of their disease. We have developed safely beyond that dark period, and, with rare exceptions, we have even passed the epoch of restraint. But there are other changes which are as necessary and imperative to secure the better and more successful treatment of cases of acute insanity. These changes must affect many of the characteristic arrangements of insane asylums, the medical officer in his double rôle of physician and superintendent, and the crowding of large asylums with acute and chronic cases. This reform must also bring about the establishment of intermediate hospitals for the treatment of acute cases, and the gradual development of large asylums into homes for incurables and chronic cases. These points Dr. Van Bibber ably discusses separately and in detail, and he comes to the conclusion that many of the evils to be complained of in our asylum system arise from the unwise association of the curable with chronic cases, and the remedy is to be found in the establishment of the intermediate hospital, which is to stand between acute insanity and the asylum. This is the hospital which is to develop the ambition of the specialist, which is to enlarge his horizon, and to bring him out of an asylum into the active world of thought and progress. This is the hospital which is to teach the treatment of insanity as it has not yet been taught, and to educate, under active clinical instruction, the men who are to be the guardians and promoters of a most important reform. The possibility of making a hospital and a school out of what has been heretofore an asylum without educational power, or without the means of using valuable clinical material, is a proud future to look forward to. It means much to the profession. It is of deep significance to the public. It means an assurance that patients confided to the care of the intermediate hospital are to have every advantage of active treatment and good nursing. It means a course of treatment which will divert and distract the patients as much as possible from their sufferings, forcing them by activity to brood as little as possible over the dreary melancholy of their disease. It means the exclusion of every factor that can militate against the recovery of a patient, and the least possible detention after recovery.

Introspective Insanity.—Among those vague conditions of mental weakness in which there is slight derangement of the intellectual powers, yet a decidedly marked enfeeblement of the will, and an excitement of the emotions of a more or less limited kind, we find a variety of interesting psychoses which have, within a comparatively recent period, been considered under the names *folie du doute* or *grübelsucht*. In a clinical paper in *The American Journal of the Medical Sciences* for January, Dr. A. McLane Hamilton treats them under the title of "introspective insanity." In the cases Dr. Hamilton relates there was a history of insanity, and the nervous temperament was manifested by various peculiarities, more often by a species of hypochondriasis, by peculiarities of temper, and by acts of eccentricity which caused the subjects to be looked upon as "queer." These terms are applied to the condition of mind which is manifested by a morbid feeling of doubt and consequent indecision under the most ordinary circumstances, when both the doubt and indecision are unreasonable in the extreme, but the individual, under the mandate of an imperative conception, yields more or less to his disordered emotions. Some years ago we would speak of this condition of mind as "hysteria," or, if it influenced the patient's conduct to any remarkable degree, we would be at a loss for a proper explanation.

Psoriasis—Verruca—Epithelioma a Sequence.—Dr. James C. White, of Boston, in the January number of *The American Journal of the Medical Sciences*, presents brief notes of two remarkable cases of disease—cases extraordinary not for the rarity of the pathological processes they represent, but for the very unusual sequence of tissue-change exhibited in their course. There were three distinct pathological affections of the cutaneous tissues: psoriasis, verrucous hypertrophy, and epitheliomatous new growth; not occurring independently of each other, but as successive, mutual transformations in the above order. The three dermatoses which enter into the clinical history of Dr. White's case, and which are in their nature apparently as unlike as their companionship is rare, have a close affiliation in their anatomical relations. The transformation of patches of psoriasis into horny or warty permanent growths is not referred to in most works on dermatology as of possible occurrence even; the transformation of verrucous growths into epithelioma is of not very infrequent occurrence; but the uninterrupted sequence followed in this case, psoriasis, verruca, epithelioma, or, in other words, psoriasis as a cause of carcinoma, is extremely rare or unparalleled in dermatological history. The practical lesson to be deduced is that the transformation of patches of psoriasis into verrucous hypertrophy must be regarded as an ominous occurrence, and that the softening or other change of such horny growths demands thorough excision without delay.

Chloride of Lime was formerly used in gonorrhœa, but quite lately has been very warmly recommended as an injection in old cases of gleet after all the inflammatory symptoms, especially the pain, have subsided. The amount of secretion which may be present is a matter of no importance. Nothnagel says his experience with it has been favorable, in solutions of five to ten per cent.

Benzoic Acid.—A good pill can be made with five grains and one minim of glycerine. This is a convenient way for giving it in phosphatic deposits.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, February 21, 1885.

THE REVIVAL OF OVARIOTOMY.

A MEMORABLE address was recently delivered before the Midland Medical Society by Sir Spencer Wells, Bart., on "The Revival of Ovariotomy and its Influence on Modern Surgery." No American surgeon can read the literature of this subject without a thrill of pride in the recollection that the pioneer in this now broad path of operative work was a product of our own soil, with our national energy, and yet, in the words of his biographer, Dr. Gross, "cautious, calm, and firm." Nearly a century ago Ephraim McDowell was a humble disciple at the feet of John Bell in Edinburgh. He heard portrayed the hopeless character of ovarian tumors when left alone, and the empty results of the prevailing treatment by tapping, pressure, and injection. Hints had been thrown out from time to time that these tumors could be removed. His illustrious preceptor emphasized these suggestions, and portrayed to the pupil an ideal which the latter's genius was to make a reality. The seed of thought was carried back to the Kentucky home. It lay germinating for fourteen long years and then burst into full flower, Ovariotomy had been successfully performed.

That McDowell was the first ovariotomist, Sir Spencer Wells frankly admits. He gives, however, and justly too, due credit to the Hunters and Bell for their conception of a work which later decades were to see accomplished. Sixty years ago the operation began to take root in the soil of the mother country. It was carried on in a desultory manner and with disheartening results. Before the days of anæsthesia, and when the mortality percentage after all operations was large, it was indeed little less than "deliberative and tedious eviscerative vivisection." The introduction of anæsthesia benefited the situation but little. The theory of the operation seemed rational in conception but disproved by results attained. There was no one to champion the cause, eliminate its errors, and bring victory out of seeming defeat. In 1858 Sir Spencer Wells set out on his mission of rendering ovariotomy a justifiable surgical expedient. The struggle was long and severe. Results of former work were disheartening in the extreme. Frowned upon by the medical press and societies, traversing unknown paths without the beacon-light of experience, step by step he fought his way along, and, after eight years of unremitting toil, placed ovariotomy among the justifiable expedients of operative surgery, and, concerning the result, he could truthfully say "*et quorum pars magna fui.*"

The thorough appreciation and enjoyment of the address require some acquaintance with its author's work on "Ovarian and Uterine Tumors," of which it is, within certain limits, a corollary. It is always interesting to trace the development of an operation, and to note how the cherished expedients of one epoch have been the discarded methods of the next; how the various details of operative technique have been modified and improved in the light of experience. So with ovariotomy. The ligature, at first discarded, has now almost entirely superseded the clamp. Coarse whip-cord sutures have been abandoned and pure silk ones substituted therefor, and the tied pedicle returned to the peritoneal cavity. The length of the incision in the abdomen has been lessened, and in the closure of the latter the peritoneal apposition has become one of surface to surface instead of edge to edge as formerly. Careless preparation has given way to elaborate detail, and hap-hazard environment to rigid cleanliness and antisepsis. Thus steadily the mortality has lessened and order and light have come out of chaos and gloom. We are apt to forget that our predecessors groped painfully about after facts which to us are as plain as the sunlight. True as this is of all scientific research, it particularly obtains in the case of the subject before us. The deductions of Sir Spencer Wells, from his experience of twenty-five years, are full of interest. His preference for methylene bichloride as an anæsthetic will probably seem quite strange to some of us on this side of the Atlantic. His assertion that obstetric work and operative gynecology should not be done in private practice by the same surgeon but reflects his high conception of the calling of the specialist, but in view of recent successes in our metropolitan hospitals, this assertion needs modification. The results of his work simply show the power in the world of a man with a mission. His efforts in the revival of ovariotomy have not been those of a heedless enthusiast. The highest good of the patient has always been his aim. Palliative measures have been employed where they seemed to promise relief, and no operation has been undertaken unless fully justifiable. His opinions have been assailed. "Some," he says, "stand their ground, others have had the common fate of all fallacies;" but the soundness of his views is vindicated by his splendid results. In the last hundred cases of his series of a thousand, finished in 1880, but eleven deaths occurred and subsequent results have been even more gratifying. The effects of this wonderful success on modern surgery are wide-reaching. The forbidden ground of a quarter century ago is the broad highway of to-day, and we are almost overcome with the thought of what achievements the dawn of a new century will witness in this branch of the healing art.

MEDICAL MANNERS.

MR. EMERSON has said that, "manners are the contrivances of the wise to keep fools at a distance." It would hardly be fair to say that the manners of the wise physician are contrivances for an opposite purpose. Nevertheless the bearing and conduct of the doctor are important elements in his professional success. In this country, where we are all, according to Mr. Arnold, of the type of the lower English middle class, but according to our own

belief, simply men and women without class, the manners of the physician are best guided by some very plain general principles. If these manners indicate kindness, dignity, firmness, and self-respect, minor details of conduct will be very likely to arrange themselves harmoniously so as to cause no offence.

This appears not to be the case in England, where social distinctions are sharply drawn and rigidly adhered to, and where some few doctors only are gentlemen by virtue of their degree, while the rest are only "medical men" by virtue of their license.

An exquisite illustration of what interesting complications this produces is found in a letter, from "a practitioner of fifty-one years' standing," in the *Medical Times and Gazette*. This venerable correspondent desires to instruct the young medical man, who has settled in a "good neighborhood," how to conduct himself in the houses of the great to which he may be summoned. Beginning at the very beginning, he states that such houses have two bells and a knocker. "Which," he asks momentously, "should the physician choose?" We hang breathlessly upon the words of his answer.

"My own practice has been to ring the visitors' bell gently, though even that, when calling to see one of the servants, has seemed to me to savour of impropriety. But whatever course the young doctor may choose, let him, above all things, beware of using the knocker. That would imply a familiarity with the family, the very suspicion of which it behooves the circumspect practitioner to avoid. So long as he confines his manipulations to the bell-handle he is safe."

This seems to be satisfactory, but we would recommend, as in some cases preferable, the American practice of not ringing at all, but tossing a pill gently against the second-story window until attention is attracted. If this fails, a favorite practice in the far West is to place the foot firmly against the door post and wrench off the door-bell which is immediately thrown at the butler when he arrives. It produces an impression of decision of character and of having a large business.

Our English medical Chesterfield, however, next takes up a more important problem, viz., "What to do with the hat?"

"Following the custom of other men who have business in the house, he should by rights leave it in the hall, not on the floor, but on the hall-table. This course, however, may involve him in serious danger. If there are children about the house, they may be counted upon to play with it, perhaps to march into the drawing-room with it on their heads—a complication which, I need hardly say, as being evidence of undue familiarity, would be of the gravest import. My own plan has always been to take my hat with me, and only to relinquish it when the clinical investigation of a case rendered such a course absolutely necessary."

Here we think the advice given, though eminently logical, shows a little lack of breadth of thought and largeness of experience. Evidently the doctor should have left his hat on the floor—he seems to be that kind of a man. Failing in this, however, we should recommend to him and his fellow-souls the American plan of placing the foot gently in the bottom of the hat and drawing it up over the leg. Thereby all difficulties are solved.

The question of hand-shaking finally receives a masterly illumination:

"The ethics and etiquette of hand-shaking form a most difficult subject. As a rule, I agree with the *Lancet* that it is best to avoid it. If a lady of title offers two jewelled fingers, the young practitioner would be at once foolish and rude to decline to take them, but the touch should be cold and momentary. With the wives of commoners it will be best, if it can be done without obvious rudeness, to bow formally, instead of offering to shake hands, both on entering and leaving."

The doctor does not say what should be done with the cane, but it is easily understood that he simply passes it down his back in order to give proper formality to the bow which accentuates his entrance and his exit. As to what to do with the hands, it is a very easy inference that the doctor keeps his fingers in his mouth and is led out by the waiter.

We trust and believe that not many English doctors are like the correspondent of the *Times and Gazette*. And we can congratulate the profession in this country that we are not dependent upon "manners," but have a broad stretch of ocean as a contrivance to keep such people at a distance. Perhaps the American physician is not always "as good as anybody," but he is always so treated in his professional relations, and the query whether some one else is a social superior or inferior is the last thing that disturbs his thoughts.

THE VALUE OF POPULAR DISINFECTANTS.

We recently called attention to the change in view which has been going on regarding the value of various popular disinfectants. Some interesting additions to our knowledge of these substances have recently been made in the preliminary reports of the Committee on Disinfectants of the American Public Health Association.

The reports so far made have been three in number, and include tests of chlorine, bromine, and iodine, by Dr. George H. Rohé; of commercial disinfectants in general, by Dr. George M. Sternberg; and of the hypochlorites, by Dr. J. R. Duggan.

The committee define a disinfectant as an agent capable of destroying the infective power of infectious material, and the biological test upon known disease-germs and allied organisms was adopted.

Regarding chlorine, bromine, and iodine, as disinfectants, the following conclusions are reached:

1. Chlorine is an efficient disinfectant when present in the proportion of 1 part in 100; provided the air and the objects to be disinfected are in a moist state, and the exposure continues for upward of one hour.

2. Chlorine, when used in sufficient concentration to act as a trustworthy disinfectant, injures colored fabrics and wearing apparel.

3. Bromine is an efficient disinfectant in the proportion of 1 part in 500; provided the air be in a moist state, and the exposure continues for upward of three hours.

4. Iodine, in solution, is an efficient disinfectant in the proportion of 1 part in 500; the exposure continuing for two hours.

5. The use of chlorine, and in a greater degree of

bromine, requires considerable experience in management; when carelessly handled they may cause inconvenient or even dangerous symptoms in persons using them; for these reasons they are not suitable as disinfectants for popular use.

In testing the various commercial disinfectants "broken-down" beef-tea containing spores of *bacillus subtilis* and *bacillus anthracis* was used. Dr. Duggan, working with Dr. Sternberg, obtains the following interesting table of results:

LIST OF COMMERCIAL DISINFECTANTS TESTED.

Name upon label.	Per cent. in which active.	Per cent. in which failed
Little's soluble phenyle	2	1
Labarraque's solution	7	5
Liquor zinci chloridi (Squibb's)	10	7
Feuchtwagner's disinfectant	10	8
Phenol sodique	15	10
Platt's chlorides	20	15
Girondin disinfectant	25	15
Williamson's sanitary fluid	25	20
Bromo-chloralum	25	20
Blackman disinfectant	30	20
Squibb's solution of impure carbolic acid (about two per cent.)	..	50
Burchardt's disinfectant	..	50
Phenol sodique	..	50
Listerine	..	50

Regarding these disinfectants Dr. Sternberg adds: "Returning to the disinfectants in our list, it will be seen that all but the four last-named are efficient in various amounts, ranging from 30 to 2 per cent. But the relative value of the agents as here given does not establish their comparative practical value as disinfectants. Questions of cost, physical and chemical properties, etc., come into the account which it is the province of other members of our committee to consider. The agent at the head of the list, for example, notwithstanding its superior germicide power, does not seem to me to be as useful as some of those below it, on account of its insolubility and comparatively high price.

"We have nothing to say against the use of any of the agents in our list as antiseptics or as deodorizers. No doubt all of them are more or less useful for this purpose, and we have no desire to restrict their use. But the exaggerated claims made in relation to the germicide or disinfectant power of certain of these agents may do immense harm."

The time-honored Labarraque's solution receives much commendation from the committee. Dr. Duggan, as the result of a special examination of the hypochlorites, finds that a solution containing 0.25 of 1 per cent. (1 part to 400) of chlorine as hypochlorite is an effective germicide even when allowed to act for only one or two minutes, while 0.06 of 1 per cent. (6 parts to 10,000) will kill spores of *B. anthracis* and *B. subtilis* in two hours.

He adds that "the value of the various commercial preparations, such as Labarraque's solution and bleaching-powder (chloride of lime), of course depends on the amount of available chlorine they contain, since the chlorides and chlorates are of very little value as disinfectants. Bleaching-powder usually contains from twenty-five to forty per cent. of available chlorine. For most purposes a solution containing 1 part of this preparation to 100 of water is strong enough, for this will contain from 0.25 to 0.40 of one per cent. of chlorine as hypochlorite. As is stated above, the smaller of these quantities is sufficient to destroy spores almost instantly. There are very few purposes to which disinfectants are applied that are not fulfilled by this solution of one to one hundred of bleaching-powder. It is not poisonous, does not injure clothing, bedding, etc., and is almost without cost, since bleaching-powder is worth only about five cents per pound. The sodium salt furnishes in some respects a more elegant preparation, since it leaves on evaporation sodium chloride instead of the hygroscopic calcium chloride. If prepared according to the United States Pharmacopœia, it does not keep very well, but when made by passing chlorine gas into a solution of an excess of caustic soda, it shows very little tendency to undergo decomposition."

It will certainly be a matter of much congratulation to find that, after all, the cheapest and most harmless disinfectants are the best. We believe, however, that in practice the profession has already advanced still further than this, and has learned that, after all, plenty of fresh air and pure water are better than any disinfectants.

FIRE IN INSANE ASYLUMS.

THE Rev. Henry Ward Beecher is reported to have said, more or less facetiously, that the best solution of the insane asylum problem was to stand all the chronic lunatics in a row, and shoot them. The precious gentlemen who manage our insane asylums politically and scientifically, seem to have adopted a heated form of the Beecher policy. Within a comparatively short time, we have had to report the partial or complete destruction by fire of four insane asylums. In the last and most serious conflagration, that of the Insane Department of the Philadelphia Almshouse, the lives of twenty or thirty inmates were lost. Perhaps insane asylum managers think that the life of an insane pauper does not rate high, for it takes at least a dozen of them to support a politician. We do not, however, believe that the plan of cremating the insane is wise, human, or in the end even economical. Can not the learned body of Insane Asylum Superintendents, whose liberal spirit and scientific attainments are the source of so much pride, direct its energies toward the subject of fire departments? It is a shame to our institutions that such frightful accidents have so frequently occurred.

THE DIAGNOSIS OF PREGNANCY DURING THE EARLY MONTHS.

PROFESSOR HEGAR mentions a sign of pregnancy by which he claims the diagnosis of pregnancy may be made with certainty quite early. It consists in a peculiar softness, subtileness, and thinning of the lower segment of the uterus. By this is meant that part of the organ which is immediately above the insertion of the sacral uterine ligaments. The condition can be made out more readily when the uterus is elastic and soft, but also with ease when it is in its usual resistant condition. It is possible, by depressing the lower part of the uterus, to distinguish it from the superior portions and from the rigid cervix. The softness of this part might lead one to believe that the cervix was simply in contact with an abdominal or pelvic tumor.

The author knows of no pathological condition of the uterus which presents similar symptoms. The fact that the inferior segment of the uterus becomes during pregnancy the finest, softest, and most elastic portion, accounts for this remarkable sign. By practising rectal touch with conjoined abdominal palpation, it is possible to feel between the fingers this portion of the womb and thus ascertain its characteristics.

The *American Journal of Obstetrics*, October, 1884, published as a valuable sign in the very beginning of pregnancy the elevation of temperature to which the vagina, and more especially the uterus, are subject. During pregnancy the temperature of the interior of the uterus cannot, of course, be taken; but that of the vagina and, with some care, that of the interior of the cervix can be.

The normal temperature of the vagina is, as we know, 37.3° C. or 99° F., and it is found even early in pregnancy, according to Dr. Fry, that the vaginal temperature is 37.6°C. or 99.7° F., and that of the cervix 37.8° C. or 100° F.

With these two signs added to those already long familiar to the profession, there should certainly be little difficulty in deciding positively the existence of pregnancy in the early months.

GENERAL GRANT'S CONDITION.

THERE have been so many sensational stories concerning the precise character of the disease of General Grant's tongue and throat, that it will be gratifying to his many friends to learn that all the more serious and alarming symptoms connected with them have virtually disappeared. It was at one time feared, in professional circles at least, that the ulcerations of the tongue and fauces were dependent upon malignant disease, a not uncommon occurrence at his time of life, as the result of local irritation from a troublesome tooth. The focus of the trouble on the side of the organ, the usual site of cancer, and the induration of the base of the sore, were ominously confirmatory of such a suspicion. We are gratified to learn from his attending physician that all these signs of epithelioma have passed away, that the ulcerated surfaces have healed, and the adjoining tissues have regained their natural suppleness. There is now remaining only a small excavation in the neighboring tonsil, such as sometimes results from follicular inflammation of the part.

It would appear, from its clinical history, to have been a case of chronic superficial inflammation of the tongue, the long continuance of which results in progressive malignant destruction of the invaded parts.

There is a strong probability that excessive smoking was one of the prime factors as to causation, inasmuch as such has been proven to be the case in the large majority of persons so affected. The distinguished General would not certainly be considered an exception to this rule, affording as he does the "notorious example" for the anti-tobacconists. Still, it is fair to state that the disease sometimes occurs in those who do not smoke, and who are not inclined to any intemperance.

Whatever may have been the cause of the disease, it is a matter for great congratulation that all fear of grave complications are for the present at an end, and that our beloved ex-President is spared an affliction the bare contemplation of which would be distressing in the extreme.

News of the Week.

THE DEATHS FROM PATENT MEDICINES are estimated by a writer in the *British Medical Journal* to be about one hundred and fifty thousand annually.

THE EXPANSIVE IGNORANCE of our English critics is amusing. The editor of the *Medical Press and Circular* refers to a certain medical college in Georgia as a "Yankee Diploma Mill." No doubt our Southern brethren are proud and pleased to learn that they are "Yankees." It was not so twenty years ago.

THE PHILADELPHIA ALMSHOUSE FIRE.—Our esteemed contemporary, the Philadelphia *Medical Times*, can truthfully say, with regard to the recent burning of the insane department, "I told you so." In its issue of February 7th it concludes an article criticising this department with the words: "In the meantime, should a fire occur at Blockley, the Kankakee horror might be re-enacted at our very door."

TRYPSIN—ITS EFFECT UPON DIPHTHERITIC PSEUDO-MEMBRANE.—Dr. H. D. Chapin has lately been trying the effects of trypsin on diphtheritic pseudo-membrane, and considers that it opens a promising field for investigation. We hope in a few weeks to publish an article on this subject from the pen of Dr. Chapin.

MATERNITY HOSPITAL, NEW YORK.—Dr. Montrose A. Pallen has been appointed Consulting Obstetric Surgeon to this institution.

PROFESSOR BIRCH-HIRSCHFELD, of Dresden, has been appointed successor to the late Prof. Cohnheim, in the Chair of Pathological Anatomy at Leipzig.

ORGANIZING MICROBIOLOGICAL LABORATORIES.—The French Government has sent M. Dr. P. Gibier to Germany, in order that he may study the organization of the laboratories of microbiology.

THE FOURTEENTH CONGRESS OF GERMAN SURGEONS holds its annual meeting at Berlin, April 8 to 11, 1885, under the Presidency of Prof. v. Langenbeck.

NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.—The classes at the Post-Graduate School this session are largely in excess of the numbers in attendance in 1883–1884. The greater number of the matriculates have taken tickets for three months. The hospital of the school is in active operation, and many important cases have been and are in its wards. An effort is being made to secure an endowment for the hospital.

PHILADELPHIA CLINICAL SOCIETY.—At the stated meeting, January 23, 1885, the annual election of officers resulted as follows: Dr. Edward E. Montgomery, President; Dr. John B. Roberts, Vice-President; Dr. Ida E. Richardson, Corresponding Secretary; Dr. L. Brewer Hall, Treasurer.

MICRO-ORGANISMS IN DISGRACE.—The following item, taken from an elaborate paper published in the *Medical Age*, sets the question at rest with a single blow: "The indisputable condition to the existence of phthisis is attributable to the undue waste or deficient supply of tribasic hypophosphorous acid in the nervous system." Selah!

New Haven Medical Association.—Officers for the ensuing year: Dr. M. C. White, President; Drs. W. O. Ayres and M. C. O'Connor, Vice Presidents; Dr. Henry Fleischner, Secretary and Treasurer.

Dr. Köhler has been appointed Director of the Imperial Board of Health of Germany, in place of Dr. Strück.

Doctors as Senators.—At the last election, Drs. Ch. Robin, Goujon, Cornil, Garrigat, Geo. Martin, Combes, and Libert were elected members of the French Senate.

Monevs for Hospitals.—The Distributing Committee of the Hospital Saturday and Sunday Association having concluded its labors, the following summary of the work of the Association for the year 1884 will be of interest. In spite of the hard times, had Hospital Sunday been fair, the collection in all probability would have equalled the aggregate of the year before, which was $43,062.74, while for 1884 it was $37,030.56. The designations by contributors to various hospitals, in so far as they came into the hands of the general treasurer, were as follows:

Institutions.	Amounts.
St. Luke's	$3,200 02
Presbyterian	1,700 99
St. Mary's	1,237 47
Home for Convalescents	187 91
Ruptured and Crippled	168 00
House of Rest for Consumptives	153 00
Manhattan Eye and Ear Infirmary	152 00
Home for Incurables	138 00
Hahnemann	116 28
Orthopedic	105 00
French	100 00
Medical College and Hospital for Women and Children	100 00
Skin and Cancer	85 00
Eye and Ear and Throat Infirmary, Harlem	84 12
Woman's	70 00
House of Holy Comforter	69 00
Mount Sinai	50 00
Harlem Hospital for Women and Children	42 35
St. Vincent's	25 00
Eye and Ear and Throat Infirmary, No. 2041 Fifth Avenue.	20 00
German	19 75
Trinity Infirmary	10 00
Infirmary for Women and Children	10 00
St. Barnabas's House	5 00
Harlem Dispensary	2 00
New York Hospital	2 00
Bellevue	1 10
St. Francis	1 00
Total	$7,856 99

Among the special designations sent directly to the treasurers of hospitals, and which are additional to the above, are the following: Presbyterian Hospital, $1,224.35; Lutheran Hospital, $312.24; Holy Comforter, $25.

After deducting all special designations and the expenses of the collections there remained in the hands of the Treasurer the sum of $24,000, which the Distributing Committee has apportioned among the various hospitals of the association, partly on the basis of free work and partly with regard to special designations, in which case deductions were made. The rule adopted was that in all cases where hospitals received $1,000 or more in special designations, they should receive twenty-five per cent. of such amount less from the undesignated fund than would otherwise be their share, and the amount thus accruing is divided equally among the ten hospitals lowest on the list as beneficiaries. The apportionment made (there being present of the committee Mayor Grace and Messrs. Jesup, Seligman, Cooper, and Brown) is as follows:

Hospitals.	Allotted by committee from undesignated fund.	Total receipts through the association.
Mount Sinai	$4,170 50	$4,220 50
St. Luke's	2,644 90	5,844 92
Ruptured and Crippled	2,923 68	3,091 68
Presbyterian	2,231 50	5,245 85
German	2,567 09	2,576 84
St. Mary's	1,063 97	2,301 44
House of Rest	934 02	1,087 02
Holy Comforter	915 02	984 02
Home for Incurables	898 73	1,036 73
Woman's	644 68	714 68
Orthopedic	651 64	756 64
Infirmary for Women and Children	641 26	651 26
French	566 42	666 42
Eye and Ear Infirmary	547 58	547 58
Hahnemann	539 90	656 18
Skin and Cancer	478 11	563 11
Ophthalmic	462 11	462 11
College and Hospital for Women and Children	453 39	553 39
Manhattan Eye and Ear	351 79	503 79
Ophthalmic and Aural Institute	313 71	313 71
Other institutions and expenses	.....	4,252 69
Grand totals	$24,000 00	$37,030 56

Frequency of Headaches.—About fourteen per cent. of all school-children may be expected to suffer from headaches, according to Liveing and a writer in the *Medical Times and Gazette.*

Sir Joseph Lister has received the order of knighthood *pour la merite* from the Prussian Government.

Bogus Dental Diplomas are being advertised in German papers, and sold through an English firm. They come from an alleged institute called the "Wisconsin Dental Academy," or "College."

Reviews and Notices.

The Influence of the Mind upon the Body in Health and Disease. Designed to Elucidate the Action of the Imagination. By Daniel Hack Tuke, M.D., F.R.C.P., LL.D. Second American from the Second English Edition. Philadelphia: Henry C. Lea's Son & Co. 1884.

The author of this work explains that one can, if he wish, term the book, "the influence of one cerebral state upon another." By this he shows that he recognizes the vagueness and somewhat unscientific character of the title which he has chosen to adopt. For since we do not know what the mind is apart from the body, since every mental state involves some organic bodily state, we might well say that in discussing the influence of the "mind" upon the "body" we must cover the whole of nervous and mental physiology.

Dr. Tuke's book has been before the profession now for twelve years. Since that time there has been considerable change in the manner in which medical men look upon the subject he has chosen. The author's compilation of cases was, we imagine, regarded as one of curious interest rather than of practical value. We are inclined to think that now, however, many will see with the author that the subject of the various and potent influences of the imagination upon bodily function is one concerning which every physician should be thoroughly cognizant. There is not a practitioner of medicine who,

if he is intelligent will not see and, if wise, utilize, psychical therapeutics. It is a *deus major* in his armamentarium.

The present edition of Dr. Tuke's work retains substantially the same arrangement as the first. The different chapters are devoted to the "Influence of the Intellect, Emotions, and Volition upon Sensation, Voluntary and Involuntary Muscles, and Organic Functions."

The "Influence of the Mind upon the Body in the Cure of Disease" is then discussed, and the indications for the employment of psycho-therapeutics laid down.

Dr. Tuke has collected a great number of illustrative cases, some of which we fear are not to be entirely credited.

Lectures on some Important Points connected with the Surgery of the Urinary Organs. By Sir Henry Thompson, F.R.C.S., M.B., London. Philadelphia: P. Blakiston, Son & Co. 1884.

The six lectures comprising this volume were delivered at the Royal College of Surgeons in June last. In a condensed form they have already appeared in many of our medical journals. In their present shape they will prove acceptable to all surgeons who wish to keep for reference Sir Henry's latest views on some important details of the surgery of the genito-urinary apparatus.

The Lock-Jaw of Infants (Trismus Nascentium); or, Nine-Day Fits, Crying Spasms, etc.: Its History, Cause, Prevention, and Cure. By J. F. Hartigan, M.D. New York: Bermingham & Co. 1884.

The principal point of interest in this monograph is in reference to the etiology of trismus neonatorum. The theory originally advanced by Dr. J. Marion Sims, that the disease is caused by mechanical pressure of the occipital or parietal bones on the brain and thence to the medulla and its nerves, is confirmed by the histories of forty-nine cases. In some of these cases, however, the author may have mistaken cause and effect. Thus the convulsions, by producing rapid atrophy with resulting shrinking of brain-tissue, may sometimes be the primary factor in displacing the bones. We suspect that in trismus we have often a pathological condition more complex than the author supposes, and the attempt to explain all cases by a single and universal cause will hardly be successful. At the same time the etiology advocated by the author is doubtless frequently operative. Much labor has been expended in compiling these cases, and the subject is presented in an attractive form.

The Science and Art of Surgery: A Treatise on Surgical Injuries, Diseases, and Operations. By John Eric Erichsen, F.R.S., LL.D., F.R.C.S., Surgeon Extraordinary to Her Majesty the Queen, Ex-President Royal College of Surgeons, England. Eighth edition. Revised and edited by Marcus Beck, M.S., M.B. London, F.R.C.S. In two volumes. 8vo, pp. 2,329. Philadelphia: H. C. Lea's Son & Co. 1884.

This last American edition is a republication of the eighth English edition recently issued in London. It appears in two large octavo volumes with nine hundred and eighty-four engravings on wood.

After being before the profession for thirty years, and maintaining during that period a reputation as a leading work on surgery, there is not much to be said in the way of comment or criticism. That it still holds its own goes without the saying. Many alterations and additions have been made, necessitated by the changes in surgical practice founded on advances in surgical pathology. The department of ophthalmology has been omitted. This saves much bulk in the work, which in one of its kind is a desideratum. Besides, ophthalmology is now so much of a specialty that it cannot be fairly represented in any way save by a separate and elaborate treatise. But what the work has apparently lost in this regard it has gained in many others, enabling the distinguished author to incorporate a correspondingly greater amount of material bearing more particularly upon the general science and art of surgery. To Mr. Beck, the Editor, has been entrusted the revision of the parts of the work bearing on surgical pathology, and he has performed his task in an admirable manner, presenting all the advanced views and the results of the most recent researches.

The author, still manifesting his bent toward clinical surgery, infuses into its principle his large experience and ripe judgment. Wedded to no school, committed to no theory, biassed by no hobby, he imparts an honest personality in his observations, and his teachings are the rulings of an impartial judge rather than the prejudiced views of a pleading advocate. Such men are always safe guides, and their works stand the tests of time and experience. Such an author is Erichsen, and such a work is his "Surgery."

The National Dispensatory, containing the Natural History, Chemistry, Pharmacy, Actions, and Uses of Medicines, including those recognized in the Pharmacopœias of the United States, Great Britain, and Germany, with numerous references to the French Codex. By Alfred Stillé, M.D., LL.D., Professor Emeritus of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, and John Maisch, Phar.D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Third Edition, thoroughly revised, with numerous additions. With three hundred and eleven illustrations. Philadelphia: Henry C. Lea's Son & Co. 1884.

Five years ago the first edition of this work was published. The present edition, which is now before us, forms a rather bulky volume, and while pharmacists will find it a valuable work of reference, the general practitioner will scarcely find it a necessary addition to bookshelves already groaning under the weight of more strictly medical manuals. As a dispensatory "embodying the pharmacopœias of the four chief civilized nations," it is to be recommended for its accuracy, its systematic arrangement, and the detailed comprehensiveness with which the subject is dealt with.

Conférences Thérapeutiques et Cliniques sur les Maladies des Enfants. Par le Dr. Jules Simon. Tome II. 8vo, pp. 316. Aux Bureaux du *Progrès Médical*, Paris. 1884.

This is a very practical work, consisting of a series of lectures, mostly devoted to the therapeutics of children's diseases. We cannot say that the author presents us with much that is new, but his views are evidently based upon wide experience, and the reader cannot fail to be profited by a study of them.

A System of Human Anatomy. By Harrison Allen, M.D. Philadelphia: Henry C. Lea's Son & Co. 1883.

Part VI. and last takes up the consideration of the organs of sense, of digestion, of respiration, and the genito-urinary organs. The general plan is the same as that of the previous parts: first, a description of the part under examination, then reference to variations from its usual formation, and finally remarks on its medical and surgical relations. Not only the gross but also the minute anatomy receives proper attention. The eye is first taken up, with its appendages; then follow the ear, the nose, and the tongue; the skin is described among the excretory organs. The organs of digestion and of respiration, as well as the genito-urinary organs, are described in the usual sequence.

It is difficult to conceive, for practical purposes, of a work more complete and clear than the one before us. The style is concise and pointed, and the information is brought down to date. Each portion of the body receives minute and exhaustive examination in such manner as to make the book equally useful to the specialist

and to the general practitioner. While, of course, the nature of the subject-matter precludes anything like originality, the text displays the profound learning and wide reading of the author. To criticise each part as its importance deserves would occupy too much of our space, and it would be unjust to select any one portion as an indication of the whole. The text concludes with well-written chapters on superficial anatomy and on embryology and teratology. The work ends with a very complete index, table of contents, and list of engravings.

The type is large and clear, the paper good, and the engravings are distinct and elucidate the text. There is but one fault to be found with the latter, and that is that in binding they have been (whether intentionally or accidentally) misplaced, so that the engraving of the relations of the thoracic viscera occurs in the midst of text on the kidney, and while reading about the capsule of tenon we are confronted with plates of the tongue and of the nose. But these slight defects can easily be rectified or allowed for, and the work as a whole must be regarded as a valuable contribution to the present state of our knowledge, and the most complete of American works on anatomy.

A Manual of Dermatology. By A. R. Robinson, M.B., F.R.C.P. & S. Edin. Cloth, 647 pages. New York: Bermingham & Co. 1884.

Dermatological literature appears to be keeping well abreast of that of other special branches of medical science. We are glad to see American authors contributing their share to the fund of knowledge. Although several works on skin diseases have but recently appeared in this country, so long as the new ones bear the mark of original and careful work, they will always be welcome. The manual before us exemplifies this view. For although to a great extent compiled from other sources, as such a work must needs be, it nevertheless reflects enough of the personal experience of the author to make it a desirable addition to the physician's library.

The original drawings show that pathological histology, a branch of dermatology too often neglected in American works on cutaneous diseases, has here received considerable attention.

The classification of hebra which is usually adopted in this country is made use of with some unimportant modifications. The treatment is quite up to date. On the whole, notwithstanding some omissions and defects, the manual commends itself to both student and practitioner as an elementary treatise on the skin and its diseases.

Handbook of Diseases of the Eye and their Treatment. By Henry R. Swanzy, A.M., M.B., F.R.C.S.I. Pp. 427. London: H. K. Lewis. New York: Appleton & Co.

The author of this handbook is to be congratulated upon the successful way in which he has completed his task. While the book is chiefly intended for students attending an Opthalmic Hospital, it is substantially a book of reference on ophthalmology, and in the course of its pages the views of the best authorities of the day on the subject are clearly set forth. The book is more than a compendium. While the special views of the author are nowhere given an undue prominence, the theories advanced and the lines of treatment laid down are based on careful study, and embody the results of personal experience.

The first three chapters on elementary optics, abnormal refraction and accommodation, and the opthalmoscope, afford the student a clear understanding on these subjects. In the study of diseases of the eye there is nothing that offers to the average student more difficulty than the question of refraction. In many of the textbooks a practical understanding of the theory of refraction and accommodation is rendered difficult and obscure by the frequent presentation of mathematical formulæ. A simpler treatment of the subject has been followed in the book before us, and since Landolt's excellent text-book we know of nothing as likely to give to the student a clear comprehension of this subject.

In the chapter on diseases of the eyelids, the author in describing ophthalmia tarsi, fails to allude to the very frequent connection in these cases between the marginal lid affections and errors of refraction of the eye, and in his remarks on the treatment of the ulcerative form of blepharadenitis nothing is said of the value of the mitigated stick of nitrate of silver in healing the ulcerations.

So, too, in the treatment of telangiectic tumors of the eyelids, the value of the knife in dissecting out the tumor might have received mention. In the treatment of distichiasis and trichiasis the various methods of operation are clearly stated and well illustrated by drawings. The surgical treatment of entropium includes the operations of Streatfield, Snellen, and Berlin. The American student will miss the ingenious operation of Green, of St. Louis, which perhaps in another edition of this work will receive the attention it deserves. The author's views on the use of probes in the treatment of stricture of the nasal duct seem to us deserving of especial mention. He rightly condemns the use of the large conical probes of De Wecker. He draws attention to the enormous dilatation of the passage into the sac by the attempt to pass a probe three to four millimetres in diameter through a passage which in the physiological condition is of a less calibre than this.

The chapter on treatment of ulcer of the cornea is well written, and the value of paracentesis of the anterior chamber is given the prominence it deserves as a remedial measure.

Sympathetic ophthalmology is given a conspicuous place in this handbook and the subject is presented in the light of the most recent observations on this most important subject. The views of the author in reference to the subject of enucleation are worthy of careful study and the rules he has here laid down in regard to surgical interference are clearly stated, and his generalizations are wise.

The chapter on the orbital muscles is clearly written and well illustrated; the presentation of the subject of dynamical strabismus is what we might expect from the author's earlier excellent paper on this important subject. On page 402, in his description of tenotomy of the recti muscles, the value of the conjunctival suture in closing the wound with a view to the avoidance of the annoying granulations is not alluded to. Its use is not, we think, a matter of routine but of positive value.

In the space allotted to a book review it is not possible at greater length to discuss the chapters on cataract, glaucoma, and affections of the optic nerve and retina. What we have said before might be said in reference to these divisions of the subject. The author writes in the light of the most recent investigation. With complete familiarity with the literature of ophthalmology, he has embodied in this book only that which has been accepted by the leading authorities, and through the entire work is constant evidence of a careful, conscientious, and thoroughly competent observer. We predict for the book a foremost place among ophthalmological text-books.

Modern Medical Therapeutics: A Compendium of Recent Formulæ and Specific Therapeutical Directions from the Practice of Eminent Contemporary Physicians, etc. By George H. Napheys, A.M., M.D. Edited by Joseph F. Edwards, M.D., and D. G. Brinton, M.D. Eighth edition. 8vo, pp. 629. Philadelphia: D. G. Brinton. 1885.

The eighth edition of this popular work is much enlarged and improved, and the general standard of practical excellence is creditably maintained. It has been written for the purpose of teaching the practitioner how to cure disease, giving the practical indications and particular remedies to that end. From these points of view it has an extended usefulness.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Stated Meeting, January 22, 1885.

ALEXANDER S. HUNTER, M.D., CHAIRMAN.

THE old officers were re-elected for the ensuing year.

DR. L. EMMETT HOLT read a paper (see pp. 174 and 201) on

PNEUMONIA IN CHILDREN.

The discussion was opened by DR. J. E. WINTERS, who said that pneumonia, occurring in children, differed considerably from that met with in adults, unless the pneumonia of old people was excluded. In very many cases in children the onset was obscure, especially in those exhausted by previous disease, and in many cases it could not be diagnosticated by physical signs.

According to his observations, lobar pneumonia occurred in children more frequently in the months of December, January, and February than in any other in the year.

While lobar pneumonia occurred frequently, he should hardly be willing to say that it occurred by preference, in healthy children. He regarded exaggeration of puerile respiration as the important physical sign during the first twelve hours of acute lobar pneumonia, followed within twenty-four hours by bronchial breathing. He thought that the crepitant râle was scarcely ever heard in children. Pure bronchial breathing, he regarded as one of the most important physical signs of lobar pneumonia, and subcrepitant râles of broncho-pneumonia; subcrepitant râles especially at the margin of the area of consolidation. He had noticed that delayed resolution in broncho-pneumonia, as a rule, terminated in phthisis. Serous pleurisy, as a complication, occurred with both forms of pneumonia more frequently in children than in adults.

Dr. Winters regarded one-fiftieth of a grain of morphine every two or three hours, for children one year old, as too free use of the drug, and preferred opium and ipecac. He also spoke of belladonna, especially in broncho-pneumonia in children, as a useful remedy, both as a cardiac and respiratory stimulant. Instead of continuous poultices he preferred repeated applications of poultices containing a small quantity of mustard.

DR. A. JACOBI had scarcely any fault to find with Dr. Holt's paper, and only few facts to add. He would direct general attention to the fact that, in the lungs of children a certain amount of bronchial respiration could be heard normally, which might be mistaken for the bronchial breathing of pneumonia. There was also a certain amount of normal dulness over the lower lobe of the right lung, which it was well also to keep in mind.

With regard to convulsions, so far as he knew, they were more apt to occur in the beginning of pneumonia when the disease was located in the upper lobes, than when present in the lower lobes, other things being equal. As to the occurrence of lobar pneumonia, he believed it was true that, in the first months of life, it occurred in a much greater percentage of cases than it did in later months. Many severe cases of pneumonia, especially those which begin with convulsions, were mistaken for meningitis.

An important physical sign in diagnosis was the disturbed proportion between the heart-beats and the respirations. Normally the proportion was 37 or 38 to 10, and when this proportion was disturbed to much extent in a child, perhaps 37 or 38 to 15 or 20, it was almost positive evidence that there was inflammatory disease of the respiratory organs. There were many cases of lobar and of broncho-pneumonia which were complicated by interstitial pneumonia, or so called peri-bronchitis. These cases usually ran a protracted course, and sometimes without cough.

Was recovery so complete as Dr. Holt believed? There was one peculiar fact which seemed to prove that it was not, and it was that relapses were very frequent. With reference to treatment, Dr. Jacobi thought that there was no greater danger than the indiscriminate use of opium in pneumonia. Pain and dyspnœa were diminished, it was true, but the drug was also liable to paralyze, totally or partially, the respiratory muscles, and thus to prevent expectoration. If he was to give any rule, it would be, first, that no medical student or young practitioner should touch opium in the treatment of pneumonia. Not that he discarded opium entirely, because he frequently gave it, but only in occasional doses and simply to procure a short amount of sleep; as a rule, he did not use it in this disease. He regarded the occasional use of the iodide of potassium as very beneficial, especially in interstitial pneumonia, or either of the other forms complicated by the interstitial variety. In the second and third stages of such pneumonias, he used a good deal of the iodide of potassium, and he administered it on the general principles which would lead to its use in the treatment of any kind of disease.

DR. JOHN H. RIPLEY complimented the author on the excellence of his paper, based on personal experience and observations, and also agreed with Dr. Jacobi in the view that lobar predominated over broncho-pneumonia in very young infants. As to diagnosis, he thought the author of the paper had laid too little stress on the absolute necessity of reaching it by means of physical examination.

The statement made by Dr. Jacobi concerning the disturbed proportion between the pulse and respirations he accepted, but he had seen the proportion equally disturbed in malarial fever, and therefore this was a source of error which might be overlooked.

Dr. Ripley thought that greater stress should be laid upon cerebral symptoms in pneumonia in children, than had been done by either Dr. Holt or Dr. Jacobi, not only when the pneumonia occurs at the apex, but at the apex anteriorly. Eustace Smith had endeavored to belittle, in the last edition of his book, that observation, but, according to Dr. Ripley's experience, it was almost uniformly so. With pneumonia at the apex in front, there were cerebral symptoms such as might readily lead to the diagnosis of meningitis.

He also believed that there was a difference between capillary bronchitis and broncho-pneumonia, and that broncho-pneumonia was not a part of capillary bronchitis. He did not think that the subcrepitant râle was a physical sign of pneumonia, but a sign of bronchitis in the smaller tubes. If there was nothing except that upon which to base the diagnosis of pneumonia, it was not present. Crepitant râles were very common in children, even more common than in adults. Dr. Ripley had not found an excess of normal respiratory murmur in the beginning of pneumonia, but rather feeble and high-pitched respiration. Hence it was that beginners located pneumonia upon the wrong side, as a rule; they got it where there was the most noise.

He believed in the use of large hot poultices, covering the whole of the chest. They should be applied hot, not too soft, and changed every six hours.

With regard to internal treatment, he believed that as much could be done in cases of pneumonia as in almost any disease. He believed in the judicious use of opium, and thought that one-fiftieth of a grain of morphine was not too much; but he would combine it with a diaphoretic or an arterial sedative, as the liquor ammonii acetatis, aconite, veratrum viride, etc., and for opium he would use paregoric. If there was any drug which was useless, and worse than useless, unless the pneumonia was complicated by malarial poisoning, it was quinine, especially in heroic doses.

DR. J. C. PETERS was pleased to know that the treat-

ment of pneumonia had got back to near what it was forty years ago. He thought the time had come when stimulants and quinine were to be regarded as among the things of the past in the treatment of this affection, and hoped to see the time when general blood-letting would again be resorted to occasionally. He believed in the aconite treatment partially. The opium and ipecac treatment, he thought, was due to himself. He had preferred to iodide of potassium the simple liquor potass, or acetate of potash, and occasionally minute doses of mercury. He preferred pulsatilla to either belladonna or ipecac, especially in cases of slow resolution. He employed the oil-silk jacket, and was prejudiced against poultices.

Dr. W. P. Northrup had found ipecac especially useful in the treatment of both forms of pneumonia; codeia, also, was a useful remedy. He thought that when Dr. Ripley spoke of capillary bronchitis, only one-half of the name of the disease was given, for the smaller bronchi were infiltrated with inflammatory products, the epithelia of the air-vesicles were swollen, and the pleura had a dull, lustreless appearance, known as the sand-paper pleura, even in cases which had all the clinical features of so-called capillary bronchitis. He was almost ready to say that there is no such disease as capillary bronchitis.

In four hundred autopsies on the bodies of children who died of pneumonia, Dr. Northrup had not seen anything which presented the appearance of lobar pneumonia of adults. In the lungs of infants the capillaries play an important rôle. When these lungs were examined microscopically it was readily seen that the bronchi were large, and the alveoli small; that the interalveolar tissue was much greater in extent than in the adult lung, and the nearer the lung approached the embryonic state the more numerous were the leucocytes, which explained the predominance of pus-cells in the exudate. He had no hesitancy, therefore, in saying that there was a difference between the lobar pneumonia of children and that of adults. The blood-vessels of the alveoli were large and tortuous, presenting, in the normal condition, an appearance very much like that seen in the lungs of heart disease, and, therefore, he believed that many of the physical signs of pneumonia might be given by excessive congestion of these capillaries. The collapse of lung-tissue in children, as described by Jürgensen, Dr. Northrup believed was pneumonia, and the description given by that writer was misleading.

Dr. Billington said that his experience agreed with that of the author of the paper concerning the prognosis in lobar pneumonia of young children; and with regard to lobular pneumonia, it had been more favorable than appeared from the reports made by Dr. Holt and the other speakers. He believed that the judicious use of opium was beneficial. A favorite combination with him was one made of muriate of ammonia, ipecac, and paregoric. He also thought there was a class of cases in which quinine was an important remedy, especially those associated with sewer-gas poisoning.

Dr. Holt, in closing the discussion, said that, while he did not believe he had ever done any harm by the use of morphine as mentioned, he had substituted for it the tincture of opium with ipecac, as mentioned in his paper. In speaking of the physical signs of lobar pneumonia, he mentioned especially a circumscribed area of consolidation as a marked feature.

The Chairman announced that the paper for the next meeting would be read by Dr. H. E. Crampton, on "Inversion of the Uterus."

The Section then adjourned.

Glacial Acetic Acid dissolves almost all protein bodies, especially albumen and fibrin, but not casein. It, of course, destroys warts and corns.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 28, 1885.

John A. Wyeth, M.D., President, in the Chair.

Dr. T. Mitchell Prudden, from the Committee on Microscopy, reported that the specimen presented in behalf of a candidate by Dr. Carpenter at the last meeting of the Society was one of *colloid carcinoma*, thus confirming the diagnosis of malignant disease of the cæcum.

Dr. E. G. Janeway presented, in behalf of a candidate, a specimen of *chronic endocarditis with cerebral hemorrhage.*

Dr. W. M. Carpenter presented, in behalf of candidates, three specimens: (1) *Carcinomatous tumor*, removed from the anterior wall of the abdomen near the umbilicus, with peritoneal and omental attachments; (2) *intestinal ulcers* (typhoid); and (3) *fibro-myoma of the uterus*, which had undergone calcification.

Dr. T. Mitchell Prudden presented a specimen with the following history and pathological report:

MYXO-SARCOMA OF THE THUMB, FOLLOWING THE STING OF A WASP.

"I am indebted for the specimen and clinical history to Dr. Francis Bacon, of New Haven. The man from whom the specimen was taken was about sixty-three years old, well nourished and in sound general health. He said he was stung by a wasp—he thought by two wasps—in his thumb in August last. There was at the time, he thought, about the usual pain and swelling accompanying such a wound.

"The pain ceased, very much as it usually does in such cases; the swelling, however, never subsided, but steadily, at first slowly, latterly rapidly, increased without the slightest pain, until its removal in December.

"The tumor is altogether about as large as a butternut, is lobulated, and extends from the root of the nail back over the two last phalanges. It nearly completely surrounds but apparently does not involve the bones. In consistency it is soft, and before the removal of the skin it seemed almost fluctuating. The tissue of the tumor is gelatinous in appearance and of a dark color.

"In structure it is a spindle- and round-celled sarcoma, with a soft and abundant myxomatous basement substance.

"There are comparatively few blood-vessels in the tumor. Its dark color is due to a moderate amount of pigment contained in the cells.

"Structurally the tumor is of no unusual interest, but I present it on account of the rather striking nature of its immediate inciting cause. It belongs to that class of tumors which, although frequently enough met with, after all do not form such a very large percentage of all tumors—the class in which the commencement of the new growth is directly and evidently associated with some local injury.

"I do not suppose that the particular injury in this case is of any special significance, beyond the fact that it caused an inflammatory condition favorable to the production of new tissue of this kind.

"The association of the commencement of such a tumor with a definite injury, does not, I think, really throw much light upon their etiology."

Dr. E. C. Seguin presented a specimen of

SALIVARY CALCULUS,

which was discharged spontaneously from Steno's duct. The man from whom it came was a patient under general treatment for specific hemiplegia, and, without apparent cause, his right cheek began to swell in front of the parotid gland. When Dr. Seguin saw him in the evening, there was an indurated swelling opposite the molar teeth, and within the mouth he found the nipple-like projection of the mouth of the duct, from which he forced a number of drops of muco-purulent fluid. He directed the patient to bathe his mouth with hot water,

and, on awaking in the morning, he felt something hard, upon the inner surface of the cheek, which was the specimen presented.

Dr. Seguin had met with a similar calculus in Wharton's duct, in a lady of gouty habit. In that case he was able to make a diagnosis with the probe, but the calculus was thrown out spontaneously.

Dr. Beverley Robinson presented a specimen of

ACUTE LOBAR PNEUMONIA—CHRONIC DIFFUSE NEPHRITIS,

with the following history, furnished by Dr. King, House Physician at St. Luke's Hospital. Thomas H. W——, aged forty-four years, English, coachman, was admitted November 26, 1884.

No family history of phthisis. Patient has never had any previous lung trouble. Had acute rheumatism ten years ago. Denies indulgence in alcoholics.

Three days ago, after exposure to wet, he had a severe chill, followed by a fever and by severe pain in the right side of the chest; has, since then been confined to bed. There has been marked dyspnœa; the expectoration has been tenacious, and, at times, has contained blood; there has been some sweating. On admission, the patient was well nourished and not anæmic; tongue thickly coated; appetite poor; bowels constipated; pulse, 126; respiration, 40; temperature, 101.8° F. Urine: specific gravity, 1.013, slightly alkaline, albumen one per cent.; no sugar; microscopical examination—strings of mucus, some pus-cells and phosphates.

November 27th.—Tongue quite dry; pulse, 146, full, but soft and compressible.

Heart.—Inside and below the left nipple the heart-sounds were regular; no murmur with the second sound; slight murmur with the first sound, heard between the nipple and the sternum. At the base the heart-sounds were almost concealed by the respiratory murmur, but there are probably no murmurs.

Lungs.—Posteriorly, on right side, bronchial respiration as high as the spine of the scapula, and down to the lower third; no bronchial breathing at the right base. Over the upper limit of the bronchial breathing there were some crepitant râles on inspiration; breathing imperfect. At the right base there was some resonance, but absolute flatness on percussion above the right base (patient in left lateral decubitus); some egophony over the middle portion of the right lung, none heard in the axilla. Puerile or exaggerated respiratory murmur all over the left chest.

Temperature.—A.M.: 102.8° F.; pulse, 130. P.M.: 103.4° F.; pulse, 145; respiration, 33.

November 28th.—Died at 10.30 A.M., apparently from cardiac failure. Had a general convulsion just before death.

Post-mortem.—Body well nourished; rigor mortis well marked; no œdema. *Peritoneum* normal.

Diaphragm normally located on either side.

Thorax.—On the left side no fluid and no adhesions in the pleural cavity. Old adhesions everywhere, binding the right lung to the chest-wall, excepting posteriorly and near the left base, where there is about a pint of purulent serum.

Heart hypertrophied; visceral pericardium thickened in places; valves normal. Muscular tissue is darker than normal.

Lungs.—The left is congested and œdematous; the right is hepatized throughout, in places, the organ presenting the gray variety, in other places the red variety.

Spleen large and soft.

Kidneys.—The left smaller than normal; capsule everywhere adherent; the lower end of the kidney is occupied by a large mass of cheesy material; cortex thin; surface granular; pelvis dilated. Right larger than the left; upper end the seat of a large infarction, which, in the interior, has undergone cheesy degeneration. There are other cheesy foci in the kidney near this infarction; capsule adherent in places; cortex swollen; markings not distinct.

Stomach normal. *Liver*, common bile-duct pervious; contains excess of fat; there is a small cavernous angioma on its surface.

Bladder normal. *Urethra* admits large sound.

Pneumonia was diagnosticated; pleurisy was suspected, but could not be distinctly made out. The condition of the urine had not then been reported, and even had it been, its specific gravity only would have raised the suspicion that it was a case of granular kidney. Orders had been made for venesection provided that the heart's action—then very rapid—became irregular in force or frequency, but this had not occurred when an observation was made an hour before death. It was believed that a venesection might have done good, notwithstanding the patient died in a condition which was probably uræmic.

The interesting features in the case were:

First, the absence of all evidence, from examination of the urine, except the specific gravity, pointing toward chronic disease of the kidney. Dr. Robinson regarded this as not an infrequent occurrence, and he had already directed attention to the fact that a *persistent low specific gravity* of the urine was of great diagnostic importance, while the ordinary chemical and microscopical examinations of the urine—independent of the clinical history—would not permit the observer to say that kidney disease existed.

Second, the differential diagnosis between pneumonia and pleurisy, and also the absolute diagnosis of pleurisy. For a great many cases, the rule laid down in the text-books concerning flatness or percussion over the lower portion of the chest with diminution or complete loss of thoracic vibrations, was, according to Dr. Robinson's observations, inapplicable in the diagnosis of pleurisy.

Dr. Janeway said that some ten years ago he directed attention to the fact that vocal fremitus was not necessarily absent with pleuritic affections, and that pleuritic adhesions associated with consolidation of the lung on the right side seem especially favorable for the preservation of vocal fremitus. Some had held that there was some point in cases with adhesions, where vocal fremitus was retained, but that was not true of all cases. Moreover, he had seen cases in which, while the fluid was forming, vocal fremitus was retained. He had in some cases found vocal fremitus with purulent as well as serous effusion.

With regard to kidney lesions, it was sometimes very troublesome to make a satisfactory diagnosis. In some cases it was exceedingly difficult to find casts in the urine; besides, some patients will carry the small kidneys for several years, as many as nine, ten, and fifteen, as had already been done by patients still under his observation. The cases which gave most trouble in diagnosis were those of small kidney with urine of good specific gravity and not increased in quantity.

Dr. J. C. Peters referred to Skoda's writings as the most complete, with regard to pleuritic and pulmonary sounds and covering more disputed points, which he had ever read.

Dr. Seguin thought it would be well if microscopical examinations of urine, both in hospital and private practice, were conducted by experts. In hospitals such examinations were usually made by the members of the staff least qualified for such work, and besides, there was frequently insufficient time allowed to conduct them thoroughly.

Dr. Janeway referred to a case in which albumen appeared in the urine every time the patient took a sponge-bath, made any special mental effort, even the reading of a book, etc., and yet there had not been at any time casts, and the specific gravity had been good.

Dr. Waldstein referred to a family which, for three generations, had given albumen in the urine, but had been otherwise apparently perfectly well.

THE PRESIDENT presented a patient with

MALFORMATION OF THE FOREARM,

consisting of fusion of the radius and ulna. There was flexion and extension, but supination and pronation were absent.

The Society then went into executive session.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

CONCLUSION OF THE DEBATE ON PHTHISIS—DEGREES FOR MEDICAL MEN—THE UNIVERSITIES OF LONDON, OXFORD, AND CAMBRIDGE—THE NEW PROGRAMME OF THE UNIVERSITY OF VERMONT—MEDICAL OFFICERS OF HEALTH AND PRIVATE PRACTICE—CATHETERISM OF THE ŒSOPHAGUS—A NEW INSTRUMENT BY MR. SYMONDS—KRISHABER'S PLAN—SIR J. LISTER—DEATH OF DR. NOBLE.

LONDON, January 24, 1885.

THE discussion at the Medical and Chirurgical Society on the Pathology of Phthisis was concluded on Wednesday last, 21st inst.

The debate has been marked throughout by an unusual amount of unanimity of opinion compared with that expressed at most medical discussions. If, indeed, we are to take the opinions recently expressed as an index to the views held and taught now in our schools of medicine we may be said to be pretty generally agreed on the following points, viz., that phthisis is in all cases one and the same disease; that it is a specific disease marked in the great majority of cases by the presence of bacilli, and that in determining the nature of "tubercular" lesions their inoculability is a more reliable test than their histological characters.

At the resumption of the debate on Wednesday last, Dr. Sidney Coupland referred to the great contrast between present views and those expressed at the Pathological Society's debate twelve years ago. The term tubercle, then discountenanced, now appeared quite appropriate. Experimental inoculations used to be thought fallacious; now we thought histology insufficient to establish the nature of a tubercle. Applying this new test of bacillus to discriminate tubercular from other lesions, the field of tubercular disease is much widened. Koch found tubercle bacilli in cases of ulcers of the tongue, strumous pyelitis, chronic disease of the bladder and rectum, suprarenal disease, tubercular disease of the uterus, strumous disease of testis, in caseous tumors of brain, in caseating lymphatic glands, in granulation of chronic joint and bone diseases, and in lupus of the skin. These observations of Koch accorded with the accepted views of tuberculosis as a general infective disease which may attack the body at any point, and which is liable from thence to become further disseminated through the system.

Dr. Theodore Acland and Mr. Macnamara both referred to their failure to find bacilli in those tissues which had not been exposed to the atmosphere. Mr. Macnamara said that in five or six cases of tubercular disease in bone, thoroughly examined by him, he had never been able to discover the bacillus in the early stage of the disease, although he had often found bacilli when a sinus communicating with the open air led down to the diseased bone.

It is impossible to summarize the entire debate in the brief space at my disposal, for several speakers took part in the discussion besides those I have mentioned. I have, however, endeavored to epitomize some of the more important speeches. The debate concluded with a speech from Dr. Percy Kidd, who reviewed at some length the views brought forward by the various speakers. He said, in conclusion, that he did not think the bacillus afforded a complete solution of the tubercular process, though he believed it was essential.

I have several times referred to the obstacles encountered by London students in obtaining a "degree" in medicine. Considerable pressure is now being brought to bear upon the University to induce them to modify the more objectionable of their regulations. There appears to be some prospect of half-yearly instead of annual examinations, and it is rumored that the "logic and psychology," which has long formed such a stumbling-block to the M.D. examination, is to be finally thrown overboard. The failures in this subject at the recent examination have been extraordinarily numerous, and have brought the subject into odium in medical circles. I have heard of a candidate who was well up in medicine failing in logic three times in succession, and ultimately failing to get his M.D. at all, solely for that reason. The prospect of a new and more active University being founded will doubtless stimulate the Senate to institute some changes, though the unrepresentative character of that body and the large influence wielded by the permanent officials doubtless impede reform.

The opinion is growing daily that it is very desirable indeed that students of medicine should be enabled to obtain a *degree* on reasonable terms; that the possession of a degree should be the rule and not the exception for a medical man. Our metropolitan teachers feel very strongly on this point. We are, in fact, coming round to the American notion of one qualification for all, and that one to be M.D.

Under these circumstances it is satisfactory to find that the University of Oxford, which has been reproached for years as the "lost medical school," is awaking to its responsibilities. Dr. Sanderson was appointed Professor of Physiology a short time since, and at last a lecturer on human anatomy is about to be appointed. At Cambridge medical teaching is active, and the sum of thirty thousand pounds is about to be expended on new chemical laboratories.

The readers of the medical journals here have been somewhat startled to observe in *The Medical Times and Gazette* an advertisement from the University of Vermont, offering to confer the degree of M.D. (after examination, but without residence) on registered British medical practitioners. Without expressing any opinion as to the wisdom of this proceeding, I may just point out that by proper management it may be made a great success, and to the University of Vermont a financial success, if a good fee be charged. I observe they only ask six pounds at present. If the examination be a good one there is no reason why the degree should not get a good repute here.

LONDON, January 30, 1885.

The question of whether medical officers of health should be allowed to practise, is one which is exciting considerable attention. Those who would debar him from practice say, that he can the better perform the duties of his official appointment if he be not distracted by the cares of private practice. Other practitioners are also chary of reporting cases of infectious diseases to a health officer, who is also a rival in practice even in those towns where notification has been made compulsory. In obscure cases, when in doubt, the temptation is natural not to notify, not only because the medical officer of health may come in and contemptuously dispute their diagnosis, but because he may possibly get the patient for himself. On the other hand, such appointments, although they help to make a medical man known in the district where he lives, are not very direct recommendations to practice. Many families object to have a doctor who is popularly supposed to be always "smelling bad drains" and "seeing fever patients." The objection to forbidding the health officer to practise is chiefly the pecuniary difficulty. Few sanitary districts can afford to pay a salary adequate to secure the entire services of a suitable man. There are scores of rural districts where

the salary is only twenty pounds a year or less ; hundreds where it is under a hundred. This is gradually being altered by the creation of combined rural districts with one medical officer of health in charge, assisted by a competent staff of sanitary inspectors. But as yet only a beginning has been made in this direction.

At the last meeting of the Clinical Society Mr. C. J. Symonds exhibited a new form of œsophageal catheter, designed to be worn permanently in cases of stricture. It is of gum-elastic, about six inches in length, and resembles in construction an ordinary œsophageal catheter, except that at the upper end it expands into a funnel having an outside diameter of from one-half to three-fourths of an inch. The catheter is passed down to the stricture and the tube part is carried through it. The funnel rests on the upper border of the stricture and prevents the catheter from passing farther. A piece of silk, fastened to it, brought out at the mouth, and attached to one ear, serves to remove the catheter when required. Mr. Symonds showed a patient suffering from malignant stricture, who had worn one for six months. It was changed once a week at first, and afterward once in two or three weeks. He could swallow fluids freely and had gained in weight.

I believe the plan of retaining an œsophageal catheter permanently was first brought before the profession by the late M. Krishaber at the International Medical Congress, held here in 1881. His paper was read for him in English before the Surgical Section by Dr. Prosser James, the author having been unexpectedly compelled to return to Paris. The genial presence and linguistic powers of so distinguished a specialist as M. Krishaber will long be remembered by those who had the pleasure of meeting him in the section devoted to Throat Diseases. M. Krishaber showed that the best way was to pass a fine catheter by the nares, and although for a day or two it might produce some degree of rhinitis, tolerance was soon established and alimentation thereby assured. In one of his cases the tube was left in without changing for three hundred and five days, to the great comfort of the patient, who, however, ultimately died, his stricture being cancerous. Whether Mr. Symonds' method can compare with M. Krishaber's remains for future observation to decide.

Lister has received from the Emperor of Germany the *Ordre pour le Mérite.*

Dr. Daniel Noble, A.M., M.D., author of "The Human Mind" and other psychological works, died lately at the age of seventy-five.

THE TREATMENT OF DISEASES OF THE STOMACH BY THE LEUBE SYSTEM AT KISSINGEN.

To the Editor of The Medical Record.

Sir: During a recent trip to Europe, the writer had occasion to revisit Kissingen, after an absence of eight years. The place has not gained much in all that time, but neither has it lost any of its old-time attractiveness. In point of fact it continues to be one of the most popular spas in all Europe, the country par excellence of a multitude of popular spas. Among the vast throng of foreigners that annually flock to drink a certain number of goblets of delicious water in Kissingen, Americans occupy a prominent numerical position. And there can be no doubt that the pleasant little town affords unsurpassed opportunities for renewing any casual acquaintance one may have had with kings and queens and crowned heads generally. If you take a good orchestra seat at the theatre, for example, the chances are nine to one in your favor that you will sit next a queen or a duchess, either a reigning one, or one in exile, or one of the variety called ex. And should it be your misfortune to step on a person's toe without immediately begging his highness' pardon, you are very apt to get into trouble.

But the object of this letter is not to point out the great social advantages of a visit to Kissingen. The writer wishes to call attention to a new institute which has sprung up there within the past two years. It might not improperly be termed a gastric sanitarium, having for its sole object the rational treatment of the various forms of dyspepsia.

The founder and proprietor of this institute is Dr. Edgar v. Sohlern, and he explains in a pamphlet just issued [1] exactly what he has already done and what may still further be accomplished by strict regimen and diet, in conjunction with the judicious drinking of the Kissingen waters.

It is well known, according to Dr. v. Sohlern, that the number of persons suffering from gastric affections who seek relief from their ills by drinking the waters of Kissingen is very large. Yet they have not always derived the benefit that they might, owing to the lack of a proper supervision of their diet. In the treatment of gastric troubles a strict regulation of the diet is even more important than is the administration of medicinal agents, for if the weakened stomach be taxed beyond its powers by the reception of a mass of unsuitable food, its condition is simply aggravated, and any attempt to improve matters by drugs is but adding straws to the camel's back. Food which is easily digested by a healthy stomach may prove almost ruinous to one which is functionally or organically diseased, and hence the necessity for an intelligent supervision of the food prepared for dyspeptics, and for the regulation of their diet according to some definite system. It is evident, however, that no regimen can be successfully established and maintained unless the patients submitted to it be constantly under the eye of the physician. Patients with gastric troubles should no more be allowed to judge of their own condition and regulate their diet accordingly than should they or any other patients be allowed to choose their own medicines, or to decide upon the dose best suited to their condition.

This want of a proper institution for the rational treatment of gastric disorders has now been supplied by the author, who has opened a sanitarium into which patients are received and systematically treated, according to the method devised by Leube. By a series of experiments upon healthy people and those suffering from various gastric disorders, Dr. v. Sohlern determined the exact degree of digestibility of each of the ordinary articles of diet, and taking the results thus obtained, prepared bills of fare adapted to the actual and varying digestive capacities of different classes of patients.

The first diet list contains chiefly fluid materials, and is suited for the weakest stomachs. On account of the repugnance which many patients feel for liquid foods, a little variety is introduced by allowing cakes and *zwieback* prepared without sugar. For drink during this period simple water or water from the Maxbrunnen or other similar springs not too heavily charged with carbonic acid gas may be taken. After usually about ten days of this diet the patients are in condition to enter upon the enjoyment of the second bill of fare. Several kinds of solid food are included in this list, all of which are, however, boiled and not roasted or fried. In addition to simple soups, soft boiled or raw eggs, boiled brain, and boiled poultry without the skin are allowed. When the patient is able to use this diet without discomfort, he is advanced to the next grade. He is now permitted to eat raw ham and beefsteak, prepared according to Leube's method, also mashed potatoes, and small quantities of tea or coffee may be taken. At this time much benefit is derived from the use of the waters from some of the stronger springs. These hasten the digestive process and improve the appetite. Finally, in the last class, in which the diet approaches nearly to that of individuals in ordinary health, in addition to roast beef and some sorts of game, certain kinds of fish, white bread, vegetables

[1] Die Behandlung der Wagenkrankheiten nach Leube schem system. Von Dr. med. Edgar Frhr. von Sohlern. Kissingen, 1884.

and stewed fruits are allowed. For drink the patient may take a strong dry wine. This last bill of fare must be strictly adhered to for a considerable time, and any excess will be found to bring down a speedy punishment upon the offender. Not every dyspeptic is forced to advance through these four successive grades, the patient beginning in that class which is suited to his condition. The digestive capacity of the individual sufferer is determined by examination with the stomach-tube, and as soon as this is accurately ascertained he is put upon the appropriate diet, and is then advanced by degrees, in proportion as his stomach becomes stronger, until he is finally able to take ordinary food in normal quantities.

Frequent use is made of the stomach-tube, both as a diagnostic and as a therapeutic measure. Medicines are given but sparingly, and the waters are taken at proper times and in suitable quantity according to actual indications.

Leube's plan of treatment, as followed in Kissingen by Dr. v. Sohlern, he has found of great value in simple or nervous dyspepsia, acute and chronic gastric catarrh, and even ulcer of the stomach. It is also very serviceable in doubtful cases as a means of diagnosis between ulcer and carcinoma. For in the former case improvement quickly follows upon the establishment of a suitable regimen, while in cancer the progress of the disease is steadily from bad to worse, despite the most careful and systematic dietary treatment. There can be no doubt that a sanitarium, such as that of Dr. v. Sohlern, managed on physiological principles, assisted by rational empiricism, will supply a real want. Kissingen will be none the less popular for having an institute where more is thought of strict dietary supervision than any mysterious potency that may reside in a palatable water.

Yours, respectfully,
EDMUND C. WENDT, M.D.

THE KENSINGTON, 102 EAST FIFTY-SEVENTH STREET,
February 10, 1885.

AN EXPERIENCE WITH BOVINE VIRUS IN THE VACCINATION OF CHILDREN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Your issue of January 3d contains an editorial on "The Injuries caused by Vaccination," in which the following expression is used, "Vaccination protects, and vaccination, if carefully performed, is safe."

I do not refer to it for the purpose of dissenting, for all physicians admit it in full force. Nor do I wish to extenuate in the least the objections or opposition of those pseudo-benefactors of the human race, who seek to depreciate the value of this, the most important sanitary measure known to medicine. It is rather to illustrate by the case cited below the difficulty of complying in all instances with the saving condition, "*if carefully performed*," in the above quotation that attention is directed to it.

On December 7th I received five points of fresh bovine lymph from the New England Vaccine Company. On the 8th my assistant vaccinated two infants (one five, the other eight months old), both apparently healthy and well. Both "took," so to speak, the first running through with the normal evolution of the vaccine vesicle; the other I was requested to visit on the thirteenth day (21st), and found a slough involving the entire thickness of the skin and cellular tissue beneath, about the size of a quarter-dollar, with abundant suppuration. The child had fever, with great restlessness, and the general appearance of one under septic influences. I felt apprehensive for its safety, but under antiseptic dressings and constitutional treatment it recovered.

Both children were vaccinated with virus from the same source, by the same person, and with similar instruments (ivory points charged with the lymph), and were alike healthy in appearance. Why the difference in the result? If the vaccine was at fault, like results should have been produced in both cases; if, however, the subjects differed in constitutional condition, the status of one contra-indicating vaccination, how could this be determined so as to comply with the terms of your precept, "if carefully performed?"

It would be a mere assumption to hold that a subtile constitutional condition perverted the vaccine and brought about septic results. This is insusceptible of proof, and if the healthy condition of a subject is made a precedent to safe and protective vaccination, judging from the case reported, it would be impossible to say in any given case that it could be done with safety. Whether the vaccine was at fault or not, vaccination furnished the occasion for the development of a septic state, although very carefully performed. Spurious vaccination (as this proved) affords no protection; hence, it must be done over, and with no greater security against a hurtful effect than at first.

I will add that when I used humanized virus exclusively I never saw such results, but since the introduction of bovine virus they have not been rare. I therefore distrust it, that obtained from the most approved propagators being alike amenable to the observation. Moreover, when humanized virus was alone within the reach of the profession here, control over, and protection against small-pox were as prompt and certain as at present, with fewer disasters entailed by vaccination itself. In the effort to escape transmissible disease from the human subject, it is feared that the risk of ordinary septic infection from virus vitiated by decomposing blood or lymph has been incurred, to the detriment of the claims of vaccination. There may be something too commercial in the management and direction of vaccine farms to keep the lymph furnished always within the limits of a *pure* vaccine. At any rate, with my present experience, I cannot believe that vaccine thus furnished to order, however convenient and popular it may be, is safer and more protective than that derived from selected subjects for humanized virus, as was formerly the case. The latter is open to abuse likewise; but the physician is directly responsible for what he gets as well as what he uses.

WILLIAM H. DOUGHTY, M.D.

AUGUSTA, GA., January 18, 1885.

A CASE ILLUSTRATING THE TREATMENT FOR OPIUM-POISONING.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The following case, although it may not be instructive in a professional way, may be entertaining. "It is a true story." Among the students residing with Dr. H——, of Dublin, was a young man, who had received a very severe wound to his tender emotions in an *affaire du cœur*. One morning he was absent from the breakfast-table, and, as he had shown symptoms of "indisposition" for several days, a student was sent to his room to inquire into the matter. It was found that the young man had been taking laudanum, for a small bottle labelled tr. opii. and nearly emptied, was on the table by his bed, and deep sleep seemed to have overcome the victim of woman's treachery. Hastening down to Dr. H——, the student informed him of the dangeous condition of his medical brother upstairs. The doctor did not seem inclined to hasten, however, but, to the amazement of his scholars, went to a little closet and brought out a stout rawhide. Ordering a cup of coffee and some emetics, he proceeded to the chamber of the supposed suicide. The rawhide was concealed. A good emetic was administered, and afterward some strong coffee. "Gentlemen," said Dr. H——, "we have here a very interesting case of attempted poisoning with laudanum. The emetic, which I have administered, has happily proved successful, and the patient has received a cup of strong black coffee. He still remains in a drowsy, sleepy condition, and this, gentlemen, as you are well aware, is of

the greatest danger. Out of this sleepy state he *must* be brought, and he must be kept clear from it. I will remove the bedclothes." So saying the doctor pulled down the bedclothing, exposing the strong limbs of the youthful Æsculapius. *Whack* went the rawhide well across them at the same moment, skilfully applied by the patient's preceptor. Again the whip descended, and the poor student, smarting with pain, sprang from the bed and tried to escape. The strong arm of the doctor secured him, and the rawhide continued its cruel work. "Stop, in mercy, stop!" cried the miserable youth. "Gentlemen," said Dr. H——, "in cases of this kind it is your duty to keep the patient awake, and to endeavor to save his life. If you are hindered in your efforts by any false ideas of pity, of over-sympathy, you wrong your patient, and must be responsible for the consequences." Down came the cruel hide again, and, smarting with pain, the poor victim howled for mercy. "Gentlemen," exclaimed the doctor, "let this be a good lesson; never give up a case of opium-poisoning. As long as the patient is awake there is hope, and you must keep him awake." Again the hide descended and again, until at last the poor fellow protested that he had only swallowed a drop or two to make him sleepy, and that it was all pretence. "Gentlemen, never be influenced by the cunning of would-be suicides, who strive in every way to deceive, in order to make their dreadful attempts successful." Down came the hide again, and the poor sufferer began to think the misery would never cease. With a farewell cut the doctor let him creep into bed again. "Gentlemen, I think we can now leave our patient with safety to himself," and, turning to the sobbing student, he said: "If you ever really wish to terminate your life, which God forbid, go to some lonely place and do it, and keep your fellow-mortals free from the agonizing suspense."

William Thornton Parker, M.D.

Atlantic City, N. J., January 28, 1885.

A FULL REPORT OF THE GREAT NATIONAL CONGRESS OF SCIENTIFIC ANIMALS.

It happened that the beasts of the forest of Ouden, who were learned and skilful in relieving their fellow-creatures' pains, determined to have a General Congress for mutual talk.

They met at the time named and the Lion presided with great ease and dignity.

In making his opening speech the learned President said that theirs was a most noble profession.

He recounted the great progress which it had made, but believed that sanitary science was the thing in which the most glorious triumphs would be gotten. He touched upon the wonderful achievements of anæsthesia and vaccination, also upon Harvey and the circulation of the blood. He referred to Hippocrates, Galen, the immortality of the soul and the value of animal congresses, ending with a loud roar which was well received.

The Cinnamon Bear moved a vote of thanks for this unusually eloquent and profoundly original address.

Thereupon, business beginning, the Goose arose and moved that the Fox be expelled from the Assembly, as he had been seen consulting with the Duck, who was known to be no better than a Quack. This motion was immediately carried. The meeting then divided up into sections for the better study of the several scientific problems.

In the Section on Neurology, the Rabbit related the outcome of his special studies on the "Tendon Reflex in the Hind Extremities of Irritable Mules," and showed several flattened skulls to illustrate the effects and beauty of this phenomenon.

In the Section on Physiology, the Frog showed a beautiful instrument for registering in a graphic manner the movements of the kangaroo.

In the Section on Orthopedic Surgery, the Lamb read a paper of great originality upon the "Development of the Hump on the Camel," and showed an apparatus which, if worn constantly for seventeen years, relieved the deformity in a large number of cases. An earnest discussion began as to the real usefulness of this important invention, but it was promptly ruled out of order by the President.

In the Section on "Diseases of Women and Obstetrics," the Goat opened a debate upon the question Whether the Physician should support the Perineum, or the Perineum should support the Physician, which was well maintained.

Professor Guilielmus Capricornus read a paper contending that pessaries were a great national blessing and that all animals should wear them.

Professor Suis Ferus reported two thousand operations for sewing up the cervix uteri with fifteen successful results upon which he was warmly congratulated.

In the Section on Surgery the Ring-tailed Ape described his new operation for the treatment of intestinal wounds. This consisted in opening the abdomen, removing the whole abdominal contents, and substituting carbolized cotton, thus making the individual thoroughly aseptic.

The Sacred Ox of Burmah made a report upon plastic surgery. He described a case in which he had successfully attached the hide of a rhinoceros to the back of a horse, thus rendering a saddle unnecessary. He had also transplanted the skin of a hen to the head of the Bald-headed Eagle which had much relieved that animal from the effects of extreme heat and cold, and put a new face on the whole matter.

In the Section on Diseases of the Throat and Nose, the Elephant related a history of a patient with a hypertrophied proboscis in which the affected animal could twine the diseased member several times round his own tail—to make a long "story" short.

The Giraffe gave his experiences with sore-throat, which are too long to be reported here.

In the Section on Skin Diseases, the Rhinoceros reported the results of an analysis of one hundred and ninety-seven thousand cases of eczema treated by excision, each one having been treated in a different manner.

The Congress then adjourned to a Grand Banquet, and having visited the insane asylum, two shoe factories, and an orphan home, broke up to meet in the same place the next year.

General Grant at Shiloh.—In *The Century* for February, General Grant gives the following interesting account of a night's experience on the battlefield after his foot had been injured by the fall of his horse: "During the night rain fell in torrents, and our troops were exposed to the storm without shelter. I made my headquarters under a tree a few hundred yards back from the river bank. My ankle was so much swollen from the fall of my horse the Friday night preceding, and the bruise was so painful, that I could get no rest. The drenching rain would have precluded the possibility of sleep, without this additional cause. Some time after midnight, growing restive under the storm and the continuous pain, I moved back to the log-house on the bank. This had been taken as a hospital, and all night wounded men were being brought in, their wounds dressed, a leg or an arm amputated, as the case might require, and everything being done to save life or alleviate suffering. The sight was more unendurable than encountering the rebel fire, and I returned to my tree in the rain."

Acetate of Lead.—In acute œdema of the lungs acetate of lead may be given with decidedly good results in doses of 0.05, half hourly; more particularly in that form which occurs in the course of chronic nephritis, with general dropsy. But large blisters are used at the same time.

New Instruments.

THE FITCH CHLORINE BATTERY.

By I. N. GOFF, M.D.,
CAZENOVIA, N. Y.

At the recent meeting or the New York State Medical Society at Albany, I promised a number of physicians to furnish a short account of a battery cell made in this place by D. H. Fitch, and known as the Chlorine Battery. I have no interest in the matter, except to give to all interested just the information they require. The especial merits claimed for this battery, and which have been proved most fully, by practical use here, as well as in other places for the past five years, are its cheapness, the chemicals used being inexpensive and easily obtained of any druggist; its easy maintenance, as it requires no cleaning, and very little care, not being taken apart or changed when not in use, or at all moved when needing to be replenished, which does not often occur, and when necessary, costs very little; its freedom from fume or odor, which is caused by the absence of acids in its use; its durability and readiness for use; being free from corrosion and evaporation insures its durability, while it will not freeze in the lowest temperature known in this climate.

The Chlorine Battery is intended to be used more as a stationary than a portable one, thus it is adapted for office use.

A CONVENIENT HYPODERMIC SYRINGE.

Dr. A. Henri Hart, of this city, has devised a hypodermic syringe which greatly facilitates the use of tablets. The construction is very simple, and the instrument is not liable to get out of order. It is in appearance very like other double fenestrated syringes except that an orifice is made at the end, sufficiently large to admit any hypodermic tablet in the market. Ten, fifteen, or twenty minims of hot water (120° to 130° F.) are drawn in, the syringe inverted, the tablet dropped into the instrument, as shown in the cut, the needle screwed on, and the injection made immediately it dissolves. By the device, it will easily be seen, much time and trouble are saved, and the entire dose, as well as accuracy are assured. Compactness also is gained, for with this instrument four varieties of hypodermic medicine may be carried in the space formerly occupied by one vial of the usual solution of morphine.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from February 8, 1885, to February 14, 1885.

Town, F. L., Major and Surgeon. Granted leave of absence for twenty days. S. O. 14, Department of Texas, February 4, 1885.

Robinson, S. Q., Captain and Surgeon. From Portland, Ore., to his proper station, Fort Spokane, W. T. S. O. 20, Department of Colorado, February 2, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending February 14, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
February 7, 1885.....	0	4	88	7	140	63	0	0
February 14, 1885.....	0	10	84	5	131	69	0	0
Deaths.								
February 7, 1885.....	0	1	15	7	31	26	0	
February 14, 1885.....	0	5	16	4	28	32	0	

The Foods which do not Favor the Growth of the Comma Bacilli.—As the result of his studies in M. Cornil's laboratory, Dr. Babès finds that the comma bacillus will grow in milk, coffee, meat, carrots, leguminous vegetables, eggs, broth, but not in fresh or dried fruits, beer, wine, conserves, salted or smoked meat, or cheese.

Arsenic.—Cutaneous eruptions are said to be rare in parts of Sweden where arsenical limestone is present, and in Cornwall arsenical fumes, given off from copper-smelting works, are said to prevent ague from marshes in the vicinity. There is a river in Cumberland which is used for all purposes by the inhabitants, who enjoy particularly good health. Its waters contain a perceptible amount of arsenic. Arsenic is thought to be peculiarly valuable in skin diseases from nerve affections; also in chronic dyspepsia with diarrhœa of ill-digested food, and in intestinal mycosis. It is of the highest value in the distressing vomiting of drunkards, when one or two minims should be given before meals, so as to come in contact with the irritated membrane. In systemic affections it is best given after meals. In phthisis it is well known that it sometimes arrests the progress of the disease in a remarkable degree; when pain and fever are present aconite may be added.

A New Dressing for Wounds.—M. Marc Sée has invented a fresh dressing. He has tested it three times after excision of the breast, and speaks confidently of its success. When the operation is finished, the surface of the wound is powdered with bismuth, which arrests all oozing, and favors cicatrization; it is then covered with layers of cellulose impregnated with carbolic acid, upon which is placed a thick layer of cotton-wool; a tarlatan bandage is then placed upon it, and an india-rubber one is superposed. Before the dressing is completed, M. Sée places sutures, both deep and superficial, and drainage-tubes, which are easily removed by means of a thread which is attached to them.—*Brit. Med. Journal.*

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 9 NEW YORK, FEBRUARY 28, 1885 Whole No. 747

Original Articles.

RECENT RESEARCHES IN CHOLERA.[1]

BY EDMUND C. WENDT, M.D.,

NEW YORK.

THE recent European outbreak of Asiatic cholera has imparted the fresh excitement of a contemporaneous event to a disease, that may at all times profitably engage our attention. Add to this the further excitement inseparable from the authoritative announcement by Koch of his discovery of a special and distinct organism belonging to cholera, and it is not surprising that the medical press of all civilized countries fairly teems with articles, notices, theories, suggestions, and what not, concerning the dreaded pestilence. So bewildering is this mass of new literature that, at first sight, it seems impossible to decide whether we know anything, everything, or nothing about Asiatic cholera.

The object of my remarks is not the ambitious one of restoring order where hopeless confusion seems to reign. Nor have I a new theory to offer, that in the attempt to explain away all previous ones, will only make chaos a trifle more chaotic. I have imposed upon myself the humbler task of presenting a brief résumé of the present state of the cholera-question, as reflected by the light of the most recent researches.

There is substantial agreement on all sides that Asiatic cholera is emphatically an infectious disease of epidemic character. Its supposed germ or parasite has been discovered, forgotten, and rediscovered in some new shape many times. The latest doctrine, that advanced by Koch, does not materially differ, in theory, from many of the older views. A *contagium vivum* that, multiplying within the body of the patient, is responsible for the morbid phenomena of an attack, is the common assumption of all these views.

The reader then passed in brief review the opinions of Boehm, Britton, and Swayne, Snow, Budd, Pouchet, Davaine, Pacini, Farr, Kiehl, Ilisch, Pettenkofer, Thomé, Klob, Hallier, Macnamara, Lewis, and Cunningham, and finally gave a succinct account of Koch's doctrine.

Next he turned to the recent French investigations. Straus and Roux found comma-bacilli in choleraic stools, but attached no particular etiological or diagnostic importance to them. Magnon and Cognard experimented on animals with negative results.

The Marseilles Commission found Koch's commas, but do not accept his theory. Instead, they lay great stress on certain alterations seen in the blood-corpuscles of cholera patients. They also found that the blood has toxic properties in the algid stage, and that animals may take the cholera. They conclude their report by admitting that they have shown, "what cholera is not, rather than what it is."

Maurin and Lange describe a fungus which they call *mucor choleriferus*. It grows on the dejections, and leads at length to the secondary development of Koch's comma-bacilli. Their method is crude, their alleged discovery sterile. Rietsch and Nicati produced death in animals by introducing pure cultures of comma-bacilli into their intestines.

[1] Abstract of a paper read before the Medical Society of the County of New York, February 23, 1885.

The observations of Babes, fully confirmatory of Koch's views, those of Doyen, who found the comma-bacilli in various viscera and the blood, were then alluded to. Villiers and Pouchet declare that ptomaines are developed in the blood of cholera patients before death. Recent Italian and Spanish writers have made no important contributions to the cholera question.

The reader then sketched the controversy raised by Lewis, and Finkler and Prior, and indicated the nature of Koch's reply to his critics. He then took up Van Ermengen's earlier researches, which fully harmonized with Koch's results. The paper then proceeds as follows:

Still more recently Van Ermengem presented an important communication to the Belgian Academy of Medicine (*Bulletin de l'Acad. Royale de Méd. de Belgique*, vol. xviii., No. xii., 1884), on the inoculation of guinea-pigs with the products of comma-bacilli cultures.

The author begins by pointing out that, the transmissibility of cholera from man to the lower animals has been in turn affirmed and denied by many observers. In all epidemics, facts have been observed which were thought to point conclusively to cholera infection in dogs, cats, birds, etc.

Reputable authorities, such as Magendie, Meyer, Thiersch, Charcelay, Crocq, Legros and Goujon, Leyden, Burdon-Sanderson, Popoff, and others, have conducted experiments, the results of which seemed to them to be conclusive. But on the other hand the force of these positive results has been weakened by the negative conclusions of other experimenters, chief among whom are Schmidt, Guttmann and Baginski, Stokvis, Snellen, Högyes, Wolffhügel, and especially the commissioners of the English Sanitary Council in India. The unfailing want of success in the experiments recently undertaken for the same end by the members of the French and German missions in Egypt and Calcutta, respectively, has tended still further to establish the opinion that most of the lower animals are not susceptible to the action of the cholera poison.

In the face of these contradictory facts, it might be asked whether the choleraic symptoms sometimes observed were actually those of cholera. And this doubt is increased when the conditions of most of the experiments are more closely examined. Not only were the symptoms far from being always characteristic, but the lesions discovered post mortem were very diverse in character, and in many cases no autopsy was made at all. And besides, many sources of error, which have since been found to exist, were often not guarded against. Poisoning by ptomaines might explain many of the phenomena observed; and the experiments made some time ago by Stich have shown that the introduction into the circulation of excrementitious products contained in the urine or fæces may give rise to symptoms resembling greatly those of the algid stage of cholera. Then again, it required massive doses of the virulent material to produce tangible results, small doses, except possibly in the case of mice, having failed to excite alarming or fatal symptoms. Finally, facts were wanting to establish the poisonous nature of the dejections of the animals which were the subjects of experiment.

Thus it may be said that the experimental study of cholera, until very recently, was just where that of tuberculosis was prior to the memorable investigations of Villemin, Martin, and Koch. Pseudo-cholera has been produced by matters of the most varied kinds, but proo

is still wanting that the disease thus caused is specific in its nature and re-inoculable.

Van Ermengem had made a few attempts at inoculation in dogs without very definite results, when he learned of the experiments upon guinea-pigs conducted by Nicati and Rietsch. They seemed to him important as indicating that these rodents were, in an especial manner, susceptible to the action of the cholera poison, and he therefore turned his attention to them, using them in a series of searching and varied experiments.

The first experiments were made by injecting eight to fifteen drops (0.5 to 1.0 grm.) of a pure culture of comma-bacilli into the duodenum. Every one of the animals died presenting typical symptoms of malignant cholera, and the autopsy revealed lesions which completed the picture of the disease. Microscopical examination showed the presence of comma-bacilli in the contents of the intestine.

Several guinea-pigs were then submitted to an injection, in a similar manner, of a fraction of a drop of the culture fluid, the dose varying from $\frac{1}{5}$ to $\frac{1}{10}$ of a drop. Only one of the animals survived, and he presented some passing algid symptoms and had a diarrhœa for several days. His stools contained comma-bacilli nine days after the inoculation, which had been of about $\frac{1}{50}$ of a drop only of the culture fluid. All of the other animals died with choleraic symptoms, differing but little in intensity from those excited by the large doses. The lesions found post-mortem were those of cholera, and numbers of comma bacilli were found in the intestinal contents.

Another series of experiments was made to determine the virulence of intestinal matters taken from the animals subjected to the former inoculations. The subjects of these experiments died with choleraic symptoms, as did also other animals inoculated with their morbid products, the latter being, therefore, the third in the series.

Injections were now made with the products of cultures from which the bacilli had been removed by filtration, or had been killed by heating the culture to 140° F. or over for half an hour. In these experiments, when large doses were injected, the animals speedily succumbed with algid symptoms, but when small quantities were used no effects were produced.

To assure himself against error the author also examined microscopically the stools and the intestinal contents of healthy guinea-pigs. He sometimes found bacteria of a curved form and well-developed spirilli, but it was always easy to distinguish these from Koch's bacilli, for they were from two to four times larger than the latter, and differed from them also in their action in culture media. Similar forms were also found in the excrement of other animals and in impure water.

That the abdominal section required in order to make the duodenal injections was not the cause of the death of the animals, was shown by the recovery of several guinea-pigs subjected to the various experiments, for in them the wound healed readily without exciting any untoward complications. Several of those animals that recovered from the first operation were used a second time, and died with the usual choleraic symptoms. This would seem to show that one inoculation with the comma bacilli does not confer immunity.

Duodenal injections were also made of septic materials other than those containing comma bacilli, and in most cases were barren of result. In some few instances the animals died with symptoms of septicæmia, but never with those of cholera.

In reviewing the results of his various experiments the author maintained that they were sufficient to prove that cultures of the comma bacilli contain a very active toxic principle, which can only be the product of the vital activity of this microbe. This poison causes morbid phenomena and cadaveric lesions, differing but little from those of Asiatic cholera. He hoped to be able, with the assistance of a skilful chemist, to isolate this principle, and to compare it with that which Dr. Pouchet had recently succeeded in separating from the rice-water stools.[1] If these attempts were successful they might suffice to establish a very important similarity between the phenomena observed in experimental cholera and those which characterize the disease in man. In two autopsies of malignant cholera made by the author, there was such an absence of grave lesions that it was difficult to explain the fatal result by any changes in the intestines or other organs; the blood alone was profoundly altered. Similar discoveries have recently led Koch,[2] Straus and Roux,[3] and Klebs,[4] to admit that, in these cases, a powerful poison is produced in the intestine, to the absorption of which these grave constitutional symptoms and speedy death are to be attributed. The injection of filtered cultures, Van Ermengem stated, has caused in guinea-pigs a condition presenting the strongest resemblance to an attack of hyper-acute dry cholera.

Ceci and Klebs studied cholera at Genoa. In a preliminary report[5] the authors formulated twelve propositions, the pith of which amounts to the assertion that the commas and spirilli of Asiatic cholera looked precisely like those found by Prior and Finkler in cholera nostras.

Klebs also claimed to have discovered commas in the diarrhœal discharges of a patient having pneumonia.

In a more recent publication by Klebs,[6] he admits that a differential diagnosis between Asiatic and simple cholera is possible by the aid of Koch's comma bacillus. But he does not believe that it is always an easy matter to differentiate between the two. For the positive recognition of cholera spirilli he thinks the culture method is indispensable.

Dr. Gilbert Kirker, in an account of the Egyptian epidemic which paid a slight visit to Port Said (*British Medical Journal*, November 1, 1884) says: "That there is a particular microbe constantly associated with Asiatic cholera must now be admitted." To his mind, however, "it is not proved that the bacillus which has been found causes the disease."

Dr. Rudolf Emmerich was sent by the Bavarian Government to Naples for the purpose of studying Koch's comma bacillus in its relations to Asiatic cholera. An account of his observations was read at a recent meeting of the Medical Society of Munich (December 3, 1884). His material consisted of ten cases. In eight of these there was no difficulty in finding Koch's commas. In the remaining two they were missed.

But in addition to the comma bacilli, his glass-plate cultures showed colonies of another variety of microbe. Indeed, the latter sometimes preponderated over the comma colonies. Believing, however, that the mere discovery of a peculiar organism in the intestinal contents, and apparently nowhere else, could not sufficiently account for the disease, he decided to search elsewhere for their presence. He thought that the visceral lesions of cholera might, perhaps (reasoning from analogy with other infectious diseases), receive their explanation from the presence of cholera microbes within their substance.

Emmerich examined the blood and various organs of choleraic bodies by inoculating tubes containing sterilized solid culture media of various kinds. These tubes were then taken to Munich and their microbes studied by means of glass-plate cultures. In this way he discovered a new organism, held by him to be the true cholera microbes.

The same pathogenic organism he succeeded in cultivating from the blood of a young woman who was in the collapse stage of the disease, and died six hours after the blood was withdrawn from the median vein. He describes his method of procedure in the following manner:

The surface having been carefully washed with water,

[1] Compte rendu de l'Acad. des Sciences de Paris, No. 20, 1884.
[2] Conferenz z. Frörterung der Colerafrage; Deutsche Med. Wochenschrift, No. 32, 1884.
[3] Bulletin de l'Académie de Médecine de Paris, August 6, 1884.
[4] De l'Étiologie du Choléra. In Ann. de la Soc. Medico-chir. de Liège, No. 11, 1884.
[5] Archive per le Scienze Mediche, vol. viii., 4. 1884, p. 415.
[6] Ueber Cholera Asiatica. Basel, 1885.

alcohol. and a one per cent. solution of corrosive sublimate, the vein was punctured, and the blood, which was observed to be thick, trickled slowly out. The first drops, having been carefully got rid of, a previously heated platinum wire was passed into the vein, and on being withdrawn was then introduced into a test-tube containing solidified nutrient gelatine, and the latter was pricked in three places. Ten such tubes were inoculated in this manner, and it was afterward found that organisms developed in three of them. The remaining seven tubes continued to be sterile.

The organisms thus cultivated were always of one kind. They have a cylindrical form with rounded ends, and are found either singly or in pairs rarely with more than two segments. The length of each microbe is about one and a half times that of its width. According to Cohn's classification, therefore, they are bacteria, or better, short bacilli. As regards form and size they resemble those found in diphtheria, but are to be distinguished from the latter by the form of their colonies, when grown in gelatine and examined under a low power, and also by their action upon animals. They grow at ordinary temperatures in slightly alkaline gelatine as solid milk-glass-like patches. They do not liquefy the gelatine. Under a power of one hundred diameters such of the colonies as develop in the deeper portions of the nutrient gelatine on the glass plate, present the form of a millstone, and those on the surface simulate flat, circular mussel-shells. The deeper colonies look yellowish-brown by transmitted light, white by reflected light, and have a finely granular appearance. The more superficial colonies are pale-yellow toward the middle, and whitish at the margin. They manifest a tendency to spread over the surface as a thin transparent coating.

In cultures from the viscera they were found to be most numerous in the kidneys and liver, then in the lungs, and least numerous in the spleen. Emmerich ascertained that the greater number of the gelatine plates which were inoculated with the blood and with the juices of the several organs in cholera yielded, even in the first generation, a pure culture of this bacterium. The microbe has also been detected without resorting to cultivation in sections of the intestine and of the kidney. Other organs have not as yet been examined. Great numbers may be detected in the dejections and in the intestinal contents after death. They were found to grow in every gelatine-plate cultivation of choleraic alvine material, and in some cases occupied almost the entire surface of the plate; whereas in other cases, though more seldom, comma-shaped bacilli prevailed, but never to the exclusion of the particular organisms in question.

The results of some inoculation experiments, made at the Hygienic Institute of Munich, in conjunction with Dr. Sehlen, were also described. The animals experimented upon were for the most part guinea-pigs, and he believed that lesions had been induced in them by inoculation with this bacterium which closely resembled those observed in persons who had died of cholera, and especially as regarded the small intestine. The changes had been noticed to vary from a simple desquamative catarrh, with rice-water-like intestinal contents, to hemorrhagic exudation and ulcerative destruction of the mucous coat. A few drops of a solution prepared by the addition of a fragment of this bacterial cultivation to two or three drachms of distilled water, injected subcutaneously or into the lungs, gave rise to a protracted illness of from five to six days, accompanied with deep-seated changes in the intestinal mucous membrane. The injection of a larger fragment of the cultivation, covering an area of about a quarter of an inch, suspended in water, was followed by death in from sixteen to thirty hours, but with less marked pathological lesions in the intestine. The severity of the intestinal lesions being thus the more marked the more protracted the course of the disease, and the larger the dose the earlier the fatal termination.

The contents of the colon varied with the degree of the affection. It was either a flocculent whitish fluid, resembling rice-water, or more pappy, and in advanced cases mixed with blood. The mesenteric glands were found enlarged, the peritoneum congested, the cæcum and large intestine sometimes showed extensive ecchymoses. The spleen always looked normal.

These assertions of Emmerich were so direct and unequivocal that they created considerable stir in the medical world, especially in Germany. His methods and results were soon challenged, and he has not been able hitherto to substantiate more fully his claim to the discovery of a new specific cholera microbe.

Among others, Professor Flügge, of Göttingen, the well-known author of the standard treatise on the methods of hygienic investigation,[1] has published a refutation of Emmerich's positive claims. Flügge[2] states that Emmerich failed to obtain pure cultures. His alleged new cholera bacillus is merely a septic organism. The results obtained by inoculating animals, he could have induced equally well by using cadaveric products from any body not too long dead.

Emmerich's method of obtaining cultures could not stand the rigid test of scientific accuracy, which to-day is essential for experiments of this kind. Apart from all this, it was an error to assume that the cholera microbes must necessarily be present in the blood and viscera, in order to afford an adequate explanation of the symptoms of the disease.

The profound visceral changes observed in the bodies of choleraics belonged to protracted cases.

In typical acute cases rapidly terminating in death, marked histological lesions were found only in the intestines. Moreover, the number of cases examined by Emmerich was so small as to make any attempt at generalization seem *à priori* futile. This is the substance of Flügge's criticism, which, in turn, provoked a rejoinder from another source, namely, from a German observer, who, while claiming familiarity with Koch's methods, disclaims all partiality. This writer, a Dr. Buchner,[3] of Munich, is inclined to doubt the etiological importance attributed by Koch and others to the comma bacillus. He questions whether the microbes fulfil the conditions regarded by Koch himself as essential, before we can accept them as the true cause of a given disease. These conditions are "that the bacteria can be invariably detected in such numerical and local distribution as to fully explain the symptoms of the disease in question."

Buchner then proceeds to show that the comma bacillus falls short of this desideratum. But as regards the diagnostic significance of the comma bacillus, he asserts that there can no longer be any doubt. He alludes to the fact that all competent observers have found it. Koch saw it in Egypt, India, and France. Klebs and Ceci found it in Genoa; Van Ermengem saw it; Pfeiffer, Babes, and Emmerich observed it, and even Klein and Gibbes admit that they always found it. Every one of these investigators recognized it, according to Koch's description, not alone with the microscope, but by the various biological attributes shown in artificial cultures. The author thinks that indisputable credit is due Koch for having discovered by the aid of his excellent methods a parasite peculiar to Asiatic cholera, that must necessarily have some importance in connection with the pathology of the disease.

On the other hand, as regards the relation of the comma bacillus to the origin of an attack of cholera, Buchner states that we require further evidence before we can accept the conclusions even of a Koch.

In a pamphlet which has just appeared, Dr. A. Johne[4] asserts that the comma bacillus is the specific microbe of Asiatic cholera. Its discovery in the dejections of sus-

[1] Lehrbuch der hygienischen Untersuchungsmethoden. Von Dr. med. C. Flügge. Leipzig, 1881.
[2] Deutsche medicinische Wochenschrift, January 8, 1885.
[3] Berliner Klinische Wochenschrift, February 2, and 9, 1885.
[4] Ueber die Koch'schen Reinculturen und die Cholera-bacillen. Leipzig, 1884.

pected cases renders diagnosis certain. He is also convinced that the culture-method of Koch can readily be carried out by the practising physician. In this way he asserts doubtful cases can be made certain in from twenty-four to forty-eight hours.

Dr. A. Pfeiffer,[1] during the recent outbreak of cholera in Paris, had occasion to observe twelve well-marked cases of the disease. The patients represented different ages, from two to sixty-two years, and both sexes. In two cases the attack terminated fatally within a few hours. One case of "foudroyant" cholera sicca was also observed. In six cases autopsies were performed.

In every one of these cases the comma bacilli were found either intra-vitam or post-mortem in the intestines. They invariably showed a decided preponderance over all other varieties of bacteria. In the three rapidly fatal cases the intestinal contents showed almost nothing besides the commas. In the intestinal glands of hardened specimens the bacilli were also seen by Pfeiffer. Dejections of patients afflicted with other diseases (pneumonia, measles, typhoid fever, phthisis), were examined, but no commas could be discovered.

Pfeiffer says that he also examined some swelled mesenteric glands of choleraics, but he found no commas in any of them. He says with reference to Emmerich's claims that he did not deem it necessary to search for comma bacilli in the viscera, because he thinks it incredible that in the large number of examinations made by Koch, that careful inquirer should have missed them. The Prior bacillus is, he holds, easily distinguishable from Koch's comma bacillus. Finally, he is convinced that the latter organism is the cause of cholera, and not a merely accidental occurrence. His reasons for this conviction do not differ from those of Koch for holding a similar belief.

At a recent meeting of the London Medical Society Dr. Heron demonstrated by means of specimens and cultures the differences between Finkler's microbes and Koch's commas.

The *British Medical Journal*, of January 17, 1885, in an editorial on the organisms of cholera, makes the following comment on this event: "It would, of course, be premature to form any decided opinion at the present moment, and especially before the results obtained by the English Cholera Commission are fully laid before us; but, so far as the published evidence goes, Koch would certainly appear to have established his point, so far as concerns the specific characters of the comma bacillus. It would appear that, in the controversy with regard to the comma bacillus, we have arrived at this stage. The bacillus described by Koch is always present in Asiatic cholera, though in varying quantities; it is also a distinct species, although numerous other species of bacilli, having the same form, may be found under a variety of circumstances. The precise nature of the causal relation, if any, between Koch's bacillus and cholera, remains to be ascertained. Dr. Koch, as we gathered from Dr. Heron's remarks, is quite satisfied that such a connection exists, and looks upon the bacillus as the cause of cholera. Few who have studied cholera Asiatica, from the point of view afforded by epidemiology, will be prepared to accept this statement in its entirety, and many will regret that Dr. Koch should have made a statement which, in spite of its apparent precision, is in reality ambiguous."

The editorial writer then continues as follows:

"There is one other reflection which cannot be avoided. Is it not almost a national disgrace that this country, whose responsibility with regard to cholera is so heavy, affords to investigators of this new aspect of the question so few opportunities of studying it? Is it satisfactory that a physician, who desires to acquaint himself with the present state of knowledge, should have to go to a foreign laboratory to obtain the necessary facilities? Is it creditable to us, as a nation, that living specimens of this much discussed bacillus should first be seen in this country under the conditions which we have mentioned—shown at an ordinary meeting of a society, and obtained, under a bond of secrecy, by the private enterprise of an individual physician? Such facts as these emphasize the justice of the demand for laboratories and appliances for the investigation of this and cognate subjects in England. Opportunities are required not only for carrying out original investigations, but for acquiring the skill in manipulation requisite for understanding and applying observations made for us already in other countries. This rich and powerful nation is falling behind its manifest duties. The story of the comma bacillus of Koch is only one out of many."

This does not sound far different from what I said concerning the United States in an article on cholera, published in THE MEDICAL RECORD of November 29, 1884.

In the *Deutsche Medicinische Wochenschrift*, January 15, 1885, Dr. R. Deneke, of the Göttingen Institute of Hygiene, reports the discovery in stale cheese of a species of curved bacilli. Subsequent careful investigations by approved methods brought out the interesting point that, morphologically as well as biologically, they resembled more closely the cholera bacilli of Koch than did the Finkler bacillus. It is not necessary here to give a detailed account of the points of resemblance and difference. The crucial test was made by inoculating guinea-pigs with pure cultures. In every instance the fluid to be tested was introduced into the duodenum of healthy guinea-pigs by means of a hypodermatic syringe. The animals remained in all respects well when the bacilli of Finkler and the cheese spirilli were injected, although about fifteen minims of culture fluid was used. The same quantity of liquid, containing, in one case, a single drop of culture fluid of genuine cholera, and, in a second case, only half a drop, was then injected in precisely the same manner as before. Both animals promptly died, and their intestines contained an abundance of cholera bacilli, showing that rapid multiplication had taken place.

The following brief summary of Deneke's conclusions may be read with interest:

"There is a group of spirilli, not widely disseminated, in which the younger individuals have a curved shape and show a tendency to form mature spirilli by juxtaposition. Several distinct kinds of spirilli belonging to this group are already known. A differentiation based merely on form is quite difficult, even with the aid of the best microscopes. With the aid of the culture method, a differentiation is much easier. Nutritive gelatine and potato constitute the best culture media for differential recognition."

Solid gelatine is fluidified slowly by Koch's cholera bacilli, much quicker by the cheese spirilli, and with greatest energy by the Finkler microbes. As regards potato, Finkler's microbes grow and spread readily, and at comparatively low temperatures. Koch's quite slowly and only at higher temperatures, Deneke's cheese spirilli not at all.

In experiments on animals the harmlessness of all but Koch's comma bacillus has already been alluded to.

Deneke asserts that Finkler's microbe has not the slightest relation to either simple or Asiatic cholera.

Dr. George Waters, writing to *The Lancet* (January 31, 1885), from Bombay, says that he found curved bacillli, identical in shape, size, and appearance with comma bacilli, in nearly all microscopic examinations of mucus from the small intestines of persons who had died from ordinary affections. He has also found identical organisms in neutral or slightly alkaline urine. In human urine he found curved bacilli within five minutes of its being voided from the bladder.

Nevertheless he regards them as an indubitable pathological feature of cholera, but more in the shape of a

[1] Ueber die Cholera in Paris. Deutsche Medicinische Wochenschrift, January 8, 1885.

consequence than a cause of the malady. Further on he believes the organism in question should be regarded more as a physiological than a pathogenic entity.

He concludes as follows: "If I say that a superabundance of comma-shaped bacilli is found in the small intestines of cholera victims, because it would appear that whatever gives rise to that ailment brings about exalted fermentation in that part of the alimentary canal, I shall, at least, have as much logic in my assertion as Koch had in declaring that these organisms must bear a causal relation to the disease."

Now, it is time that this kind of criticism ceased to receive the dignity of being printed in our leading medical journals. Waters makes no cultures, he merely sees something that looks like a curved bacillus, and immediately proclaims to the world that the results of months of arduous labor and cautious inquiry go for naught in the light of his puerile investigations. As a matter of fact, I have examined urine both in health and disease, both fresh and stale, and can assure you that I have discovered no bacteria in it that a good microscope cannot at once show to differ from Koch's commas. And, moreover, as has been pointed out again and again, even complete identity of size and shape would be far from proving identity in pathological potency or virulence.

Quite recently, at a meeting of the Royal Society, Dr. Klein[1] read a paper on the relation of bacteria to Asiatic cholera, embodying the results of an inquiry into the etiology of the disease, undertaken at the instance of the Government by himself, Dr. Gibbes, and Mr. Lingard.

The investigations of this English Cholera Commission have led to the following conclusions:

"1. Koch's statement as to the constant occurrence of comma bacilli in the rice-water stools of cholera patients is correct; the comma bacilli vary greatly in numbers in different stools and in different cases, in some being exceedingly scarce, in others numerous.

"2. These comma bacilli vary greatly in length, some being twice and three times as long as others, some well curved as much as to form half a circle, others showing only just a slight bend. The name comma bacillus is inappropriate; the organism is more correctly termed a vibrio.

"3. The comma bacilli occur in the mucus-flakes of the rice-water stools, as well as in those taken from the ileum of a person dead of cholera. The sooner after death the examination is made, the fewer comma bacilli are found in the mucus-flakes; even in typical rapidly fatal cases, the mucus-flakes taken from the ileum, and examined soon after death (from between fourteen minutes to an hour or an hour and a half), contain the comma bacilli only very sparingly indeed, and not to the exclusion of other bacteria. Our investigations do not bear out Koch's statement as to the lower part of the ileum being, in acute typical cases of cholera, almost 'a pure cultivation of comma bacilli.' In not one of the many post-mortem examinations of typical acute cases have we found such a state.

"4. The mucous membrane of the ileum, in typical rapidly fatal cases, if examined soon after death, does not contain in any part any trace of a comma bacillus or any other bacteria, not even in the superficial loosened epithelium. If the post-mortem examination be sufficiently delayed, comma bacilli and other bacteria may be found penetrating into the spaces of the mucous membrane. Koch's theory as to the comma bacilli present in the mucous membrane secreting a chemical poison inducing the disease cannot, therefore, be correct.

"5. Neither the blood nor any other tissue contains comma bacilli or any other micro-organisms of known character.

"6. The behavior of the comma bacilli in artificial media is not such as to justify their being considered as specific. They grow well in alkaline and neutral media, are not killed by acids, and their mode of growth in gelatine mixtures is not more peculiar than that of other putrefactive bacteria; they show marked differences when grown in different media, but not more so than the ordinary putrefactive bacteria when compared in their growth with one another. The comma bacillus of the mouth shows the same peculiar character of growth in gelatine as Koch's comma bacilli.

"7. Koch overlooked the fact that comma bacilli occur in other intestinal diseases, in the mouths of healthy persons, and, as shown recently, even in some common articles of food (by Dr. Deneke in stale cheese).

"8. The experiments performed by Koch and others on animals do not in the least prove that the comma bacilli are capable of producing cholera or any other disease. The results obtained by them are much more easily explained in an opposite manner.

"9. There is direct evidence to show that water contaminated with choleraic evacuations, and containing, of course, the comma bacilli, when used for domestic purposes, including drinking, by a large number of persons, did not, in the case of the tanks near the Jelepara Lane, produce cholera.

"10. The mucus-flakes taken from the small intestine of a typical rapidly fatal case of cholera, contain numerous mucus-corpuscles filled with peculiar minute straight bacilli; in this state they are found when the examination is made very soon after death; soon, however, the mucus-corpuscles swell up and disintegrate, and then their bacilli become free. The small bacilli are never mixed in the mucus-flakes. They are one-third or one-fourth the length of the comma bacilli, and about half their thickness. They are non-mobile; they grow well in Agar-Agar jelly, but show in their modes of growth no peculiarity by which they could be considered as specific. When grown on the free surface of the nourishing material they form spores.

"11. These small bacilli are not present in the blood, in the mucous membrane of the intestine, or in any other tissue.

"12. Experiments made with these small bacilli on animals produced no result.

"13. Since my return to London, I have ascertained that the comma bacilli of cholera show two distinct modes of division, one the known one of transverse division, and a second one of division in length. When growing in Agar-Agar jelly at the ordinary temperature of the room, after some days the bacilli swell up, owing to the appearance in their protoplasm of one or more vacuoles; as these vacuoles increase, so the comma bacilli become gradually changed, first into plano-convex, then into oblong bi-convex, and ultimately into circular corpuscles. The longer the original comma bacillus, the larger the final circle. These circular organisms are mobile, just as are the comma bacilli; and, by disintegration of the protoplasm at two opposite points, two perfect more or less semicircular comma bacilli are formed. Growing the comma bacilli in Agar-Agar jelly kept at higher temperatures (30 to 34° C.), the comma bacilli multiply by transverse division only; but, transferring these to Agar-Agar jelly, and keeping this at the ordinary temperature of the room, they again gradually change into circular organisms, which, by division in the diameter of the circle, form two new comma bacilli."

From an examination of these conclusions, it would appear that the English inquirers boldly take issue with every one of Koch's conclusions. The only item in which they are not in conflict with him consists in their admission of the constant association of comma bacilli with Asiatic cholera. But even this circumstance is not interpreted by the Englishmen in Koch's sense. Before passing final judgment upon the value of the British Commission's opinions, we will have to receive the full account of their labors. Their work seems to have been merely negative. New light is not shed upon the question by the results of their inquiries.

[1] British Medical Journal, February 7, 1885.

The following conclusions seem to me justifiable.

The detection of the cholera bacillus, even more so than that of tuberculosis, is so entirely dependent upon the skilled use of special technical methods, but recently elaborated, that we should be surprised that the discrepancies reported by different observers are not greater than is actually the case.

The concurrent testimony of a large number of writers of different nationalities is now sufficient to establish the rule that particular curved bacilli occur in Asiatic cholera.

Where positive observations are so numerous and harmonious, we may place a greater value upon them than the isolated negative evidences of a few experimenters.

As to the presence, then, in Asiatic cholera of Koch's comma bacillus, there can no longer be any question of fact.

Its relative preponderance in the lower portion of the ileum is still somewhat doubtful. And with regard to the various stages of an attack, and the differing gravity of separate cases, some of those most competent to speak from personal knowledge are not fully in accord with Koch, who finds the presence of the commas related to them in such a way that severity indicates, *cæteris paribus*, a preponderance of bacilli, and *vice versa*.

Nevertheless, by finding and proving the identity of these microbes by the culture method of Koch, we may have a diagnostic aid that should not be ignored. It may not be often that such additional assistance will be necessary, since the clinical signs of typical cholera are well marked and well known. But it is notorious that in the absence of an epidemic, such extra aid may become absolutely necessary to elucidate a particular case.

Koch's doctrine harmonizes so well with the clinical history of cholera that it ought to be accepted as the best theory yet offered in explanation of the disease. But it should be remembered that a theory is not a scientific fact. We need more evidence and renewed experimental observation before Koch's doctrine, in its entirety, can be made to permanently stand or hopelessly fall. Many observations point to the possibility, mentioned by Koch, of the comma-bacilli producing ptomaines or similarly virulent products of vital action in the bodies of their hosts.

The great credit belonging to Koch consists in the fact that he has pointed out to us the paths along which future inquiry must go. We are to-day able, thanks to his excellent technique, to pursue bacteriological researches with much greater accuracy and definiteness than was possible even a few years ago. As with tuberculosis, Koch's discovery of a distinct organism has given us clearer views, so it is likely to be with cholera.

It is true, we have not yet been able to ascertain the full truth. Future views and conceptions concerning the intimate nature of cholera may vary as much as past ones have done. But when the history of cholera shall be written, fifty years hence, it will have to be stated that Koch's discovery of the comma-bacillus constituted a decided step in advance in the pursuit of scientific truth.

Bitter Almonds contain an albuminoid substance called emulsin; and in addition one or two per cent. of a white, crystallizable nitrogenous substance called amygdalin. Now if emulsin is brought in contact with amygdalin, in the presence of cold water, the emulsin acts as a ferment, and, without undergoing a change itself, causes the amygdalin to split up into the essential oil of bitter almonds and prussic acid, and causes poisoning. If amygdalin is first injected into the blood of animals, and one hour afterward emulsin is sent after it, death speedily ensues; but not if the experiment is reversed.

Ammonia. — The liquor ammoniæ anisatus of the Germans should be used more largely than it is in flatulence and pyrosis, in the second stages of bronchitis or pneumonia, and in many states of debility.

ÆSTHESIOMETRY.[1]

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ÆSTHESIOMETRY is the title, in default of a better, which has been given to the few considerations which I would present with reference to methods of examining the cutaneous sensory apparatus.

In the investigation of cutaneous sensibility the following classification is usually employed: I. General or common sensation, including pleasurable and unpleasurable sensations. II. Tactile sensation, which includes the sense of temperature, of pressure, and of locality.

I. General or Common Sensation is tested by pricking, pinching, tickling, or, best of all, because most accurate and because one is able to determine by it the amount of time requisite for a sensation to reach the nerve-centres, the faradic current.

II. Tactile Sensibility.—1. *Sense of pressure.*—Several instruments have been invented to record the power of the individual to determine mere pressure.

Weber's is the simplest. It consists of a rod, with a disk of wood, as a non-conducting substance, to place flat upon the surface of the skin. The weights are arranged with a hole through the centre, so that they can be strung upon the rod.

Dohrn's instrument consists of a non-conducting disk arranged on a spring, so that upward pressure is recorded on a scale.

Eulenberg's paræsthesiometer is a spring balance with a dial to record varying pressure. He has found, in observations with this instrument, that a differential pressure of one-thirtieth to one-fourtieth of an inch can be discriminated by the skin of the face, one-twentieth to one-tenth of an inch by the skin of the hand, arm, and anterior aspect of the thigh, leg, and dorsum of the foot.

Goltz' instrument, an india-rubber tube filled with water, whose waves in rising and falling record the smallest variation possible, is the most accurate.

It is interesting to find that the scale of pressure-results corresponds very accurately with those of Weber for sense of locality, with the exception of the tip of the tongue, which stands much lower.

It should be remembered that a colder weight is felt to be heavier than a warmer one, and that the sensitiveness is greater for an increase than for a decrease of the difference in weights, and also greater for a small absolute pressure than for a large absolute pressure.

2. *Sense of temperature.*—Numerous are the devices for determining temperature, varying from the simple methods of plunging the extremities into hot and cold water, blowing on the skin at a distance to test sensation of cold and breathing upon it to test that of warmth, the using, as did Weber, of test-tubes of oil heated to a known degree, to the complicated thermæsthesiometers of Eulenberg and Nothnagel, both of whom made the most delicate experiments possible. Nothnagel has shown that the small variation of 2° F. can be distinguished in the most sensitive portions of the body and 4° F. in the least sensitive.

3. *Sense of locality.*—This, of the various manifestations of sensibility, is the most commonly tested, and for this purpose Sieveking invented the æsthesiometer. Observations, as is well known, are based upon the physiological fact that two tactile impressions at certain distances, these distances, variable in different parts of the body, become fused into one. Sieveking's æsthesiometer was made with one point fixed, the other movable upon a bar upon which is a scale. Weber used a pair of compasses. Other æsthesiometers have been modifications of these two ideas. Dr. E. C. Seguin modified Sieveking's by making it of lighter metal. Dr. W. R. Birdsall has somewhat changed the same model, he has added a concealed needle for testing sensibility to pain,

[1] Read before the New York Neurological Society, January 6, 1885.

and has arranged it so that it can serve as an electrode, which has greatly added to its value, as it changes the instrument from one simply testing locality to one which can be employed in tests for common sensation as well.

Dr. W. A. Hammond has an instrument of the compass variety, which goes by his name at the instrument dealers.

The peculiarity of the æsthesiometer invented by Dr. Carroll is that the legs of the compasses are bifurcated, thereby providing two sets of points, one blunt, the other sharp.

Dr. Burq's æsthesiometer, which is also on the pattern of a pair of compasses, provides for this in a different manner. The sharp points are encased within ivory tubes, so that the points can be screwed back and forth like the lead in a pencil.

During a year of testing with the æsthesiometer, while making a careful study of the subject of metallotherapy, I was often led to notice the difference made in the quickness of perception by varying simultaneously the pressure of the two points. It occurred to me that an unconscious variation of pressure might easily mislead the investigator. An æsthesiometer which, without being clumsy, would record pressure, would be a desirable instrument. The æsthesiometer after the Sieveking pattern is, I think, more easily managed than that modelled upon the compasses. I therefore had one made like Dr. Birdsall's, which is on this principle. It is light, has a

concealed needle, and can be attached to an electrode when the screw at the end is removed. Mine differs only from his in that the points are attached to spiral springs which allow of upward pressure. These springs are attached to a small rod, which is divided into degrees, each of which represents a pressure of 30 grms.

The instrument might also be used to test simple pressure by adjusting to one of the points a disk of non-conducting substance, as wood. To test roughly the sense of temperature, two disks might be fixed to the two points, one of wood and one of metal.

A slight degree of pressure, almost unconscious, records thirty or sixty grammes, and yet it makes a great difference, often narrowing what the Germans call the sensation or tactile diameter one-third or one-half. The extent to which pressure increases the power of discrimination varies in different parts of the body. It is much less where the sensibility is most acute, as at the finger-tips.

By way of illustration simply of æsthesiometric variations with and without pressure, the following two cases are given.

In Case I., that of a young man, an ordinary æsthesiometer showed no difference between the two sides of his face, but he had a feeling of numbness in the left.

	Right Side.[1]	Left Side.
Forehead, (24 mm.)	−P. 8 mm. 5 mm. + 2° P.	Forehead, − P. 8 mm. 5 mm. + 2° P. Answer less prompt.
Cheek,	−5 P. mm.	Cheek, − P. 7 mm.
(11.25)	4 to 5 mm. + ½° P.	Same + ½° P.
Chin,	5 mm. + P. or − P.	Chin, − P. 8 mm. 6 mm. + 1° P
Neck, (33.75 mm.)	5 mm. + P. or − P.	Neck, − P. 7 mm. 5 mm. + 1° P.

This case shows that the slight difference between the two sides without careful regard to pressure would be lost.

[1] − P. denotes use of æsthesiometer without pressure, + P. use of pressure 1° = 30 grms. The figures in parentheses show the distances given in Weber's tables as normal for the parts.

Case II.—Woman who complained of left leg, with constantly increasing inability to use it in walking. Diminished faradic excitability in both nerve and muscle.

Right Side.		Left Side.	
Thigh, (77.5 mm.)	− P. 35 mm. 10 mm. + 2° P.	Thigh,	− P. 35 mm. to 45 mm. 15 mm. + 1° P.
Anterior of leg, (40.5)	− P. 40 mm. 29 + 1° P.	Anterior of leg,	− P. 40 mm. 20 mm. + 1° P. (Marked hesitation.)

In order to make more accurate observations with the æsthesiometer, therefore, the following suggestions are made :

1. The same pressure should be used for corresponding parts which are compared or tested ; if variations take place they should be recorded. It has already been indicated how easily an anæsthesia which was present might be masked by the varying pressure unconsciously used.

2. When comparing parts, the points of the æsthesiometer should be used in the same direction, that is either longitudinally or transversely, remembering that in the latter case the tactile diameter is smaller than in the former, a distinction made by Wundt, who says that Weber's *empfindung-kreise*, or circles of sensibility, should not be circles, but ovals. Nevertheless, Weber recognized the fact, and gives as exception the tips of finger and tongue.

3. The response may vary, so Ross says, with the direction in which the points of the æsthesiometer are approached or separated ; they are appreciated at less distance when commencing with the points wide apart and then having them approach one another.

4. Both points should be applied simultaneously, and with equal pressure.

5. One part should not be tested too long. The patient soon becomes weary of answering, and indifferent in his responses. Moreover, the attention really becomes fatigued. Again, if the tests are made too rapidly, the sensations, like those of the other special senses, become confused.

6. The nature of the response demands consideration, whether it is prompt or hesitating. If the latter, whether the slowness is due to a natural inability to respond quickly to external stimulus, or whether it depends on the presence of an abnormal state. It must be remembered, too, that the centres can be educated, so that improvement noted from time to time may be due to this.

7. The patient, of course, should not look, nor should the instrument be used according to the preconceived notion of the patients. As illustrative of this, I recall an instance of a lady, who having watched while I tested the sensibility of a friend, at which time I had happened to use continually two points of the instrument, invariably answered "two" when her turn came to be tested, though one point was used more often than two. This was not a case of retained impression, though I have met with such. One woman would answer "three" and "four," especially if pressure was used, instead of one and two. Brown-Séquard cites several cases of this kind where there was hyperæsthesia, due to injury of the crura and the pons. Wundt also has remarked it in cases of lesions of the spinal cord and in patients who had received small doses of strychnine. In such cases, he says, it is easy for the patient to mingle a subjective feeling with one from without. In my patients there was no organic trouble demonstrable. It is easy to account for it as due to retention of impressions, as happens in the other special senses, especially in vision, when it takes some time for an object firmly impressed on the retina to become effaced. Kottenkamp and Ullrich have found that after persistent experimentation normal

individuals feel two points constantly instead of one. I have also observed this.

One of the most important considerations in connection with the subject is, what should be considered the normal distance at which the two perceptions become distinguishable. The table most often quoted is that of Weber. Vierordt has confirmed it, as have, after careful experimentation, Kottenkamp, Ullrich,, Paulus, Riecker, and Hartmann. Sieveking and Valentin have also given scales. The distances by Valentin are much less than those of Weber. As a general thing I have found them less than either. The cases which I have already presented to show difference of pressure will indicate this, and they are typical.

The matter is rather *comparative* than definite. I think it is practically so considered, but too little stress has been placed on this by writers on the subject. Wide variations occur, because of environment. To judge from Weber's tables, which have been substantiated by the experimenters who have been named, the Germans must have less of the *raum* or *ort-sinn* than Americans or those who have resided in this country for a number of years.

Goltz and Czermak have stated that the touch diameter is much less for children than adults, such whose intelligence could be relied on to answer. It is probably because the skin is more delicate. For this same reason there would be variations between men and women, between those whose skin was protected and those whose skin was not.

It is therefore a matter of comparison between corresponding parts of the same individual, rather than between individual and individual, hence the importance, in order to obtain correct results, of making the tests of these corresponding points exactly alike as far as possible, by placing the points in the same manner, and in regulating the pressure.

DIABETES MELLITUS.[1]

Diet versus Drugs in its Treatment.

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It is a favorite amusement with some physicians to discuss *most* subjects about which they know the *least*. This is not the reason, however, which I shall assign for calling your attention to diabetes mellitus, although my ignorance of some branches of the subject will be sufficiently apparent before I am through with the discussion. I have nothing new to offer in the way of causes, no new symptoms, no new tests for sugar, do not intend to attempt to explain the pathology of the disease, or engage in the discussion of the controversy between Claude Bernard and his followers, and Pavey and his disciples, in regard to the glycogenetic functions of the liver. It is not necessary to assent to, nor dissent from, the nervous origin of the disease, with its implied vaso-motor paralysis. For my present purpose it is simply necessary to know —and that is all that is really known about the pathology of the disease—that it is impossible for a diabetic to oxidize or assimilate starchy or saccharine food. The border line is so closely drawn between physiology and pathology that no man has as yet been able to put his finger upon the broken cog in the machinery.

The question, then, which I wish to introduce for discussion is, whether the facts recently developed in the treatment of diabetes by the proper regulation of the diet, etc., do not warrant us in modifying the prognosis of the disease and making it more favorable?

Cantani, Flint, and others have claimed in recent publications that certain cases are curable; that the lives of all, or nearly all, cases may be prolonged. While I am not prepared to say from my limited experience that the disease can be permanently cured, I do believe that, when taken in time, the lives of diabetics may be indefinitely prolonged, and that they may be made useful and happy citizens. I wish to report a few cases, with some closing remarks.

Case I.—C. J. K——, aged sixty-nine, consulted me August 16, 1882. Had always been an active business man, engaged in mercantile and manufacturing enterprises. Within the last few years had met with some reverses, losing a large amount of property by fire at one time, and again by bad faith and unfair dealings of a partner. This patient has always been what is denominated a good feeder; does not remember the time when he did not have a good appetite, and says he has always been a great water-drinker, especially after supper. For the last three months has been steadily emaciating, losing during that time about twenty-five pounds in weight; feels weak, and is exhausted by slight exertion; does not pass a large quantity of urine, probably about eighty ounces per day; but finding no other symptoms present in his case sufficient to account for the progressive emaciation, I decided to examine his urine. Specific gravity 1.040, with an abundance of sugar.

He was placed upon a strictly nitrogenous diet, and his urine carefully examined daily until the eleventh day, when all traces of sugar had disappeared. No medicines were prescribed, excepting alkaline mineral waters to correct constipation. He was furnished with the necessary means to test his own urine, and directed to try certain other articles of diet. He finds that in addition to the nitrogeneous articles already permitted he can use various fruits and berries, together with some vegetables.

The patient continued to improve, no sugar appearing in the urine, only occasionally from errors in diet, until about six months ago I directed him to take a solution of bromide of arsenic, which he has taken at irregular intervals, since which time he has eaten sparingly of starchy food without sugar reappearing in the urine. He has been eating about half-a-dozen ordinary water-crackers, made from white flour, at each meal recently with no bad effects. I have kept careful watch over the patient, frequently testing his urine and finding it free from sugar. He is in the enjoyment of vigorous health for a man of his age, and still has full charge of his business.

Case II.—I. S——, aged fifty-eight, farmer by occupation, consulted me January 18, 1881. Has been emaciating for several months, much more rapidly recently; loss in weight to this date is about forty pounds. Passes two gallons of urine each twenty-four hours. The specific gravity of the sample examined was 1.045, with an abundance of sugar. Has all the other symptoms of diabetes mellitus. Says he has been suffering in this way, although not so badly, for about twelve years. Patient was placed upon the nitrogenous diet, and after the bowels were thoroughly acted upon by saline cathartics, he was put upon a treatment consisting of opium and ergot. On January 25th the amount of urine had diminished to about one-half, with a specific gravity of 1.032; sugar much dimished. It was again tested upon February 9th, when all traces of sugar had disappeared and the quantity diminished to sixty ounces per day, with a specific gravity of 1.015. Patient was instructed how to test his urine, and directed to enlarge his diet. I have examined his urine frequently since, and have always found it free from sugar. His improvement was rapid, and seems to be permanent. He is in vigorous health, superintends his farm, and also performs a large amount of manual labor. He has taken no medicine for several years, excepting an occasional dose of calomel, which he claims relieves him of constipation better than any other remedy. He now eats all kinds of fruits and berries, many vegetables not on the bill of fare, and partakes freely of bread made from the

[1] Read before the Putnam County Medical Society, Greencastle, Ind., January 13, 1885.

so-called gluten flours, which are usually composed of more than fifty per cent. of starch.

Case III.—S. C——, aged forty-two, consulted me February 20, 1879. Had lost thirty pounds in weight in the three preceding months; had always been a hearty eater, partaking freely of saccharine and starchy food; always drank water freely, and supposed it natural to pass large quantities of urine; does not remember the time when he could pass the night without urinating once, and sometimes twice during the hours usually devoted to sleep. The amount passed in twenty-four hours at the time he consulted me was two gallons; specific gravity, 1.028, with an abundance of sugar; had used two barrels, at twelve dollars each, of that greatest of all humbugs, Bethesda water, before consulting me.

When informed of the nature of the disease from which he was suffering, he absolutely refused to take any medicine, but promised to faithfully conform to the prescribed diet.

He was furnished with the necessary means to test his urine, and began the treatment at once. In ten days he called again, when his urine was diminished to two quarts, with a specific gravity of 1.010, and entirely free from sugar.

The nitrogeneous diet agreed with the patient; he soon regained his lost flesh, and continued cheerful and happy for about two years, when he began to clamor for bread, and, as his urine had been entirely free from sugar for nearly two years, I procured for him several specimens of the so-called gluten flours.

Sugar made its appearance promptly in the urine after the use of these flours. The patient continued, however, to use bread made from them sparingly for nearly two years without any marked symptoms appearing, such as thirst, increased appetite, or emaciation, or even a greatly increased flow of urine, yet sugar in small quantities was always present. For the last six months he has returned to the nitrogenous food strictly, or only eating such fruits and vegetables as careful testing has shown to be harmless, and, to all appearance, has recovered his old-time vigor. His urine is little, if any, above the normal in quantity; specific gravity varies from 1.015 to 1.020, and is entirely free from sugar. He is attending to all his business, and is capable of performing a large amount of labor, either physical or mental. I regard this case as of peculiar interest, because he took no medicine, yet his improvement was as rapid and as satisfactory as those who took drugs.

Case IV.—Miss K. M. N——, aged twenty, by occupation a teacher, consulted me January 18, 1884. She had lost forty pounds in weight during the nine months preceding. Passed over two gallons of urine in twenty-four hours; specific gravity 1.055, containing a large quantity of sugar; great thirst, insatiable appetite, etc. Had great muscular weakness, indisposition to perform any kind of labor, either mental or physical; had gloomy forebodings on account of having lost a brother with the same disease a short time previously; had not menstruated for four months.

She was placed upon an absolutely nitrogenous diet for a few days, and given to drink freely of alkaline mineral waters (Carlsbad), sufficient to produce free catharsis. By thus eliminating all undigested starchy materials remaining in the bowels, and depleting the volume of fluid contained in the blood-vessels, the sugar deposited in the tissues will be more readily absorbed and eliminated from the body. In five days the quantity of urine was diminished more than one-half, it was free from sugar, and the specific gravity had fallen to 1.015. Her diet was carefully enlarged and her urine tested every few days. She regained her lost flesh, began to menstruate in March, and resumed her occupation as a teacher a few weeks later. Several months since, I prescribed bromide of arsenic in her case. After taking it a few days she ate some white bread, which was followed promptly by a reappearance of the sugar. She remains in vigorous health, but has been unable to partake of starchy or saccharine food.

Case V.—R. K. H——, aged sixty-five, farmer and trader by occupation, consulted me August 2, 1884. Had lost about thirty pounds in weight during the last few weeks; had been suffering greatly from thirst, craving appetite, etc. This patient was passing one and one-half gallon of urine each twenty-four hours. The specimen examined by me had a specific gravity of 1.038, and was highly saccharine in character. He had been a heavy consumer of starchy and saccharine food, such as white bread, potatoes, rice, syrup, etc.

He adopted the prescribed diet readily when warned of his danger, and being a man of intelligence he was furnished with the necessary chemicals to examine his urine and taught their uses. In about ten days his urine was free from sugar; specific gravity 1.015, and quantity diminished to less than sixty ounces. Thirst and appetite normal. Sleeps all night without a call to urinate. His bowels were purged with alkaline mineral waters, after which he took a solution of bromide of arsenic after each meal for two or three months. I have tested his urine frequently and have found it free from sugar, although he uses bread in moderate quantity. This is an apparent cure. How much the arsenical preparation influenced the result I am unable to decide.

Case VI.—Was called to see upon the same day, and in the same house, although no relation to Case V., M. S. T——, aged fifty-seven, farmer by occupation. Had been suffering from diabetes for about two years, and had been treated by several physicians, and taken different medicines without benefit. Had not been upon a restricted diet. He was emaciated and feeble; weight, formerly one hundred and seventy-five pounds, reduced now to one hundred and seventeen pounds. Patient had been suffering for two or three days from an attack of acute indigestion, and had taken little or no nourishment during that time, and in consequence the amount of urine, together with the specific gravity of the same, had been greatly reduced. The specimen which I examined showed an abundance of sugar, and had a specific gravity of 1.028. No influence which I could bring to bear upon this patient could induce him to submit to a strictly nitrogenous diet for more than two or three days at a time. Notwithstanding this, there was some improvement in his case, and he gained seven pounds in weight; but he finally broke away from all restraint, and indulged freely and frequently in starchy and saccharine food, and died with diabetic coma December 23, 1884.

In reporting these cases, in order to economize time and space, all minor details have been omitted. It should be thoroughly impressed upon the mind of the practitioner that every case of diabetes is to be studied and treated by itself. Different cases vary widely in their causes, symptoms, and pathology. The progress already made by the disease when we are consulted, the age of the patient, etc., will materially influence the prognosis and treatment.

Before the age of puberty little can be done to stay the progress of the complaint. If the disease has progressed so far that the sugar cannot be eliminated from the urine in the course of ten or twelve days by simply regulating the diet, a cure is not to be thought of. To prolong the life of the patient under these circumstances for a few months is the best that can be hoped for.

The first thing which should be done is to free the patient's urine from sugar. This can be done in favorable cases in a few days by placing the patient upon a strictly nitrogenous diet, aided, if necessary, by evacuants such as the alkaline mineral waters. Nothing is more grateful to the stomach of the diabetic than a copious draught of Carlsbad water, and no restriction should be placed upon him in regard to the amount of fluid taken; his thirst will subside as soon as the sugar is eliminated. Water can do him no harm, but a withdrawal may result disastrously. With the disappearance of sugar from the

urine all the disagreeable symptoms subside—thirst, frequent and copious urination, etc. With a good supply of nitrogenous food, such as the patient can oxidize and assimilate, the craving appetite is also disposed of. If this condition of affairs can be brought about, our prognosis is correspondingly favorable, and while I am somewhat doubtful about being able to produce permanent cures, I do believe that the life of a diabetic, under favorable conditions, can be prolonged indefinitely by proper management.

Having freed the patient's urine from sugar, we are then prepared to study his individual case. It is a matter of surprise to note the difference in the ability of different patients suffering from this disease to assimilate foods of different kinds. Some can use starchy food in small quantities without sugar appearing in the urine; others cannot use the smallest quantity of starch, but can assimilate small quantities of cane-sugar; others can use all kinds of fruits and berries without detriment, while others cannot. Again, many patients can use milk and sugar, and consequently can use milk in all their foods where it can be used for cooking, etc., while a small quantity in others will cause sugar to appear promptly in a few hours after its ingestion; others can partake rather freely of certain vegetables like cabbage, tomatoes, and onions, while others cannot, and so on. These are some of the reasons why I insist that each case of diabetes must be studied and treated by itself. Every article of food which can be added to the list of a patient suffering from this disease is a great gain for him, and contributes very much to his happiness.

The time which elapses after partaking of food in these experiments, and that at which the urine for examination is passed is of the greatest importance. Sugar makes its appearance in the urine in a few minutes after the ingestion of starchy or saccharine food, and if a single indulgence is permitted, all traces of it will have disappeared in six or eight hours, so that a patient may eat these forbidden articles at the morning or noon meal, and no sugar appear in the night's urine. In order, then, to decide whether any given article of food is permissible, the first urine passed after the indulgence should be tested for sugar. In this way every article of food about which there is any doubt should be carefully verified in each and every case of this disease.

It is absolutely necessary that the diet of the patient at first should be restricted to the so-called meat diet, including meats of all kinds, fresh or salted—beef, mutton, pork, bacon, tripe, tongue, sausage, game of all kinds, poultry; fish of all kinds, fresh and salted; oysters, lobsters, crabs; eggs cooked in any way; butter, cheese, and all oils and fats. Almost every case of diabetes, especially if seen sufficiently early, can assimilate the articles mentioned above, or a sufficient number of them, to furnish him nourishment. He can drink without detriment tea, coffee, and buttermilk.

There are other articles quite numerous which are debatable; some patients can use them without prejudice freely, while others cannot. These articles should be carefully tested after the sugar has been eliminated from the urine as before suggested. This list comprises cream, curds, sweet milk, and many vegetables, such as lettuce, endive, spinach, cabbage, cauliflower, coleslaw, broccoli, string-beans, watercress, celery, asparagus, turnip-tops, young onions, cucumbers, pickles, olives, tomatoes, etc. While a majority of diabetics can eat these articles, or most of them in moderation, occasionally a patient will be found who cannot, and the only way to decide the question is to carefully test the urine for sugar after their ingestion. Most patients can use as food certain nuts, as almonds, walnuts, butternuts, filberts, pecans, Brazil nuts, but neither peanuts nor chestnuts.

There is a great difference in the power of patients to appropriate fruits; some can eat apples, peaches, and pears with impunity, others cannot use any of these; blackberries, raspberries, and strawberries without sugar, can be used freely by most patients suffering from this disease. I have one patient who can eat all the above-mentioned fruits and berries, but cannot use oranges or bananas. He can use apples grown in this latitude, but cannot use those grown in Michigan or New York. There seems to be a difference in the kind or amount of sugar contained in these Northern products which the patient is unable to oxidize.

It would seem that the bill of fare heretofore given from which to make selections of food would be amply sufficient to satisfy an ordinary mortal. But such is not the case. The one article not enumerated in this list, and for which they all clamor sooner or later, is bread, and I am sorry to say that no substitute which is at all satisfactory has been discovered.

In my younger days I experimented, very much to the detriment of my patients, with the so-called gluten flours of different manufacturers. No preparation of this article that I have examined contained less than fifty per cent. of starch, and many samples contained more starch than the whole wheat flour ordinarily contains. I want to caution the younger members of the profession to avoid the errors I have made. While some of these preparations are doubtless wholesome and nutritious foods, they are utterly unfit for diabetics, and while I have not tried the almond bread recommended by Pavy, I am satisfied that it will prove to be hard to digest, unsatisfying, and unsatisfactory as a substitute for bread with this class of unfortunate patients. Even the bran flour made by the Compton process is not free from starch, small traces of sugar appearing in the urine of some of my patients after its use; it is a poor substitute for bread, one of its chief advantages being that it enables the patient to eat butter freely by furnishing something upon which to spread it. It is better that all attempts to furnish bread should be abandoned. The appetite for it should be crushed out. It requires great firmness upon the part of the physician, and great will-power upon the part of the patient to do it. Yet I have a patient who has not tasted bread for six years, and yet he says he can do without it with less trouble than he can quit the use of tobacco. Bread is the one rock upon which diabetics are wrecked. All other articles of diet are readily surrendered.

Patients should be impressed with the fact that their lives are in their own hands, that medicine in the present state of our knowledge is powerless to cure them, but that they can prolong their own lives indefinitely if they do not partake of food which they cannot appropriate. It should be impressed upon their minds that the more starch and sugar they eat the hungrier and thirstier they become. In ages gone by saccharine and amylaceous foods were not used to the extent that they are now, they are modern inventions so to speak. Primeval man perhaps subsisted largely upon animal diet, with fruits and berries. His ability to oxidize starch and sugar has been brought about by the slow process of evolution. Every living thing subsists upon its own appropriate food. We are all creatures of environment. The ox would fare badly upon raw meat, while the lion would starve upon fodder. The diabetic has his own appropriate food, upon which he can subsist and be a happy and useful citizen.

The object of writing this paper was to call particular attention to the importance of diet in treating this disease, and to claim that all the benefits heretofore achieved in the management of this complaint have been by the proper regulation of the same, and that medicines are of no use whatever in controlling the diabetic process, and that they should be used as adjuvants only. Of course the functions of all the organs should be regulated by medical treatment when necessary, the same as in any other disease.

In addition to the regulation of the diet other hygienic treatment is of great importance. These patients contract cold easily. Their temperature is nearly always below the normal, usually as much as one degree, and sometimes more. The normal temperature of a diabetic

is in the neighborhood of 97° Fahr. This, perhaps, is owing to the imperfect oxidation of food. The respiration of this class of unfortunates is abnormally slow. I have noticed in all my patients that respiration is seldom more frequent than 14 per minute, and in some of my patients as slow as 12 per minute. From this fact it will be observed that diabetics receive at least twenty-five per cent. less oxygen than the normal individual. The question presents itself right here, Could he oxidize saccharine and starchy food if he received the normal quantity of the gas? Taking cold is simply abstraction of heat carried beyond the point of healthy reaction. This is one of the chief dangers of the diabetic, and should be carefully guarded against. It causes catarrhal inflammations which may result in unabsorbed pneumonic deposits in the lung, which undergo cheesy degeneration with a destruction of the lung and death from phthisis pulmonalis. Warm flannels should be worn at all seasons of the year, and where the patient can afford it, the winters should be spent in a warm climate, or, what is better, permanent residence should be taken in a warm, equitable clime. The most serious objection to the last suggestion is that Southern climes do not generally abound in wholesome, nitrogenous food. The skin should be kept in good condition. Too much bathing should not be indulged in, either hot or cold; both methods abstract heat unduly, and should be used with great care by diabetics.

It is unnecessary to give a complete list of articles of food which cannot be used by the sufferers from this disease. Any article containing sugar or starch in appreciable quantities must not be used, such as bread, either white or brown, excepting the bran bread made by the Compton process, and that sparingly, no potatoes, rice, or preparation from the Indian corn, etc. In fact, nothing but the articles mentioned as proper previously should be used.

The highest specific gravity which I met was 1.060; the lowest, which contained appreciable quantities of sugar, was 1.008. Sugar appears in small quantities without raising the specific gravity to any considerable degree in testing certain articles of food, after the urine has been freed from this substance.

I have been asked what effect was noticed upon the disposition of my patients which could be properly assigned to the influence of nitrogenous diet. I think they are more active and energetic. They lose the drowsy, heavy, stupid habit of the heavy starch and sugar consumer. They possess a more irritable temper than heretofore, partly owing to the diet and partly to the disease. Case III., who has eaten nothing scarcely but animal food and berries and fruits for six years is entirely different. He was indolent and lazy, he said, all his life until he began the treatment. He is now very active, possesses a ferocious temper, and makes everything about him keep moving. Yet I cannot detect a trace of disease about him. He eats well, sleeps well, and is free from aches and pains of all kinds. Starchy food in the diabetic holds the sexual functions in abeyance, but a strict adherence to the nitrogenous diet for a short time fully restores them.

The effect of a nitrogenous diet is soonest noticed for its effect upon vision, especially upon the presbyopic. Some of my patients were using spectacles for this anomaly at an early age; soon after beginning the treatment they were enabled to lay aside their glasses.

This led me to experiment with other patients who were presbyopic, but who had not diabetes, and were afflicted with paroxysms of sick-headache and other maladies. In every case experimented upon there was great improvement in the vision. Other points of interest present themselves to my mind, but I have already exceeded the limits allowed by our by-laws and must defer the matter for the present.

January, 1885.

THE COMMA BACILLUS.—A Koch sure thing.

REPORT OF A CASE OF ATROPINE-POISONING.

By H. P. LOOMIS, M.D.,

LATE HOUSE-PHYSICIAN TO BELLEVUE HOSPITAL.

Miss X——, an intelligent and refined woman, twenty-eight years of age, who had been educated as a trained nurse, while convalescing from a mild attack of continued fever, was ordered a solution of the sulphate of atropine for the relief of profuse night-sweats. The solution ordered was intended to contain $\frac{1}{100}$ of a grain of the salt to each drachm. Through mistake in compounding, each drachm of the solution contained one grain of the sulphate of atropine. This amount was taken at 10 P.M. The patient at once remarked the peculiar taste of the medicine, and knowing its nature feared that an overdose had been taken. I was immediately summoned, and reached her ten minutes after the drug was taken.

Two minutes after swallowing the poison there was a sense of burning and dryness in the throat, which rapidly increased; in ten minutes the voice became husky, the face deathly pale, and the pupils slightly dilated. At this time I administered a mixture of tannin and animal charcoal, and seven drops of the fluid extract of calabar bean. At 10.15 P.M. the patient was very restless, talkative, and slightly delirious. The face presented a peculiarly wild maniacal expression, with marked protrusion of the eyeballs. The early pallor gave place to a livid redness, which extended over the neck and chest, presenting the appearance of a diffuse erythema. The pulse, which half an hour before the drug was taken was 72 per minute, had increased to 150, and was soft and compressible in character. The nurse in attendance had administered ♏ xij. of Magendie's solution of morphine hypodermically, and ℥ vj. of whiskey by the mouth. The notes taken at the bedside are as follows:

10.25 P.M.—Respirations, 30 per minute; pupils are extremely dilated and do not contract under strong light. The patient moves her eyes incessantly from side to side, tosses about in bed, and keeps up a constant incoherent talking. About ℥ ss. whiskey is given by the mouth.

10.30 P.M.—Pulse, 162, small and thready; respirations, 35; delirium violent; aphagia is marked. Whiskey ℥ j. was now given hypodermically.

10.45 P.M.—Pulse increased to 170; respirations, 60 per minute and shallow. The delirium has become so violent as to require restraint, and is accompanied by choreaic movements of the limbs. There is intense hyperæsthesia, most marked in the optic and auditory nerves, less so in the cutaneous. ♏ xij. of Magendie's solution of morphine and ℥ iss. of whiskey were administered hypodermically.

11. P.M.—Patient is sleeping quietly, but starts at the slightest noise. Pulse, 154; respirations, 30; temperature, 98½°; surface hot and dry; no change in the pupils. ♏ xl. of whiskey have been administered hypodermically as often as the pulse and general condition indicated.

12 P.M.—For the past twenty minutes patient has been sleeping heavily, but easily aroused; lies motionless, with great muscular relaxation and partially closed eyes. The cutaneous hyperæsthesia has given place to marked anæsthesia, so that there is no pain on introduction of the hypodermic needle. Pulse, 150, and small; respirations, 20. ♏ viij. of Magendie's solution of morphine have been given hypodermically. Patient seen by Professors A. A. Smith and Janeway, who advised stimulation by aqua ammoniæ, to be given hypodermically. The continuation of the morphine in quantities sufficient to control the delirium was also recommended. The question of giving jaborandi was considered, but owing to the feebleness of the heart it was not deemed advisable to administer it, because of its well-known action as a cardiac depressant.

6 A.M.—During the night fits of violent delirium coming on suddenly have alternated with periods of pro-

found stupor. Pulse is now 130, although during most of the night it ranged above 150; respirations are 16. Attempts have been made to pass the catheter, but owing to the urethritis and vaginitis, accompanied by a swollen condition of the parts, it is found impossible to enter the bladder. At each attempt the patient became so violent that cardiac failure seemed imminent, therefore it was deemed advisable to desist from further efforts to empty the bladder for the present. Dilatation of the pupils has slightly diminished. Hypodermics of whiskey have been given during the night according to indications, and morphine, hypodermically, in divided doses, to the extent of twenty-four minims.

10 A.M.—Patient awake, but only partially conscious. Complains of great soreness in her throat and numbness in the extremities. Pulse, 128; respirations, 16; temperature, 100⅘°. Catheter passed with difficulty, and ten ounces of a dark-colored urine drawn. From this time the patient continued slowly to improve, but was not entirely rational until twenty-seven hours after the poison had been taken, at which time she is very restless and wakeful, constantly talking, with periods of mild delirium. An acute inflammation of the whole intestinal tract followed. The inflammation of the urethra and vagina subsided on the fifth day. The mydriasis continued for twelve days, accompanied by slight focal disturbance. For weeks the peculiar effect of the poison upon the nervous system was evidenced by great nervousness and irritability, a constant loquacity, forgetfulness of names and events, inability to use words correctly, and a wakefulness which could only be overcome by the use of opiates.

All the urine excreted—from the time of taking the poison until the end of the second day—has been chemically examined by Mr. Charles Rice, Ph.D., Chemist of the Department of Public Charities and Correction, who prepared extracts of the urine by means of benzine and chloroform, the concentrated aqueous solution of which proved, by physiological trial, the presence of a mydriatic alkaloid. Chemical analysis fully established the presence of atropine, the quantity of which, approximately estimated by Mayer's test, amounted to 0.054 gramme, or about three-fourths of a grain.

The following points seem to me to be of special interest in this case:

First.—The large amount of atropine taken. I can find but one recorded case,[1] in English or American journals, in which so large a quantity of the salt was taken and recovery occurred.

Second.—The primary retardation of the cardiac pulsations, which is stated by many observers to be of constant occurrence, was not noted, although the patient was seen within ten minutes after the ingestion of the poison, and before its paralyzing effects on the vaso motor centres was evinced by dilatation of the capillaries.

Third.—The elimination of the atropine. By chemical analysis over three-fourths of a grain of atropine was recovered from the urine secreted during the first forty-eight hours after the ingestion of the poison. It is evident that by far the larger portion, if not all, of the salt was eliminated by the kidneys.

Fourth.—Effects on the intestinal tract. The drug produced almost complete exfoliation of the intestinal mucous membrane, a result of atropine-poisoning I do not find mentioned. Perfect casts of portions of the intestines were passed for a number of days, and it was near the close of the second week before a movement of the bowels would not cause excruciating pain.

Fifth.—The evident antidotal effects of morphine. Within the first hour and a half over one grain of morphine was given hypodermically, followed by unquestioned beneficial results. The pulse became slower, the respirations were decreased, and the patient passed from a state of wild delirium into one of comparative quiet. It was not until nearly one grain of morphine had been given, however, that its full effects were obtained. Its antagonistic action was plainly seen in the rapidity with which the controlling power of the opium passed away and the entire absence of any symptoms of narcotism. At no time during the first night was there a longer period between the hypodermic injections than two hours, and within the first seven hours nearly two grains of morphine were given without producing the least impression upon the pupil. Upon the patient's general condition, however, the result was most marked and salutary. It seems to me that the bold use of opium saved the life of the patient, the best index to its administration being the delirium. About fifteen minutes alter taking the poison seven drops of the fluid extract of calabar bean were given, but as it was administered in connection with large doses of morphine, it is impossible to formulate any definite statement in regard to its effects.

Sixth.—The peculiar after-effects of the poison upon the nervous system. The centres which preside over speech seemed to be principally affected. The patient talked incessantly to those about her, always in a perfectly rational manner, however. Her attendants found it impossible to keep her quiet, and she herself appreciated the condition and remarked her inability to refrain from expressing verbally every thought which passed through her mind. Naturally of an amiable disposition, she became peevish, dictatorial, and very excitable. During convalescence the patient was troubled with neuralgic pains, most severe along the course of the nerves of the lower extremities.

The peculiar action of the atropine upon the secretions was most markedly shown in the condition of the synovial membranes and tendon sheaths. As soon as the patient left her bed there was considerable stiffness in and about the joints, which by the end of the second week had so increased as to almost prevent motion after a night's rest. It was only after repeated efforts and gradual limbering of the muscles that the patient was able to walk. The joints could be heard to creak, and a friction fremitus, on rubbing the tendons, was readily appreciable.

54 East Thirty-fourth Street.

[1] Medical Times and Gazette, July 6, 1865, p. 34.

GARLIC AND RABIES—A HISTORICAL REVIEW.

By J. L. CONTE, M.D.,

Deerfield, Ind.

The London *Standard* had, not long ago, an article entitled "A Remedy which is Infallible for the Cure of Rabies." In the beginning a very little attention was given to this discovery, but ever since the above referred method has been used with good result, the *new* discovery is spoken of everywhere. The Bouley system is the following: "The wound is first washed with water, then it is covered with pulverized garlic, and in addition, for eight or ten days the patient must take a strong decoction of garlic, and for a longer period use food prepared with garlic." I will not here argue the preventive, or curative merits of this *discovery;* but what is disgusting me is, to see how medical men will accept this agent (garlic in *rabies*) as a *new* discovery of Bouley, as a *new* method of Bouley, when all this we can read in the writings of authors who lived before our Lord Jesus Christ.

It seems impossible to me that there should be among the faculty such want of knowledge of ancient medicine; it seems that all that has been observed and written by the ancient physicians is looked upon as a dream, a romance, a chimera!!!

In our days students think that the bread of medical science can only be found in the richly bound volumes, with clear types and printed on beautiful paper; the sight

of snuff-colored, dusty, half-Latin and half-Greek volumes gives them the sea-sickness.

The present scholar thinks that these old books and their theories are dead as the authors; they look for new theories in new books—new! new! It is a question of taste; for my part I rather prefer these veteran books, the reading of which had with me always a peculiar result, viz., to demonstrate that the *new* books are *old*, and to prove that a great many *new* discoveries are very *ancient*. And this is illustrated in this Bouley discovery, Bouley specific, Bouley treatment. And here is what I have read with my own eyes.

1. Paul of Egina, a renowned Greek physician who lived 420 years before Christ, in his work "De Re Medica," edition of 1542, published by James Guinterius, from page 198 to page 201, first speaks of means to protect the human family from the sting of venomous animals, and says that it is necessary to close their "cavas latebras allio in aqua detrita;" that if any one should be bit by some poisonous animal, and the poison had made its way into the blood, then it is necessary to bleed at once and feed the patient food well prepared with pepper et *allio;* and when afterward he specifically speaks of "De Rabbiosi Canis Morsus," after a magnificent description of the symptoms of *rabies canina*, he speaks of its curability, among other remedies he advises "Vel ulcera (the bite) prius formentis adiuta *allio* oblinis. Then he speaks of cataplasm on the bite of a mad dog, and after advising cataplasma of *cepæ* (onions) cum sale et ruta, advises also that of *allio*, and speaking of draught says, "potio idem efficiunt *allio* porri cepæ in cibo sumpta."

2. Dioscorides Pedacio, Greek doctor, born at Anazarbe, in Cilicia, a military medical man of great renown under Julius Cæsar and friend of Marc Antony and Cleopatra, born fifty-six years before Jesus Christ, author of a treatise on materia medica and of a work entitled "De virulentis Animalibus, et venenis, cane rabioso eorum notes, ac remediis, libri quatuor," in the first work of five books, at page 71 of second volume published by De Sabio Nicolinis Venetiis, 1538, chapter 49, *De allio*, says: "*Allio* contra rabiosorum morsus et ellitu (ointment) et cibo valet."

3. Petrus De Abano, born at Vico Albano, near Padua, in 1250, a celebrated astrologer, doctor, known by the nickname of "Conciliator," and who died while under indictment in 1316, in his "Libellus Sane Aureus," etc. (De Venenis, nunc postremo recognitus suæque, etc.) Venetiis apud Joa Gryphium, 1550, a very rare edition, which by the way is the second edition, the first having been published in 1537, at page 50, chapter xiii., says "De Morsu Canis." After describing first the symptoms presented by the rabid dog, and afterward the symptoms presented by the bitten man, speaks of the treatment and says: "Quod ejus cura est, ut super locum morsus ponatur ventosæ cum scarificatione et ponantur Desuper Allium sive cepe tritum, et confectum cum butyrum, vaccino et sumat in potu electuarium cancrorum fluviatium (crabs).

4. Santes De Ardoynis, of Pesarus, a distinguished doctor in medicine who lived in 1430, under the Emperor Sigismondus, in his "Opus Venenis," printed in Venice by Octavious Scotum in 1492, plainly stated that "Allium Agrimonia Oxyapathum," are remedies useful against the bite of mad dogs, and says that these substances are useful because "sunt quæ per vias urinæ de corpore eliminant" (the rabid poison).

5. Salius Diversus Petrus, a learned physician and philosopher of Faenza, in his treatise "De Febre Pestilente" edited in 1583, speaking also in regard of "curationes quorundum particularium morbosum" in p. 333, edition published by A. Wechely, of Frankfort, in the year 1581, very elaborately and scientifically speaks of the "morsus canis rabiosi" and of its treatment and curability, and in regard of the curability, after having stated that if the patient (as it was the usage) refused to be burned, says: "Applicatur emplastrum a Dioscoride desumptum. Quo frequenter usus sum cum felicissimo successu in pauperibus et corporibus durioribus et in his etiam qui chirurgicam manum non admittunt ex *allio cepos* et granis tritici commansis compositum." And the author, after having stated that this treatment is also a part of prevention, so much so that the author never heard or saw any one afflicted with rabies if "eius ulcus recta cum ractione fuerit pertractatum," then passes to indicate the internal treatment and which food can "venenum refrangere et quæ idem ad viscera penetrare proibeat," and that these articles are, "vinum potens et dulce radices acriores, ut *Allium cepos porrum raphanus*, etc., et potus sit copiosus." And in reading the splendid article of Diversus, we cannot fail to notice how he warmly recommends the use of white hellebore in powder and in draught mixed with *allio* in rabies.

6. Vicus of John, from Trapallus, a surgeon who lived in the sixteenth century, in his work of "Practice." in the seventh volume bearing for title "De Natura Simplicium," p. 584 of the Lugduni apud Honoratum edition, 1587, speaking of the medical properties of garlic, wrote: "Allium—similiter etiam decoctum et pistatum cum noce et ficubus ac theryaca omnibus venenosorum animalium morsuris intus et extra administratum magna est medicina.

7. Andrea Cesalpini, a renowned philosopher, naturalist, and physician, in his "Praxis universæ artis medicæ" (Venetiis, 1680). at p. 247, chapter xxxv., in indicating the treatment of the bite of a rabid dog first says, "Eductio virus ex vulnere," and afterward, if the wound made by the bite is not closed, "imponendum *allium* sylo detritum," and internally does repeat the advice of Dioscorides, viz., use "*allium cepæ porra*, quia vix (the power of the poison) abolentur."

8. Richard Mead, born in London in 1673, illustrious writer on toxicology, in his valuable work "Mechanica Expositio Venenorum," published in 1737, republished his famous thesis written in 1735, "De Cane Rabido," in which he is recording and analyzing with minute observation the ancient remedies, and among others the *allium* as the remedy which when used internally, "per vias urinæ de corpore eliminat" the rabid poison. He also, like Dr. Cornelius Celsus, warmly recommended "Curatio omnium maxima et tutissima, submersio in aqua frequens.

I could go beyond the seventeenth century, but it would take too much paper and time; but if you want to satisfy your curiosity, read the work of Andry, "Recherches sur la rage," 1777, and Portal, "Observations sur la nature et sur le traitement de la rage," of 1779, and you will be satisfied that that of Mr. Bouley is *not a new discovery*, as the press states.

I shall close by asserting that the statement of Mr. Bouley's discovery of the medicinal property of garlic in hydrophobia is an *unpardonable blunder* in medical literature; it is a mistake in the medical history, because it is beyond doubt that the use of garlic as local and internal treatment, and as preventive against the rabid virus in the human organism, is a remedy known more than four hundred and twenty years before the birth of Christ, and this is beyond doubt. This new invention is another charlatanism; another crow clothed with the dazzling feathers of the peacock! For shame! Such unblushing effrontery is an insult to the medical fraternity, which should be exposed and not let go by unnoticed.

THE ORIGIN OF CHOLERA EPIDEMICS.—Dr. John H. Rauch calls our attention to the fact that he does not forget the history of cholera elsewhere than in the United States, but has distinctly stated that "Cholera is a capricious disease, and the history of its various pandemic extensions throughout the Old World affords occasional instances of a single introduction sufficing to inaugurate an epidemic."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, February 28, 1885.

THE CIVIL SERVICE EXAMINATION.

IN accordance with the laws of the State, in the future, all public medical positions will have to be obtained by competitive examination. This is but part of the general plan of removing from political favoritism and trade the incumbents of public office. That this scheme is admirable nearly every one not directly interested in politics will concede; and particularly in medical positions that directly involve considerations of health and life, a plan of selecting capable and faithful men is urgently required. But exactly the best method for selecting the best man does not seem to be so plain. After escaping the ward politician, the unhappy applicant may find himself under the dreary tyranny of the cram quiz. In other words, examinations may be so conducted as not practically to test a man's fitness for a medical office, but rather his ability to quickly absorb vast masses of theoretical knowledge. In such a contest a man of affairs, who could bring to an office the practical knowledge derived from years of experience, has no chance beside the recent graduate or the parrot-like glibness of the quiz man. We do not in any way wish to underrate the great value of the theoretical groundwork of medicine. All success must be based upon a solid foundation of anatomy, physiology, and the kindred sciences. At the same time there are many facts that a man knows better immediately after graduation than he ever does again, and unless he has time and opportunity to carefully review such topics, he is not as able to stand an exclusively theoretical examination after some years of valuable professional experience as when he was a mere tyro.

The first civil service examination for medical positions under the City Government, exclusive of the Department of Public Charities and Correction, was held February 3d and 4th, at the rooms of the Civil Service Commission. There were forty-five applications made for positions, and thirty-nine actually competed at the examination. Of these, twenty-eight passed and eleven were rejected, not having reached the grade of seventy per cent. required for passing. Although a man's previous education and experience, to which he certified on oath, counted in his favor, the only actual test of professional knowledge to which he was subjected consisted of a written examination in which the time was limited. The subjects comprised all the branches of medicine and hygiene, but did not include outside topics. As a rule the questions were fair and leading ones. One objection, however, that caused much complaint was that the examination covered too much ground, and that not sufficient time was allowed. We have carefully examined the questions, and think there was room for such criticism. It is here that a man who is well posted, but not freshly crammed, has not altogether a fair chance, as he is not given sufficient time for reflection.

We think the fairest way of conducting such an examination would be to make it partly written and partly clinical and practical. In the written test the questions should be leading, and abundant time allowed for answering them; in the clinical part let the applicant be taken to a hospital or dispensary and his resources in diagnosis, prognosis, and treatment be put to a practical trial. In this way we think undue advantage would not be given to the merely crammed man. On February 9th the Civil Service Board was changed, and we understand it is the object of the present board to make future examinations as practical as possible. There are many difficulties attending the equitable adjustment of civil competitive examinations, but in course of time and after various trials we feel sure that a fair system will be elaborated, in which a happy combination of theoretical and practical tests, rationally applied, will result in the selection of the fittest man for office. A weak point of the present system in this city, is that when openings occur in any department, the three highest on the list are sent for each vacancy, but the appointing power is not obliged to select from this number, and can have repeated names sent, in classes of three, until a selection is made. In this way it is possible for men standing quite low in the list, but having strong political influence, to obtain an office. The fact that men who stand high on the list have not received a given position does not prejudice them from other appointments, however, as they still stand high on the list, and will accordingly have their names handed in first for the next vacancy in any department.

While the appointing power should have some latitude in making selections, according to the law in this city, the men who pass the best examinations do not necessarily get the positions. We would therefore offer as a suggestion, that in the future the examinations should be made as nearly as possible fair tests of the applicants relative abilities to practically fill a given office, and that then the successful ones should receive appointments in the order of their merit. If these details are not observed, the plan of appointing by civil service examination will be practically little better than by old-time political favoritism. The men who have recently passed will be on the eligible list for two years—after that, as the law now stands, their names will be dropped. In subsequent examinations, however, if any men pass better, they will take precedence. Any temporary position, as summer inspector of the Board of Health, does not preclude one from being eligible to a permanent position.

IS DENTISTRY A DISTINCT PROFESSION?

THE discussion on the retention of dead teeth in the jaws in these columns has elicited inquiries as to what constitutes "dentistry"; and inasmuch as efforts are being made to improve the means for dental instruction, the

subject has an interest for medical men. We learn from Dunglison that a dentist is "one who devotes himself to the study of diseases of the teeth and their treatment." They have also received the designation of dental surgeon, and surgeon-dentist. The work of the earlier dentists was confined mostly to tooth-drawing, the stopping of cavities in teeth, and the application of false teeth. Their ranks were recruited from among skilled artisans, notably goldsmiths, sources from which many continue to come. For the past quarter of a century dentists have been organizing themselves into associations, and some twenty "dental colleges" have come into existence. From the brotherhood of these associations soon came into existence the so-called "dental profession." In the meantime there has been now and then an accession to their ranks of men possessing more or less knowledge of diseases of the mouth, who have attempted to raise the business of dentistry to the dignity of oral surgery. It will thus be seen that the "dental profession" is constituted of two distinct elements, a mechanical and a medical. Now it may be said of the former that in the public mind they are by courtesy a "profession" much in the same sense that barbers are, since the one cannot display greater zeal in recommending his hair invigorator to patrons in his chair than does the other in respect to his dentifrice. But it is otherwise with the medical men who have espoused dentistry, and who, while reaping the harvest of profit that comes from dental ornature, as well as from surgical treatment of the mouth, desire to dignify their avocation with the title of "Oral Surgeon." Just here we will venture to offer a word of counsel to those whose inclinations lead them to the practise of oral surgery, some of whom seem anxious to elevate the standing of all dentists to their own; it is this, the attempt to educate persons at the outset as dentists is commencing the work at the wrong place. A specialist in medicine cannot thus be made; there is no short cut for the oral surgeon any more than there is for the ophthalmologist or the gynecologist.

We by no means desire to be understood as opposed to any real advance in any departments of medicine, and, therefore, shall welcome all laudable efforts made in this direction, which, of course, includes oral surgery; and we trust that opportunities may not long be wanting for those whose tastes or interests induce them to take up this specialty after acquiring a medical education. The "dental college," which we believe is peculiarly an American institution, and an outgrowth of a desire to promote the interests of the "dental profession," cannot in its present state do more than instruct the student in a most superficial way as regards medicine, but it may give him special knowledge, and we would suggest that its work should be confined to this. The instruction might include all that would be of service to the metallist both in respect to chemistry and smith-craft. In this way could much be done to prevent the introduction of harmful metals into the mouth in the way of plates or fillings, and the application of ill-fitting plates and other appliances.

The attempt to educate men as oral surgeons, and confer a degree upon them as such in a college, would be as absurd as the exclusive education of an ophthalmologist in an "Ophthalmological College." It is a mistake to suppose that oral surgeons constitute a "profession" any more than do laryngologists or gynecologists in medicine, or patent or criminal lawyers in the law. An oral surgeon must first learn the medical art, just the same as if he were going to practice on any other region of the body.

As regards the making of plates for false teeth or other mechanical work, the oral surgeon may certainly do this, as physicians and surgeons may dispense their own medicine and make their own surgical appliances, since these are all matters concerning each individual's taste or skill.

And while we are on this topic, if the truth must be said, it is high time that all specialism in medicine, inclusive of oral surgery, should have some limitation, since there is a growing tendency toward making all of them "professions," with the consequent practice of greatly overdoing local treatment; this seems specially imminent where the public has become unduly "educated" up to the importance of the local treatment of disease of special organs.

There is another feature of this question which should interest physicians; laws are being enacted in nearly all of the States which to a greater or less extent limit the practice of oral surgery, or dental surgery as it is sometimes called, to the graduates of dental colleges, thus practically throwing the treatment of an important region of the body into the hands of men who, in most instances, have not a sufficient medical education. Physicians are themselves much to be blamed for this state of things, since they have long been in the habit of relegating the treatment of diseases of the mouth to the "dental profession." Should the various specialists finally resort to this kind of trades-union protection, there will soon be no further use for the general practitioner.

THE PRESENT STATUS OF THE CHOLERA BACILLUS CONTROVERSY.

Medical men seem to be thoroughly in earnest this time about reaching bottom facts with regard to cholera. Observations, experiments, and conclusions are showered upon us with lavish liberality. Regarding the vital point of the origin of cholera, opinions are almost as widely different to-day as they were twenty years ago.

One fact, however, stands out boldly before us. Koch has demonstrated the constant association of certain organisms with Asiatic cholera. But the precise relationship which these microbes bear to the disease, and even their diagnostic significance are still in dispute.

In Dr. Wendt's paper, published elsewhere in our columns, we find a *résumé* of some of the most recent inquiries into the nature of cholera. The latest experiments of Van Ermengem would certainly seem to prove that Koch's commas are possessed of virulent properties. But we have not yet learned that all the other intestinal bacteria found in the discharges of cholera-patients are innocuous. The investigations of Emmerich may not have been carried out with the nicety and precision of a Koch, but we fail to see that they deserve no serious consideration.

The report of the British Cholera Commission we confess to be, so far, quite disappointing. The English in-

quirers cannot certainly be accused either of incompetency or of bad faith. Yet they appear to have learned absolutely nothing new about cholera, except that Koch's theory should be at once discarded as not in accordance with (their) ascertained facts. The English report emphatically negatives every one of the German mycologist's assertions (except the constant occurrence in cholera of comma bacilli). The published results of their labors do not in the least assist our understanding of the nature of the disease.

Now, it is very embarrassing to find competent and diligent search for truth lead to such contradictory statements as are found in Van Ermengem's account of his experiments, and the English Commission's report of quite similar ones.

Dr. Wendt, we notice, rather evaded the main issue by merely emphasizing that comma bacilli always occur in cholera. What we wish to know now, and what appears so difficult to determine, is, what the finding of Koch's microbes really amounts to. Is it quite safe to rest a responsible diagnosis upon the identification of these minute and apparently fragile bodies? And do they actually kill thousands of human beings by their extreme virulence?

We must confess that Koch's doctrine has the great advantage of being positive, plausible, aided by analogy and circumstantial evidence, and, further, supported by the accumulating evidence of independent investigations. But in spite of all this in its favor, we have the positive assertions of other inquirers, which are entirely subversive of Koch's statements. At present, therefore, the complete doctrine of Koch cannot be accepted in the sense of a perfect scientific demonstration. As a theory, it is good and serviceable. As a practical guide for treatment or prevention, it must await the ripening that time alone can bring, or, in the words of Chapman, it will have to subside "into the Lethe, which, during the last fifty years, has engulfed hundreds of parasitic fungi which had played a like rôle."

THE PRESIDENT-ELECT AND CHOLERA PREVENTION.

It is now apparent that nothing will be done to protect the country against the invasion of cholera, at all adequate to the emergency, until after March 4th. Although valuable time will be lost which can scarcely be retrieved, yet it may be possible to organize the necessary machinery and put it in successful operation, provided energetic measures be at once adopted. The Sundry Civil Service Bill appropriates the unexpended balance of last year, together with the additional sum of $300,000, the same to be immediately available, to be used at the discretion of the President. The most encouraging feature in the present situation of public affairs, as far as they relate to cholera-prevention, is the approaching change in the office of the Executive of the nation. President Arthur has signally failed to recognize the great responsibility resting upon him in the proper employment of the Epidemic Fund to avert a threatening invasion of cholera. He has had it in his power to have had prepared and put into execution, by the National Board of Health, a system of preventive measures which would have saved the country from this pestilence. The fund placed at his discretion has, on the contrary, been frittered away, and nothing adequate to the occasion has been done, or even contemplated.

We have great faith in President-elect Cleveland, who is a man of straightforward methods, and of practical ideas. We believe that he will at once, on assuming office, correct the errors of his predecessor, and judiciously employ every means at his command to bring the great powers of the Government into active co-operation with State and local health authorities to prevent the threatened epidemic of cholera.

POISONOUS WALL-PAPERS.

The report of Dr. Wood to the State Board of Health of Massachusetts, in which it was stated that from one-half grain to seven grains of arsenic were found per square yard in certain samples of wall-papers, being supplemented by reported cases of arsenical poisoning in Europe from this cause, and an actual case in this city being now under treatment, it has been decided by the New York Board of Health to make a thorough investigation into this subject.

From inquiry we have made there can be no doubt that, with one exception, *all* grades of colored wall-papers manufactured in the United States contain more or less arsenic. This practice of introducing a poisonous substance into a covering for walls is the more reprehensible from the fact of its being totally unnecessary. One firm in London, England, and one in New York produce wall-papers having the most varied and brilliant coloring, which have not even a trace of arsenic in their composition, and there appears to be no reason for other manufacturers using poisonous colors, except that by doing so they make a higher profit on their manufactures.

Arsenical colors are strong and about half the price of non-arsenical colors, and herein lies the secret of their persistent use by wall-paper manufacturers, and it appears to us that action by the Legislature is called for to put a stop to the practice.

We find, also, that a class of colors used by wall-paper manufacturers (who claim to sell non-poisonous wall-paper), which have not arsenic as a base, really contains much of this substance. We refer to colors composed of some white compound, such as whitening, as a base, which is stained with aniline. These colors are very largely in use, and, of course, contain arsenic introduced with the aniline.

The vehicle usually employed to give body and adhesiveness to the coloring being glue, often made from hides prepared with arsenic, this substance is constantly introduced by such means.

It is therefore clear that the practice followed by the firms in question, of employing permanently an expert chemist, who tests every package of color and glue by the Marsh test, which indicates the presence of the twenty-thousandth part of a grain, is the only method by which non-arsenical wall-papers can be produced.

The public appear under the impression that arsenical poisoning from wall-papers is due to portions of arsenic in powder being dusted off the walls. Such is not the case, the chief danger lies in the fact that, in damp

weather, the arsenic undergoes decomposition, and forms, in combination with other substances present, arseniuretted hydrogen, which diffuses in the room, and being a deadly poison causes sickness to the inmates. This form of arsenical poisoning is more to be dreaded than that from the particles removed by attrition; the latter, however, being also a source of danger to health.

In conclusion, we would point out that the common belief that arsenical colors are restricted to green, is by no means correct, for the blues, browns, yellows, and reds are largely contaminated with this poison.

We are glad to hear that Dr. Edson, on the part of the New York Board of Health, has determined to sift this matter to the bottom, and we shall await the result with much interest.

LARYNGEAL STENOSIS AND CERTAINTY IN MEDICINE.

A BRIEF discussion which occurred in the New York Pathological Society, on December 24th, should become historical. A distinguished professor of children's diseases asserted that in laryngeal stenosis (of croup) the respiration was slow. Another eminent gentleman, also a professor of children's diseases, and almost equally well-known, asserted that in the condition referred to the respirations were invariably hurried. One professor had seen a hundred cases, "and many more;" the other had seen four or five hundred cases; yet upon a simple clinical phenomenon there is absolute divergence. The lesson suggested at the time was that one must see a great many cases of a disease in order to establish a clinical fact. We do not quite agree with such a view. It is better to see fewer cases and study them well. In this we are supported by the fact that the gentleman who saw the fewer cases of croup has drawn the correcter conclusion regarding the effect of the disease upon the respiration.

THE PREVALENCE OF NERVOUS DISEASES.

A DISPENSARY for nervous diseases has recently been opened in Brooklyn under the auspices of prominent local physicians. In their announcement the gentlemen interested give a number of statistics for the purpose of proving the great prevalence and fatality of nervous troubles. Good wine needs no bush, and a good work needs no alarmistic or exaggerated utterances to preface it. It is one thing to supply a want, but quite another to createa want for the sake of meeting it We are told that the death-rate from nervous and mental diseases is about 20 per cent. of the total death-rate in Brooklyn, and that nervous diseases are only surpassed in prevalence by zymotic, tubercular, and respiratory diseases.

We must believe that Brooklyn is a very nervous place. In New York City the Board of Health report for 1875 showed that only 7.93 per cent. of the deaths was due to nervous and mental diseases, and that of this number 5.29 per cent. was due to meningitis, convulsions 2.00, and apoplexy 1.20. Apoplexy is a vascular disease; convulsions and acute meningitis belong to general medicine. This leaves only a paltry 2.64 per cent. of deaths due to the class of diseases ordinarily treated by the alienist and neurologist.

Doubtless there is a need of more special opportunities for the treatment of those suffering from nervous diseases, but it is not necessary to create the impression that these diseases exist in an alarming frequency.

DENTAL CHARITY.

DR. ROOSA struck a happy note at the dinner of the Odontological Society last week, when he urged that dentistry, being such a prosperous calling, should now do a little more for charity. There is no reason why a man should receive gratuitous treatment if he has a pain in the stomach, but none if he has a pain in his tooth. He can, to be sure, have his tooth pulled out without paying, but that is about the limit to which dental charity has as yet reached. The dental departments of our city dispensaries consist generally of a box of second-hand forceps, which are wielded by young amateurs with a generous indiscrimination, and with varying degrees of skill. Such kind of dental charity may be compared to a surgical charity, which is supplied simply with a saw and a knife for cutting off all bruised or injured fingers, without making any finical distinctions as to degree or kind of traumatism. There are annually in this city not far from ten thousand teeth wrenched from the poor man's mouth in the name of charity. How much discomfort, dyspepsia, and domestic troubles this produces we will not attempt to estimate. Certain it is that the teeth of the poor get a great deal less care than they ought to have, and are more abused, surgically speaking, than any other organ of the body. In the name of charity, let the poor be taught how to preserve their teeth, and let the clean mouths, at least, be given a chance to have their good members saved.

News of the Week.

THE ANNUAL KIRMESS in aid of the charity fund of the New York Skin and Cancer Hospital will be held at the Metropolitan Opera House on April 14th and 15th. National booths, presided over by ladies in characteristic costumes, will be a prominent feature. Three national dances will be given each evening.

DEFENDING THE REGISTRATION LAW.—According to an Associated Press despatch, the first indictment ever returned in Minnesota against physicians practising without a license was brought in on February 19th against Dr. Spinney, a specialist, formerly of Chicago. It is the intention of licensed physicians to push the matter to the full extent. Spinney was arraigned in court and held under bonds for appearance.

A PHYSICIAN KILLED BY AN OVERDOSE OF MORPHINE.—Dr. William Donald, physician of the steamer State of Nebraska, was found dead in his bed at Earle's Hotel, February 19th. He had been a sufferer from kidney troubles and was in the habit of taking morphine. There was nothing to indicate that he had committed suicide. He was twenty-seven years of age, and was born in Glasgow, where his father is a prominent physician.

DR. THOMAS R. POOLEY has resigned his position as Assistant Surgeon to the New York Ophthalmic and Aural Institute.

Dr. P. Brynberg Porter succeeds the late Dr. Gaillard as editor of *Gaillard's Medical Journal*. Dr. Porter's experience, scientific and literary acquirements, will doubtless develop an accomplished editor, and the proprietors of the journal are to be congratulated on their selection.

A State Board of Health for Maine.—The Maine Legislative Committee gave a hearing, February 6th, to advocates of a State Board of Health, a bill to establish which is now before the Legislature. The State Medical Society favors the bill.

Cremation in Massachusetts.—A bill has been introduced into the State Legislature of Massachusetts incorporating the "New England Cremation Society," for reducing bodies of the dead to ashes. The capital is $25,000.

The Commencements Begin.—Rush Medical College held its annual commencement on February 17th, and graduated a class of one hundred and fifty-one. The college term is a little less than five months.

Dr. William Braithwaite, editor and founder of *Braithwaite's Retrospect*, recently died in his seventy-eighth year.

Women as House Surgeons in the Paris Hospitals.—Another victory is scored for medical women. The question of admitting women as house surgeons in hospitals has been favorably considered by the Conseil Municipal of Paris. For their admission 48 votes were recorded, and 28 against. M. Hamel proposed that a separate living-room should be set apart for female house-surgeons. This proposition was also adopted.

The Annual Report of the New York Quarantine Commissioners was presented at Albany on the 24th. The sum of $24,500 is asked for in order to prepare against the cholera.

Dental Charity Abroad.—The teeth of all children attending the communal schools in Brussels are examined by order of the State, and during the year 1882–83 no fewer than 1,250 pupils required the services of the dentists. In England the managers of the North Surrey District School, Anerley, England, have appointed a dentist to attend weekly in order that the children may have proper attention paid to their teeth. The question is whether the dental services above referred to are limited to tooth-pulling.

Obituary.

PROFESSOR LOUIS ELSBERG, M.D.,

NEW YORK.

In the death of Dr. Louis Elsberg, of this city, the medical profession loses one of its most active and distinguished members. He was a most enthusiastic worker in laryngology, in which branch he was the pioneer in New York. Dr. Elsberg was born at Iserlohn, Prussia, April 2, 1836; his death occurring in his forty-eighth year. His parents came to this country during his boyhood, and his early life was spent in Philadelphia. His academical education was obtained at the college there, where he graduated with honors. His medical diploma was from Jefferson in 1857. His fondness for physiological study, and particularly for that of the human voice, at once turned his attention in that direction. It was at this time that Professor Czermak, of Pesth, demonstrated the practical value of the laryngoscope as a means of diagnosis, and Dr. Elsberg went to Vienna, where, with Stoerck, of Vienna, Lewin, of Berlin, and Semeleder, he formed Czermak's first class of pupils. All of these men have since become noted in their profession. Dr. Elsberg returned to New York, and immediately commenced practice in this specialty. He became a member of the faculty of the University Medical College in 1861, and retained this position for seventeen years. In 1862 he established in this city the first clinic for diseases of the throat. During the whole of his life he was a very frequent contributor to the journals of medicine, and took a very active interest in the various medical and scientific societies to which he belonged. He was a member of the County Society, Academy of Medicine, Pathological Society, American Medical Association, Academy of Sciences, American Laryngological Association, etc. For some years he was the librarian of the Academy of Sciences. He was devoted to biological study, and in this connection was an earnest microscopical worker. In 1878 he read before the Academy of Sciences a very exhaustive treatise on "The Structure and other Characteristics of Colored Blood-corpuscles," a paper which showed a vast amount of original thought. He delivered the annual address before the Alumni Association of Jefferson Medical College in 1882, it being, as he expressed it, "the silver wedding of his class." His paper was "Changes in Biological Doctrines during the Past Twenty-five Years." In June, 1878, he, with other gentlemen, founded the American Laryngological Association, and he was elected its first president. At the first meeting of this Association he gave a comple "History of Laryngology." His address at the second meeting, on "Laryngological Instruction," was sent from Aix-la-Chapelle, where he had gone to regain his health. In March, 1880, he began the publication of the *Archives of Laryngology*, which was a quarterly, published by the Putnams, and was continued till 1884. Among other productions from his pen were "Laryngoscopal Surgery," an essay which was based upon a large number of operative cases, and which received the gold medal for 1865 from the American Medical Association, "Microscopical Study of Papilloma of Larynx," etc. He had collected a large amount of material for a book, which he had intended to publish. After severing his connection with the University Medical College he became Professor of Laryngology at Dartmouth, and this, together with the similar chair at the Polyclinic, he held at the time of his death.

Dr. Elsberg's aptitude for acquiring knowledge was very great, and his capacity for retaining it was most remarkable, which gave him at an early age a most enviable position among medical writers. He was an untiring student, which fact, to a large extent, was the cause of the illness he suffered during the last years of his life. In 1880 he went to Europe by the advice of his physician, and returned greatly benefited in health, but close application to business caused a recurrence of his old trouble—Bright's disease—and eventually caused his death.

Alum acts as an astringent by forming insoluble compounds with albumen, gelatine, and casein. Some give it in an excess of dilute sulphuric acid, especially in painters' or lead colic, for which it has been used for over one hundred years. It mitigates pain, relieves flatulence, and generally acts with certainty as an aperient. It is also a far better germicide than sulphate of iron.

Citrate of Ammonia is a much more pleasant remedy than the acetate, unless the latter is made with remarkably good vinegar, or pure dilute acetic acid.

Reviews and Notices.

Elements of Surgical Diagnosis. By A. Pearce Gould, M.S., M.B., London. 12mo, pp. 584. Philadelphia: H. C. Lea's Son & Co.

This is a capital little book, written by a practical man on a very practical subject. The topics are very systematically and succinctly arranged, are tersely presented, and the points of diagnosis very intelligently discussed. It will be found to be of the greatest amount of help both to teacher and student.

The Principles and Practice of Dentistry, including Anatomy, Physiology, Pathology, Therapeutics, Dental Surgery, and Mechanism. By Chapin D. Harris, M.D., D.D.S., late President of the Baltimore Dental College. Eleventh Edition. Revised and Edited by Ferdinand J. S. Gorgas, A.M., M.D., D.D.S. 8vo, pp. 994. Philadelphia: P. Blakiston, Son & Co.

Dr. Gorgas has done his best to bring this work up to its high standard as an authority on dentistry. In this he has fulfilled the purpose of the late Dr. Harris, and his labors will be appreciated accordingly by the dentists throughout the country. For it is to such only that the volume appeals. Mechanical dentistry has deservedly the fullest share of attention, and the details of this department are very plainly presented. From this point of view no criticism can be offered. The chapters on treating the teeth, filling dead teeth, plugging diseased cavities, and similar operations, although eminently sound, dentally speaking, are not in strict accord with what surgeons generally are willing to accept as advanced pathology. The author and editor believe what they say in reference to these matters, but we believe they are wrong nevertheless. Although there is a tendency to conservatism in the treatment of pulpitis, the inevitable plug is in the background, and is introduced on every possible opportunity. But such has been the settled opinion for the last quarter of a century, and it will be hard, for the present at least, to change the views.

The numerous complicated operations upon the mouth are judiciously omitted, belonging as they do to general surgery. There is a single exception to this in staphylorraphy.

The Diagnosis and Treatment of Chronic Nasal Catarrh. Three Clinical Lectures, delivered at the College of Physicians and Surgeons, New York. By George Morewood Lefferts, A.M., M.D. 12mo., pp. 49. St. Louis: Lambert & Co. 1884.

This little brochure presents in the author's well-known systematic manner three practical chapters on the examination, diagnosis, and treatment of this pen-ridden disease. There are thirty-five illustrations of instruments and pathological appearances, and a few formulæ of sprays, powders, and washes that have proved useful in the author's hands. For simplicity and the avoidance of useless expense Dr. Lefferts' recommendations as to instruments and apparatus may be safely followed by every practitioner.

Under the head of treatment the author properly inveighs against the too prevalent use of saline solutions with the nasal douche. It propagates chronic rhinitis, and establishes permanent infiltration of the mucous and submucous tissues. The author prefers the spray to powders, as a means of medication. Among the pharmaceutical formulæ Listerine forms an important factor; each fluidrachm of which contains two grains of purified benzo-boracic acid, besides the antiseptic constituents of thyme, eucalyptus, gaultheria, etc. The author prefers the high pressure of compressed air to the lower power of the hand-ball atomizer, believing that only by the former all the irregularities and crypts of the upper pharyngeal passages are reached; he condemns the forcing of a cotton-holder charged with nitrate of silver up behind the velum palati, as also the post-nasal brush. Among destructive agents in the treatment of hypertrophic rhinitis he recommends the following in the order here placed: fuming nitric acid, glacial acetic acid, chromic acid, the galvano- or actual cautery, and nitrate of silver: the last is condemned as a destructive agent. Jarvis' écraseur, and, for adenoid growths of the pharynx, the post-nasal forceps are added. We cannot agree with the author in the license with which he commits the last-named instrument into the hands of his readers, on account of the destruction of healthy mucous membrane, which has sometimes attended the eruption of adenoid growths at the vault; we wish, too, he had given more encouragement to the local treatment of fetid rhinitis, for some cases are curable.

The little brochure is welcome as one of the best treatises of a trite topic that has fallen to our hands; its compactness, system, and practical views recommend it to every practitioner.

The Law and Medical Men. By R. Vashon Rogers, Jr., of Osgood Hall, Barrister-at-Law. 8vo, pp. 214. Toronto, Canada, and Edinburgh, Scotland: Carswell & Co. 1884.

The author modestly states that his book is intended to be suggestive rather than exhaustive—a primer, not an encyclopædia. Despite this estimate, we think that the physician will find in it sufficient for ordinary emergencies, and for the rest he would probably consult a lawyer any way. The subjects discussed are those of Fees, Who should Pay the Doctor, Who may Practise, Negligence and Malpractice, Criminal Malpractice, Professional Evidence, Experts, Defamation, Relations with Patients, Dissection and Resurrection, Dentists, Druggists, Partners. These different matters are discussed briefly, the law is laid down, and many illustrative cases are cited.

The book seems in reality to fill a gap, although the larger treatises on legal medicine cover many of the subjects treated.

The Brain and Nerves: Their Ailments and Their Exhaustion. By Thomas Stretch Dowse, M.D., F.R.C.P.E. 8vo, pp. 150. Second Edition. New York: G. P. Putnam's Sons. 1884.

We do not know why the author of this little work gives it the title of "The Brain and Nerves," since it is really a treatise on nervous exhaustion, in which certainly the spinal cord and other extra-cranial centres are also involved. However, it makes little difference, since he admits to his subject in the preface and plunges at once into a discussion of its importance and its nature.

Dr. Dowse begins with a plea for the more serious study of neurasthenia by medical men. He discusses the well-known objection that "harm is done by bringing before the patient's view the signs, symptoms, and associations of nervous exhaustion," and that they often by this means become chronic hypochondriacs. Dr. Dowse believes, on the contrary, that the worst enemy of the emotions is the intellect, and by getting a patient intellectually interested in his own case, we can put him in a position to more surely recover. This is much the same view as that taken by the late Dr. Beard—whom, by the way, our author liberally quotes. It is certainly a just view as applied to the majority of cases. If only doctors were all scrupulously honest, and patients persons of good sense, it would apply always.

Dr. Dowse goes into a learned discussion of the dynamics of nerve-force and the ultimate nature of nervous exhaustion. He is interesting, but we can hardly admit that the reader will get much help out of his italicised and generally rather trite enunciations. The most of the book is devoted to the subject of the symptomatology and therapeutics of neurasthenia. Here the author writes well and helpfully. He has evidently seen many cases, and understood their nature and management. His book is unquestionably a very useful addition to the literature of a most obscure subject.

THE STORY OF MY LIFE. By J. MARION SIMS, M.D., LL.D. Edited by his Son, H. MARION SIMS, M.D. 12mo, pp. 471. New York: D. Appleton & Co. 1884.

To write biography is confessedly one of the most difficult essays in authorship; how great a task, then, does he impose upon himself who ventures to compose the story of his own life. If the autobiography be worth the writing, the author must have accomplished something worthy of recording; and to avoid the Scylla of self-adulation on the one hand and the Charybdis of self-depreciation on the other, requires indeed a well-balanced as well as a fearless mind. Fortunately for himself, as well as for his readers, Dr. Sims possessed both these qualities in an eminent degree; and the result in the book before us is the history of a great man who accomplished in his lifetime grand results, told in a manner which reflects his character and justifies his achievements. The work is but partial, only reaching to the year 1861; but it records his early struggles and brings us to a glimpse of his world-wide success.

If he had been allowed to follow his own early inclination he would never have undertaken the study and practice of medicine, but would have been content with the lot of a country store-keeper; but his father insisted upon his receiving a university education. Still, in the midst of his educational career, he endeavored to return from college to his home life, and only the command of his mother compelled him to resume his studies. Having graduated, he was forced to choose between law, ministry, and medicine, and he selected the latter only because it was the least distasteful to him. His first attempt at practice in his native village was an utter failure, and he left his birthplace chagrined and almost disheartened. An assemblage of fortunate circumstances gave him the first opportunity to acquire the necessary practical skill and self-confidence; and at Fort Meigs, and afterward at Montgomery, he established himself as a successful surgeon with a considerable local reputation. It was at the latter place that, quite accidentally, he came upon the principle as a result of which he invented the speculum which bears his name, and where he perfected the operation for vesico-vaginal fistula which gave him his first renown as a gynecologist. His health forced him to leave the South and he settled in New York, where his first labor was in the founding of the Hospital for Diseases of Women, in which he was ultimately successful after many discouragements and much opposition from those whose aid he had confidently relied upon. From this point on his professional career was one of continued brilliancy both here and abroad.

But the most valuable portion of the book is that which reveals to us the private and inner life of the man; and it is the manner in which this is told that gives the book the absorbing interest of a romance. The anecdotes of his school-days and of his early life; of his courtship and his marriage; the description of his hardships and failures; of his illnesses and his recoveries; of his struggles and his successes, reveal to us the character of the man of genius, full of energy, proof against the severest disappointments, sustained by the consciousness of his own honesty and of the mission which he was called upon to fill. His attachment to home, the beauty of his domestic life, and above all his love, amounting almost to adoration, for his wife, the sweetheart of his earliest years, present a picture which once seen can never be forgotten.

As was to be expected in a work written largely from memory, there are many inaccuracies in the book. Thus he states that he offered the position of assistant-surgeon to the Woman's Hospital to Dr. Shrady before Dr. Emmet; whereas the former was at that time not yet a graduate, and when he, Dr. Shrady, was offered the place, Dr. Emmet had already been connected with the institution for some time. But slight blemishes such as lapses of memory and faults of style, while they may detract from its historic accuracy and literary value, do not make his "story" any the less interesting as the pen-picture of the father of modern gynecology.

The introduction, by Judge T. J. Mackey, is useful as completing in a categorical manner the history of Sims' life; but it is marred by being pervaded by that style of fulsome eulogy which is the great bane of the biographer. In this case it is all the more noticeable because it is in such glaring contrast to the modesty and straightforwardness of the body of the book.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, February 23, 1885.

DANIEL LEWIS, M.D., PRESIDENT, IN THE CHAIR.

DR. JOHN C. PETERS delivered a lecture on

CHOLERA, ITS MODE OF INTRODUCTION, ITS PREVENTION, AND TREATMENT,

in which he gave the history of the introduction of the disease into the United States, in different epidemics.

Attention was especially directed to the fact that it had been very difficult to find out the *first* case, whenever cholera appeared in any given locality, because the first *fatal* cases were very apt to occur among old residents and not among new-comers.

Dr. Peters traced the travels of cholera in its visits to Egypt, France, Italy, etc. Studying the map, illustrating the invasion of Italy, it appeared that the malarious districts were not affected, thus proving that malaria was not an aid to cholera. *Civic malaria*, however, as Dr. Peters designated it, the influence of emanations from the combined filth of cities, he regarded as a very powerful ally of Asiatic cholera, while pure swamp malaria did not, at least, favor its introduction into any locality. Cholera was not carried by winds nor ocean currents, nor earthquakes, but by ships, and persons, and clothing, armies and pilgrims, and agencies of that kind. The first record of cholera dated back to 1503, in India. While tracing the travels of the disease, it was shown that the pestilence at one time invaded Denmark, also Greece, in consequence of lack of quarantine. Prevention pertained chiefly to the thorough adoption of sanitary measures.

Dr. Peters believed that no person was attacked with cholera who did not have the poison introduced into his system by the way of the throat. He also believed that it was impossible to diagnosticate, in many cases, between summer diarrhœa and cholera, although a large number of cases of summer diarrhœa had nothing whatever to do with cholera. It was safe, however, especially when cholera was about, to treat every case of summer diarrhœa as though it was to become cholera.

With regard to treatment, see article published by Dr. Peters in THE MEDICAL RECORD, February 21, 1885.

DR. EDMUND C. WENDT then read a paper (see p. 225) on

RECENT RESEARCHES IN CHOLERA.

DR. CYRUS EDSON, from the Committee on Hygiene, reported on

THE ARTESIAN WELLS OF THE CITY AS AFFORDING POTABLE WATER,

and pointed out the dangers which attend the use of contaminated water, and the ways in which potable water was liable to become contaminated.

DR. F. R. STURGIS gave notice that he would call upon the Board of Censors, at the stated meeting to be held March 23d, to explain why the Society lost its case against one "Dr." Jacques, alias "Dr." Kahn, alias "Dr." Jordan, tried in the county of New York during the month of February, 1885.

The Society then adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 19, 1885.

A. Jacobi, M.D., President, in the Chair.

ELECTRICITY AS A STIMULANT IN CARDIAC AND RESPIRATORY FAILURE.

Dr. Gaspar Griswold read a paper on the above subject, beginning with the statement that electricity had been conspicuous in the treatment of sudden prostration attended with respiratory and cardiac failure, especially in chloroform inhalation and opium-poisoning. The object of the paper was to discuss how far the usual methods of applying electricity in such cases of collapse were in accord with what was known concerning the physiology of the heart. The term electricity was used in a general sense, including galvanism and faradism.

Can electricity be so applied as to stimulate the heart? Prefatory to the answer to this question the author of the paper gave a brief synopsis of the cardiac mechanism, directing special attention to the effect produced by stimulating the pneumogastrics. From the study of this mechanism the conclusion was reached that, to stimulate the heart, the electrical current must be applied directly to the heart itself, and that the application of the poles to the neck over the pneumogastrics must be to produce an effect the reverse of stimulation. The question must, therefore, be answered in the negative.

Dr. Griswold then entered into the study of the effect produced when electricity was applied to the phrenic nerves, and reached the conclusion that electricity applied to the phrenic nerve stimulates respiratory movements.

On physiological and clinical grounds, therefore, stimulation of the phrenic nerve by itself was a proper and logical treatment in respiratory failure, but stimulation of the phrenic nerve could be scarcely considered separately from stimulation of the pneumogastrics, because these nerves were situated so closely to each other in the neck. In other words, electricity could not be applied to the phrenic nerve to stimulate contractions of the diaphragm without great danger of retarding or cutting off the function of the pneumogastric.

The conclusions, therefore, of the author of the paper were as follows: 1. Electrical stimulation of the phrenic nerve should not be undertaken without the reflection that the current will at the same time reach the pneumogastric. 2. Only mild currents should be applied, and their effects carefully watched, but especially with reference to the heart. 3. The sudden and careless application to the neck of a current sufficiently strong to produce pain or muscular contractions in other parts of the body, should be especially avoided.

Dr. Griswold then gave a detailed description of experiments which he had performed in dogs with special reference to the effects produced on the pneumogastrics, both by electricity and by drugs administered in poisonous doses.

ACONITE-POISONING.

The stimulant effect of electricity upon the pneumogastric in these cases did no harm, because aconite in poisonous doses produces paralysis of the pneumogastric. The application of electricity, therefore, to the phrenic nerve with proper care, in aconite-poisoning, was perfectly safe.

CHLOROFORM-POISONING.

Stimulating the pneumogastric caused fatal results at once. When heart-failure occurred early in chloroform administration, the pneumogastrics were still normally excitable, and at such times a very mild electrical current would instantly paralyze them and fatally depress the action of the heart. Therefore, it was immensely dangerous to apply electricity to the neck of a person poisoned with chloroform, and also when applied over the phrenic nerve it would almost certainly cause a fatal termination.

ASPHYXIA FROM ETHER.

In this condition the heart could stand stimulation as well as in health, and, therefore, it was safe to stimulate it with the strongest electrical current which the patient could bear in health.

Chloroform was a direct cardiac depressant; ether did not depress the heart.

OPIUM-POISONING.

Morphine in poisonous doses paralyzes the pneumogastrics, and stimulation of them by electricity would not slow or depress the action of the heart.

In opium-poisoning, when the action of the heart was rapid and feeble, there was less danger than in health of cardiac paralysis from stimulation of the pneumogastrics. When

MORPHINE WAS INJECTED INTO THE VEINS

the heart was easily depressed by electricity applied to the pneumogastrics, and it would not, therefore, be safe to faradize or galvanize the phrenics in this condition, because of the certainty, almost, of stimulating at the same time the pneumogastrics.

A general conclusion reached by the author of the paper was that, under no circumstances, should an electrical current, sufficiently strong to produce contractions of the muscles in any part of the body, be applied over the phrenic or pneumogastric in the neck.

Dr. A. D. Rockwell, in general, quite agreed with the statements made by Dr. Griswold, in his valuable contribution to the literature of this subject. The fact that, in the normal condition, and by purely external methods of application, the respiration was affected, rather than the heart's action, was very readily demonstrated. In connection with this subject, he might have referred to the statements made long ago by Arloing and Tripier, that the right pneumogastric had a more powerful influence over the heart, while the left more powerfully affected respiration. However that may be, it was certain that galvanization affected the two pneumogastric nerves unequally, and in a way to confirm, to some extent, that assertion.

It had been found that, if the heart be stopped by galvanization of the exposed left pneumogastric, the movements could be restored by some slight mechanical excitation, while, if the same result occurred through galvanization of the right pneumogastric, it seemed impossible to again excite the pulsations. These, certainly, seemed to be the effects of sedation rather than of stimulation, but that the effects that followed were powerfully stimulant and tonic could not be doubted.

Some years ago, in a number of experimental attempts in the electrolytic treatment of cancer, Dr. Rockwell had occasion to observe some interesting phenomena in regard to the primary and secondary effects of the galvanic current on the heart's action. In cases of scirrhus, after the breast had been removed by the knife, it was his custom to destroy, as thoroughly as possible, the underlying tissue by the electrolytic method. It was readily understood that the effects of this concentration of the current through needles penetrating the muscular tissue were much greater than any ordinary applications by means of sponges. The heart would slow up according to the tension of the current, and would sometimes become so alarmingly slow as to necessitate a cessation of the current for a time. The interesting point which was observed and commented upon by every physician who aided in, or was present at, those operations, was the fact that, following the breaking of the current, the heart's action became unmistakably more vigorous than at any previous time.

According to Professor Von Ziemssen, who made many carefully-conducted experiments by means of cardiographic tracings, induced currents have absolutely no influence on the frequency or force of the cardiac contractions, and from that fact the conclusion had been drawn that induction currents were valueless in threatening death from heart-failure. Dr. Rockwell's experience did not confirm that statement, for, in not a few instances of the kind he had known life to be saved by this form of electricity. The faradic current, by its power over the phrenic nerve, excited respiration, and so indirectly very decidedly influenced the action of the heart itself. He certainly agreed with Dr. Griswold in the necessity of caution in applications of galvanism to the region of the phrenic and pneumogastric, and it was better, perhaps, to err on the side of safety, yet Dr. Rockwell could not but think that Dr. Griswold somewhat overestimated the dangers attending these applications. One case he referred to briefly, since it conveyed an important lesson. Some years ago he saw with Dr. I. B. Read and several other physicians, a case of what afterward proved to be opium-poisoning. The respiration was only 10 and the pulse 40. On applying the faradic current the respirations immediately rose to 18 and the pulse to 70, but whenever the applications were withheld for a short time both respiration and pulse immediately fell to 10 and 40 respectively. For two hours, by means of electric excitation, the respiration and pulse were upheld, but at the end of that time they began to fail, notwithstanding their best efforts. At the end of four or five hours both respiration and pulse were so infrequent and feeble that the case was regarded as hopeless and abandoned. and on the following day he was surprised to learn that soon after the cessation of treatment the patient began to rally, and finally recovered. It was sufficiently evident that the patient had been kept alive for hours by the efforts made. The electricity had simply tided her over the hours when the poison was exerting its most depressing influence. It was a mistake to have abandoned the case when they did, and it should suggest to every practitioner that such cases should not be given up while the slightest evidence of life remains.

Dr. Fordyce Barker directed attention to collateral points, with special reference to the effects produced by chloroform and ether, as illustrated in obstetrics. The general conclusion which he had long ago reached was that ether was much safer than chloroform in surgical practice where the anæsthetic was administered to prepare the patient for an operation, whereas, chloroform was much safer than ether in obstetric practice where the anæsthetic was given to relieve pain already present. Furthermore, the early use of chloroform in obstetric cases was indicated rather than contra-indicated, when the woman had organic cardiac disease, contrary to the opinion that anæsthetics were not safe where cardiac disease existed. Dr. Barker had held this view and had carried it into practice during the last twenty-five years. But he would not use ether under the same circumstances.

Dr. R. W. Amidon wished to commend the remarks made by Dr. Griswold, and had nothing to offer in the way of criticism. He thought the paper was of the order which should receive the special commendation of the Academy, and made a motion to that effect, which was adopted.

Dr. Putzel thought that all the physiological deductions set forth in the paper of the evening were well put, but that the clinical inferences were not in accord with established clinical facts. The difficulty with most experiments on animals was that they could not be applied to the human body. He knew of no way in which the pneumogastrics could be galvanized in the human subject, aside from a surgical operation, because the current when applied to the surface diffused itself to an extent which did not permit us to speak of galvanization of the pneumogastrics; indeed the best galvano-therapeutists employed the term galvanization of the neck.

He had applied electricity from twenty good elements, the number which the author of the paper had regarded as almost certain to produce death, without producing any bad effect whatever, and in exophthalmic goitre without producing any change in the condition of the pulse. From the clinical standpoint, the subject was one which required revision, and the truth could be reached only by prolonged observation of cases.

It would not do to accept cases in the report of which it was simply said that "electricity was applied," as something should be known concerning the size of the electrodes, strength and kind of current used, etc.

Dr. J. Leonard Corning referred to cases of exophthalmic goitre in which galvanization of the pneumogastrics lowered the pulse-rate very markedly.

Dr. Putzel did not wish to be understood as saying that galvanization of the neck never produced slowing of the pulse, but simply that he had not observed that effect. He wished merely to state that galvanization of the neck was not galvanization of the pneumogastrics.

Dr. A. H. Smith thought that the object in view in the use of electricity in opium-poisoning was to stimulate respiration. This could be done by applying one pole over the phrenic nerve in the neck, and probably all the benefit which could be derived would follow the application of the current about sixteen or eighteen times a minute, and no more, and at the same time the dangerous depressing effect would be avoided. In the meantime, electricity could be used as a general stimulant, as was flagellation, etc.

The President referred to the use of electricity in the treatment of the asphyxia of the new-born. He had found it to be a valuable remedy in those cases, and had employed it as follows: When applied for four or five seconds in succession he had noticed that at the beginning the pulse and respiration were improved, to be followed by almost immediate paralysis. He had also found that this effect was produced the more surely when the application of the electrodes was confined to the region of the phrenic and pneumogastric nerves.

He therefore concluded, that the most practical way to use electricity was to apply it generally to the muscles, quickly striking the surface at different points with the electrodes. In opium-poisoning electricity was most effectual when applied at short intervals and by giving sudden shocks. At the same time, it should not be overlooked that in many cases cardiac failure was merely secondary to respiratory failure, and that when the respiration was improved by exciting the respiratory muscles, there would be a decided improvement in the action of the heart.

Dr. Griswold, in closing the discussion, reviewed the points made prominent in his paper, and said that he should prefer artificial respiration to general stimulation of the surface in the classes of cases under consideration. In chloroform cases, and those in which morphine had entered a vein he would not use electricity at all, but would rely upon hypodermic injection of stimulants, inhalation of ammonia, and artificial respiration.

Dr. M. Josiah Roberts then gave a description and demonstration of the working of his perfected

ELECTRO-OSTEOTOME,

with a new form of portable storage battery, and an electrical illuminating apparatus. The description of his first instrument was published in The Record, October 27, 1883. To further aid the surgeon in applying the instrument when surrounded by insufficient light, he recommended Jarvis's electrical light attached to a head-mirror.

The communication was discussed by Drs. Poore, Jarvis, Corning, Birdsall, Holcombe, and Fanning. The Academy then adjourned.

Muriatic Acid is said to prevent the development of intestinal worms.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, January 6, 1885.

W. J. MORTON, M.D., PRESIDENT, IN THE CHAIR.

ÆSTHESIOMETRY.

DR. GRACE PECKHAM read a paper on this subject (see page 230).

DR. DANA alluded to the general lack of precise knowledge concerning æsthesiometry, and thought that Dr. Peckham's instrument would aid in making matters clearer. The normal sensibility of the skin had been differently described by different authors. For practical purposes it seemed best to distinguish between common and special sensation. Temperature and pain belonged to the former. Special or tactile sensation revealed contact, pressure, and locality. So-called muscular sensation should be placed half-way between common and special sensation.

DR. BIRDSALL said that in Dr. Peckham's instrument the additional contrivance for estimating pressure was very valuable for purposes of careful physiological examination. It was necessary always to be very cautious about attaching diagnostic importance to the responses of patients. The practical use of ordinary æsthesiometry was limited to coarser tests. The additional estimation of pressure-sensibility might make the test more delicate and useful. Æsthesiometry might show that in a given case there was general slowness of appreciation, rather than actual tactile disturbance.

THE PRESIDENT thought that the instrument of Dr. Peckham might be further improved by attaching a scale in such a way that an accurate record would be had of the amount of pressure used. Unless this addition be made, different observers would necessarily record different results. With an agreement as to a normal standard of pressure this source of error would be obviated. In this way we might soon have a series of systematic observations, that would be a great help, especially in practical office examinations.

DR. PECKHAM remarked that her æsthesiometer was intended for the determination of cutaneous sensibility merely. The muscular sense would have to be tested in other ways. In order to have exact records of the amount of pressure employed, water would have to be used as a recording medium. This, however, would make a clumsy instrument, and one not readily carried in the pocket. Besides, æsthesiometry was intended, not for absolute, but only comparative results. If in place of a water-gauge, metallic springs were employed, they would yield after a certain time, unless very conscientiously tempered, which would make such an instrument too costly.

DR. B. SACHS then made some

REMARKS ON THE USE OF THE ABSOLUTE GALVANOMETER,

and demonstrated Hirschmann's new instrument. He insisted on the necessity of following the lead of English, German, and French investigators in adopting some unit of current strength. Hitherto the question had not received the consideration it deserved at the hands of American physicians.

The disadvantages of the old, or better said, the present method of gauging the quantity of electric force employed in any one case, must be apparent to all who are in the habit of using electricity either for therapeutic or diagnostic purposes. To say that we have used the electro-motive force of a certain number of cells gives but an imperfect idea of the actual current yielded, for the capacity of the cells, not only of different batteries, but of one and the same battery, varies greatly, and that too from day to day. To add the number of degrees to which an ordinary galvanometer was deflected, and the units of resistance which were introduced, does not improve matters much, for the deflection of a common magnetic needle does not increase in proportion to the strength of current employed, and with two variable factors in the calculation, a third, more positive one, loses much of its value. The physician who observes his galvanometer, rheostat, and battery, from day to day, may form a relative estimate of the amount of electricity used upon one patient or the other, but he cannot represent, to himself and others, the strength of current employed in terms of an intelligible unit.

After discussing the question whether it be absolutely necessary to exercise great accuracy and care in treatment, Dr. Sachs said that, for purposes of electrical diagnosis, there can be little doubt of the advantages which an instrument indicating the strength of the galvanic current passing through the body, in terms of a known unit, would possess over our present imperfect means of registering this amount. With the use of an *absolute* galvanometer we shall soon gain some definite conception of the current strength required to produce, say kathodic closure, contraction of any nerve or muscle, and to compare with this figure the current strength required to excite the same nerve or muscle under pathological conditions.

The reader then urged the adoption of the *milliampère* as a unit of measurement. This unit, first suggested by De Watteville some years ago, has come into general favor abroad, for it has been abundantly demonstrated that this unit and its multiples correspond quite accurately to the quantity of electricity generally employed for purposes of treatment or diagnosis.

Taking up the question of absolute galvanometers, it was urged against Gaiffe's and Edelman's instruments, and against all *horizontal* galvanometers, that the deflection of a horizontal needle varies with the difference of magnetic force at various points of the earth's surface. A current causing a deflection of ten degrees in Paris would not be equivalent to the current producing a similar deflection in New York or Berlin. Hirschmann has met this difficulty by employing, not a single horizontal needle, but a pair of astatic needles vertically adjusted.

In conclusion, the author contended that Hirschmann's vertical absolute galvanometer met all the following requirements: The instrument must indicate the exact strength of current passing through the body; and any deflection of the needle must be equivalent to one and the same quantity of electricity the world over. The instrument must be sensitive enough to indicate the passing of a current through any part of the body before the patient perceives the current. The needle must not oscillate excessively, and must come to rest quickly after the current is broken. The instrument must be substantially made, and lastly, must permit of an easy adjustment to all batteries, stationary and portable.

Dr. Sachs suggested also that our instrument-makers provide us with absolute galvanometers constructed upon the same principle as Hirschmann's and equally reliable.

DR. JACOBY had seen Hirschmann's instrument in active use, and was convinced that it was the most perfect apparatus of the kind yet devised. He believed it to be quite independent of terrestrial magnetism.

DR. BIRDSALL remarked that one objection to all vertical galvanometers consisted in the fact that their magnetic intensity might change. The skilled labor involved in constructing good apparatus of this kind had led American instrument-makers to avoid manufacturing them. He believed that the importance of the galvanometer was more apparent for purposes of accurate diagnosis than for therapeutical efforts. General practitioners had certainly been able to obtain beneficial results without resorting to the use of accurate current measurements.

DR. BERG said that the scale on the vertical galvanometer should not be made up, as in Hirschmann's instrument, of equal distances, as the factor of gravity was thus left unprovided for.

DR. SACHS pointed out that the instrument was particularly useful for general practitioners, who only made

occasional use of their batteries. The number of cells employed could not be a measure of the strength of the current. And in this way injury in place of benefit might result, especially whenever the head was concerned.

Correspondence.

THE DIAGNOSTIC VALUE OF THE SPECIFIC GRAVITY OF URINE.

To the Editor of The Medical Record.

Sir: The special correspondent of The Medical Record, at Vienna, in a late number (January 17th) refers, among other things, to two interesting cases, viz.: glioma cerebri and diabetes mellitus, taken from the clinic of Professor Nothnagel. Referring to the latter case, the writer, in closing, says: "The case is also a very instructive one, as a case of sugar in the urine without polyuria, and, what is more remarkable, with urine of a continual low specific gravity. Here is an instance of the value of the thoroughness of the German methods of examination before making a diagnosis. With such a low specific gravity the presence of sugar in the urine would certainly have been overlooked by an American physician, and thus an important aid in diagnosis, and a valuable symptom for treatment, have been lost." It is to the last sentence of the foregoing quotation that I wish to call attention, for if the statement there made be true (as it probably in too many cases is true), it is a matter of the greatest importance to every physician to whom it is applicable, and one that he cannot afford to overlook, but should speedily remedy.

There is probably in our country many a busy practitioner, who, to determine the presence or absence of sugar in the urine, contents himself with taking the specific gravity of the latter, and draws his conclusions therefrom, without making any chemical test whatever. Let us see whether such a method of examination alone to determine the presence or absence of sugar in the urine is advisable, and whether the conclusion drawn from such examination can be relied on. To this end we will first consider the specific gravity of healthy urine. Physiologists and physiological chemists tell us that although the average specific gravity of healthy urine is about 1.015 or 1.020, it can, under certain circumstances, be as low as 1.002 or as high as 1.030,[1] without containing anything of a pathological nature. Other writers put the maximum specific gravity of healthy urine higher. Wagner, for example, puts it as high as 1.040.[2] As is well known, the amount of fluids taken into, and given off by, the system, influences very decidedly the specific gravity of urine, and in the extreme figures already quoted, viz.: 1.002 and 1.040, the difference was due in the one case to drinking large quantities of fluids, and in the other, to total abstinence from water for a given time.

For this reason, great physical exertion, causing loss of water to the system through increased action of the sudoriferous glands, provided a corresponding quantity of water is not taken into the system, will heighten the specific gravity of the urine. Wagner advises[3] in all cases where the specific gravity is lower than 1.010 or over 1.025, that careful inquiry be made into the amount of fluids taken into the system, and also into the quantity passed out through the medium of the sweat-glands. The quality and quantity of solids taken into the system also affect the specific gravity of the urine. Somewhat illustrative of this is the following: About two weeks ago I examined the urine of a patient in whom I suspected a disposition to nephrolithiasis, with the following result: The quantity of urine daily voided was not measured, but as near as I could learn was about normal, *i.e.*, about 1,500. Reaction was strongly acid; no albumen, no sugar. The sediment, microscopically examined, proved to be composed of urates in large quantities, some oxalates, and a few epithelia of the bladder or vagina; no casts, no blood; color, reddish-yellow; specific gravity, 1.030. Now, in this case, we have a high specific gravity, and if my only method for determining the presence or absence of sugar in urine had been a high or low specific gravity, respectively, I might very easily have overlooked one or two facts, and concluded that the presence of sugar must have been the cause of the high specific gravity in this case. On inquiry, I learned that my patient had been taking but little exercise, had been eating principally meat, and drinking but little for some time past. About ten days later, having prescribed nothing more than moderate exercise, together with a freer use of liquids and a smaller amount of albuminous food, the result of a second examination of the urine was as follows: Quantity about normal; reaction strongly acid; no albumen; no sugar; light, cloud-like sediment, composed of oxalates; a few epithelia of bladder or vagina, and some mucous corpuscles; no urates, no casts, no blood; color, light-yellow; specific gravity, 1.016. Now, whatever else may have had its effect, in this case neglect of a proper amount of exercise, together with the small quantity of fluids, and a diet composed principally of meat taken into the system, had an undoubted and marked influence on the specific gravity of the urine.

Temperature-changes have also an effect on the specific gravity of urine outside of the system, although for the practising physician they are perhaps of no value. Simon found[1] that urine which had a specific gravity at +12° C. of 1.021, had at +15° C. 1.020 and at +18° C. 1.019. Let us now glance for a moment at the specific gravity of urine in cases of Bright's disease. The limits within which the specific gravity of urine may vary in acute cases of Bright's disease are even farther apart than in health. Where the daily quantity of voided urine is less than in health, we find it averaging about 1.025, and in cases where the quantity is greater than in health, as low as 1.005. Wagner tells us[2] that in acute hemorrhagic morbus Brightii, and in those forms where but little albumen is present, the specific gravity averages 1.010; but in these cases where much albumen is present, and no hemorrhage, the specific gravity is mostly increased. He says further, Bartels found several times, at the commencement of the disease, 1.031, Bright and Frerichs 1.032; Gorup-Besanez 1.035, and Heller as high as 1.047. These figures show clearly how great is the range of the specific gravity in acute cases of Bright's disease; but as sugar is never present in uncomplicated cases of nephritis, and least of all would an error in diagnosis in this respect be made in acute attacks, we will go on to the consideration of the chronic form. In the early stages of chronic Bright's disease, he who considers a high specific gravity of urine as sufficient evidence of the presence of sugar, can, and would probably very often, err greatly in the diagnosis, for the specific gravity then is often between 1.020 and 1.030 and sometimes as high as 1.040 and even 1.044. It is true that the daily quantity of voided urine is, in such cases, less than in health, and sometimes very much less, and that albumen is usually present in large amount, but he who easily allows himself to be misled in regard to proper methods of examination may readily overlook much that is present, and see (?) much that is not present. In the later stages of chronic Bright's disease, and especially in those forms known as "waxy kidney," and "small granular kidney" the specific gravity is lower than in health, and consequently for the purposes of this paper does not need further consideration.

[1] Huppert, Neubauer, and Vogel: Anleitung zur qualitativen und quantitativen Analyse des Harns, 1881, p. 2.
[2] E. Wagner: Morbus Brightii, 1882, p. 16.
[3] Ibid., p. 16.

[1] Huppert: ibid., loc. cit., p. 226. [2] Loc. cit., p. 127.

Let us now turn from those cases which show a high specific gravity of urine, but by the tests usually adopted in the clinics contain no sugar, to those in which sugar is easily proved to be present, and let us first consider a few cases of simple glycosuria before we turn our attention to diabetes mellitus. Von Frerichs, in his excellent work on diabetes[1] gives a table of cases of glycosuria, on pages 26 and 27, caused by poisoning by carbonic oxide gas. Of ten cases in which sugar was present in the urine, the average specific gravity was 1.023, the highest being 1.030 and the lowest 1.015. On page 31 of the same work an interesting case of attempted suicide by drinking concentrated sulphuric acid is described. The specific gravity of the urine, taken at ten different times, was as follows: 1.045, 1.039, 1.031, 1.030, 1.033, 1.034, 1.025, 1.023, 1.015, 1.010, and averaging 1.028. Although this case is described under the head of glycosuria, and notwithstanding the high specific gravity of the urine, no sugar (nor for that matter albumen) seems to have been present, but acetone and sulphuric acid were. Levinstein[2] after having administered 0.27 morphium to a rabbit, found sugar in the urine of the animal, taken from the bladder three hours after death, the specific gravity of which was 1.019. Von Frerichs, in his work already alluded to, describes a great many interesting cases, but for our purpose it will be sufficient simply to notice a few of them, especially in connection with a high or low specific gravity of urine. Thus on page 40, loc. cit., he describes the case of a hypochondriac: sugar in urine; specific gravity, 1.012 to 1.018. Page 53, aneurysma arteriæ cerebri profundæ sinistræ: neither sugar nor albumen; specific gravity, 1.026 to 1.028; sugar, 1.029; albumen; no sugar, 1.036. Page 56, loc. cit., apoplexy-aneurism: urine taken from bladder post-mortem; sugar, 1.013. Same page, apoplexy: urine also taken from bladder post-mortem; sugar and albumen, 1.011. Page 60, loc. cit., meningitis cerebro-spinalis: sugar and albumen; specific gravity, 1.012; sugar only, 1.011; sugar, 1.010. In several of the foregoing cases of glycosuria the specific gravity of the urine was so low that an examination with the urometer would have revealed nothing that could have led even to a suspicion of the presence of sugar. It is true that in some of these cases, as in many others, the knowledge of the presence of sugar in the urine would have had but little practical worth, and would have made but little or no difference in the plan of treatment. But there are many cases in which it is necessary to know whether sugar is present or absent in the urine, in order to make a correct diagnosis or to treat the case with any hope whatever of success, and it was to emphasize this well-known fact that they were chosen, for here such a means of examination could have given none other than a negative result.

Perhaps some of the following remarks on, and cases of, diabetes mellitus, will illustrate this more forcibly. In regard to the quantity, color, specific gravity, etc., of the urine of persons suffering from diabetes mellitus, v. Frerichs tells us[3] that the daily quantity of voided urine is sometimes normal, although generally exceeding that of health; that this quantity usually ranges between two and five litres, although he has seen cases where the amount was twelve and thirteen, and even as much as fourteen litres. But he says, this must be borne in mind, that this increase is by no means a necessary symptom of the disease, for there are severe cases of diabetes in which, even unto the lethal end, a noticeable increase of urine is never present. As the quantity of the urine increases, the color becomes lighter, paler, mostly playing into green, and sometimes as clear as water. Sediment is usually wanting, although urates and oxalates are sometimes present. After the urine has stood for some time a "whitish" sediment is formed in consequence of fermentation. The odor of the urine is sometimes peculiarly aromatic, its reaction almost always acid, and this acidity is present for a longer time after standing than in healthy urine, because of the fermentation. The specific gravity is almost always higher than in healthy urine, and ranges from 1.020 and 1.025, very often up to 1.030 and 1.040, and occasionally is as high as 1.050, and in a very few cases as high as 1.055; *but it must not be forgotten that there are cases of diabetes in which the urine shows a specific gravity of* 1.010. From all this, it seems to me, the fact must be patent to anyone knowing anything of medicine, that the specific gravity of urine may be so variable, even in diabetes mellitus, that it has little diagnostic value, and absolutely none as a means of determining the presence or absence of sugar. The case mentioned by the Vienna special correspondent of THE MEDICAL RECORD, in the letter already alluded to, serves to illustrate this admirably. The writer says: "The patient passed at present 1,300 to 1,500 grms. of urine in twenty-four hours, and in the entire history of the case the quantity of urine per diem had never been over the normal amount. The specific gravity averaged, for the past two months, 1.014, and at no time had it been above 1.025. The particular specimen of urine exhibited with the case had a specific gravity of 1.010, and contained thirteen per cent. of sugar," etc. In this case we have a very low specific gravity, and an unusually high percentage of sugar, and the urometer alone would have led to anything but a correct diagnosis.

Of many cases which v. Frerichs observed, I will simply call attention to a few. On page 145, loc. cit., are two cases recorded, in the urine of both of which sugar was found, and the specific gravity was 1.017 and 1.013 respectively. In another case sugar and albumen were present; specific gravity, 1.011. In still another (loc. cit., p. 147) sugar and albumen; specific gravity, 1.017. In another case (loc. cit., p. 204), on four different days the specific gravity of the urine of a diabetic patient was respectively 1.017, 1.010, 1.015, and 1.013; sugar present each time. On page 243, loc. cit., the specific gravity of urine, taken on several occasions, was as follows (sugar present each time): 1.012, 1.018.5, 1.011.5, 1.014.5, 1.015, 1.010.5, 1.014.5, 1.009, 1.014, 1.019, and 1.009.5

Flint records the following:[1] "Seven pints of urine were withdrawn from the bladder during the coma (the specific gravity, 1.015), and it was found to contain both sugar and albumen." These cases serve fully to illustrate the fact already mentioned, that sugar is not infrequently found in urine having a low specific gravity, and, therefore, a low specific gravity is no evidence of the absence of sugar. I have elsewhere endeavored to show that a high specific gravity is no evidence of the presence of sugar. If, therefore, a low specific gravity of urine is no evidence of the absence of sugar, and a high specific gravity is no evidence of the presence of sugar, then clearly the methods adopted to prove the presence or absence of sugar must be something other than those determining the specific gravity. I have here endeavored to show that all such methods as those referred to are not advisable, and the conclusion drawn from them cannot be relied on, although in one or two isolated cases they might chance to be correct. If this article should come to the notice of any practitioner who has fallen into the way of using the urometer as a means for diagnosticating the presence or absence of sugar in urine, I trust that it will convince him of the uselessness of such an examination, and lead him to seek out methods that are reliable and trustworthy.

CHARLES F. NORTH.

829 MILWAUKEE AVENUE, CHICAGO, ILL.,
January 30, 1885.

GALLIC ACID is the essential ingredient in Ruspini's styptic; it is beneficial in chronic diarrhœa, albuminuria, chylous and fatty urine.

[1] Fr. Th. v. Frerichs: Ueber den Diabetes, 1884.
[2] E. Levinstein: Die Morphiumsucht, 1883, p. 115.
[3] Loc cit., p. 63.

[1] Austin Flint: A Treatise on the Principles and Practice of Medicine, 1881, p. 533.

THE TREATMENT OF VOMITING IN PREGNANCY.

To the Editor of The Medical Record.

Sir: Apropos of the recent discussion of Dr. Wylie's paper on the treatment of the vomiting in pregnancy by dilating the cervix, I desire to furnish a small contribution to the subject by first referring to a case where this measure was employed but signally failed to relieve the symptoms.

Two years ago a patient in the third month of pregnancy had been attended by Dr. J. M. Pace, of this city, for intractable vomiting during a period of three weeks. A host of remedies had been tried, by mouth, rectum, and skin, including blisters to the epigastrium, but beyond a few hours of temporary relief no substantial benefit had been derived from their employment. When I was called in the case had already begun to assume a very serious aspect. The patient was a very delicate lady, of a highly nervous organization, and the innutrition and shock consequent upon the incessant vomiting had attenuated her to the last degree, and induced a condition of neurasthenia which was indeed painful to behold. Every particle of food and medicine was promptly rejected. The slightest exertion brought on syncope, and every symptom seemed to indicate a rapidly approaching fatality. Several days before my arrival Dr. Pace had, following the advice of Sims and Carl Braun, mopped over the cervix a solution of silver nitrate, and later had inserted his index-finger into the cervix up to the first joint, and beyond perhaps, but these procedures had made not the slightest impression on the hyperemesis.

With some misgiving as to whether the patient could at this stage bear an operation which might be followed by an abortion, I suggested that a more thorough dilatation be effected with a steel expanding dilator. The patient was accordingly placed in Sims' position, an Atlee dilator passed up to the internal os, and the cervical canal carefully but thoroughly dilated. No relief was afforded. The vomiting persisted as before. An abortion, no doubt superinduced by my interference, followed after three days, which severely taxed the flickering vitality of the patient, but bringing immediate relief to the vomiting. The patient recovered after a slow and painful convalescence from a pelvic cellulitis which supervened on the expulsion of the fœtus.

Is it justifiable to produce abortion in any case? Barnes unhesitatingly advised it. Tarnier would resort to it under some circumstances. On the other hand, Cazeaux earnestly opposed the suggestion and described a most remarkable case, related to him by P. Dubois, which had been abandoned by the latter and a colleague, and which afterward promptly recovered on the exhibition of a purgative. More recently Carl Braun, if I quote him correctly, emphatically condemns the practice.

If, therefore, we would follow the latter eminent authorities, and avoid the risks of an induced abortion, may not the dilating procedure of Dr. Wylie, which in many cases, it must be acknowledged, will excite uterine contraction, prove to be a Greek-bearing gift to the patient, already handicapped with an extreme degree of cardiac debility and nervous exhaustion?

It is true that the uterus will in some patients bear an amount of irritation which is truly astonishing. Witness the case, reported I believe by Dr. Mundé, where the cervix was amputated for an epithelioma in a pregnant female, who afterward made a trip to Europe, and, if I remember aright, was safely delivered. I have many times known the sound to be introduced into the cavity of the pregnant uterus and caustic applications carried up above the internal os and no uterine action be induced.

But do such cases indicate the rule? If not, *the rule* may be disregarded by experts, even in the absence of an emergency; but for the profession at large I am rather inclined to believe that Carl Braun's teaching, although too dogmatic, is the most conservative.

Moreover, I am induced to believe, by a close study of such cases, that while the emesis of pregnancy is a pure neurosis, of reflected origin it may be, it is the morbid expression of an individual nervous endowment which in many cases will not be amenable to any treatment, not even that of emptying the cavity of the uterus.

This view has been fully elaborated by Brock, who according to the anatomical and clinical facts critically examined the theory of Barnes advocated by Dr. Wylie, and that of Hewitt and of Bennett seriatim, and rejected them all as being unsatisfactory. It will be remembered also as corroborating Brock's opinion, that, in some cases, although the uterus has been rid of its contents, the vomiting persists, or recurs after a remission, and ultimately proves fatal. Tarnier and others relate such cases, and it is evident that in all such the widest dilatation of the cervix effected by the passage of the womb contents has not removed the cause of the emesis.

However, we must admit that in extreme cases of hyperemesis the question of induced abortion may be legitimately considered and settled according to the individual judgment of the skilful and conscientious practitioner, reinforced by the concurring opinion of a worthy colleague.

Yours respectfully,
Henry K. Leake, M.D.

Dallas, Tex., December 10, 1884.

OUR LONDON LETTER.

(From our Special Correspondent.)

KLEIN ON THE COMMA BACILLUS AND ITS RELATION TO CHOLERA—DENTAL EDUCATION AND PRACTICE IN ENGLAND—A VISIT TO THE DENTAL HOSPITAL.

London, February 7, 1885.

An interesting and important paper has just been read before the Royal Society by Dr. Klein on the subject of the relation of the comma-shaped bacilli to Asiatic cholera. Your readers may remember that Dr. Klein, with two other medical men, was sent out to India last year to investigate the question of cholera and its etiology. In his recent paper before the Royal Society he gives the most important of the conclusions arrived at by himself and his colleagues on the British Cholera Commission. These differ in many important respects from the results arrived at by Dr. Koch and the German Cholera Commission.

The English Commission agree with Koch as to the constant occurrence of comma bacilli in the rice-water stools, but remark that they differ greatly in number in different cases. They also found them in the mucus-flakes of the rice-water stools and those taken from the ileum of a cholera patient after death. But whereas the German Cholera Commission found the comma bacilli in the lower part of the ileum of persons dead in the acute stage in such numbers that they regarded that region as containing "almost a pure cultivation," Dr. Klein maintains that the sooner after death the body be examined the fewer comma bacilli will be found in the mucus-flake, and that in typical cases ending quickly in death the mucous membrane of the ileum will not be found to contain in any part any trace of a comma bacillus or any other bacteria, not even in the superficial loosened epithelium. If the post-mortem be sufficiently delayed, comma-bacilli and other bacteria may be found penetrating into the spaces of the mucous membrane. Dr. Klein and his colleagues do not, therefore, agree with Koch in considering the lower part of the ileum as the site of a pure cultivation of comma bacilli, and do not accept his theory that the comma bacilli present in the mucous membrane secrete a chemical poison. Koch considers the comma bacillus to be specific, and not only important diagnostically, but the true cause of cholera. Klein remarks that the behavior of the bacillus in different media is not such as to justify us in viewing it as "specific."

Comma bacilli occur in other intestinal diseases. Dr. Timothy Lewis, Assistant Professor of Pathology at the Army Medical School, Netley, has found them repeatedly in the mouths of healthy persons. I referred to Dr. Lewis' researches in a recent letter. Their importance was at first questioned on the ground that Dr. Lewis had performed no cultivation experiments with these comma-shaped bacilli. It has, however, since been shown that they display the same peculiar characters of growth in gelatine as Koch's comma bacilli from cholera cases. Dr. Deneke has also found comma bacilli in some articles of food, as stale cheese.

On these and other grounds, Dr. Klein and his colleagues, Dr. Heneage Gibbes and Mr. Alfred Lingard, deny the importance and specificity of the comma bacillus, and maintain that the experiments on animals by Koch and others do not in the least prove that the comma bacilli are capable of producing cholera or any other disease. They observe that, in the case of the tanks near Jelepara Lane, there is direct evidence that water contaminated with cholera evacuations (and therefore containing comma bacilli) did not cause cholera when used for drinking and all domestic purposes by a large number of persons. This is in accord with the views of a large section of Indian medical men, to which I referred on a previous occasion.

Dental education is looking up in England. The Dental Act passed a few years since, although it admitted to the Dental Register a horde of ignorant persons on the (in many cases very flimsy) plea of previous practice as recognized, although unqualified dentists, is likely to bear good fruit in the future. It is now distinctly laid down that no one can legally practice dentistry without the possession of a dental diploma. (This, of course, does not apply to medical men, whom it is not intended to exclude.) To obtain this, mechanical dentistry must be studied for a period of not less than three years under a competent practitioner, a dental hospital be attended for two years, and a rigid examination passed. I am speaking of the requirements for the London Dental Society, England.

A recent visit to the large building in Leicester Square, known as the Dental Hospital of London, has convinced me that if English students do not become competent dental practitioners it is not from any want of training. Under the auspices of the courteous dean, Mr. Morton Smale, I made the tour of the building. The room for extraction is on the ground floor, and gas is given in all cases where it is considered desirable. Nitrous oxide is here given more frequently than probably at any other hospital in London, and no care is spared in its administration. To this may probably be attributed the long roll of cases without a death, which is probably unequalled elsewhere. The stopping room is at the top of the house, and on entering it a strange spectacle is seen. The large room—nearly sixty feet long by about twenty in width—is literally full of dental chairs, in each of which a patient is reclining for operative purposes. Either the patients are afraid to give any audible sign of pain, or the operators are so skilful as to give very little, for during my stay of nearly half an hour I heard no sound other than the click of instruments, the whirr of dental engines, and the subdued hum of conversation as the surgeons and demonstrators passed from pupil to pupil to instruct them how to proceed. The museum is quite worthy of being inspected, as it contains many interesting specimens, the counterparts of some of which are certainly not to be found in other museums. The Dental Hospital is well worthy of a visit from Americans in Europe, whether physicians or dentists, and they will find the staff only too happy to afford them every facility for inspecting the institution and its practical working.

American dentistry has, I am aware, acquired considerable repute both in America and Europe, but I have said enough to show that in London, also, we are doing our best to advance dental science and practice.

OUR VIENNA LETTER.

(From our Special Correspondent.)

A CASE OF DEATH DURING CHLOROFORM NARCOSIS—BILLROTH'S GASTROTOMIES—PROFESSOR KAPOSI ON SYPHILIS—THE BACILLUS OF SYPHILIS.

VIENNA, February 3, 1885.

THE following case of death during anæsthesia occurred last week. The patient was a man forty-eight years of age, who had received a compound fracture of both bones of the leg just above the ankle. The fracture was put up in a plaster-of-Paris splint immediately after the accident. A few strips of iodoform gauze only were between the leg and the plaster splint. Three days later the man was brought into the hospital with extensive and deep-seated phlegmonous inflammation about the injury. Extensive incisions were made and a drainage-tube inserted, and the leg redressed under antiseptics by Professor Billroth.

But, notwithstanding, symptoms of septicæmia set in, and the parts became gangrenous. The leg was then amputated two days later at the junction of the lower and middle third of the thigh, the operation taking place on Saturday, when Professor Billroth does not hold a clinic; only the assistants and a few of the members of a private course of Dr. Hacker, the first assistant, were present. The operation was made by one of the assistants. The patient took the anæsthetic very well, and the first indication of anything wrong was that on the removal of the tourniquet no bleeding took place from the stump; the end of the femoral artery was seen pulsating feebly. The radial pulse was almost imperceptible, the breathing short and slow, but not shallow. The anæsthetic was at once removed, and electricity, sulphuric ether injections, and other stimulants applied, but the heart's action, which was very weak, became feebler, and the patient died at 1.30 P.M., two hours after the beginning of the operation. The respiration continued for nearly half an hour after the heart had apparently ceased to beat. The length of time, from the time the patient was fully narcotized till the removal of the tourniquet, was fifty minutes. The patient was a drinker, had emphysema of the lungs, and atheroma. The anæsthetic used was the so-called "Billroth's mixture," and consists of chloroform, 200 parts, sulphuric ether and alcohol, 60 parts each. About three ounces of the mixture was used in this case.

Professor Billroth was not present at the operation, which took place on January 24th, and by some error the case was reported to the students as having died of shock during the night after the amputation.

Professor Billroth, by a stomach resection in the latter part of January, brought the number of his gastrotomies to eighteen. In this last case a carcinomatous tumor, the size of an orange, was removed from the stomach, and since the operation the patient has done well, without a rise of temperature; has taken liquid food by the stomach since immediately after the operation, lately small amounts of solid food, and will soon be considered as entirely cured. Dr. Hacker will soon publish in pamphlet form a full account of all of Professor Billroth's stomach resections, with the immediate and ultimate result of each case.

Professor Kaposi, the professor of skin diseases in the Vienna University, is probably the best known advocate of the theory of the unism of syphilis. In some of his latest lectures he has made a most clear and forcible statement of his views, which are entirely opposed to those held by his contemporaries. He denies that the distinction between hard chancre and soft chancre, or chancroid so called, as to one being followed by general symptoms and the other not, can be made. Both are equally syphilis, and either or neither may be followed at a later period by general symptoms. A patient may have a typical hard chancre and after it have no constitutional symptoms. Patients, where the induration of

the sore was unmistakable, had been kept under observation in the hospital and outside of it for from several months to over a year, and in this time had had no secondary symptoms whatever. On the other hand, Professor Kaposi had in his practice repeatedly cases of soft chancre which later had gone through all the forms of secondary syphilis. In these cases the utmost care and pains were taken to find an induration, if present, but none was discovered. Still further, the professor went on to state that the initial lesion of syphilis, though usually an ulceration or an open sore, was not necessarily or always so. It might be a condyloma, or in other cases the initial lesion was not to be discovered by any external or local appearance. In view of these facts, which he had verified over and over again by the most careful and exact observation of patients, Professor Kaposi divides syphilis into two varieties: 1, *idiopathic*, where the disease goes no further than the local affection, which may be either a hard chancre, a soft chancre, or neither; and 2, *symptomatic syphilis*, with a similar initial lesion but followed by secondary constitutional symptoms. As to treatment of this disease, the Vienna method is about the same whether one is a dualist or an unicist. The local initial lesion, if with induration and on a tissue which can be so treated, is immediately excised. If a soft sore, or if it is located where it cannot be cut out conveniently, as on the glans penis, it is treated simply with emplast. hydraryg, this being now almost the only local application to soft and hard chancres at present in use by Vienna surgeons If secondary symptoms develop, hypodermic injections of a mercurial salt, usually the protodide, are used throughout the course of treatment. The injections are given in the cellular tissue of the back, on each side of the spinous processes. The syphilis bacillus which Dr. Lustgarten thought he had discovered, is thought by most of the Vienna syphilographers not to be the syphilis bacillus at all. Professor Neuman is outspoken in this belief, and says if there is a syphilis bacillus, it is still to be discovered. Other authorities here are less frank, but say that it is very difficult to distinguish this bacillus from a tubercle bacillus.

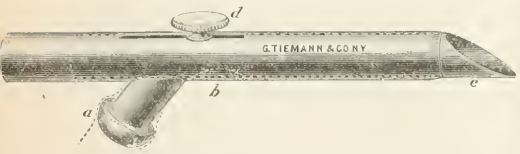
New Instruments.

A NEW AND SIMPLE OVARIOTOMY TROCAR AND CANULA.

By EDWARD S. DUNSTER, M.D.,

ANN ARBOR, MICH.

With a view of obtaining a less complicated as well as a less expensive ovarian trocar and canula, than the well-known and excellent instruments of Sir Spencer Wells and the "Fitch dome," I suggested to Mr. Stohlmann (senior partner of the house of George Tiemann & Co.),



to make for me the instrument illustrated in the accompanying wood-cut engraving. The drawing (which is half size) shows so clearly what the instrument is, that no elaborate description of it is necessary. It consists simply of two concentric and accurately adjusted tubes, one sliding within the other, thus making a canula and trochar proper. The canula (*c*) is adjusted by the set-screw (*d*), and has in it a fenestrum shown in dotted lines at *b*. When the cutting point of the canula is withdrawn into the trocar, this fenestrum comes directly opposite the outlet tube (*a*), to which rubber tubing, at convenience, is to be attached. The instrument, in using, is held in one hand just like a pistol; the proximal end of it, which is capped with a solid convex plate, is placed in the hollow of the hand; the middle, ring, and little fingers grasp it in front of the outlet (*a*), while the thumb and index-finger are free to fix or move the canula forward or backward as required by means of the set-screw (*d*). When the cutting point (*c*) is withdrawn into the trochar, there is no sharp edge or point which can damage the tissues into which it may be introduced.

The special advantages claimed for the instrument are: 1, it can be held and used with one hand alone, leaving the other hand free for the operator to use as may be required, while the grasp (pistol-fashion) is so firm that the instrument is under perfect control; 2, the construction is so simple that the instrument can be cleaned and kept clean with ease; in these days of antiseptic surgery this feature in an instrument is an important consideration. By removing the inner from the outer tube every portion of both inner and outer surfaces of the instrument can be easily reached with a carbolized cotton swab, and there are no sharp angles, corners, or crevices in which septic matter can lurk to do its deadly work by being carried into the tissues in operating; 3, it is, or ought to be, furnished at much less expense than either the Spencer Wells or the Fitch dome.

The instrument is nickel-plated and burnished inside and out. I have used it in several ovariotomies and it works with perfect satisfaction. I would suggest that if made of various smaller sizes and lengths it will be found an excellent and handy substitute for the trocars in use in general surgery.

University of Michigan, February 7, 1885.

A VAGINAL DOUCHE.

By L. A. FROST, M.D.,

JACKSONVILLE, ILL.

This vaginal douche is intended to be a convenient and efficient instrument for administering the prolonged hot-water douche as recommended by Dr. T. A. Emmet, of New York.

It will be seen to consist of two portions; the nozzle, joined to a rubber tube, which passes through the shield portion, and through which the injection is to flow. Also a bulbous part, which is introduced into the vagina as far as the rim will allow, and which by its shape is calculated to be self-retaining, and also to act as a plug so as to cause the vagina to be filled with water.

As soon as the vagina is filled, the surplus passes off easily through the hollow bulb, and out through the rubber overflow tube, into a receptacle placed beside the bed for its reception.

Having a large pitcher on a stand at the bedside, filled with water at the proper temperature (say 110° F.), and a Davidson's syringe tied to the handle of the pitcher so as to prevent its slipping out, the nozzle of the syringe is introduced into the short tube, and the stream started, at which time the instrument, previously oiled, is to be introduced into the vagina. It can be used by the patient without an assistant if she so desires. As the bulbous portion plugs the vagina efficiently, it can be used without danger of wetting the bed. It will be found to be equally convenient with the patient lying either in the knee-chest position, or upon the back.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 10 NEW YORK, MARCH 7, 1885 Whole No. 748

Original Articles.

CHOLERA AS REGARDS QUARANTINE, AND ITS PREVENTION, PATHOLOGY, AND TREATMENT.

BY MONTROSE A. PALLEN, A.M., M.D., LL.D.,

NEW YORK.

THE geographical history of the progress and appearance of cholera since 1848 is too well known for repetition. A large number of the profession are personally familiar with the havocs of the disease, and its self-limited stay in the various parts of Europe and America. From 1873 until 1884, the fears of a reappearance of cholera in Europe and America have been at a minimum, because of the supposed perfection of quarantine and disinfection.

It was believed that certain materials, such as chlorine, carbolic acid, and all that class of so-called germicides, were quite sufficient to destroy the cholera poison, whether it existed in the form of microbe (Dr. Koch), or whether it was bacillus, as believed by many of the materialistic microscopical school of modern pathologists. Unfortunately, after the lull and repose that this belief begot, cholera suddenly uprose in 1883, from the torrid and filthy towns and cities in Egypt, and for a few months ravaged Alexandria, Damietta, Cairo, and other places of less importance. The believers in the "portability theory," and in the "absolute protection" by quarantine, sang pæans of gratitude when, after a couple of hundred days, the pestilence was declared to be stamped out of Egypt, and that Europe was freed by the all-powerful quarantine and the use of germicides! Once more the repose of security and the confidence begotten of this all-powerful quarantine was broken, and like an alarm-bell in the darkest hour of the night, the dread sounds from Toulon in the early summer of last year awoke Europe and America from their dreams of safety. At first the quarantine protectionists declared it was simply an importation from Tonquin, by the troop-ship Sarthe, and that a few days of fumigation and quarantine would stamp it out, and once more they could proclaim themselves triumphant victors, who held within their hands the power to which disease was to succumb! But like Banquo's ghost it would not down. Day after day the pestilence increased, and within a few weeks it had reared its ghastly features in Marseilles, and the black war of death went on in spite of fumigation, disinfection, and the boasted capacities of quarantine to put it down. "Surely," said they, "quarantine must be defective; something is wrong." The French Government was appealed to, methods severe and harsh were demanded to keep it out of Europe. On the Italian frontier at Vintimiglia, the military were called out and regiments of carabineers threatened to shoot those hapless fugitives from French soil who dared to invade the Italian Riviera.

The public press, at the dictation of popular sentiment, almost without exception, called upon the French Government to interdict communication, to keep the inhabitants of those districts confined within the limits of the diseased area; but, fortunately for the name of humanity, the Academy of Medicine in Paris declared that they saw no reason why such energetic and decided measures should be adopted; that cholera could not be kept out, and it was unwise and inhuman to subject the inhabitants of the unfortunate cholera-smitten districts to detention as prisoners.

I was a looker-on during this popular frenzy, when the entire community seemed to be under no control or restraint, when fear seemed to madden whole cities, and when one was led to believe that cholera, like a great black wave, was being rolled over all France to destroy and annihilate. The calm, cool, and wise action of the French Academy of Medicine has proved that cholera cannot be stayed or limited, and the severe and harsh measures of the Italian authorities have enabled us to reply to the utter inefficiency of even a military cordon. Naples wails like Rachel, because her children are not. The heroism of the Italian King likewise demonstrates that as yet Rome has not been afflicted with "portable cholera" in consequence of his grand and sublime visitations to the afflicted Neapolitans. I do not wish to be considered a believer in the disestablishment of quarantine. On the contrary, I am quite satisfied that it is an adjuvant, and a most powerful one, to regulate the importation of contagious diseases proper, such as small-pox, yellow fever, and others of that class, but that it will keep out cholera has thus far, to my manner of thinking, been proved quite inefficient, and it is a delusion and a snare for us to trust entirely to such sentinels on the outposts, who are placed simply to give warning of the approach of the enemy.

The objection to quarantine is that public sentiment has been educated into the belief that its efficacy is so great as to actually prevent the inroads of all diseases, but public sentiment must discriminate between contagious diseases proper and the infectious. Not for one single instant would I abate one jot or tittle in the strong discipline of quarantine, but it must not and should not be our only sentinel. Cholera feeds upon certain conditions, certain continued influences, developed by the aggregations of people, the accumulations of filth, and the refuse of crowds, together with certain fermentations produced by sewage, heat, moisture, atmospheric states, and other causes that the scientific world has not yet determined.

The way to prevent cholera is to get rid of these causes; not to let the soil with such tendencies to fructification be over-ripe when the poison is deposited. Quarantine may do very well to prevent the dissemination of this disease, if there be no place whereon it can be lodged and germinated. And this lodgment will fail to reach any maturity when the conditions to its ripening are removed by proper cleanliness and common-sense hygiene. It is a fact beyond dispute, as witnessed in numerous instances, that the material of which cholera is developed may be scanty at one time—not sufficient to disseminate itself over an entire country—and by the law of self-limitation, is soon expended and overcome. However, this spot having once shown a tendency, from the union of all the conditions, for the development of cholera, may, later on, when the poison has spread more energetically and in greater quantities, determine an epidemic of the most malignant and fatal character.

It is useless to cite all the facts as to the appearance and disappearance of cholera preceding and subsequent to great epidemics, which cannot be explained on the grounds of human portability. If we are to believe Dr. Koch and his enthusiastic admirers, the only possible way to be affected with cholera is in the swallowing of the terrible microbe. But just at this very time the news

comes from Paris that Dr. Briard, and from Calcutta that Dr. Klein, had the audacity to mix up in their drink the microbes of Dr. Koch and swallow them, and both gentlemen are alive to tell the story and refute the theory. No one will deny that good diet, proper clothing, freedom from excess, regular habits, and a well-ventilated residence reduce the tendency to the development of cholera to a minimum. But all these conditions invariably put people in the best possible condition of health, and give them a power to resist the onslaught of any disease whatever. For that reason, medical men seem to be less prone to the affliction of all disease, because they are so much in the open air, because they usually live in a prudent and temperate way, and are generally well fed, well clothed, and well housed, and, therefore, in the best condition to resist the destructive influence of any germ or poison, whether it be microbe or bacillus, that is thrown off by disease.

The inference, then, is that the highest standard of health, produced by the best possible hygiene, will do more to mitigate the severity of an epidemic, when it does come, or in a measure to prevent its outbreak, than any specific fumigation, medication, or quarantine. Every one is well aware of the fact that the refuse and filth of a large town, or the imperfect drainage and badly constructed houses or hamlets in villages and small towns, are the great factors in the development of any disease. Witness, for instance, the fearful epidemics of the plague which have almost destroyed the populace of Constantinople, Smyrna, and Cairo time and again. London itself was almost depopulated until its great fire burnt out the plague-spots, and since the rebuilding there has been no plague in that city. Good houses, better paved streets, and good sewerage have removed all elements of the plague. Again, the history of typhus fever proves that it is the outbreak of overcrowding, of bad and insufficient feeding, and poor ventilation; a pestilence of typhus ought to be an anomaly now, and is a criminal neglect in a well-organized community. Quarantine could easily beat back an invasion of such contagions as typhus, the plague, small-pox, scarlet fever, and possibly diphtheria, because they are all of them clearly traceable to filth, sewage, and absolute bodily empoisonment. But this does not obtain with cholera. Follow any epidemic whatever, and it will be seen that certain conditions, hitherto undiscovered by scientific research, constitute in a great measure the factors in the development of the disease. That cholera poison resides in, or is absolutely carried by, the winds is very questionable, because it has been known to travel from Jessore to Calcutta in the very teeth of a southwest monsoon; it has crossed mountains and has overcome all barriers; but these facts do not prove that there are conditions, electric, cosmic, and telluric, combined with moisture and fermentation, which invade and percolate an entire district or even continent. In proof of this fact, I have witnessed, time and again, and it was an observation generally made by all persons in the Mississippi Valley, that the drinking-water of the Mississippi River, prior to and pending the very severe epidemic of 1866–67, was absolutely so stinking, after having remained for an hour or two in a pitcher, that no one could drink it. At St. Louis, where I observed this most frequently, the water was collected several miles above the city, where the current was running at least four or five miles an hour, and a few miles below where the Mississippi and Missouri rivers unite, and the combined waters flowed from a distance of 5,000 miles! This Mississippi water at New Orleans, 1,000 miles below St. Louis, in the times when sailing vessels were very numerous, was always put in the drinking casks of ships, even such as were expected to make a return voyage, because it kept pure from New Orleans to Liverpool and back. Here was a condition totally inexplicable, but nevertheless it was a coincidence with the cholera, and even prior to it; and the purest of drinking-waters, because of the alluvial clays mixed in it, became fetid and unfit for use. Yet ninety-nine hundredths of the people of St. Louis drank this water, and no one would pretend to believe that the stinking condition was the result of the deposit of the microbe at the head-waters of the Mississippi and Missouri, where the cholera did not exist, but that it was developed from some cause unknown, and coincided with the spread of the cholera epidemic.

Many theories have been advanced with regard to the cause of the cholera. We know the conditions which constantly exist in its birthplace—in the Delta of the Ganges—filth from the accumulation of large crowds of people, poor food, exposure to great vicissitudes of temperature, and the general impoverished state of the lower classes, who inhabit and visit it. Now, whether this disease is developed purely and simply in consequence of the crowding of such masses of humanity and the accumulation of such filth is a question not yet absolutely determined. Certain it is that the cholera is always found at that point, and certain it is, also, that, notwithstanding the elements in the production of the disease constantly existing there, it is not always an epidemic that propagates itself beyond the confines of the Delta of the Ganges.

The only rational deduction there is in the explanation of an epidemic of cholera which can be given, is by a union of this plus-condition, vicissitudes of temperature and the filth accumulating from the aggregation of a great number of people. It is this plus-condition which makes the disease epidemic, and develops the cholera wave; and this epidemic, when stimulated to such an intensity as to make it an epidemic proper, has the plus-condition amalgamated with it, and overrides all efforts of quarantine to keep it out of communities. When it finds a soil, such as is to be found in the city of New York at the present time, it makes desolation and havoc among its inhabitants.

It is a mistake for us to rest under the belief that if cholera were to invade New York, it would be slight, transitory, and easily controlled; *provided, however, that we got the disease in such intensity as was developed in Toulon, Marseilles, or Naples*, within the past year. It is true, however, that if a cholera wave were slight and mild, and therefore of little or weak intensity, its self-limitation might be feeble and of short duration, like corn planted on sandy soil, which would not ripen to the ear; but if it should come in the rich luxuriance which the plus-condition sometimes develops, and has hitherto developed in many instances, both in Europe and America, it might find a soil in the city of New York that would give forth a crop, rank, large, destructive, and taxing all our energies to counteract and control.

There can be no possibility of a doubt of the greater or less intensity of the cholera wave, and just in proportion to this intensity is the limitation of the disease; because, if this disease were not self-limited and did not die out in consequence of the destruction of that plus-condition, cholera would be perpetual, particularly if there is any truth in the theory that it is a purely portable disease, and is communicated in some way from one patient to another, in consequence of the presence of microbes or bacilli. Now, if we are to believe the delusive idea of the absolute safety in quarantine, and the correctness of the theory of portability, there is nothing under the sun which could keep the human race from being constantly afflicted with cholera.

The question arises, What is this "plus-condition"? What is the element that makes cholera an epidemic; that lets it settle down over an entire nation and abide with it for one, two, or three years, and then totally disappear for ten, a dozen, or twenty years?

Now comes the question, if we recognize the fact beyond the microbe and bacillus, that *there is a union of heat, and moisture, and filth, and sewage, and that "plus-condition"* for the development of the disease, what is the best way to prevent its germination and fructification?

We cannot sit as Canute did, and let the tide overwhelm us in the boastful power of a quarantine kingship, but we must remove ourselves from the surging waves or else be destroyed. Let us get rid of the recognized elements of cholera formation by destroying them; let us bend all energies toward the removal of every factor in the development of the disease by an enlightened hygiene, dictated by an experience begotten of the failure of quarantine, which has hitherto been powerless to stay the pestilence from invading both Europe and America.

There is but one solution to this problem—it consists in purifying and cleansing the city. But the question will arise, How cleanse the city? If we are to await action and appropriation from the Common Council and the Board of Apportionment, it will never be done. Or if these appropriations were made, the sum never would be large enough to have them properly carried out. The peculiar organization of our politics is such, that there never was, within the memory of the oldest inhabitant, enough money appropriated to do a piece of work according to the estimate. Jobbery and rings have prevented it, will prevent it; and, therefore, if we await the ordinary red-tape of civic subsidy, we will await in vain. It was very liberal in the American minister at Rome to give $5,000 to help the needy and suffering Neapolitans; but if they themselves had appropriated that sum, before the development of the cholera epidemic, they would possibly not have needed this generous donation from the representative of our Government.

There is but one certain way to have our city properly cleaned, and that is for the wealthy men of New York to raise the money and do it. Their interests lie in keeping this great metropolis free of epidemics, and their humanity ought to awaken a generous disposition to save the city from pestilential invasion, and their duty is, just as in the time of war, to arise and take arms against that which they alone can overcome and master. What if it costs a million dollars to properly clean the city and keep it so? Could there be a better investment? Just in proportion as epidemics are kept from the city of New York, so the value of property will be maintained and enhanced. Situated as the city of New York is, along a narrow strip of land, between two broad rivers, its borders washed by the tides, its death-rate ought to be the smallest of any on the habitable globe, and it would be the healthiest on the continent of America, if it were kept properly cleaned and freed from the accumulation of filth, the emanations of sewage and sewer-gases, and overcrowding in tenement-houses. It may be asked, How can this be done? Simply enough. Let there be erected in the east and west boundaries of the city, and at the end of such great thoroughfares as Wall, Cortlandt, Canal, Grand, Eighth, Fourteenth, Twenty-third, Thirty-fourth, Forty-second, Fifty-seventh Streets, etc., all the way up to Spuyten-Duyvel Creek, great pumps, capable of discharging hundreds of thousands of gallons of water within an hour, and when the tide is at its ebb, and when the sewers are empty of fluids, let them be washed out regularly every twenty-four hours, so that when the tide is flood again, and the water backs up into the sewers, it will not force up to the centres, the detritus and debris of sewage, and push the emanations into our streets, and into our houses the microbes, bacilli, and fermentative poisons, which beget not only cholera, but diphtheria, scarlet fever, pneumonia, typhoid, and typhus. There can be no other possible way of cleaning this city.

Our nostrils are almost hourly offended by the sickening odors of the street-cleaning carts, which back up in front of our houses to remove the garbage and ashes; and not only are our nostrils offended, but our eyes befouled with dust, and our lungs filled with unhealthy vapors. If, in addition to these direct conditions, we are constantly inhaling the noxious exhalations from the sewers, we would stand but little chance to resist the cholera poison, whether it be brought into the country by means of people or by ships. Certain it is, all the disinfection made by the quarantine authorities would be of little service if a cholera germ were let loose to feed upon the emanations arising from the accumulation of filth in certain quarters of New York City, in addition to the fermentative poisons issuing from our sewers. And just here I wish to interpolate a subject of great importance, especially pertinent at the present time. Talk with any of our ship-owners, or with the masters of vessels coming into the port, and the descriptions they give of the fumigations of their ships, coming from suspected ports, is actually farcical on the part of the quarantine officials; and they further say, that the burning of sulphur, or tar, or the exhibition of chlorine gas, or any other disinfectant or fumigator used, is not of the least possible service in the destruction of any germ or any poison of any disease whatever; it does not even kill the roaches or the rats found on board of every ship.

The only person benefited by such fumigation or disinfection is the recipient of the fee therefor.

Six times within the past four years have I been a witness to quarantine examinations at this port, and of that six times three times have I lain all night at Quarantine, and waited the arrival of the Health Officer at six o'clock in the morning, who received the report of the ship's surgeon; and the Quarantine Physician was perhaps ten minutes on board investigating and inspecting the ship! A gentleman interested in one of the steamship lines leaving this port for the Gulf of Mexico, who knows the construction of a ship thoroughly, tells me that both here and at New Orleans the fumigation of ships, for the purpose of cleansing them of yellow fever, small-pox, or any other poison, is simply absurd. To use his own words: "There are thousands of places in a ship that are never touched by the fumigating material or disinfectant, where the air is confined, and where, if there were any disease whatever, it would be sure to be concealed and pent up;" and that "quarantine as exhibited on the coast from Boston to New Orleans is utterly inefficient, and the effort to keep out diseases by disinfecting the shipping is a one-sided affair to total neglect of inland communication." It will thus be seen that if we ever should succeed in protecting the port of New York by a rigid seaward quarantine, and if the theory of human portability is correct, any individual may easily evade the seaboard quarantine and enter the city of New York, having come from a cholera-infected district or ship, and propagate the disease and develop an epidemic. Therefore let us free the city of any materials upon which cholera can feed; let us have the soil so arid and sandy, when the cholera wave comes, that its seed will not germinate and ripen.

Possibly these words of mine may not be heeded, and I may be looked upon as an alarmist. Most people who portend evil are called "croakers," but there is an old adage, one inculcated by Washington himself, that "in time of peace we should prepare for war."

The experience of Egypt in 1883, the horrors of Toulon, Marseilles, and Naples in 1884, all point unerringly to the handwriting upon the wall, unless all experience in the march and development of the epidemic since 1832 to 1873 be of no importance and productive of no lessons. Should cholera make its appearance here, we would witness bonfires lighted in the streets by day and by night, as was done in Marseilles and Toulon, and we would see the streets sprinkled with carbolic acid, as was done in those places, and in Paris. A terrible panic would seize upon the people; and those who could get away would, in the first days after the disease was declared epidemic, fly out of the city in terrorized hordes, as was witnessed within the last year in France and Italy. A pall would settle upon the community, blighting it, certainly for the time being, financially, socially, and politically. Is it not better, then, even at the expense of being considered over-cautious, even at the idea of being ridiculous, even in the hope that we may be wrong in so doing—is it not better, then, for us to do all we can toward cleaning and purifying and getting rid of

filth, sewage, and all the acknowledged factors in the production of cholera? I suggest the washing of the sewers by means of pumps, because it is so simple; and with such facilities as New York presents through its geographical position, it will be seen to be the simplest and surest way of purifying it. If there are other methods more effective, cheaper, and better, I am perfectly willing to see them adopted. We cannot expect the Board of Health, or any other organization directly or indirectly connected with the Street-Cleaning Department to even keep New York clean with the amount of money appropriated for that purpose. If we do so, we are laboring under that "hope deferred which maketh the heart sick." The people themselves must take this thing in hand. We cannot tell at what day a ship, landing from Italian shores, notwithstanding she may have a clean bill of health, notwithstanding she may have undergone a rigid quarantine inspection at the port of New York—and particularly if the human portability theory be correct—we cannot tell at what hour or what day, from that ship, the cholera will develop itself in the city of New York. The optimists of the community will say that, when cholera makes its appearance, it is only a sporadic case or cases. The quarantine protectionists will say that it can be beaten back; but the history of the past half century demonstrates that nothing has ever yet kept out the cholera after it has once taken a foothold in a community. Its severity has been mitigated by cleanliness of person and city, and in no other way, although Dr. Koch would make us believe that drinking water in which there are no microbes is a guarantee against cholera, and many so-called facts are quoted to sustain such an opinion. The stinking Mississippi of 1866 and 1867 settles beyond all question, in my mind, when the cholera poison is active, when the cholera wave is general, that thousands of miles of flowing pure drinkable water may be saturated with something besides microbes, to such a degree as to render it nauseous as to taste and disgusting as to smell.

The next question presenting itself for consideration is the treatment of cholera, when it does make its appearance. The literature of the subject, the experience of the profession, and the results obtained have heretofore not been satisfactory as to medication proper after the patient is once stricken down with the disease. Given a case of cholera, and the vast majority of individuals seen by medical men in an epidemic are already stricken with the pestilence—given a case, I say, can any man point to any forms or methods of treatment that have been of any certain avail to check the disease? If we consider the etiology and pathology of cholera, we would not think of introducing medicines into a stomach which not only will not hold the drugs, but even ejects the mucus and watery transudation constantly poured into its cavity from the lining membrane. The cholera stools likewise indicate that there is issuing through the walls of the intestinal canal not only the increased secretions of the mucous membrane, but likewise the serum of the blood. It is not probable, nay, it is not possible, that these vomitings and purgations, which are so prominent among the symptoms of cholera, should be the result of any special irritation in the stomach or intestinal tract. The dead-house has as yet not revealed to the pathological anatomist a sufficient cause to demonstrate any local gastric or intestinal cause.

We know what is not cholera, as far as any absolute results have been obtained; but we may surmise, and almost correctly, that the cause of cholera dejections and vomiting is in a paralysis of the vaso-motor system, and that the serum of the blood transudes the mucous membrane of the stomach and the intestinal tract in consequence of there meeting with the least resistance. In the examination of many of those dead with cholera, I have frequently found in the stomach medicaments administered to them during the period of collapse (after the vomiting had ceased) in the vain hopes that their absorption might stimulate to a reaction. Time and again have I witnessed the vomiting in cholera patients of everything administered by the mouth that went in the stomach, whether in the shape of water, stimulants, ice, food, or medicine. Under these circumstances it shows how almost futile is the task of the physician who hopes to effectually battle with the disease by the ordinary means of administering medicine by the stomach, and equally hopeless is the injection per rectum. There remains but one way of direct medication, namely, by hypodermic injection of such materials as may have an antidotal effect upon the poison which produces the paralysis of the vaso-motor system. Physiological chemistry has not as yet given us any absolute medication for this purpose, but the experience of clinical medicine teaches us that if we can get to a patient before this vaso-motor system is completely paralyzed we may sustain the heart's action by another paralysis of its so-called inhibitory (or check) nerves, and this is done by means of atropine.

Whether the theory of nerve inhibition is a physiological fact or not, as far as the heart is concerned, certain it is that the use of atropine seems to ward off any influence which would tend to weaken the heart's action. Again, atropine is said to producte a contraction of the muscular fibres between the elastic layers of the arteries, as well as the external muscular layers of the capillaries. It is an established fact that the maintenance of the elasticity and contraction of the arteries is a necessary condition for the proper circulation of blood through the tissues, and it is equally well known that the veins are endowed with the peculiar contractility characteristic of the action of striped muscular fibres. Now the paralysis of those nerves, which preside over the functions of the arterial and venous contractility, necessarily begets a stagnation of the blood in a greater or less degree. Likewise calling upon the heart to attempt to drive the current through a series of paralyzed canals, which possess of themselves no self-help, and the result is a transudation, and that transudation consequently takes place where there is found the least resistance, which is upon the mucous membrane of the walls of the stomach and the intestinal tract. We further know that atropine dries up the mucous membranes of the body, from the fauces to the rectum, whether it be in consequence of its control of the inhibitory nerves of the heart, or a tonic spasm of contraction of the muscular layers of the blood-vessels, I cannot say; but that it is a dryer of mucous membranes there is abundant evidence to show. Furthermore, we know that morphine controls spasm; that it subdues pain; that it promotes quiescence, and that it has a tendency to keep the blood-vessels, and more especially those of the spinal cord, in a distended state, thereby, for the time being, maintaining the spinal cord in a state of vascular plenitude, which stimulates to proper functioning. Without further theories upon the action of morphine and atropine administered hypodermically, I may be permitted to state that in the epidemic of 1866 and 1867 of cholera in St. Louis, and more especially in 1867, I ceased to administer medicine by the mouth and stomach, and in every case that I saw I mainly relied upon the use of the hypodermics in the stages prior to collapse, allowing the patient to have nothing but cracked ice, carbonated waters, or champagne by the stomach. The results in many of them were very satisfactory, and, unless the patients were too saturated with the cholera poison, a large majority of them did not pass into the collapse stage, particularly if dry heat were continually kept on the extremities, and friction and mustard poultices uninterruptedly and vigorously maintained. My observation as a medical student in 1854 and 1855, and my recollections as the son of a physician with a very large practice in 1849 are, that all the known methods described in 1832 and 1833 were persistently repeated, and I do not remember any two medical men who had any one special theory, or used any one form of treatment from which they derived any certain or constant benefit whatever. As a general rule during the epidemics, where medication by the mouth was persistently

tried, all patients who recovered from cholera did so not in consequence of medication, but because of the power they possessed to resist the poison, or in proportion to the intensity of the poison they had absorbed. But the epidemic of 1866 and 1867 demonstrated the rapidity with which hypodermics of morphine and atropine effectually controlled diarrhœas, in contradistinction to the uncertain and almost useless exhibition of medicine by the mouth. The deductions I have drawn from a very extended experience in the treatment of cholera is, that the disease must be attacked not in those parts where it locally manifests itself, but through the medium of a general circulation, which conveys antidotes to the prostrated and poisoned cerebro-spinal centres.

Patients dying from what is called in the South and West a "congestive chill," but which has been described in the text-books as "Pernicious Intermittent Fever," exhibit all the symptoms usually found in the collapse of cholera, the coldness of the extremities, the washerwoman's hand, the shrivelled blue skin, the aphonic voice, the sunken eyes, preceded by diarrhœa and vomiting, with this difference, that in the collapse of cholera there is a sub-normal temperature, whereas in the collapse of pernicious intermittent fevers there is always an increased temperature, going up sometimes to 106°, but the cause is evidently some poison acting in an analogous manner as does the cholera poison. There is in both diseases some form of poison which produces irritation of the cerebro-spinal centres, and prostration, and paralysis of the vaso-motor filaments of the sympathetic nerves. In the pernicious intermittent fever it is attended with congestions and engorgements of the lungs and liver, and general high temperature of the body, which is rarely, if ever, manifested in cholera. No one would attempt now to treat pernicious intermittent fever by means of the exhibition of quinine through the mouth; but there is scarcely a medical practitioner throughout the Valley of the Mississippi, where the disease is so prevalent, who does not immediately act upon the poison by means of repeated hypodermics of quinine, until the patients rally from what would otherwise be a fatal collapse. How futile to attempt medication by the mouth, to trifle with a disease like cholera, to lose valuable time when hypodermics may rapidly accomplish the results and prevent the fatal finale! What we need in the treatment of cholera is to know positively beforehand that a patient is to be subjected to an attack. During an epidemic presumptive evidence becomes almost positive testimony; and if, under these circumstances, we can manage to administer to a patient such medicaments and restoratives as will keep up the heart's action and the respiratory functions, we might so saturate him with them as to tide him over what would be otherwise a fatal attack. Such a method is generally proceeded with in cases of empoisonment for the bites of venomous reptiles, such as the rattlesnake, the copperhead, the moccasin, and the cobra de capello. Alcohol is now believed to be an antidote to snake-bites, not so much, in my judgment, because it possesses a special solvent antidotal character, but because persons bitten by reptiles can take such large quantities of it; and it sometimes requires enormous doses to stimulate the heart's action and the respiratory functions. It is this alcoholism which maintains the heart and lungs in their various functions, sufficiently long to allow the usual emunctories to get rid of the poison; or another explanation may be offered in the fact that the poison, not having time to thoroughly overpower and paralyze the cerebro-spinal centres, may be so attenuated by an alcoholic mixture in the blood that it is thrown out of the system in consequence of such alcoholic dilution. Take either definition we may, it is certain that the alcohol keeps the heart stimulated for a sufficient number of hours, in the vast majority of cases, to prevent death.

In cholera we have hitherto failed to cure by the administration of remedies by the stomach; therefore let us try the hypodermic treatment as offering the most rational methods.

Quarantine has hitherto failed to ward off an epidemic of cholera; therefore let us prevent its germination and fruition by clearing away filth and sewage, as well as promote the highest state of hygiene by teaching the community how to live during the invasion. When we accomplish these propositions we will be enabled to master the pestilence, and then only.

TRYPSIN AS A SOLVENT OF DIPHTHERITIC PSEUDO-MEMBRANE.

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PROBABLY the large majority of physicians who have tried solvent sprays for the destruction of diphtheritic membrane, particularly as it occurs in the larynx and trachea, have become sceptical as to their utility. A solution that is strong enough to exert a marked chemical activity in disintegrating false membrane is too irritating to be of practical utility; for all agree as to the dangers of using such applications to a diphtheritic surface. Alkalies and acids, in sufficient concentration to be very powerful, must then be ruled out. The problem to be solved in destroying pseudo-membrane is to obtain a substance that will be effectual and, at the same time, unirritating; that can be freely and continuously used without fear of aggravating the local or general diseased condition. While it is not supposed that diphtheria is cured by getting rid of the membrane, if it can only, even partially, be destroyed as quickly as it forms, we not only remove great danger from septic infection, but, in case of croup, may stave off the fearful death by strangulation until the violence of the disease begins to abate and the membrane ceases to form in the larynx. A physiological agent, by its inherent vitality, can do quickly and without harm the work that a chemical agent can accomplish only by a destruction that cannot be practically limited or controlled. In the former case, there is applied to one part of the body a ferment intended normally for another part, but still capable of being used largely under its natural conditions; in the latter instance, we are employing within the body, with its delicate, vital activities, the harsh reagents of the laboratory. The physiological, as distinguished from the chemical method, is then to be preferred in dealing with false membranes. The object of the present paper is to call attention to a ferment that promises to be of great use, from its physiological activity upon fibrous structures, in connection with diphtheritic membrane, and to urge a trial of it by the profession, with a view of determining its practical utility. It certainly seems to merit a trial. In the treatment of disease so many sources of error are possible that numerous cases must be collected before reliable conclusions can be deduced; nevertheless, single cases are often worth a careful consideration, in the line more of suggesting future possibilities than of settling any question in therapeutics. The history of the following case is hence given in full. I was called, on December 17th, to see Kate M——, aged three years and seven months. The child had been brought to my office a week previously, for a general cold, the catarrhal process extending from the nose to the bronchial tubes. This condition improved some, but on December 15th she seemed ailing again. On December 16th she complained of her throat, and had a slight hoarse cough; at the same time, the child did not appear to be very ill, and sat up to her meals with the family. When I examined her on December 17th, there was a false membrane covering both tonsils and the uvula, and extending up over the back of the soft palate, apparently into the nose. There was a thin mucous discharge from the nostrils that had excoriated the upper lip, but this discharge had existed during the previous

week. Auscultation showed the presence of a general bronchitis, by many mucous râles. There was no dyspnœa, but, at times, the child would have a hoarse, croupy cough.

On December 18th the croupy symptoms became very marked, pulse rather weak, and temperature 100°. A steam atomizer with a one to fifty solution of liquor potassæ in lime water was employed in addition to constitutional treatment. In spite of this the breathing gradually grew worse through the day. When the child was seen on the morning of December 19th, the membrane had begun to disappear from the tonsils, but the dyspnœa had markedly increased. There was epigastric and supra-sternal depression upon inspiration, and signs of deficient oxygenation. The dyspnœa continued increasing through the day, and in the afternoon it became apparent that the child would speedily die of strangulation if not relieved by a tracheotomy. This operation I performed at 5 P.M. with Dr. S. M. Roberts. The opening into the trachea was made below the isthmus of the thyroid gland, and a membranous cast of the canal was coughed out. Although the case was a most unpromising one for eventual recovery, there was instant and marked relief to the breathing following the tracheotomy. The temperature was 99½°, and pulse 140 just before the operation; immediately after, the temperature was 101¼° and pulse 155. Within three hours the temperature had risen to 103½°, and pulse to 160. The breathing continued easy through the night, although the child was rather restless. Quinine and digitalis were administered with stimulants. Early in the morning of December 20th the pulse was 165, temperature 103°, and respiration 24. The canula had been frequently cleansed during the night, and was perfectly free from mucus and false membrane; the wound was also healthy looking. As the morning advanced the breathing began to grow somewhat difficult, and by noon well-marked symptoms of tracheal croup had appeared. The canula was perfectly clean, showing plainly that the obstruction was below the tube. A feather, passed frequently down into the trachea, failed to dislodge any of the membrane, although it brought up a little mucus. The dyspnœa continued to increase, until finally, in the middle of the afternoon, the breathing was as difficult as before the operation. There was depression of the soft parts above and below the sternum, and the child tossed about in the agony of suffocation.

Feeling that I could do no more to alleviate the distressing symptoms, as repeatedly passing a feather deep down into the trachea had failed to give any relief, I left the house promising to return in an hour. Upon reaching my office it occurred to me that it would do no harm to try the digestive effects of ext. pancreatis upon the membrane that had descended out of my reach. Hurrying back to the house for fear the child might be dead before my arrival, I found her lying in the nurse's arms and apparently almost in her last gasp from the obstruction below the tube, which was still clean and free, with the canula removed to allow all possible access of air. The pulse was imperceptible. Hastily emptying one of the vials containing gr. v. ext. pancreatis and sodii bicarb. into the receiver of a hand-spray, containing about two ounces of luke-warm water, I put the nozzle at the opening of the tube and threw a strong spray directly down into the trachea. This was followed by a fit of coughing, but not by evidences of as much irritation as I had anticipated. The cough expelled several small masses of mucus, which was followed by slight relief. The spraying was frequently repeated, and in about half an hour I fancied the breathing began to get appreciably easier. Uncertain as to whether the relief was simply due to the physical action of an alkaline solution or to the physiological effects of the pancreatic ferment, I determined to continue its use. The symptoms of tracheal croup, shown by the obstructed respiration, slowly disappeared, until in several hours the breathing showed no evidence of tracheal or bronchial occlusion. During this period the pancreatic spray had been blown through the tube, about once every fifteen minutes. The disappearance of the supra-sternal and abdominal depression was gradual. There was no return of the dyspnœa through the night, or on the following day, when she died.

A point of interest, in passing, was the satisfactory action of cold compresses in reducing the temperature and restlessness. At eight in the evening, while the breathing was quite easy, she began to get extremely restless, and examination showed the temperature to be 105⅘° in the axilla, and pulse 170. I immediately had cold compresses wrapped around the chest, and repeated every fifteen minutes. Dry blankets were put outside. At ten o'clock the temperature was 101⅕, and pulse 150, with the child resting quietly. There had early been evidences of blood-poisoning in this case, shown by the pale, waxy skin and great depression, and the following morning she died from this cause. The next day I removed the larynx, trachea, heart, and lungs entire, and took them away from the house for careful examination. These specimens I afterward presented before the Pathological Society. The surface of the lungs had several small patches of emphysema, the parenchyma was congested and œdematous, and at the base of the right lower lobe there were two small patches of pneumonia. There was a dense, firmly adherent membrane attached to the whole of the inner surface of the larynx, and extending up to the tip of the epiglottis. The vocal cords were very thickly covered. There was also a thick membrane extending down on either side of the incision into the trachea to its lower border. Below the opening it stopped, and the whole length of the trachea was intensely injected, and contained little disintegrated shreds of membrane. This condition continued down into the bronchial tubes of the second order, where all evidence of the previous existence of a false membrane ceased. The presence of dense, firm membrane down to the spot in the trachea that was first reached by my spray, and its existence below this point only in shreds and partially disintegrated masses, without continuity, in addition to the marked clinical evidences in the case, satisfied my mind that the trypsin ferment in the pancreatic extract had acted in digesting the membrane. While pseudo-membrane is in a more favorable condition for maceration in the trachea and bronchial tubes than in the larynx, it could not so suddenly have disappeared by this process, as was exhibited by the clinical symptoms. The membrane in the trachea and bronchi must have been thick and abundant to have produced such prolonged and severe dyspnœa, and indeed such was its character just above and around the tracheal opening as seen after death; the most favorable conditions for maceration, with alkaline spray, could hardly have so quickly reduced it as to produce timely relief of dyspnœa, or leave so little remaining as appeared at the autopsy.

The symptoms observed before death and the appearance of the membrane afterward complete the evidence, to my mind, that a more active agent than a mere alkali had produced its disorganizing effects upon the false membrane to its almost complete destruction. To further satisfy myself, however, I tried an experiment upon the larynx, which was thickly coated with dense, firm, adherent false membrane. Putting three grains of extract of pancreas with some soda bicarbonate in about an ounce of lukewarm water, I sprayed the larynx several times, keeping the nozzle at the distance of a foot. The larynx was then put in a warm place at about the temperature of the body. In half an hour a change was appreciable in the membrane, and in several hours it was pretty completely softened and diffluent; in fact its condition was such that it could probably have been expelled during life, or at any rate not have been dense enough to have caused suffocation, although before the pancreatic spray had been used it was exceedingly tough and abundant.

It will be observed that soda bicarbonate was combined with the extract of pancreas in the above instances, as the pancreatic ferment acts better in an alkaline medium. In order to eliminate the alkaline element, I have since performed a few experiments in which the action upon membrane of the ferment trypsin, of the pancreas, was compared in efficacy with that of an alkaline solution. I had prepared a solution of trypsin (gr. iv. to ʒ j.) with one-tenth of one per cent. of salicylic acid. The reaction was slightly acid. One per cent. of liquor potassæ in lime water formed the alkaline solution. Through the courtesy of Dr. Charles Rice, I had the use of a closed water-bath, and the benefit of his assistance in regulating its temperature and in various other details in the experiments. It was my purpose, as nearly as possible, to imitate the conditions found in life, in comparing these two solutions. Accordingly, two large, long, wide-mouthed bottles were selected, and holes bored into the corks to allow the entrance of a spray. The membrane to be tested was pinned on cork and placed at the end of the bottle, that was lying in a horizontal position in the dry air of the water bath. A drachm or so of water was placed in the bottle to allow some moisture to be present. The temperature of the water-bath was kept at from about 37° to 38° C. The membrane to be tested was thus placed in a circumscribed space, at about the temperature of the body, in which there was some moisture, and could only be reached by a spray going through a hole in the cork.

I first tried the relative effects of the trypsin and alkaline spray upon a tough, fibrous membrane, having blood-corpuscles in its meshes, that was obtained from an inflamed pleura over a caseous pneumonia, part of the lung being slightly gangrenous. Two pieces of equal size and consistence were taken, pinned upon cork, and each one placed at the extremity of one of the bottles, that were lying together in the water-bath. The trypsin spray was then applied through the small opening in one bottle, and the alkaline spray through the other. In forty-five minutes, upon inspection, it was found that the membrane acted on by the trypsin spray was much softened, while that treated by the alkaline spray was apparently unchanged. The two sprays were then repeated. In half an hour more, the fibrous membrane subjected to the activity of trypsin was completely disorganized into a thin, diffluent substance, a large proportion having disappeared entirely, while that treated by the alkali was somewhat softened, but otherwise not much changed. In order to more directly test the relative effects of these substances, the trypsin and alkaline solutions were put in two test-tubes, each containing a good sized piece of fibrin derived from the same source. In fifty minutes the fibrin in the trypsin solution was completely dissolved, not a vestige remaining; that in the alkaline solution was considerably softened, but fully maintained its structure. Encouraged to find that a spray of trypsin, applied under much the same conditions as obtain during life, acted so favorably upon fibrous membrane, I next compared its effects with the alkaline spray upon diphtheritic pseudo-membrane. Two pieces of the membrane were pinned on cork, and sprayed with the two solutions as before. In an hour, after two sprayings, the membrane treated with trypsin was soft and diffluent, that treated with the alkali was slightly softened; in an hour more, after an additional spraying, the former membrane was completely diffluent, while the latter was soft, but maintained its structure. In the next trial, the diphtheritic membrane was exceedingly thick and firm, and was treated *in situ* in the trachea which was bisected, and one piece placed in each bottle. Both sprays were applied eight times during the course of two hours and a half.

In half an hour a change began to be evident in the edges and surface of the false membrane acted on by the trypsin spray, and when the two hours and a half had elapsed it was pretty completely diffluent except at its thickest part, and here, at its under side where it was in contact with the trachea, there was some trace of membranous structure remaining. At the end of the same period of time, the pseudo-membrane to which the alkali had been applied was softened, but its integrity was preserved. In the preceding experiments it was noted that the effects of the trypsin spray upon the fibrous membrane began very quickly on the exposed surfaces, a sort of soft, thin film first forming at the superficial part, and then gradually becoming more liquefied. It took longer to affect the deeper, unexposed part of the membrane, which apparently preserved its structure after the surface was completely diffluent. Finally the whole membrane would present a sort of melted appearance, destitute of organization. Foster states that the appearance of fibrin undergoing pancreatic digestion is different from that undergoing peptic digestion. In the former case the fibrin does not swell up, but remains as opaque as before, and appears to suffer corrosion rather than solution. The membranes, on the other hand, under the influence of the alkaline spray were physically a little softened, but not structurally altered at all. I next tried two experiments in which diphtheritic membrane was placed in the two solutions in test-tubes, to test their effects in this manner. In each case I was surprised to see that the trypsin solution had not such a powerful effect upon the false membrane, and that the alkaline solution disintegrated it about as quickly. It has seemed to me that the repute enjoyed by alkaline applications for the destruction of diphtheritic false membrane, is based somewhat upon the fact that experiments with the membrane have generally been in alkaline solutions. It is manifest, however, that during life the diseased surface cannot be kept in an alkaline bath, but must be reached by a spray, and it is often very problematical how much of this reaches the desired spot. The alkaline spray that I used, under the most favorable circumstances for employing this method, had very little effect upon the membrane.

The reason that the trypsin solution, as distinguished from the spray, had not a stronger effect, has seemed to me to be explained by considering that this mode of employing the ferment was not physiological. During digestion the food does not remain stationary in a limited amount of the digestive fluid, but is continually moved about, coming in contact with fresh instalments of the ferments which are continually being produced, the peptones formed being either absorbed or carried away, and do not remain to hinder the further digestion of unchanged albuminoids. Hence by spraying a membrane repeatedly with a trypsin solution, fresh particles of the ferment are deposited at short intervals upon the surface to be acted on, and in this way the physiological method is imitated. It is thus seen that the way we practically are compelled to deal with false membranes during life, that is, by repeatedly spraying, or by making local applications to the tonsils, is theoretically the best means of physiologically employing the trypsin. In order to study the effects upon muco-pus, a ropy mass was put in trypsin and alkaline solutions, it not being practical to use the spray. The muco-pus was extremely thick and tenacious, adhering to the sides of a glass and expectorated by a man suffering from phthisis in a state of softening. The action of the trypsin upon the mass was slow, but in five hours it was completely dissolved. The alkaline solution had slight effect upon the thick, slimy mass as there was little apparent change in it during the fifteen hours it was under observation. In "Foster's Physiology" it is stated that trypsin, unlike pepsin, will dissolve mucin, and that like pepsin it is inert toward nuclein, horny tissues, and the so-called amyloid matter. Professor W. Kühne, of Heidelberg, was, as far as I can learn, the first to elaborate the ferment trypsin from the pancreas. In 1876 he published two monographs on this subject: "Ueber das Verhalten verschiedener organisirter und sogungeformter Fermente," and "Ueber das Trypsin (Enzym des Pankreas)."

The ferment was found to be exceedingly valuable in histological researches, from its activity on certain tissues. R. H. Chittenden, Ph.B. ("Histochemische Untersuchungen über das Sarkolemm und einige verwandte Membranen"), and MM. L. Waldstein et Ed. Weber in a monograph ("Études Histochimiques sur les Tubes Nerveux a Myéline") reprinted from the *Archives de Physiologie*, have found its activity of service in this connection. Dr. T. Mitchell Prudden tells me he has used trypsin satisfactorily in histological studies, and that by means of it he has been able to separate the cell territories in cartilage, dissolving the basement substance.

It naturally follows that the discovery of a ferment having such activity upon normal tissues, would further suggest the possibility of utilizing it in the destruction of pathological products. I find in the *Edinburgh Medical Journal* for March, 1884, the abstract of an article from the *Berliner Klinische Wochenschrift*, by Dr. Schaeffer, in which papayotine is recommended in the treatment of diphtheritic membrane. Papaine, or papaw, is an extract from the acrid, milky juice of *Carica papaya*, the papaw tree. Professor Dr. C. A. Ewald, editor of the *Berliner Wochenschrift*, supplements this paper as follows: Seeing that the influence of papayotine upon diphtheritic membranes has now been confirmed from many sides, seeing that its action is local, and having regard to its costliness, Ewald suggests the employment of a powerful pancreatine. The action of papayotine is manifestly not a specific one especially directed against diphtheritic membranes, but is founded on this, that it represents in alkaline or neutral solution a very powerful ferment which can dissolve coagulated albumen. Pepsin has failed because it is only effective in acid solution, and the mouth fluids are usually alkaline or neutral. But pancreatine, either dry or contained in a glycerine extract of the pancreatic gland, offers us a similar preparation to papayotine so far as regards its albuminolytic properties, and whose cost is much less. The selection of therapeutic materials with which to combat such a malignant and deceitful disease as diphtheria cannot be too large. But let no man believe, either in papayotine or in any other means directed against the local process, that he has found a prophylactic against systemic infection. Dr. B. M. Van Syckel, of this city, tells me that while studying with Kühne at Heidelberg, the use of trypsin upon diphtheritic membrane suggested itself to him, but it was not until last November that he tried it in a case of false membrane upon the tonsils with a favorable result. He has been able to digest diphtheritic membranes in a trypsin solution (one in ten) at the end of fifteen minutes. The membrane was then entirely dissolved with the exception of a small residue, which somewhat resembled the powder-like precipitate often seen in urine. This residue, under the microscope, showed epithelial cells, some fibrous tissue, and bacteria.

Dr. Van Syckel has lately received from Professor Kühne the following method of preparing pancreas for a trypsin solution: "Take fresh or one day old pancreas from the ox; hash it fine and add four to five volumes of absolute alcohol; let stand five to six days, then drain off alcohol, and add fresh absolute alcohol, two volumes; let this stand three days; drain again and extract the substance with ether; the pancreas can then be quickly dried in air. To five grammes of pancreas, so prepared, add 50 c.c. of 0.1 per cent. salicylic acid solution; let digest in a water-bath four hours at temperature 37° to 38° C.; filter, and to filtrate add sodæ bicarb., to make slightly alkaline, say about 0.25 per cent. The fluid is then ready for use. It is best to add one per cent. thymol to the solution to prevent putrefaction. This addition of thymol in no way interferes with the action of the fluid." Dr. Van Syckel has prepared a trypsin solution by adding five grammes of the prepared extractum pancreatis to 50 c.c. of the salicylic acid solution, etc., as above. He states that a trypsin solution, prepared correctly, should dissolve its weight of fresh blood-fibrin in ten minutes, and that all preparations requiring a longer time are poor. The trypsin solutions I used were made for me by Mr. Fairchild and represented by assay the strength of about gr. iv. to ʒj. To avoid decomposition, various antiseptics were added; to some of the solutions one-tenth of one per cent. of salicylic acid with a little thymol, and to others a three per cent. solution of boric acid and borax, combined to form a neutral medium. We are now experimenting on this subject, and hope soon to determine the best antiseptic to use, that will preserve the ferment without inhibiting its action, and possibly be valuable in disinfecting the diphtheritic surface as well. Of course, any antiseptic must be used in extremely small quantities to avoid interfering with the activity of the ferment. I have tried the trypsin solution in a number of cases of diphtheria, in which the membrane was abundant upon the tonsils and fauces, with favorable results. It should be applied at short intervals by the spray or brush; in the few cases in which I have thus tried it, the membrane has disappeared more quickly than is usual in my experience. As the ferment is locally unirritating, it can be very frequently applied as long as the membrane continues to form. A few drops of the solution placed in a dog's eye showed no signs of irritating. Upon living tissues, the power of the ferment does not seem to be very great. All the physical conditions in the fauces, pharynx, and larynx are favorable to its action.

The important question, as to whether a trypsin solution can practically be utilized to dissolve false membrane within the larynx and upon the vocal cords, remains to be solved. If the membrane can be disintegrated as quickly as it forms, the necessity of tracheotomy may sometimes be avoided. To this end it is of paramount importance to thoroughly apply the ferment within the larynx. It has always been a matter of uncertainty to me how much of the spray, as usually applied to young children, actually reaches the glottis. In cases in which the steam atomizer is used, it is rarely possible to get the child near enough to inhale the spray, which is usually fine, in very great concentration. When the nozzle of the hand-spray is placed in the mouth, they at once gag, the back of the tongue rises, and prevents the entrance of the medicated spray; for when the tip of the nozzle is touched, the spray stops at once. To avoid this trouble I have had made by Tiemann an instrument with a rounded nozzle that can be thrust into the mouth of a struggling child without fear of doing any harm, and a projecting depressor that reaches forward very nearly to the tip; this at the same time holds down the back of the tongue and prevents the stopping of the spray from the contact of the soft parts. By means of a double bulb, or possibly at times by compressed air, a continuous downward spray is maintained.

It is thus aimed to fill the pharynx and larynx with a trypsin spray of sufficient tension to penetrate all parts. I have only been able thus far to try the trypsin in one case of diphtheritic croup, and that with negative results, as the baby, nine months old, was moribund when I saw her. If in any instance, after tracheotomy, we are able to keep the air-passages below the tube tolerably free from membrane, by this agent, it will be a great gain.

The extract of pancreas, while exerting a digestive effect upon diphtheritic membrane, does not act quite so quickly as trypsin, in the cases in which I have compared the action of the two, upon fibrous membrane. In the case cited at the beginning of this paper, however, the extract certainly had a timely and favorable action. Professor J. Lewis Smith has used the extract of pancreas upon quite a number of cases of diphtheria, and considers its action promising. With reference to the manner of applying it I have had Mr. Fairchild make me up quite a number of solutions, and as a tentative formula, it has seemed to me the following is as good as any:

℞. Ext. pancreatis..... gr. xv.
Sodii bicarb..... gr. iij.
Glycerinæ..... ℥ j.
Aq. dest..... ℥ vij.

It can be used by spray or brush. Stronger solutions do not appear to act any quicker, while being more viscid. Enough soda is added to make the solution alkaline, and the glycerine to enable it to catch hold of the membrane readily. As stated at the beginning of this paper, before any definite conclusions in therapeutics can be reached, many observations by different observers are necessary. It certainly seems as if efforts to reduce the mortality of diphtheria are continually needed. A disease that kills more than cholera cannot have trials made in too many directions to partially control it.

CONCERNING THE NEW TREATMENT FOR GONORRHŒA.

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Some few months ago there appeared in one of our medical journals an article on the "Treatment of Gonorrhœa," and as the treatment partly consisted in the use of a very reliable antiseptic and germicide, namely, bichloride of mercury, it struck many at once as being a sensible remedy, even if not a practical one, which, of course, could only be ascertained by experience.

Those who were naturally most taken with the idea were the specialists in this line, and I was led to make trial of the same through the influence of one of these specialists.

The process consists first in running through the urethra, from a fountain syringe, two or three quarts of warm water. The catheter is passed back beyond the inflammation in the urethra, and then the water is turned on and allowed to run through the catheter, and so on out again by the side of the catheter, not entering the bladder. The water first is made comfortably warm, and gradually made warmer until the patient complains of it being too warm; thus of a gradually warmer degree about three quarts are allowed to run through. Then immediately after a solution of $\frac{1}{1,000}$ to $\frac{1}{2,000}$ of the bichloride is passed through in the same manner. After three or four such injections the germs are supposed to be killed, and the patient promptly recovers.

My experience thus far is comparatively limited, only having tested it on four cases, in two of which the treatment was successful and in two not.

The first case that presented itself to me, and upon whom it worked successfully, was one whose discharge appeared about thirty-six hours after intercourse. This short period of incubation led me to think it was urethritis, and I still think it was. After the first injection the discharge was at no time more than a moistening of the lips of the urethra, and after the fourth injection I dismissed him well.

The second case was where the discharge came on about four days after exposure, and which had been discharging for twenty-four hours before I saw it. This treatment was commenced at once, and was kept up until five injections had been given him in five consecutive days, after which the discharge began again, and I put him on the old-established treatment. During the time of giving the injections the discharge was very little.

The third case was one again where the discharge came on about forty-eight hours after exposure, and he came to me immediately. After using three injections, as described above, the discharge ceased and did not return.

The fourth case was one where no discharge appeared until the eighth day after exposure. Being anxious to make a more extensive and thorough trial of the treatment, I gave this man nine injections, as I was positive it was gonorrhœa. After he had taken the nine injections, ranging from a $\frac{1}{3,000}$ solution to a $\frac{1}{2,000}$ solution, he came back on the second day following the last injection with a discharge as bad as in the beginning, and I was compelled again to resort to another kind of treatment.

In the above cases there was every indication that the two instances where the new remedy worked well were simply cases of urethritis, and the two cases where it failed were without doubt, in my mind, true gonorrhœa. Hence from this small data I came to the conclusion it had no merits in the treatment of true gonorrhœa, or at least would not effect a cure within the limits prescribed for it.

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ABSCESS OF THE LIVER, WITH ECHINOCOCCI—RECOVERY.

By NATHAN MAYER, M.D.,
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On September 29th I attended Mrs. F——, a woman of about thirty-eight years of age, small and slender, married but childless. She exhibited the symptoms of a bilious fever, deeply icterous skin, bilious vomiting, pain in the epigastrium and right hypochondriac region, and exacerbations occurring every other night. The fever, commencing with a chill, brought, in the succeeding stage, the thermometer up to 103½°. She experienced two more exacerbations after I began treatment, until the quinine, gradually increased to a thirty-grain dose, prevented their recurrence. The same remedy was for some days continued in smaller quantities with mercurials, and then dilute nitro-muriatic acid substituted. The symptoms subsided and the woman made, to all appearance, a fair recovery. My final visit at this time took place on October 25th, nearly four weeks after the first call.

I was again summoned on November 9th. She was in bed, complaining of great pain in the right hypochondriac region and of dyspnœa. Local applications of dilute aqua regia were ordered, and small doses of morphine. This seemed to relieve her in a measure, but some dull pain over the liver remained. The yellow color of the skin, which had been largely dissipated, was again deepened, occasional bilious and mucous vomiting occurred, and a moderate degree of fever became continuous, with a small pulse of about 106. The alvine discharges, which were not irregular, exhibited at times a normal, and again a light yellow color.

In the course of a month the liver had increased in size so that its margin could be felt in a line an inch below the umbilicus, which, coming from the right, swept around the navel and nearly two inches to the left before it ascended to the epigastric region. It bulged out moderately in three separate portions, the highest being a little above the umbilicus, and this latter developed fluctuation.

On December 4th, with the assistance of Dr. Morrissey, a Flint trocar of moderate size, having aspirating apparatus attached, was introduced one inch to the right and two inches above the umbilicus, and carried to its full length. About a third of a pint of pus being withdrawn, the flow ceased; detaching the aspirator the canula was cleared, and as much more of extremely fetid pus escaped. The tube was left in place, and covered with the segment of a rubber ball; this filled many

times, and on the two succeeding days pressure always caused a profuse escape. On the third day a large flexible catheter was introduced, and the cavity washed out with carbolic solution ; this brought to light several small cysts.

Next day, and for the first time since the operation, a very large passage of the bowels was effected, the demand coming with great suddenness. The fecal mass contained over a hundred echinococci cysts of all sizes, large ones, with smaller studding their walls, or small and very small ones afloat independently. The microscope showed abundance of the characteristic hooks, but I did not succeed in seeing a complete scolex. Two days after this, a fit of vomiting discharged a very large quantity of ruptured cysts, their size much surpassing those first evacuated, and from this time small cysts continued to come by the opening in the abdomen and larger ones by stool. Those that came from the opening, which discharged great quantities of bile, were much tinctured by the latter, and occasionally shreds of capsule, tough, fibrous, and of all shades of yellow, accompanied them. The alvine discharges became clay-colored, and then like plaster ; only an occasional portion showed normal tints. With them were cysts and white shreds of capsule.

The patient was not uncomfortable during this time. Some febrile reaction in the first days, attended by a small pulse of 120, was followed by a season of debility, with extremely irritable stomach, but without great pain or discomfort. Some time early in January the last cysts came, and about the middle of the month the opening into the liver made efforts to close. At first these caused sharp pain and some dyspnœa, but soon the temporary occlusions were better borne, and when at last the fistula healed, no serious inconvenience resulted. The fæces that had retained their clayey character assumed a yellowish tint, and they present, since the closure, an altogether more normal appearance. During the last weeks a continuous stream of bile had passed from the fistula.

The patient is at present up and doing well, with the liver reduced to little more than its normal size, and no tenderness of the part on pressure. She eats and digests well, and presents appearances of anæmia only, which are yielding to treatment. There seems every indication of a recovery.

I presume that the abscess of the liver, caused by the pressure of the echinococci mass, was formed outside of its capsule, since only fetid pus was the result of its puncture. Later and repeated agitation of the canula, inserted for a length of three inches, may have penetrated the encapsuled cyst and admitted bile. This, authors claim, causes the destruction of the vitality of the cysts. The puncture was too small for any but very diminutive cysts to escape, and, on the third day, an opening into the duodenum was probably effected, and the mass of cysts passed out that way. The size of many precludes the idea of an escape by the ductus, inasmuch as some that came out unbroken were an inch and a half in diameter. That the opening was into the duodenum appears likely by the extensive vomiting of large ruptured cysts, which took place six days after the operation. What the bilious fever, in the first place, had to do with the affair, I am at a loss to imagine, unless it marked the location, or first disturbance by growth of the echinococci eggs and the resulting inflammatory reaction of the liver. But authors accord a long time to the development of these cysts, while the patient had, by all accounts, not suffered previously. An endeavor to trace the acquisition of the trouble resulted negatively. There is a dog in the family, and a great pet. They live in poor circumstances, and crowded together in three small rooms. It is by no means impossible that a tapeworm link, passing the dog, should have come in contact with provisions prepared for the people. But I have been unable to establish the presence of tapeworm in this dog, though the fæces were repeatedly inspected. Still it is possible he may be so afflicted.

A CASE OF PRIMARY EPITHELIOMA OF THE TONSIL.

By F. DONALDSON, Jr., B.A., M.D.,

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Malignant disease of the tonsil, and more particularly epithelioma of that gland is, according to all observers, so rare that any authenticated case of such disease may well bear reporting.

Poland says, "Cancer seldom attacks the tonsils, and this is remarkable considering the amount of friction from, and contact with, all kinds of substances, and the intimate connection of this gland with the lymphatic system." Doubtless the apparent immunity of the tonsils from cancer, occurring as a primary or even as a secondary growth, may be in a measure accounted for by the confusion which formerly prevailed in the nomenclature of such tumors, together with the want of characteristic signs in the earlier stages of malignant tonsillar disease. And so many such cases have been diagnosed as simple hypertrophy. In old literature the terms "scirrhus," "encephaloid," "medullary," etc., were applied indiscriminately. Jourdain,[1] for instance, described all simple hypertrophies of the tonsil as cancerous ; while Bell, on the other hand, declared that the tonsil was never attacked by cancer.

Malignant disease of the tonsil is most often met with as a secondary growth, extending from the tongue and soft palate, though it is curious how often the tonsil itself escapes. Dr. Whistler[2] gives an interesting case of this kind, reported by M. Weiss in the *Revue Medicale* for December, 1881, where a malignant tumor, having all the appearance of a cancerous tonsil, proved at the autopsy to be a sarcoma of the pharyngeal wall, the tonsil itself being atrophied and pushed downward to the side of the tongue.

My immediate purpose is not, however, to give the history of the cancer of the tonsil, but to relate the following case of primary epithelioma of this gland, which occurred in my clinic at the University of Maryland :

M—— F——, an Irish laborer, aged sixty-four, came to my clinic for diseases of the chest in the latter part of last March, complaining of a "lump" in his throat. He stated, in reply to my questions, that he had never been sick in his life ; that he was, and had always been, a sober man ; that he had neither hereditary nor constitutional taint, and, finally, that his throat had given him annoyance until some six weeks before, when he became conscious of a "lump" in his throat, which had become gradually more troublesome, impeding deglutition and enunciation, until he had been driven to seek some relief for his uncomfortable symptoms.

The subjective symptoms and physical signs, as found in this patient, I would especially emphasize, for with the exception of the age of the patient there was no ground for a diagnosis of malignant disease, and the symptoms presented no departure from those of inflammatory tonsillar affection.

The patient was strong and well nourished, had lost no flesh, and had had no pain in the region of his neck or ears, nor in deglutition. He had had no fever withal, and there was no glandular enlargement. His voice had the peculiar nasal tone of enlarged tonsils, and deglutition was slightly impeded.

On examination, the left tonsil was found considerably enlarged, very vascular, and soft ; its surface smooth and unbroken except by the fissure mentioned below, and of a grayish color, the follicles secreting a thick cheesy matter. There was no ulceration. The tonsil was free and not attached at any point to the faucial pillars. It extended downward somewhat below the normal situation of the tonsil ; the lower end was quite large and projected outward, lessening the lumen of the pharynx, so as to

[1] Traité des Maladies de la Bouche. Paris, 1778.
[2] Medical Times and Gazette (London), May 26, 1883.

slightly impede swallowing. There was a fissure about the centre of the growth, extending antero-posteriorly, and nearly dividing it into two parts. There was no infiltration of the tongue or soft palate. Finally, the diagnosis of simple hypertrophy was made, and with little trouble the growth removed with the cold snare, and the patient dismissed with instructions to return if it troubled him further. He was not seen again until June 10th, when he came to have the tumor removed. I found it as large as in the first instance, and of a darker color. There was no glandular swelling, and no ulceration, either of the tumor itself or the faucial pillars. I removed the growth with the galvano-cautery, and suspecting that it was malignant, asked the man to come and see me shortly. I saw him once or twice six weeks later and removed a piece of the tumor as before. About the middle of September, however, he came complaining of pain in mastication and of difficulty in swallowing. He had flashes of acute pain, chiefly at night, in the left ear, the glands of the neck were somewhat enlarged, and a distinct hard swelling could be felt just back of the angle of the jaw. Examination showed that the tumor, though no larger, was considerably harder than before; it was of a darker color and ulceration of the surface had begun.

The follicles secreted a thin watery matter. From the above general symptoms and physical signs I was convinced that the growth was malignant; that I might ascertain its exact nature, however, I removed a large piece from the centre of the tumor and sent it to Professor Councilman, of the Johns Hopkins University, who kindly sent me this report of its pathological character:

"The specimen submitted to me for examination has all the histological characters of a true carcinoma. On section I find islands of epithelial cells, and between these a connective tissue rich in embryonic cells."

The malignant character of the growth having been settled beyond question, and it having been removed several times by the galvano-cautery and cold snare only to grow again, I thought it but right that the patient should have the advantage of a radical operation. Professor Tiffany was consulted as to the advisability of such an operation, and after examination gave it as his positive opinion that surgical procedure was not justifiable. The patient is now under constant observation and is, I regret to say, growing slowly but surely worse. The pain, particularly that referred to in the ear, is more constant and acute; his ability to take solid food greatly impaired, the tumor itself and the glands of his neck quite painful on pressure. The side of the tongue is now involved, and there is considerable ulceration and induration of the anterior pillar of the fauces. It is now nine months since the tumor began to develop, and there are as yet no very extreme symptoms, such as expulsion of the food through the nostrils, or vomiting of the same. There has been no hemorrhage of importance. The duration of life in this case, therefore, promises to be longer than the average in cancer of the tonsil. The removal of the tumor in former months has undoubtedly added to his comfort and prolonged his life.

After a careful survey of the available literature of the subject, I find that out of a total of seventy-one cases of primary cancer of the tonsil on record but nine were true epithelioma.

Pierm[1] claims to have a record of five such cases, but of these, two are so very doubtful that we are quite justified in throwing them out. With this exception, then, the nine cases are reported as follows:

Erichsen,[2] Cheever,[3] Lennox Brown,[4] Delavan,[5] Whistler,[6] and the writer, each one case; Pierm,[7] three; total, nine. Epithelioma of the tonsil, then, if we may judge from the above cases, would seem to be the rarest of all forms of cancer of the tonsil; but obviously we have no right to draw such a conclusion, for although some of the seventy-one cases recorded under the general term cancer may have been, and probably were, true epithelioma, still their accurate description is wanting, and it is therefore impossible to get at even their comparative frequency. Pierm and Cozzolino[1] state that epithelioma of the tonsil is as frequent as scirrhus and somewhat less frequent than sarcoma.

Liability to cancer of the tonsil is limited to no particular age or sex. The youngest case on record is that of a woman aged twenty-one; the oldest that of a man aged sixty-four.

Epithelioma attacks either tonsil indifferently, though there is no case on record in which both tonsils were affected simultaneously. Of the nine cases of epithelioma given, seven were examined microscopically, and the result of these examinations would seem to show that there are two pathological varieties of epithelial cancer of the tonsil; one composed of cylindrical epithelium, developed at the expense of the mucous glands themselves, and the other made up of nests of epithelial cells, developed from the epithelial covering of the tonsil itself.

Epithelioma of the tonsil presents, at its beginning, a group of general symptoms and local signs, common with other varieties of cancer, and with simple hypertrophy of that gland. An occasional hardness of the tonsil, and perhaps a longitudinal fissure of its substance, seem to be the only local signs of the disease in its incipiency. Its growth is very slow, and in but very few cases is the patient aware of his trouble from the first. Some slight pain and difficulty in deglutition, from the size of the growth, are the first symptoms of the malady. In my own case, the difficulty of deglutition complained of when first seen was caused by the size of the tumor, as there was at that time no infiltration of the surrounding muscles. At present, however, this dysphagia is from the latter cause.

In advanced cases of tonsil cancer, return of the food through the nose and constant vomiting are not uncommon symptoms. A prominent and distressing symptom in my patient at present is the intense reflex pain in the ear, which is to be found in all cases of malignant disease of the tonsil. In Delavan's case, the pain in the ear occurred long before any disease of the tonsil itself was discovered, and he relates a case in which otalgia, due to reflex irritation from malignant disease of the pharynx, was treated for some time before attention was directed to the throat. In many cases the hearing is gradually impaired from pressure of the growth upon the Eustachian tube. Pressure upon the tonsil itself, and upon the infiltrated glands, gives rise to considerable pain in the above case.

Cozzolino[2] thinks that the color of the tumor in malignant disease is to a certain extent diagnostic, it being a dark grayish-red in epithelioma, and bluish in scirrhus and encephaloid. The globular form of the tonsil is less altered in scirrhus and sarcoma than in encephaloid and epithelioma, where (in the latter especially) it frequently presents ramifications. A generally described characteristic of the last form of cancer of the tonsil is a fissure or sulcus which runs antero-posteriorly across the diseased gland. It was present from the first in my own case. Finally, the tumor is much harder in scirrhus than in the other varieties; though epithelial cancer attains a much greater growth than the other forms mentioned above.

Another marked symptom of all malignant diseases of the tonsil is the glandular enlargement, which is a most important factor in determining our diagnosis.

This enlargement is generally on the same side as the diseased tonsil, though Pierm says that he has seen the glands of the opposite side affected. It is most always found when the tumor begins to ulcerate, and in my case the ulceration of the tonsil preceded the glandular en-

[1] Epithélioma de l'amydale. Paris Thèses, 1879.
[2] Science and Art of Surgery, vol. ii., p. 480. Philadelphia, 1873.
[3] Boston Med. and Surg. Jour., August 1, 1878.
[4] Trans. London Path. Soc., 1879, p. 407.
[5] New York Med. Jour., vol. xxv., 1882. [6] Loc. cit. [7] Loc. cit.

[1] Sui tumori maligni delle tonsille. Morgagni, Napoli, 1884. No. 26
[2] Loc. cit.

largement. The infiltration of the glands of the neck would seem to be slower and less pronounced in scirrhus and sarcoma than in the epithelioma and encephaloid, and so we generally find greater glandular degeneration and ulceration in the latter than in the former.

The course of epithelioma of the tonsil is slow; the soft palate, the tongue, and the pharynx are successively invaded, the growth extending upward and downward until it ends the sufferer's life. The duration of life in this disease is short, generally not more than nine months. Death is slow and painful as a rule, though in two of the cases mentioned above it was very sudden.

A positive diagnosis of cancer of the tonsil can be given only after microscopic examination of the diseased gland, which should be done at once, "for if a diagnosis could be made before the disease had attacked other parts, the gland might be extirpated with more or less ease, and by natural passages, thus avoiding the formidable operation by external incision, and decreasing the probability of recurrence."

The prognosis in all such cases is very grave, and the treatment at best but palliative, unless the growth can be removed in its very incipiency. A radical operation later seems hardly justifiable. Froelich,[1] however, mentions a case successfully operated upon by Professor Czerny; Quintin,[2] one which showed no sign of return after one year and a half; and Mikulicz,[3] the case of a woman operated upon by himself, which had not returned six months after.

Below will be found (what I think to be) a complete list to date of all cases of cancer of the tonsil to be found in medical literature.

Morell Mackenzie,[4] 7; O. Weber,[6] 7; Lennox Browne,[6] 6; Sibley,[7] 6; Velpeau,[8] 5; Lebert,[9] 3; Whistler,[10] 3; Bryant,[11] 2; Cheever,[12] 2; Erichsen,[13] 2; Langenbeck,[14] 2; Baker,[16] 2; Pierm,[16] 5; Albert;[17] Burnett;[18] Quintin[19] (successfully removed); Coppy;[20] Cluttow;[21] Delavan;[22] Cozzolino;[23] Desormeaux;[24] Houël;[25] Froelich[26] (successfully operated on); Foulis;[27] Lawrence;[28] Lobstein;[29] Mason Warren;[30] Meissner;[31] Mikulicz;[32] Roux;[33] Vogel,[34] and the author, each one case. Total, 71.

A Test for Sugar in the Urine.—Dr. J. F. Kemper, of Keokuk, Ia., writes: "Dr. J. North, Professor of Chemistry in the College of Physicians and Surgeons, Keokuk, Ia., has for several years given his classes in the chemical laboratory the following test: Place one or two drops of the suspected urine on a piece of bright tin, heat over a lamp until evaporated, and then continue the heat a few moments; if sugar be present, it will be accurately indicated by the characteristic odor of burnt molasses, and by the puffy, carbonized appearance; if no sugar be present, it will be as distinctly shown by the characteristic odor of urine and by a bright, smooth, varnish appearance on the tin."

[1] Ueber Tonsillar-polypen u. Geschwülste des weichen Gaumens, p. 41. Gottingen, 1880.
[2] Separatabdruck aus den annales de la Société de Médecine de Gand. 1877.
[3] Deutsch. med. Wochenschrift, No. 3.
[4] Diseases of the Throat, vol. i., 1881.
[5] Krankheiten des Gesichts. Billroth's Handbuch: Bd. III., Abth. I., 1866.
[6] The Throat and its Diseases, 1878.
[7] Transactions of the Medical and Chirurgical Society, vol. xxxiii., p. 3.
[8] Liégeois: Dict. des. Sc. Med., vol. iv. Paris.
[9] Traité des Maladies Cancer, p. 422. Paris, 1851.
[10] Loc. cit.
[11] Guy's Hospital Reports, 1863–69. [12] Loc. cit. [13] Loc. cit.
[14] Jahresbericht des gesammten Med., 1869.
[15] Transactions of the Medical and Chirurgical Society, No. 42, p. 111.
[16] Loc. cit.
[17] Lehrbuch der Chirurgie. Wien, 1877–79.
[18] Tanner's Practice of Medicine, vol. ii., p. 11.
[19] Quintin: Separatabdruck aus des Annales de la Soc. de Médecine de Gand, 1877. [20] Loc. cit.
[21] British Medical Journal, March 8, 1884. [22] Loc. cit. [23] Loc. cit.
[24] Bull. de la Soc. de Chir. de Paris, vol. ix., p. 162, 1869.
[25] Ibid., vol. ix., p. 59, 1858. [26] Loc. cit.
[27] British Medical Journal, October, 1875.
[28] Lectures on Surgery, p. 611. 1863.
[29] Anat. Pathologique, vol. i., p. 429. 1829.
[30] Quoted by Froelich. Loc. cit.
[31] Schmidt's Jahresbericht.
[32] Deutsche med. Wochenschrift, No. 3.
[33] Bull. de la Soc. Anat., xxi., 1846.
[34] Vogel: Chirurgische Wahrnehmungen. Lubeck, 1780.

Clinical Department.

OLEATE OF COCAINE.

Dr. Chas. J. Lundy, of Detroit, Mich., calls attention to the oleate of cocaine as a superior preparation to the muriate. He has conducted numerous experiments with this salt, and has tested its therapeutical value in a number of eye diseases. One advantage is that of economy, as a much smaller quantity may be used, probably because it is not diluted and washed away by the tears. The anæsthetic effect with a five per cent. solution was found to be much greater than with a like quantity of the muriate. Within two minutes after the placing of one drop in the eye, the sensibility of the cornea and conjunctiva was almost entirely abolished, and in three minutes there was absolutely no sensation. With a single drop the period of complete anæsthesia was short—not over seven minutes—and in fifteen minutes sensation was nearly or quite normal. In eight minutes after the instillation of one drop, the pupil was perceptibly enlarged, and in twelve minutes it was widely dilated. In ten minutes there was slight failure of accommodation, but it was at no time very marked. The effects upon the pupil lasted several hours. In experiments in which one drop was placed on the conjunctiva every three minutes for four or five times, a considerable influence was exerted over the ciliary muscle; there was much greater failure of accommodation than the author had ever observed from a very free use of the muriate. The contractile power of the ciliary muscle was completely restored in two or three hours, but the pupil did not return to its normal size, after the instillation of several drops at short intervals, until the expiration of twelve or fifteen hours. The oleate has given great satisfaction also when employed therapeutically. In granular lids with photophobia and blepharospasm, in phlyctenular keratitis, etc., cocaine, and especially the oleate, is a most valuable drug. The oleate is much preferable when there is considerable lachrymation, as an aqueous solution is liable to be washed away before it performs the work required.

IS HERPES ZOSTER CONTAGIOUS?

Dr. Isaac V. Mullen, of Alexander, writes: "Having seen in the last Record the report of the case of herpes zoster by Dr. Klamann, affording suspicion of its contagious character, I will add another that happened recently in my practice. A young lady came home, a distance of fifty miles, on account of having herpes zoster. It occupied the space from the sternum to the centre of the back. Three weeks from the time she came home, her mother, an old lady, was attacked with the same disease, commencing on the side of the nose, passing over the side of the forehead, and terminating near the neck. Both cases were protracted and severe."

FAILURES WITH COCAINE.

Cocaine would be a more marvellous drug than even its most enthusiastic advocates claim it to be, did it not fail occasionally. Nothing is certain but death and taxes, and for most physicians we may even omit taxes from this short list. It is, therefore, not surprising that the use of cocaine, as well as that of every other remedial agent, should sometimes fail to respond to the confident expectations of the practitioner. It is, however, greatly to be desired that physicians should chronicle their want of success in individual cases, since by a study and a grouping of such cases it may be possible to limit with accuracy the applicability of this most useful drug, and also to discover, and consequently to avoid in the future, the causes which lead to this disappointment.

Dr. T. M. McIntosh, of Thomasville, Ga., reports the case of a person sixty years of age, suffering from chronic irido-choroiditis, complete circular synechia, and glaucomatous tension of the second degree. During the past eighteen months the pain in the eye and parts supplied by the fifth nerve had been at times very severe. Before attempting iridectomy, twenty-five drops of a four per cent. solution of Squibb's cocaine were instilled into the eye during a period of thirty minutes. The speculum and forceps caused considerable pain, as did also the incision. When the iris was grasped the pain was so intense that the patient cried out in agony, and the operation was temporarily suspended. Several more drops of the solution were instilled into the eye during the following ten minutes. The iris was now grasped, but the same degree of pain was experienced, and the operation was completed with much suffering to the patient. That the fault did not lie with the solution used was proven by its successful employment in other cases. The writer refers to the case reported by Dr. Spalding in THE MEDICAL RECORD of January 17th, which was very similar to his. He believes that the cause of failure in both instances was that the eye tension prevents absorption. In some cases of iritis the pupil will not respond to the strongest solutions of atropine, until the tension is relieved by paracentesis of the cornea, when, absorption being permitted, dilatation at once occurs.

Dr. F. Carrow, of Bay City, Mich., has had his faith in the value of cocaine somewhat shaken by a want of success in two instances. The first case was that of a boy eleven years of age, who was brought for the purpose of having an anterior hypertrophy removed from the middle turbinated bone. It was decided to transfix the growth and remove it with a Jarvis snare, and as a preliminary, a pledget of cotton soaked in a five per cent. solution of Merck's cocaine was applied over the growth and adjacent mucous membrane. This was allowed to remain in position some fifteen minutes, and when it was removed an attempt was made to transfix the parts. But, although the needle was passed very superficially, the pain was not lessened in the slightest degree despite repeated applications of the cocaine. The second case was one of stricture of the lachrymal duct, and before attempting to pass it, it was determined to slit up the lower canaliculus. A four per cent. solution of McKesson & Robbins' was applied directly over the lower puncture and the tract along which the knife was to pass. At the end of twenty minutes the patient complained of excessive dryness of the tongue and dizziness, and the pupil was widely dilated. The operation was then performed with a probe-pointed Weber's knife, and produced the usual amount of pain. Before passing the probe two minims of the solution were placed in the sac, but the pain of the operation caused bitter complaint on the part of the patient, and great disappointment to the operator.

IMPOTENCE AND HERNIA.

DR. E. A. BEAN, of St. Albans, Me., sends a report of the following peculiar case: "A man, now about sixty-five years of age, a farmer, held a captain's commission in the late war. While on duty he accidentally stepped into a hole, throwing up his arm in the attempt to preserve his balance, and soon afterward discovered that the effort had caused a hernia in the right inguinal region. Since that time he has never had a desire to approach a woman, and his penis has shrunken until it is now no larger than that of a small child. Previous to this accident he was in good health and possessed his share of the animal nature, but since that time he has never had an erection. He never had syphilis or any other venereal affection, and is sober and reliable. The testicles are apparently normal." Dr. Bean has been unable to find any record of a similar case, and would like to know the cause of his patient's loss of virile power and sexual appetite.

Progress of Medical Science.

A NEW THEORY OF THE MENSTRUAL PROCESS.—The following are the salient points in the interesting work of Dr. Loewenthal, which was recently published in Leipzig (*Allgemeine Med. Central Zeitung*, January 3, 1885): 1. The periodical flow of blood from the genital organs of the female is not the consequence of the (for the most part coincident) rupture of a Graafian follicle, but the result of the shedding of the mucous membrane lining the uterus, which is independent of the rupture of the vesicle, and takes place before it. 2. The formation of the menstrual decidua is due to the embedding of the very last ovum set free in an unfructified condition from the ovary. 3. It at once transforms itself into the decidua of pregnancy, if the embedded ovum becomes fructified, and it is shed in consequence of the death of the ovum, if this remains unimpregnated. 4. During menstruation the bursting of the vesicle and the menstrual bleeding have no other causal relation to one another than is to be found in the causes and conditions simultaneously present affording a favorable opportunity for the bursting of a matured follicle. 5. The coincidence of the bursting of the vesicle and the flow of blood is consequently no necessary one, and either can appear independently of the other. A vesicle can burst without there being present at the time a menstrual decidua. The secondary consequence of the escaped ovum, *i.e.* the menstrul bleeding, can appear without a new vesicle bursting at the same time. 6. The periodicity of the menstrual flow is dependent upon the vitality which the ovum is capable of maintaining outside of the vesicle when embedded and remaining unfructified. The general or individual variations in periodicity depend upon the shortening of, or entire want of this extra-vesicular life, whether it be idiopathic or caused by intervening influences. 7. For impregnation to take place an ovum usually freed from the vesicle at the time of the last menstruation must be always present, normally in the uterus, in abnormal cases somewhere outside of it.

THE ELIMINATION OF LEAD BY THE SKIN.—Professor Du Moulin has recently communicated to the Academy of Medicine of Brussels the results of his experiments and observations on the excretion of lead by the skin. The conclusions drawn from his paper (*Revue Médicale*, November 29, 1884) are: 1. That the skin of all persons suffering from saturnine affections that he has examined (fourteen in all) contains lead in sufficient quantity to give a reaction when a glass rod wet with a five per cent. solution of mono-sulphuret of sodium is brought in contact with it. 2. In recent cases the reaction is much more pronounced than in those of long standing. 3. Washing with either cold or hot water removes only a few epidermic scabs containing lead. The filtered fluid does not contain lead in a soluble form. 4. Prolonged washing with the tartrate of ammonia removes from the skin the property of blackening with the sulphuret of sodium. 5. The water used in this washing contains all the lead which had existed as an insoluble salt, but had been rendered soluble by the ammonium tartrate. 6. The sulphuret of ammonium and the mono-sulphuret of sodium precipitate a considerable quantity of lead as a sulphuret. 7. The surface washed with the tartrate of ammonia no longer reacts with the sulphuret of sodium; the deposit formed upon and within the epidermis is completely removed. 8. The surfaces of the body which do not react with the sulphuret of sodium after prolonged washing with the tartrate of ammonia after a few days are found to do so. 9. The reaction, which is only barely apparent after one or two days, increases from day to day. 10. The lead is carried to the skin and becomes lodged in it by means of the cutaneous secretion, but up to the present time we are ignorant how this body, naturally insoluble, is brought to the skin or fixed in it. New researches may throw light upon this point.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, March 7, 1885.

THE DUTIES AND RESPONSIBILITIES OF APOTHECARIES.

THE Apothecaries' guild is an old one, although the name does not date back much farther than the time of Henry VIII. It is, however, derived from the Greek Απο Θηκη, and was used by Galen in the first century for the place where he kept his medicines. Shakespeare, in the play of "Romeo and Juliet," gives an interesting description of this important member of society as he appeared in the great dramatist's day. He says :

> "I do remember an apothecary,
> And hereabouts he dwells, which late I noticed
> In tatter'd weeds, with overwhelming brows,
> Culling of simples ; meagre were his looks
> Sharp misery had worn him to the bones,
> And in his needy shop a tortoise hung,
> An alligator stuffed, and other skins
> Of ill-shaped fishes, and about his shelves
> A beggarly account of empty boxes,
> Green earthen pots, bladders and musty seeds,
> Remnants of pack thread and old cakes of roses
> Were thinly scattered to make up a show."

Other writers have described apothecaries in prose and verse, but no one in recent times, after visiting one of the luxuriously appointed drug stores of our large cities, would think of plagiarizing Shakespeare's language.

The title of apothecary is a broader one than druggist, although in general usage it has now become synonymous with it, and unless there is special legislation on the subject, their rights and duties are the same. Few of the States have any such legislation, however, and Louisiana is perhaps the only one which has a judicial decision on the subject. In a case in that State the court defined a druggist to be "one who sells drugs without compounding or preparing them ; and so is a more limited term than apothecary."

The Code Napoleon recognizes and enforces this distinction. The apothecaries are assumed to be men of regular pharmaceutical education, and can compound and dispense medicines. The druggists, however, are classed with the grocers, and can sell only at wholesale or in large quantities.

This distinction is recognized also in Italy, and in a case under the modern Roman Code, four druggists were charged with *pulverizing* and selling chinchona bark, and it was held that this simple operation could only be performed by apothecaries.

In England, at the beginning of the sixteenth century, there were only two recognized classes of medical practitioners. These were the physicians and the surgeons. The physicians were formed into a corporation in 1518, and the surgeons and barbers into another in 1540. This left a large number of irregular practitioners not coming strictly under either of these heads, and, as many of them had shops where they sold medicines, they were styled apothecaries, and were legalized by a Parliamentary Act in 1543.

In 1606, James I. formed them, with the grocers, into one of the city companies of London. In 1617, they separated from the grocers, and set up for themselves, under the firm-name of the "Apothecaries of the City of London." In addition to their special function of compounding and dispensing remedies, the apothecaries claimed an ancient right to prescribe medicines. This claim was disputed by the physicians with more or less vigor during the seventeenth century, until the question came before the courts for decision. In 1703, the House of Lords, as the final appellate court, decided that the apothecaries had the right they claimed, and from that time there has been no attempt to interfere with an apothecary who prescribed for his patients, if his other qualifications were sufficient. In 1722, power was granted the Apothecaries Company to visit the shops of all apothecaries in the city of London, and destroy such drugs as were found to be unfit for use. In 1748, the Company acquired much greater power by an act authorizing it to appoint ten examiners, without whose license no person could compound and sell medicines in London, and for a distance seven miles around it. In 1815, a Board was appointed, consisting of twelve members of the Apothecaries Society, whose duty it was to examine and license all apothecaries in England and Wales. The Board having the power to require professional knowledge before the issuing of a license, soon began to specify the courses of lectures, or terms of hospital practice necessary to enable a student to be licensed, and from this power granted to it, date really the organization of medical schools. Up to this time there had been no way of enforcing any educational requirement, and as a result there were a large number of illiterate and utterly incompetent physicians practising in Great Britain. The powers of the Board pertained only to medical knowledge, and being unable to go beyond this, it frequently happened that applicants for licenses were exceedingly deficient in preliminary knowledge, and in 1860 an examination in the arts was established for all applicants except those possessing a university degree. The question was raised a short time since whether, under this law, women could be admitted to practise medicine in Great Britain, and the Board issued the license, although declining to decide that the law gave the privilege.

From these statements it will be seen that the status of an apothecary in Great Britain is that of a general practitioner of medicine who supplies his patients with medicines. The Apothecaries Society has never possessed and never attempted to issue licenses merely to deal in drugs, and until 1868 any person could open a shop and deal in drugs and poisons. In that year, however, the Pharmacy Act was passed, and no person can now engage in this business without being registered, and to secure such registration, the applicant must pass an examination in Latin, English, arith-

metic, prescriptions, practical dispensing, pharmacy, materia medica, botany and chemistry. It will be seen, therefore, that apothecaries have different powers in the different countries. On the Continent their functions seem to be to dispense without prescribing, and in this country this is their usual business, though prescriptions are occasionally given by them. Apothecaries, as has been stated, do not differ from druggists except as State legislation may define their powers.

In preparing his prescriptions an apothecary or druggist is held to a strict liability for all mistakes in compounding and also for the good quality of his drugs. In reference to the first point, an examination of the cases decided in the courts, show that few excuses will avail the apothecary who has allowed a harmful drug to be put up in place of an innocent one, and this applies as well to the employees of the apothecary as to himself. It cannot be said, however, that an absolute and unqualified guarantee is exacted, so as to hold the apothecary responsible for every article that goes out of his establishment. It is necessary to show some degree of negligence. This may be very slight and the subject of inference only. If, for instance, there should be a malicious substitution by a third person of a poison in a jar of innocent drugs on the shelf of a drug store, and this substitution was made without the knowledge of the druggist, and if there was nothing to put him on his guard, the substances being similar in color, consistency, smell, etc., the druggist would not probably be held civilly liable for injuries following the sale of the poison. This is the view of the best text writers, though the cases do not directly cover the point.

This would seem to be the inference from the case of Thomas *vs.* Winchester (2 N. Y., 397), one of the leading cases, on a druggist's liability. In that case a physician in Western New York ordered for Mrs. Thomas a dose of extract of dandelion, and what was supposed to be this drug was bought from Dr. Foord, a druggist and physician. The drug was taken from a jar labelled "½ lb. dandelion, prepared by A. Gilbert, No. 108 John St., N. Y." This jar with its contents had been bought from James S. Aspinwall, who bought it from the defendant, Winchester. Gilbert was an employee of Winchester's, and had acquired a reputation in the preparation of drugs, so that the labels with his name were used by Winchester. The jar in reality contained extract of belladonna, a drug similar in appearance to dandelion, and the mistake was not known until it had passed through the several persons mentioned, and was taken by Mrs. Thomas, in the prescription, to her very serious injury. Suit was brought for damages against Winchester, and after a long contest the Court of Appeals decided that he was liable for the mistake made. If the patient had died from the dose of belladonna the dispensing druggist, Foord, would have been liable for manslaughter, notwithstanding his lack of knowledge of the mistake, on the ground that there was a statutory liability imposed for dispensing poison in place of proper medicine. This would also have been true of Gilbert, who was the person who really made the mistake, but as the action was a civil one for damages, Winchester was held to be the responsible person.

In a Kentucky case, Hollenback *vs.* Fleet (13 B. Monroe, 219), the plaintiff called for a mixture of snake-root and Peruvian bark, and upon taking the dose suffered great pain, and found his health permanently injured. It was discovered that the patient had swallowed some cantharides. This drug was not put up with the prescription, but had been ground previously to the snake-root and the mill had not been properly cleaned afterward. The defendant sought to escape liability on the ground that it was an accidental mistake, and asked the Court if he was to be considered an insurer. The Court held in response to this, that there was "no good reason why a vendor of drugs should in his business be entitled to a relaxation of the rule which applies to vendors of provisions, which is, that the vendor undertakes and insures that the article is wholesome."

In another case, Hansford *vs.* Payne (11 Bush., 380), the apothecary sold croton oil in place of linseed oil, and the patient died in consequence of taking the drug. His widow then brought suit against the druggist and recovered heavy damages.

The druggist is not freed from this strict responsibility, because the physician may have made a mistake in writing out the prescription. An exact compliance with the prescription in such a case does not avail as a defence. The druggist is supposed to have sufficient professional knowledge to prevent any harmful results in such cases. If he fills out the order as written, he is jointly liable with the physician for any harm that may result.

In reference to the liability for selling weak or adulterated drugs the druggist is held to a strict account. This liability exists even without statutory enactments, as every vendor of provisions by the common law was held to warrant their good quality, and in this regard apothecaries were held to come under the heading of provision vendors. Almost all the States have, nevertheless, laws making any adulterations of drugs an offence punishable either with fine or imprisonment, or both. Such laws are generally expected to be executed by State or local Boards of Health, and many of the States give such bodies special powers in the matter. Laws of this character are of quite recent development, and it is perhaps too soon to hold Boards of Health responsible for the existence of adulterated drugs in actual and open sale. Sufficient knowledge in most cases has however been secured as to the usual forms of adulteration, and, with a sufficient appropriation and competent officers to administer the law, there is becoming less and less reason why infractions of the law should not be speedily detected and punished. In many of the cities this kind of sanitary work is carefully attended to, and in the city of New York Dr. Cyrus Edson has been very vigorous and successful in ferreting out adulterations and in punishing offenders. The importance of such work is becoming every day more manifest, and as the public becomes better informed as to the extent and character of adulterations, the tendency is to increase the powers of Boards of Health.

GENERAL GRANT'S CONDITION.

It is a matter of deep regret that the grave suspicions entertained of the serious nature of General Grant's disease are confirmed by a diagnosis of epithelioma of the

tongue and fauces. This disease, the name of which is now perhaps heard of by the general public for the first time, assumes an importance as to study which it could never otherwise obtain. Consequently the daily papers are educating the people with regard to it so that the terms epithelioma, malignancy, and infiltration will be as well understood as in former times were those of suppuration, pus-track, and bullet-cysts. As might have been anticipated under the circumstances, the published reports of the General's condition are very much exaggerated. The disease is by no means as extensive as is generally believed. In fact, the ulcerations, small in extent, are limited to the right pillars of the fauces, the anterior one being perforated at its base. The adjoining right side of the root of the tongue is indurated to a slight extent, as is also a neighboring gland under the angle of the jaw on the right side of the neck. The roof of the mouth, along the line of the hard palate and to the right of the median line, contains three small warty-like excrescences, which show a tendency toward cell-proliferation. The epiglottis is free from any abnormality, as are all other parts of the throat.

Although the induration of the tongue has existed more or less since last fall, when the patient was first seen by Dr. Douglas, the ulcerations have appeared quite recently. It was during their progress that the General suffered from pain in the right ear, which now has been entirely relieved by the local application of a four per cent. solution of cocaine. Under the same treatment all pain in deglutition is now entirely controlled, and the patient is kept in a very comfortable state. The pulse, which is normally sixty per minute, occasionally reaches eighty beats. The bodily temperature is normal. The appetite is fair, which is saying everything in its favor, as the General is not a hearty eater. His bodily condition is, however, much below par, and is more to be considered at present than the local disease. The treatment of the case has been judiciously conservative from the start. The fluid extract of coca is administered internally, and iodoform is dusted upon the ulcerations. Contrary to the general impression, the tongue itself is not ulcerated, nor has it been, as far as we can learn, at any time during the progress of the disease. The troublesome tooth said to have been extracted for the relief of lingual ulceration was on the opposite or sound side of the mouth, and was removed to relieve a persistent ache of the left ear.

RECENT CONTRIBUTIONS TO THE CHEMISTRY AND THERAPEUTICAL PROPERTIES OF ERGOT.

Great confusion has existed as to the chemical constituents of ergot. The so-called ergotin of Bonjean, Wiggers, Tanret, and others is not probably a fixed compound, but a mixture. The most approved analysis of ergot heretofore has been that of Dragendorff, who stated that ergot contains (1) sclerotinic acid; (2) sclero-mucin; and (3) coloring matters. These are claimed to represent the therapeutical properties of the drug, which has, besides, an oil and a number of alkaloids and other ingredients, all being inert. The ecbolin and ergotina of Winckler are claimed by Dragendorff to be mixtures.

Of the three substances mentioned above, sclerotinic acid has been supposed to represent most perfectly the physiological properties of ergot, and this view is supported even by such careful writers as Nothnagel and Rossbach.

Recently R. Kobert, as the result of numerous experimental researches in the Pharmacological Laboratory at Strassburg, announces (*Archiv f. exp. Path. u. Pharm.*, Bd. xviii.) that the active constituents of ergot are the following three substances: (1) ergotin acid; (2) sphacelin acid; (3) cornutin.

It is well agreed that a watery extract of ergot gathered at the right time contains the active principles of the fungus, and that in physiological doses this extract has the following effects: (1) it powerfully stimulates the vaso-motor centre, thus constricting the blood-vessels; (2) it produces peristaltic and tetanic contractions of the uterus; (3) in toxic doses it produces convulsions (*ergotismus convulsivus*) or gangrene (*ergotismus gangræno-sus*). Other toxic effects, such as paralysis, ataxia, ulcerations of Peyer's patches, and intestinal hemorrhages may also be produced. Returning now to the researches of R. Kobert, we find that he asserts that ergotinacid forms really the chief constituent of sclerotinic acid, that it possesses no tonic power upon the blood-vessels, but causes the other effects upon the heart, respiration, and nervous system attributed to sclerotinic acid. It does not, however, have any effect upon the pregnant or non-pregnant uterus. He also claims that sclerotinic acid has no ecbolic action, and maintains the general physiological identity of these two acids. As to this alleged ecbolic action of sclerotinic acid, authorities very greatly differ. Dragendorff, Nothnagel and Rossbach, Nitikin and Marckwald claim that this acid acts upon the uterus, while Dr. C. M. Seltzer (quoted by Wood) does not find this to be the case, and H. Munk (*Inaug. Diss.*, Tübingen, 1884—*Centralbl. f. klin. Med.*, 1885, No. 5) and Kobert independently observed no effects whatever upon the uterus. From this it is to be inferred at least that the sclerotinic acid is an uncertain preparation.

The second substance isolated by Kobert was called sphacelinacid. It is a non-nitrogenous body, soluble in alcohol. It does not produce convulsions, but does stimulate the vaso-motor centre, and, in toxic amounts, causes gangrene, ulcerations of Peyer's patches, ataxia, and paresis. This substance is believed to be the active agent in producing gangrenous ergotism. The sphacelinacid is believed also, though on not very strong evidence, to produce tetanic, but not peristaltic, contractions of the uterus. The third compound, isolated by Kobert, cornutin, is closely allied, chemically, with ergotinin, but while the latter is inert, the former is strongly poisonous. It produces convulsions in frogs and mammals; it powerfully stimulates the vaso-motor centre without directly affecting the heart, and consequently causes a rise in blood-pressure. It is more active than sphacelinacid in this respect. It produces irregular peristaltic contractions of the uterus, but never tetanus uteri. It is the agent in causing convulsive ergotism.

Kobert criticises a recent contribution of M. Marckwald (*Du Bois Reymond's Archiv*, 1884, p. 434) to this same subject. Marckwald experimented with various kinds of ergot preparations. Since the ordinary watery extracts are irregular mixtures of inorganic salts, ergotinacid, and cornutin, our critic thinks it not surprising

that they sometimes caused a rise, sometimes a fall of blood-pressure. Those preparations which have a good deal of ergotinacid lower blood-pressure, those containing cornutin raise it.

Tanret's ergotinin was found to have no action on the uterus. In this Marckwald is confirmed by Tarnier, who has abolished it from the Maternité Hospital. Wernich's ergotin and Witte's sclerotinic acid were found to have a powerful action on the uterus, but Kobert claims that these preparations do not represent special chemical compounds, but are impure mixtures. Neither dialysed ergotinum nor ergotinin had any action upon the blood-vessels, while sclerotinic acid was found to be a powerful hæmostatic.

The conclusion to be drawn from the foregoing review is that, until chemists and pharmacologists are more agreed upon the composition of ergot, it is better for the practitioner to trust to watery extracts.

Some additional contributions to the therapeutics and toxicology of ergot have recently been made.

Scheffer (*Gaz. Méd. de Strasbourg*, 1884, No. 11, p. 199) relates the history of a case of acute ergotism.

Rulle ("Ueber Mutterkorn," *St. Petersb. Med. Woch.*, 1884, No. 18) makes a plea for the use of ergot after delivery as a preventive of puerperal fever. He thinks that by keeping the uterus firmly contracted septic poison is less likely to enter the system. This view has been supported by Carblom and Worms, and by Thomas and others in this country.

Bourneville and Bricon (*Prog. Méd.*, 1884, No. 18) reach the somewhat empty conclusion that sclerotinic acid is of no especial value in epilepsy.

A. Angelini (*Gazz. degli Osp.*, 1884, T. v., p. 42) makes a plea for the local use of ergot. It has been employed in this country as a gargle in the treatment of pharyngitis, but ergot never has obtained a reputation as a topical application, and from *à priori* reasons we should say it never could.

Deboué (Paris: G. Masson, 1883; *Centralbl. f. Klin. Med.*, 1885, No. 5) discusses the value of ergot in typhoid fever. Since, according to Kobert, one of the constituents of ergot, sphacelinacid, produces the very lesions of this fever, it is only homœopaths who would expect anything from the drug.

Schatz (*Deut. Med. Woch.*, 1884, No. 48) finds that the subcutaneous use of ergot (Kohlmann's fluid extract) in parturition is attended with very uncertain results.

HOW TO KEEP INFECTIOUS DISEASES FROM SCHOOLS.

We have lately received a small pamphlet entitled a "Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools."[1] It consists of a series of resolutions passed by the Medical Officers of School Associations, and embodies the results of careful study and extensive experience. The resulting "Code" contains much that will be of value, therefore, to teachers and medical men.

One of the first points insisted upon is that of undivided medical responsibility. Each school should have a medical officer, and only one. Among other suggestions are these: In large schools it is advised that when practicable there be two establishments, one for children under eleven, and another for pupils above that age. The water and milk supply should be carefully inspected.

There is yet considerable diversity of opinion as to what measures are best and most practicable for keeping the infectious eruptive fevers from schools. The problem differs necessarily in accordance with the location of the school, whether in city or town, and its character, whether public or private. It has been the experience of physicians that measles, scarlet-fever, diphtheria, pertussis will appear among school-children despite the greatest precautions. And the public is not yet educated up to the point when it will co-operate heartily and intelligently with health officers, or second them in still more stringent efforts at prevention. We must, therefore, continue making slow improvements, and learning by experience what are the best modes to check infection without using methods too intricate and burdensome.

A step in this direction was made recently in the attempt to instruct teachers in the early symptoms of the eruptive fevers and other contagious maladies.

According to the "Code" before us, which is intended chiefly for private institutions, every large school should have a detached infirmary, and where possible a separate building for infectious diseases. In small schools there should be a "sick-room" at the top of the house. The "Code" lays down an elaborate set of rules regarding the issuing of medical certificates to pupils, so as to insure against the bringing of any disease into the school upon admission or after vacation or holidays. Quarantine rules are also given.

The following quarantine times after *exposure* to infection are considered safe, provided thorough disinfection be carried out on the pupil's return to school: Diphtheria, twelve days' quarantine; scarlet fever, fourteen; measles, sixteen; German measles (Rötheln, or epidemic roseola), sixteen; chicken-pox, eighteen; small-pox, eighteen; mumps, twenty-four; whooping-cough, twenty-one.

With regard to that most important question, "When may a pupil who has had an infectious disease go home, or rejoin the school?" the following rules are endorsed, provided patient and clothes are *thoroughly* disinfected: "A pupil may go home, or rejoin the school, after scarlet fever, in not less than six weeks from the date of the rash, *if* desquamation have completely ceased, and there be no appearance of sore throat; measles, in not less than three weeks from the date of the rash, *if* all desquamation and cough have ceased; German measles (Rötheln, or epidemic roseola), in two or three weeks, the exact time depending upon the nature of the attack; small-pox and chicken-pox, when every scab has fallen off; mumps, in four weeks from the commencement, *if* all swelling has subsided; whooping-cough, after six weeks from the commencement of the whooping, provided the characteristic spasmodic cough and the whooping have ceased, or earlier, *if* all cough has completely passed away; diphtheria, in not less than three weeks, when convalescence is completed, there being no longer any form of sore throat, or any kind of discharge from the throat, nose, eyes, ears, etc., and no albuminuria."

[1] London: J. & A. Churchill.

The "Code" strongly advises against the breaking up and dispersing a school when an epidemic has appeared. The responsibility for withdrawing the pupils should lie with the parents, not the teachers.

WHY THE MEDICAL RECORD TOOK SUCH A FAVORABLE VIEW OF GENERAL GRANT'S CASE.

In view of the recent developments in General Grant's condition, the RECORD's bulletin of two weeks ago, which has been so largely quoted by the press of the country, requires some explanation. It is fair to state that the facts at that time presented by THE MEDICAL RECORD were founded on the best of authority, that of Dr. Fordyce Barker, the attending physician of General Grant, and this explanation is manifest in the following note:

24 EAST THIRTY-EIGHTH STREET.

DEAR DOCTOR SHRADY:

The statement which I made to you was literally true at the time that I made it, and I am certain that Dr. Douglas would then have made precisely the same. I saw Dr. Douglas last evening, and he then said, that what I had told you was exactly what he should have said at the time. But the Monday after I saw you, the action of Congress had a most depressing effect on General Grant, his vital powers suddenly broke down, and the local malady speedily assumed a new aspect. The newspaper accounts have been greatly exaggerated, and we have never anticipated any such a speedy termination as they have indicated.

I do not believe that Dr. Douglas ever used the word cancer in connection with the case. We have always spoken of it as epithelioma, of a malignant type probably. It was greatly improved for a time by the local treatment of Dr. Douglas, and the local condition was manifestly improving until the moral shock broke down his general system. Ever faithfully,

FORDYCE BARKER.

WEDNESDAY NOON, March 4, 1885.

"KOLLERISM" AND "KOLLERIZATION."—"Observations of Fifty Operations on the Eye under Kollerism," was the title of an essay read before the Montgomery (Ala.) County Medical and Surgical Society, on February 21st, by Dr. B. J. Baldwin. In the course of his remarks Dr. Baldwin said, "I propose in this article to introduce the words 'Kollerization,' 'Kollerism,' and 'Kollerized.' I have not heard of their being used before, and the thought has occurred to me that they would be convenient terms to employ. If the profession will adopt these words, it will not only facilitate the expression of an idea, but their use will be a merited tribute to the fame of Dr. Koller." Out of the fifty cases operated on under cocaine anæsthesia, Dr. Baldwin only had three failures, and these three failures were in eyes whose conjunctiva and cornea were very much diseased, or covered with cicatrices. He regarded the failure in such cases as due to the bad absorptive powers of the epithelium. In nine cases of the fifty there was no dilatation of the pupil. He had one case of cocaine poisoning, the serious effects of which passed over in eight minutes. He regarded cocaine as "divinely successful."

News of the Week.

BEQUEST TO A HOSPITAL.—Mrs. Mary Fletcher, of Burlington, Vt., who died recently, left $200,000—nearly the whole of her estate—to the hospital which she founded and which goes by her name.

SUICIDE OF A MEDICAL STUDENT.—The report reaches us that a young medical student, in a St. Louis, Mo., medical college, shot himself on March 2d because he had failed to pass his examinations.

LUCILLE DUDLEY.—English medical journals unite in saying, on the strength of her past history, that Mrs. Dudley is insane.

A CREMATION SOCIETY has been organized in Buffalo, with a capital of $10,000.

AN IMPORTANT CHANGE IN THE MODE OF ASYLUM TREATMENT.—The managers of the Morristown, N. J., Insane Asylum have decided to place the business management of the asylum in the charge of a warden, and to put the medical department under the care of "a competent alienist of advanced views—to be called the Medical Director," with four medical assistants. This change is a radical and significant one. Its success depends upon whether the warden and the medical director can work together harmoniously. The experiment will be watched with deep interest.

THE FAILURE OF THE "CAMPION" SCHEME for keeping up the price of drugs is what we expected; and it is now stated in the *American Druggist* that this plan has been practically abandoned by the manufacturers and wholesale dealers.

PROFESSOR MALLET, who was elected to the Chair of Chemistry in Jefferson College a short time ago, has resigned.

BERLIN.—The Society of Internal Medicine occupied its session, February 2d, with listening to the report by Dr. Leyden of a unique case of aneurism of the left ventricle of the heart. The Berlin Medical Society has taken up the matter of peptonizing milk. Dr. Ewald demonstrated the process to the members.

PARIS.—The Académie de Médecine continued at its session, February 10th, the discussion of the subject introduced by M. Le Fort, of the "Depopulation of France."

VIENNA.—At the Royal Society of Physicians, February 6th, a number of pathological specimens were shown and discussed. Dr. Schopf presented a specimen of congenital meningocele, Professor Kundrat a specimen of cyst of the lower eyelid in a case of congenital microphthalmia.

THE CONGRESS OF THE FRENCH SOCIETY OF OPHTHALMOLOGISTS held its first session in Paris, beginning January 26th, under the presidency of M. Juda, of Amsterdam.

PREVALENCE OF MEASLES.—During the past four months there have been 2,152 cases of measles in this city, with 402 deaths.

COMMENCEMENTS.—The Central College of Physicians and Surgeons of Indianapolis, Ind., graduated a class of ten on February 27th last.

* Dr. James E. Reeves, Secretary of the West Virginia State Board of Health, has been obliged to resign on account of ill-health. Dr. Reeves has been one of the most active and earnest health officers, and his retirement is a serious loss. Dr. L. D. Wilson has been appointed in his place.

The Missouri Board of Health Declared Unconstitutional.—The action of this Board in refusing registration to a person with a diploma from a college not in good standing, has been sustained by the courts (*Medical Herald*). But in the case of the Missouri State Board of Health *vs.* one Dr. J. C. McCoy, who had been arrested for not complying with the law regulating the practice of Medicine in this State, Judge Noonan, before whom the case was tried, ordered the discharge of the defendant on the ground that the Act creating the State Board of Health was unconstitutional, because the Board was made a Court with judicial powers; that the Legislature had no power to establish such a Court, and the said Court purports to try citizens and deprive them of property without trial by jury (*Periscope*).

Psychical Research.—A working section of the American Society for Psychical Research has been organized in this city, the membership being composed partly of laymen, but mainly of physicians who are more or less interested in neurological science. The work of the Society has been taken up with great enthusiasm in and about Boston.

The Toner Lectures are annual, semi-popular, medical lectures delivered at Washington, generally by Philadelphia physicians. The lecture last year, delivered by Dr. Charles K. Mills, was on the subject of the effects of mental over-work and strain in public and professional men.

Medical Matters in West Virginia.—A correspondent writes: "Of medical matters in West Virginia the only item of interest is the effort which is being made by some, who were shut out by the action of the Board of Health law, to induce our present Legislature to repeal it. It is not probable that it will be done."

The Hygiene and Homœopathy of Opera Singers.—Miss Kellogg writes in *The Critic:* "Different singers use different drinks for refreshing the throat, according as their experience has taught them. I have found beef-tea to be of great service. I have known some singers to use a gargle. Le Franc, the tenor, famous for his high C, used a salt-and-water gargle. The singers of a past generation depended a great deal upon sulphur, and so do those of to-day, only they take smaller doses. They take it homœopathically. Patti, I am told, puts a great deal of dependence upon *hepar-sulphur*. I use it, too, and so do other singers who are homœopathists; and most of them *are* homœopathists, for they find that prevention is the best treatment for their ailments. Nine hours a night—or never less than eight—are necessary for a singer to sleep, for her nervous force is heavily taxed."

Nitrate of Ammonia arrests oxidation in and about the nervous centres, and has been suggested against so-called nerve-storms. Searles' so-called oxygenated and aërated water contains about five times its volume of nitrous oxide gas, and has been used to some extent as an internal remedy.

Reviews and Notices.

Cocaine and Its Use in Ophthalmic and General Surgery. By H. Knapp, M.D., Professor of Ophthalmology in the Medical Department University of the City of New York. Pp. 87. New York and London: G. P. Putnam's Sons. 1885.

This work is a *resumé* of much that has been written on the subject of cocaine, together with the personal experience of the author, which is lucidly expressed. The original paper of Koller, read before the Medical Society of Vienna, and published in the *Wien. Med. Wochenschr.*, October 25 and November 1, 1884, is reproduced verbatim. This forms a most interesting prelude to the subsequent pages. No essentially new facts are adduced in the treatise, but its editor has done the professor an immense service by the painstaking labor involved in collaborating information from so many different quarters. The typographical appearance of the work deserves hearty commendation.

Building for the Children in the South. By Rev. A. D. Mayo. Pp. 16. Washington: Government Printing Office. 1884.

This modest pamphlet relates the author's impressions on the subject of education among the Southern people. It is particularly interesting in view of possible approaching national legislation in regard to the matter. Mr. Mayo has done yeoman's work in the cause, and speaks from personal observation. He lays particular stress on the need of good teachers, the establishment of libraries, and popular discussion of educational problems.

The Care of Infants: a Manual for Mothers and Nurses. By Sophia Jex Blake, M.D., Lecturer on Hygiene at the London Medical College for Women. Pp. 109. London: Macmillan & Co. 1884.

This little manual is full of common sense, and can be easily understood by any one of ordinary intelligence. Its watchwords are cleanliness, fresh air, and simple food. It dwells particularly on preventive medicine, and points out how infant mortality can be greatly lessened by following its good advice. Its author possesses the somewhat rare quality among writers, viz., of knowing when she has made her point and then stopping.

Manual of Obstetrics. By Edward L. Partridge, M.D., Professor of Obstetrics in the New York Post-Graduate Medical School, etc. Wood's Pocket Series. Pp. 295. New York: William Wood & Co. 1884.

This is a valuable addition to the handy Pocket Series. Its scope is, in the words of the preface, to aid the student "who desires to arrange and simplify his information, and at leisure moments to recall to his mind primary data necessary to his chain of knowledge." The text is clear and concise, and the illustrations remarkably well executed, considering the size of the work. To the busy practitioner it will not come amiss as an outline reference book, containing, as it does, allusions to all the necessary procedures of the obstetric art.

Diseases of the Urinary and Male Sexual Organs. By W. T. Belfield, M.D., author of "Relations of Micro-organisms to Disease" (Cartwright Lectures, 1883); Pathologist to the Cook County Hospital, Surgeon to the Genito-urinary Department, Central Dispensary, Chicago, Ill., etc. New York: Wm. Wood & Co. 1884.

The aim of this work, which constitutes the October volume of Wood's Library for 1884, is to set forth the necessity of and the means for arriving at a clear diagnosis of genito-urinary disease, before undertaking treatment in a given case. Accordingly Dr. Belfield has devoted especial attention to the means at our com-

mand for recognizing the actual pathological condition of the patient's genito-urinary system. He cares less for symptoms than for recognizable departures from normal structure.

He is emphatic in demonstrating that cystitis, gleet, albuminuria, spermatorrhœa, and allied conditions are symptomatic of some pathological departure from healthy structure. To ascertain the exact nature and extent of morbid alteration is a necessary pre-requisite of rational treatment. He very properly denounces the too-prevalent plan of routine-treatment of subjective symptoms. The book is clearly written, and there can be no mistaking the author's meaning. It will be a valuable study-book for the general practitioner, rather than a work of reference for the elucidation of doubtful and puzzling cases.

TUMORS OF THE OVARY, FALLOPIAN TUBE, AND BROAD LIGAMENT. By ALBAN H. G. DORAN, F.R.C.S. Pp. 189. London: Smith, Elder & Co. 1884.

DR. DORAN has collected numerous personal observations on ovarian pathology into a very instructive and readable volume. His book abounds in details of examination of specimens of the most varied kind. The whole domain of ovarian and tubal pathology is traversed. Nevertheless it seems to us that the practical value of his work might have been considerably enhanced by a more systematic presentation of the subject.

The author has observed well and much; why does he not save us the trouble of going through the detailed account of all his cases, by a clear and succinct statement of the conclusions that he has arrived at? It is true the reader is left to form his own conclusions; but that is precisely what the average reader wishes to be saved from doing. For the specialist this does very well, for the general practitioner very poorly.

THE ELEMENTS OF PHYSIOLOGICAL PHYSICS. An Outline of the Elementary Facts, Principles, and Methods of Physics, and their Applications in Physiology. By J. M'GREGOR-ROBERTSON, M.A., M.B., C.M. With 219 Engravings on Wood. Students' Manuals. Pp. 528. Philadelphia: Henry C. Lea's Son & Co. 1884.

THIS little volume is to physics what medical chemistry is to chemistry in general. It covers about the ground which professors of chemistry and physics take up in their lecture courses to medical students. It will, therefore, be found very useful to this class as being a condensed yet clearly written guide. It contains more than this, as the contents shows. This includes chapters on Electricity and Magnetism, The Graphic Method, Fluids at Rest and in Motion, Pneumatics, Optics, Sound, Heat, Dynamics. There is a good deal in the book regarding the mechanical appliances used in physiological experimentation and demonstration. This will be of great help to the student and physician, as it is not found in ordinary text-books on physiology or physics.

The Section on Electricity is long, and in the main a good one, but there is lacking a description of modern absolute galvanometers.

THE THERAPEUTICS OF THE RESPIRATORY PASSAGES. By PROSSER JAMES, M.D., Lecturer on Materia Medica and Therapeutics at the London Hospital Medical College; Physician to the Hospital for Diseases of the Throat and Chest, etc. New York: Wm. Wood & Co. 1884.

PROSSER JAMES has produced a scholarly treatise on the therapeutics of the respiratory passages, and the work will be studied with satisfaction, rising to admiration of the author, as the reader is made more fully cognizant of his object in writing a book of this character. It is not a compilation of what this and that authority thinks about the various diseases of the respiratory passages, and his pet formulæ for combating distressing symptoms. From beginning to end it is an exposition of what a physician, armed with modern diagnostic skill, can hope to accomplish by rational therapeutics in a most important and widely prevalent class of diseases.

The author does not use therapy in the restricted sense of enumerating the various drugs commonly employed in respiratory diseases, together with the indications for their use. Treatment with him means everything that may in any way contribute to the well-being, or rather better-being, of the patient.

The subject of food, for example, is fully considered in a separate chapter. "Aliments as Remedies" promoting construction are minutely discussed, and the fact clearly brought out that they are among our most potent remedial agents.

Exercise and rest, water, diluents, the various beverages, all receive careful attention.

The concluding chapters of the book deal with what the author calls "pneumatics," *i.e.*, expectorants, antiseptic and disinfectant pneumatics, antispasmodic, sedative, and anodyne pneumatics, methods of inhalation, and kindred subjects.

There is no question that Dr. James' book is the best treatise in the English language on the rational treatment of diseases of the respiratory passages, and, as such, the readers of Wood's Library will have reason to be thankful that the November issue is such an entirely satisfactory one.

THE ANALECTIC: A Monthly Periscopic Summary of Medical Science. Edited by Waller S. Wells, M.D. Vol. I. Royal 8vo, pp. 582. New York: Putnam's Sons. 1884.

As its title indicates this is a monthly summary of medical science. The first volume presents a creditable appearance, is filled with interesting and instructive facts in every department of medicine, and gives an excellent idea of the progress of medical science during the past year. The Editor has used rare judgment in his selections, and has succeeded in making an attractive and useful volume.

DENISON'S ANNUAL CLIMATIC MAP OF THE UNITED STATES. By CHARLES DENISON, A.M., M.D., Professor of Diseases of the Chest and of Climatology, University of Denver. Chicago: Rand, McNally & Co.

THE object of the maps is to show at a glance (by different colors) the degree of cloudiness, humidity, direction, and character of winds in all localities in the United States; the local rainfall; the mountainous elevations for sanitaria; finally isothermal lines, which latter experience very marked curves in the mountainous regions in the Territories. The coloring, red and blue, is vivid; the numerical figures large and plain; so that the busy practitioner can immediately place the finger on the desired locality where it is preferable to send his patient, and thus avoid the trouble of consulting other doctors. The newest lines of railroads are laid down, and the location of mineral springs given. As regards normal temperature lines, commencing say on the sea-coast, it is seen that the heat, going South, increases about a degree to every degree (inversely) of latitude. One large map is 53x32 in., exclusive of marginal tables. Four smaller maps show the various degrees of humidity and dryness observed during the four seasons; the data are taken from the official records of the Signal Service Bureau at Washington. The maps are bordered by numerous meteorological tables.

Dr. Denison is author of the "Rocky Mountain Health Resorts," "The Influence of High Altitudes upon the Progress of Phthisis" (International Medical Congress, 1876); and "Reports" to the American Medical Association on Climate of Colorado, and Consumption; and Committee of the American Climatological Association, acting with the Signal Office, on Climatic Elements, etc.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 11, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. W. H. PORTER presented, on behalf of a candidate, a specimen of *congenital malformation of the heart.*

DR. WACKERHAGEN presented a specimen of

CARCINOMA OF THE BREAST,

accompanied with the following history:

The tumor is a typical scirrhous carcinoma, with thick alveolar walls, and small alveolæ containing epithelial cells. Mrs. F——, forty-five years of age, born in Ireland, married twenty-six years; no children, no miscarriages; always regular until forty-three years of age; has not menstruated since. She has suffered more or less from malarial fever for the last five years. She first noticed small lump in left breast six months ago, which enlarged very slowly. She complained of no pain until about six days before the operation, when she suffered from burning and shooting sensations. The operation was performed on January 10th. The axillary glands (though not diseased) were removed, with a quantity of fat, from the axilla before removal of the breast. Strict antiseptic precautions were observed during the operation. The first dressing was removed on the fifth day, showing complete union of the entire wound. Highest temperature since operation, 99¼° F.; appetite good, and patient in excellent health.

HYDROSALPINX.

DR. P. F. CHAMBERS presented an ovary and tube which he removed at the Woman's Hospital on the 17th of last month, and in a condition of hydrosalpinx. The patient entered Dr. Thomas' service about the middle of December, and gave the history that eight years ago she began to suffer from pains in the pelvis, especially on the right side, and had had repeated attacks of localized peritonitis. On examination the left ovary could not be felt at all, but on the right side was found, as was supposed, a cyst of the ovary about the size of a hen's egg. During Dr. Thomas' sickness, Dr. Chambers performed the operation for its removal by the usual method. He found the ovary on the left side about one-fourth of its normal size, and firmly bound down. A cyst was distinctly recognized on the right side, and by careful manipulation it was raised without rupturing it, and a ligature thrown about it, when it was removed. On the tenth day the stitches in the abdominal wound were removed, and the patient recovered without accident.

The following report of the microscopical examination, made by Dr. Coe, pathologist to the hospital, accompanied the specimen

The ovary is small and shows hypertrophy of the fibrous stroma without marked cystic degeneration. The tube is as large as a small pear, and presents a regular enlargement from the uterine toward the distal extremity. The exterior is smooth and shows no evidences of adhesions. The walls of the tube are so thin that when held in front of a light the tumor appears translucent.

A probe may be passed through the cut end of the tube into the cyst, and by gentle pressure several drops of clear watery fluid can be pressed out. On microscopical examination this is found to contain numbers of ciliated epithelial cells, but no pus.

Closer examination of the tumor shows that at the site of the distal opening of the tube there is a distinct white cicatrix resulting from a probable inflammatory process, which led to obliteration of the opening. No trace of the fimbriæ remains.

The condition is one of *pure hydrosalpinx*, not due to parametritic inflammation, but to a strictly localized process, the cause of which is unknown.

DR. T. MITCHELL PRUDDEN presented microscopical slides, illustrating

THE COCCUS OF ACUTE LOBAR PNEUMONIA.

They showed the characteristic appearances described by Friedlander, who maintained that they were constantly present in the lungs of persons dying of this affection. Dr. Prudden had examined twenty-four specimens, and had found the coccus in the tissue of the lung in every instance. The micro-organism is about one-thousandth of a millimetre in diameter, ovoidal in shape, surrounded by a hyaline capsule, which is sometimes nearly as bright as the coccus itself, and the cocci appear either in the form of beads or chains. Whether causative or not of the disease had not been entirely settled. Dr. Prudden had also examined ten specimens of bronchopneumonia, occurring in children, and had found a coccus which presented the same appearance morphologically as that which he had found in acute lobar pneumonia in adults.

The characteristic features of the pneumonic coccus of Friedlander were the size, the peculiar form, but most of all, their physiological effects.

DR. H. MARION SIMS presented a specimen accompanied by the following history:

FIBROID TUMORS OF UTERUS—REMOVAL OF UTERUS, TUMORS, AND OVARIES.

Miss X——, aged thirty (born in England), consulted me in January, 1884. She gave the following history: Menses not at all regular for some months past. Last from six to twelve days, and occur again in eighteen or twenty days. Loses a great deal of blood, using as many as twenty-four napkins in twenty-four hours. Severe pain across abdomen for three or four days before menses begin. Feels weak and exhausted for several days after the period is over. Has severe pain at times over left ovarian region. Says she knows she has a tumor, but never felt any pain until a "lump" began to grow in the tumor. General health fair. Has to take iron tonics. First noticed the growths two years previously. Has increased in size about the abdomen during the past three or four months. Bowels regular.

Examination showed the uterus to be four and one-half inches deep, with three distinct tumors attached—a central and two side ones—very hard and not very sensitive to pressure. The uterus was not movable independently of tumors, but, as a mass, could be freely moved from side to side. I began by treating her with hypodermic injections of eight drops of the "ergotinine" of Tauret, administered in the abdominal walls two or three times a week. This had the effect of controlling the severe loss of blood, so that the menstrual flow came on once in twenty-four to twenty-eight days, and lasted only from three to six days. It had no effect whatever on the growth. Her general health improved rapidly. She became ruddy and much stronger. During my absence in Europe last summer the hypodermic injections were not continued, and on my return I found her in a worse condition than before, daily growing weaker, and the tumor on the left side of the uterus had grown so rapidly that it gave her a great deal of pain and inconvenience. An operation was advised, and readily acceded to, although several of London's most eminent surgeons had warned her never to have any operative interference. The usual incision was made, and the whole mass—uterus and eight distinct fibroid tumors—lifted up. Both ovaries were cystic and enlarged. The whole were gathered up in a bunch, and a rubber ligature firmly tied about the whole about on a level with the os internum. Skewers were then run crosswise below the ligature, so as to hold the pedicle firmly in position. The tumors, uterus, ligaments, and ovaries, were then cut through. Antiseptic dressing around stump and wound. The pedicle sloughed through on the thirteenth day, and came off, together with the skewers and ligatures. Highest temperature reached

was 102⅘°, and pulse never went above 114. It is five weeks to-morrow (February 12th) since operation, and patient is now sitting up all day, and walking about room.

THE RESULTS OF LONG-CONTINUED IRRITATION—EPITHELIOMA OF THE LEG EXTENDING TO MEDULLA OF TIBIA—SPONTANEOUS FRACTURE—SUPRA-CONDYLOID AMPUTATION.

Dr. George F. Shrady presented a specimen removed by supra-condyloid amputation of the thigh for malignant disease of the tibia and adjacent soft parts. The patient was a German, sixty-one years of age, who dated his trouble from the time he was eighteen years old. He then had a swelling over the tibia, probably caused by traumatism, which resulted in an abscess, and since that time he had been suffering from a sore on the leg, a period of over forty years. He was able to attend to his business, that of a clerk in a hardware store. During all this time the sore discharged more or less, but apparently did not increase in extent. One year after its first appearance he noticed a piece of exfoliated bone at the bottom of the ulcer. He got along with his simple ulcer until about two years ago, when the leg began to pain him so much that he was obliged to use crutches in walking. About one year ago the ulcer took on a new action, spread in different directions, penetrated the deeper parts from all points, and began to involve the tibia. The discharge changed from apparently healthy pus to a thin, sanious fluid, accompanied with frequent hemorrhages, sometimes so profuse that it was necessary to plug the openings to control it. About seven months ago he noticed a false point of motion, and it was then found that the tibia had begun to break down, and the evidence of malignant disease of the bone was very plain indeed. The ulcer at that time presented a ragged appearance, with everted edges and fungoid growths protruding from different parts of the base. There seemed to be no doubt concerning the character of the disease, which was believed to be epithelioma, although positive diagnosis was not made on account of circumstances preventing a microscopical examination before the operation. Carden's operation was performed on February 7th. Since the operation Dr. Shrady had had opportunity to look at some sections of the growth, and they were unquestionably epitheliomatous in character. The disease had apparently progressed from the skin, and involved the medullary cavity of the bone. The case seemed to have been one in which the disease began as an ordinary periostitis, followed in turn by necrosis, limited caries, also a limited osteomyelitis. Finally, from long-continued irritation, the ulcer took on a malignant tendency, epithelioma developed and progressed, and at last involved the medulla. The epithelial growth extended above and below the point of local manifestation. At the time of the operation Dr. Shrady was convinced that the disease involved nearly, if not the whole, of the medulla of the tibia, and he, therefore, performed the supra-condyloid amputation. Dr. W. H. Porter had made sections of the specimen, which showed the diseased parts, and it appeared that the tarsal bones had not been involved; but the infiltration of cancerous material had extended into the head of the tibia. The compact tissue of the bone was of course not involved.

Dr. Shrady had never seen a similar case, and considered it a rare one.

The following pathological report was made by Dr. W. H. Porter: "At the anterior and inner aspect of the leg, near the junction of the middle and inferior third, there was a deep ulcer having irregular walls. The morbid process had completely destroyed at this point four centimetres of the tibial shaft. The compact substance of the tibia was thin and soft when compared with a normal bone. The medullary cavity, on both sides of the excavation, was invaded by the diseased process for several centimetres. The disease had not involved the tarsal bones or femur except from atrophy.

"Microscopic examination: Scrapings were examined from various portions of the ulcerating surface. In every instance an abundance of epithelial cells was found, and often concentric masses in the centre of nests. Cut sections from several places, and from the involved medulla showed that the disease was of an epithelial nature, with a decided tendency to the concentric nesting diagnostic of epithelial carcinoma. In many cases there was an abundance of the prickle-celled epithelium. The growth is unquestionably an epithelial carcinoma.

Dr. Porter remarked that Billroth mentioned the fact that epithelioma might begin in the skin, develop and involve the bone, independent of origin of malignant disease in the bone itself.

Dr. Shrady thought that the case, and all belonging to this class, illustrated the necessity of operating early, if subsequent trouble from malignant disease would be avoided; probably, in this instance, if sequestrotomy had been performed several years ago and the ulcer had been allowed to heal, the malignant disease would not have developed.

Dr. Ripley thought it a question whether the disease was primarily epithelioma. It by no means followed that, because epithelioma developed secondarily, it was the primary affection. Many men had sores on their legs for forty years and did not get epithelioma; many men had had epithelioma and yet had not had sores on their legs for forty years; and it was also possible for a man to have epithelioma for forty years. As to whether an amputation performed some time ago would have saved the man subsequent trouble was a question.

Dr. Shrady believed that all that Dr. Ripley had said was quite possible, but that it was hardly probable. The point to be illustrated was that the disease began as a benign trouble, and in consequence of the continued irritation, in a system prepared for the invasion of cancer, the malignant disease developed.

The President had no doubt that malignant disease was in great part secondary to prolonged irritation, whether there was present any inherited tendency to the disease or not.

Dr. W. M. Carpenter remarked that he once heard Volkmann, of Halle, direct especial attention in a clinical lecture to the liability of apparently benign ulcers taking on a malignant tendency, and involving all the tissues beneath.

Dr. Porter remarked that when Dr. Satterthwaite and he were gathering material for their report on cancer, some time ago, the conclusion which they reached was that long-continued local irritation was one of the exciting causes of cancer.

ERYSIPELAS FOLLOWING INCISIONS IN THE SKIN FOR THE RELIEF OF ANASARCA — CHRONIC PERICARDITIS — CHRONIC VALVULAR DISEASE OF THE HEART—PHYSICAL SIGNS.

Dr. John H. Ripley presented a specimen accompanied with the following history: C. C——, twenty-seven years of age, a native of France, and a painter, was admitted to St. Francis' Hospital, January 10, 1885. Family history showed neither phthisical nor cancerous taint. The patient had been a hard drinker until six months ago. No specific history could be obtained. He was admitted to the hospital in May last, suffering with some pain in the region of the heart, and at that time the diagnosis of mitral insufficiency and acute parenchymatous nephritis was made. The patient was discharged, improved, June 18, 1884. When admitted last month the patient complained of pain in the region of the heart, and had noticed that his feet were swollen at night. The swelling of the feet had existed about a month, and for three weeks he had had a slight, but irritating, cough. On admission his face was pale and œdematous, his skin was

slightly jaundiced, and there was pitting on pressure over the chest.

Lungs: Slightly high-pitched percussion note on both sides, front, and behind. High-pitched, moist râles in abundance, and a few sibilant and sonorous râles on both sides. There was one loud musical râle heard through the entire respiratory act on both sides; more marked in front than behind. There were some friction-sounds on both sides of the chest.

Heart: Increased area of præcordial dulness, apex beat diffused and displaced one inch to the left, and one and one-half inch below the nipple. Epigastric pulsation was marked. Four murmurs were present: first, a systolic murmur, heard with greatest intensity at the apex, and conveyed posteriorly; second, a systolic murmur, heard with greatest intensity at the base, and transmitted along the large vessels; third, a diastolic murmur, heard with the greatest intensity at the xyphoid cartilage, and circumscribed; fourth, a slight prolonged friction-sound at the junction of the second rib with the sternum on the left side.

The liver was small, and there was ascites. There was also hydrothorax. There was general anasarca. The patient suffered from dyspnœa, orthopnœa, had total loss of appetite, and his pulse was rapid, irregular, and feeble. But little relief was afforded by internal medication. Dr. Ripley made several punctures in the skin about the malleoli, and a few on the inner aspect of the thighs; two or three in the scrotum. The result was leakage of a large quantity of water, and the patient improved rapidly for two weeks; his appetite was restored, and he was able to lie down, etc.

One clinical feature which he noticed particularly was the marked œdema of the left arm and hand, although the patient did not recline particularly upon the left side; the right arm and hand were only slightly œdematous. Dr. Ripley made a few punctures in the hand, which allowed considerable fluid to drain away. Subsequently erysipelas developed in this region.

The points which he wished to make in the case were the following: First, concerning the effect of the punctures. Some two or three years ago this question was brought before the Society by the present Secretary, who asked him after the report of a case in which punctures had been made, what had been his experience with regard to the development of erysipelas after making such openings in the skin; and Dr. Ripley said he had not seen erysipelas follow the operation. Since that time he had had this point in mind, and this was the second case in which he had seen erysipelas follow punctures of the skin for the relief of general anasarca. In the other case, erysipelas followed soon after the punctures were made, and probably was caused by them; but in this case the punctures had entirely healed before erysipelas developed. It was doubtless true that, in a certain proportion of this class of cases, erysipelas would develop whether the limbs were punctured or not, and it was well known that such incisions in the skin constituted one of the most valuable means at our disposal for the relief of extensive anasarca.

In the second place, as could be seen from the specimen, this was a case of chronic pericarditis, as the pericardium was bound down to the heart throughout its whole extent, except at one place, and it was at that point where the slight friction-sound was heard during life. The pericardium was also adherent to the anterior wall of the chest. Dr. Ripley had noticed in other cases, also, œdema of the left upper extremity associated with chronic pericarditis.

The heart was immensely hypertrophied and greatly dilated, the aortic valves were thickened, shrunken, and stiff; the mitral orifice was the seat of marked stenosis, and the valve was very much thickened. Yet there was no presystolic murmur heard during life, which was another interesting feature of the case. The left auricle was immensely dilated.

Next, with regard to the apex-beat in cases of adhesions of the pericardium, Dr. Loomis had stated that when there was adhesion of the pericardium to the walls of the heart, and also to the chest-wall, the apex-beat would be found above its normal position, and not displaced to the left. In this case, the apex-beat was displaced both downward and to the left. It seemed from this case, therefore, evident that no certain rule could be given which was applicable to this class of cases. The position of the apex-beat would depend on the size of the heart, whether or not it was hypertrophied; also, the position in which it was at the time the adhesion took place, whether it was displaced by fluid in the pleural cavities, or in the pericardium itself.

Dr. Van Santvoord thought that Dr. Ripley's remarks concerning the infrequency of the presystolic murmur should not be passed without some comment. He thought it was true that this murmur was the one which disappeared most readily during quietude of the heart, but to say that it was infrequent in cases of mitral stenosis, he thought, was a little too strong a statement. Another well-recognized point, with reference to this murmur, was the fact that it frequently presented itself rather as a prolongation of the first sound of the heart than as a distinct murmur. In this particular instance, the patient had a very dilated, weak heart, and it was not unreasonable to suppose that, when lying in bed, the heart would not give any murmur. But when mitral stenosis occurs as an independent affection in persons otherwise quite vigorous, the presystolic murmur certainly was very frequently recognized.

With reference to œdema of the left arm, he had presented to the Society a specimen of acute pericarditis, in which œdema of the right arm had occurred, and without œdema affecting the left. In that case there was no local cause for the disease.

Dr. W. H. Porter had seen two cases in which diagnosis of mitral obstruction was made, based upon the existence of a presystolic murmur, and the diagnosis was confirmed by the autopsy. In one case the mitral orfice admitted only one finger. With reference to the presystolic murmur, he had always argued that it was not before the first sound; that the systolic act commenced in the auricle, and that the presystolic murmur was produced at the last end of the auricular contraction, and caused by obstruction to the current of blood going into the ventricle.

Dr. Ripley said he did not intend to convey the idea that the presystolic murmur did not occur. He simply made the statement that it was a murmur of very infrequent occurrence, and based the statement not only upon a very large personal experience and observation in hospitals, but also the observations of one of his colleagues, who was a very competent observer. It was also based upon the statement of Leaming, who was recognized as a most competent observer, and also upon the writings of Quincke. With regard to the cases referred to by Dr. Van Santvoord, he would ask if they were not clinical cases.

Dr. Van Santvoord said that many of them were clinical cases.

Dr. Ripley remarked that in a great many of such cases diagnosis of mitral stenosis was made, based upon the existence of a presystolic murmur, which was not verified when the autopsy was made. In some of those cases stenosis had been diagnosticated and regurgitation had not been made out, which was something rather peculiar.

Dr. Gerster asked Dr. Ripley whether he meant to infer that erysipelas was of frequent occurrence without the presence of other lesions of the skin.

Dr. Ripley said that he certainly was of the opinion that the occurrence of erysipelas after puncture was not of frequent occurrence.

Dr. Carpenter remarked that when he brought the question before the Society it was simply for the sake of

inquiry. It was the result of an observation made by an old country physician, who himself was the subject of general anasarca dependent upon cardiac disease, and he asked that his limbs be punctured notwithstanding the liability to the occurrence of erysipelas, because he wished to receive the relief which would follow drainage of fluid from the extremities. At his earnest solicitation the punctures were made, erysipelas followed, became phlegmonous in character, gangrene occurred, and the doctor died within a week from the time the punctures were made. He had frequently asked the question concerning the occurrence of erysipelas after punctures in this way, and had uniformly received the answer that the occurrence had not been observed.

Dr. Gerster referred to the fact that cases of chronic localized dermatitis, dependent upon disturbance of the circulation of the skin, occurred from time to time without any considerable cutaneous lesion. This was not erysipelas, although it might be accompanied by high fever and a peculiar temperature which was found in that affection; it rarely reached a phlegmonous condition or abscess.

Dr. W. H. Porter mentioned a case where openings in the skin occurred spontaneously in a case of general anasarca from chronic nephritis, and erysipelatous inflammation developed in both extremities, which terminated in gangrene and death of the patient apparently by septicæmia.

The President thought the cases in which erysipelas followed such punctures occurred chiefly in hospital practice. He had not seen any case of erysipelas or pseudo-erysipelas follow the punctures alluded to.

Dr. Porter referred to the fact that he had made several autopsies in cases of extensive chronic pericarditis, and in which there was no œdema whatever of either upper or lower extremities.

(To be continued.)

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

ST. MARY'S HOSPITAL AND ITS MEDICAL SCHOOL—FORMER TEACHERS—NOTES FROM THE MEDICAL WARDS—DR. BROADBENT ON HEART DISEASES—A CLINICAL LECTURE ON ACUTE DILATATION OF THE HEART.

London, February 14, 1885.

St. Mary's Hospital is the youngest of the metropolitan hospitals having medical schools attached, having been founded by men many of whom are still living. Until recently, too, it was a small hospital, having only about two hundred beds. It has within the last few years been considerably enlarged. It now has accommodations for two hundred and seventy in-patients, though, owing to want of funds, it cannot yet receive this number of patients. A new and improved out-patient department was added in 1883, of which I sent you some account at the time, and the medical school buildings have been much enlarged. Its staff has been considerably strengthened within the last few years, and it now has complete and efficient special departments in all branches. It bids fair to become one of the most popular schools in the metropolis. Its success as a school has doubtless been greatly aided by its favorable location, situated as it is close to Hyde Park, and within an easy walk of the most fashionable parts of the West End.

Although its career has as yet been but brief, St. Mary's Hospital Medical School has numbered among its staff some names well known to fame. Among those deceased may be mentioned Sir James Alderson, Drs. Tyler, Smith, and Murchison, Messrs. Baker Brown, and George Gascoyen. The following gentlemen were also formerly connected with it and are still living: Dr. King Chambers, Dr. Farquharson, M.P., Mr. Samuel Lane, and Mr. Ernest Hart. The latter gentleman, now editor of *The British Medical Journal*, was formerly Ophthalmic Surgeon to the Hospital and Dean of the Medical School.

I have recently had the opportunity of observing the medical practice at St. Mary's Hospital, and perhaps a few notes on the same will interest your readers. I have more particularly watched the practice of one of the physicians—Dr. Broadbent. Dr. Broadbent, although now the senior but one of the physicians, is still comparatively young in years, and, in spite of a very large and increasing private practice, one of the most active members of the teaching staff. He has become one of the best-known among West End physicians, and has made researches in many branches of scientific medicine. He has original views on many subjects which he does not hesitate to formulate, and of which a good number have gained general acceptance. I propose more particularly now to refer to some of his views on heart diseases, reserving for a future letter some *résumé* of his teaching on diseases of the nervous system.

In teaching his pupils physical examination of cardiac cases, Dr. Broadbent rebukes those who adopt the superficial plan of placing the stethoscope at once over the heart, listening, and simply naming the murmur which they hear. He insists that the stethoscope should not be allowed to touch the chest until the position of the apex-beat has been ascertained by palpation, the force and extent of the impulse decided, percussion employed, and the pulse has been felt. He emphasizes the importance of the latter as a means of making a preliminary diagnosis. With regard to murmurs, he remarks that a murmur does not necessarily indicate a lesion. An aortic systolic murmur is not rare, whereas an actual narrowing of the aortic orifice is, he believes, far from common. Many of our text-books place an aortic systolic among the least serious of cardiac murmurs, but Dr. Broadbent teaches that where an actual narrowing of the arterial orifice has occurred the prognosis is grave. But this is not to be necessarily inferred from the existence of a murmur.

As regards the prognosis of a valvular lesion, Dr. Broadbent remarks that mere loudness of a murmur tells you nothing. The condition of the heart, as to hypertrophy or dilatation, is, of course, important, and also the state of the circulation generally, and especially the characters of the pulse.

In aortic regurgitation, the severer the lesion the greater is the hypertrophy and the lower the apex-beat. An important diagnostic point is the loss of the second sound in the neck. Aortic regurgitation is more dangerous late in life because there is no compensatory hypertrophy. When occurring in young people compensatory hypertrophy may enable them to live for years.

Dr. Broadbent lays especial stress on the importance of the pulse in a case of aortic regurgitation. When, in addition to the aortic diastolic murmur, other murmurs are also present, a careful observation of the pulse may greatly assist in deciding which is the most important of the lesions present. A pulse not very collapsing in character would indicate that the regurgitation through the aortic orifice is not, in a complicated case, the most important feature.

Last week I heard Dr. Broadbent deliver a clinical lecture on "Ante-dilatation of the Heart," in which some interesting points were referred to. Dr. Broadbent began his lecture by remarking that we are too apt to put the size of the heart as constant and changing only slowly. Having observed the apex-beat at a given spot, we are apt to regard that position as constant. We are apt to regard murmurs in the same way and to expect them not to vary. But they do. Pulmonary murmurs vary a good deal. So do tricuspid murmurs. Mitral murmurs vary the most, especially presystolic. Even an aortic regurgitant murmur sometimes disappears, especially

when it is the result of dilatation of the aorta above the valves.

We must distinguish between distention and dilatation of the heart. In the former case its cavities are overfull, but will return to their normal dimensions on the removal of the cause of their distention. Not so in dilatation. The process has gone further, and the walls have yielded. This is more frequent in the case of the right ventricle. All violent exercise causes distention of the right heart. It is some time before the right heart succeeds in transmitting the blood as rapidly through the lungs as it is brought to it by the veins. This is being out of breath. But if we begin running gently, or have good powers, we get our second breath. Then we get a transference of dilating power to the left heart. But the left heart is not so apt to be distended by violent exertion as by long-continued exercise. Great distention of the left heart is more serious than similar distention of the right. Dr. Broadbent remarked that when, on a Swiss mountaineering trip, he got very much out of breath while toiling up a tedious slope, the guide asked him simply if his limbs were all right or not, and on receiving his reply in the affirmative went on without taking any notice. It was, remarked Dr. Broadbent, a case of right heart *versus* left.

He enumerated the following as symptoms and signs of dilatation—acute or chronic: Embarrassment of the circulation varying from mere shortness of breath to dyspnœa, orthopnœa, dropsy, apoplexy, etc., varying according to which side of the heart is affected. On the right side the symptoms are those of venous obstruction, on the left side those of deficient propulsion of blood from the left ventricle. The apex is displaced downward, outward, or in both directions. The apex-beat is diffuse and ill-defined over a large area. There is often a slight tap in place of a distinct heave. Increased dulness on percussing the cardiac area is noticed.

We ought, said Dr. Broadbent, to have made a provisional diagnosis before listening with the stethoscope. The sounds are short at the apex, but scarcely so sharp as in mitral stenosis. They are loud unless degeneration of the heart-wall has occurred. The second sound is reduplicated at the apex. The interval between the two sounds is often affected. The interval is either increased, so that the two sounds are equidistant, or else the opposite extreme is reached. Spacing of the interval is more common and less serious, and means that the ventricle takes longer to overcome the obstacle to its contraction. The other would mean either increased power of the ventricle or lessened peripheral resistance, but these are out of the question in dilatation. Really it means that that ventricle cannot go through its systole at all. The pulse may be regular or irregular. It is full between the beats, compressible, but its distention suddenly ceases.

The causes of distention are either a distending force or muscular weakness. We may have dilatation when the walls are healthy. Muscular weakness rarely causes acute distention. More commonly the two causes are combined.

Dr. Broadbent remarked that cases of acute dilatation of the heart might be arranged in two classes: 1. Those in which dilatation of the heart is a mere incidental feature of the disease. 2. Those in which acute dilatation of the heart is the prominent symptom.

In cases belonging to the first of these groups, acute disease is an important cause of cardiac dilatation. In pyrexia the heart is weak and the pulse one of low tension. There are two groups of acute diseases in which dilatation is common: 1. In all acute pulmonary affections. The prognosis in these affections turns very much on the power of the heart. In these cases the physical signs of dilatation are not easily made out. In bronchitis the lungs overlap the heart, and in pneumonia or pleurisy we have to distinguish the dulness from that cause. In these cases there is a great contrast between the laboring heart and the feeble pulse. Venesection is beneficial in such cases. 2. Acute renal disease. Every case of acute Bright's disease gives us acute dilatation of the right heart.

CONCERNING MALARIAL AFFECTIONS OF THE EAR.

To the Editor of The Medical Record.

Sir: My letter to which Dr. Pomeroy refers in his paper, "Affections of the Ear Influenced by, or Dependent on Malaria and Defective Drainage," published in the issue of The Medical Record of January 31st, was, if I remember correctly, written about a year ago. Since that time I have, through the courtesy of friends in general practice, and at my request, been afforded opportunities for seeing a number of patients suffering from malarial troubles; and it is chiefly with the view of supplementing my observations in the aforesaid letter, that I desire to ask space for this communication.

Dr. Pomeroy furnishes the opinions of a number of capable aurists wisely addressed in different and widely separated parts of our country, and they neither negative nor positively favor the idea of a malarial cause of ear disease; however, certain cases have been so carefully detailed in our literature by observers who are accustomed to weigh evidence, which must be accepted as proving, if nothing more, that ear disease may be influenced by a malarial agency.

The following case bears upon the subject of Dr. Pomeroy's paper. A man, aged thirty-five, a music-teacher, consulted me August 21, 1883. He had had "chills and fever" very often, a few years before I saw him. Had had pharyngitis for a long time antedating any noticeable lowering of hearing power. Never noticed that his hearing was any worse during paroxysm of fever, but his "throat always troubles him most when the fever is on." Had taken quinine, but never in large quantities at a time. For about three years he had had loud noises in his ears, like "whistle and drum;" was very dizzy at times. For the past two weeks, nearly every day he had been attacked with vertigo; falls to the ground and vomits, then sleeps for about an hour. This condition of things has incapacitated him for work, and it is on account of the last-named symptoms rather than the defective hearing, that he asked my advice. His general health is not good; although of large frame and muscular, he is anæmic and nervous, and dyspeptic. Both drum membranes are very much depressed and adherent to promontory. H. D. R. E., watch not heard ad conchem; L. E., watch heard ad conchem only. Tuning-fork tests are indicative of middle-ear trouble. Only left ear could be inflated, but inflation did not improve hearing. Had two attacks of vertigo yesterday, August 23d, the last of which lasted for half an hour; but he did not vomit after the attack. August 24th, air exhausted in external auditory canal, after which tinnitus stopped for a few moments. The tinnitus was not affected by small doses of quinine: large doses increased it. For some time before January, 1884, the vertigo had been stopped entirely in consequence of treatment directed to the middle ear, but there still remained slight tinnitus aurium. After patient's last visit in January, 1884, I lost sight of him until the following June. I found that he had been having intermittent fever for several weeks, for the relief from which he had taken some proprietary medicine, but without benefit. His general health was very bad.

For a week before consulting me this time he had suffered from severe pain in both ears, and this pain was most severe every other day; the pain being accompanied by a feeling of malaria and bodily heat, but there was never any elevation of bodily temperature on these occasions. Examination of the ear revealed a slight injection of both drum-membranes and external auditory canals near the latter; he had several bad molars on each side, but they did not ache. Quinine neither in small nor

large doses relieved the pain in the ears, but when combined with morphia there came relief; leeches had been applied to the tragus, but they did very little good. Small doses of quinine and iron frequently repeated, with a liberal allowance of whiskey and nourishing food, soon showed their good effects, and patient made a slow recovery with marked improvement in his hearing power, the middle ear having, of course, received appropriate treatment.

This case is interesting as showing that apparently ominous symptoms may owe their origin entirely to a diseased condition situated in the middle ear, and also to the effect, I think, of a malarial agency as a modifying influence in otitis media: but this is certainly not malarial otitis. In the two instances, among *two hundred and twelve malariai patients* with ear trouble, in which I believed a remittent fever to be responsible for a striking modification in the ear affection, pharyngitis had in each instance existed for some time previous to the fever attack, and the inflammatory reaction in the middle ear was associated with an active pharyngitis.

From what I have been able to gather from my own observations, and those of general practitioners familiar with the examination of the ear, and therefore competent judges, ear trouble in malarial fever is very infrequent, and that form of inflammation of the middle ear, described by Weber-Liel,[1] and which he named *otitis intermittens*, has never been met with by any of those physicians with whom I have placed myself in correspondence, in parts where "malaria" is very prevalent. And "*otalgia* intermittens," first described by Voltolini,[2] and Weber-Liel[3] is uncommon.

Weber-Liel regarded the affection of the ear as a real inflammation; Voltolini, on the other hand, laid greater stress upon the neuralgic symptoms, and called it otalgia intermittens. According to Weber-Liel the affection usually presented itself with all the objective and subjective symptoms of acute catarrhal otitis, and with fulness in the head, noises in the ear, and pain in both. The peculiarity of the disease consisted in its intermittent character. Regularly at the same hour the pain would begin, increase in intensity for a certain length of time, and subside after a certain period, and like the pain, so all other symptoms, subjective and objective, would show free intermissions at first, and marked remissions during the pain of the disease. In some cases the pain was ushered in by a slight chill. On the third or fourth day the membrana tympani was perforated, this being followed by a discharge from the ear without relief to the patient. The ordinary treatment of catarrhal otitis proved of no avail, the disease lasting many weeks and months, and ultimately even affecting the mastoid cells. The use of quinine (?), however, arrested it at once and achieved a speedy cure.

My own cases ol acute otitis media, occurring in the course of intermittent fever, certainly were favorably influenced by treatment directed to the supposed malarial agency, but this alone was never, in my experience, sufficient to cure the disease; however, the neuralgic form was positively benefited by quinine, but even then the addition of an opiate was a desideratum.

The affection of the ear met with in this class of cases, and supposed to be characteristic, belongs to that variety of catarrhal otitis which runs its course without marked inflammatory reaction, and has its starting-point in the pharyngeal mucous membrane, and, when marked inflammatory reaction occurs in the middle ear in the course of an attack of intermitteut fever, it should, I believe, be regarded as coincidental. Middle-ear trouble has always pre-existed in such cases. However, it is not difficult to appreciate how repeated and long-continued attacks of intermittent or remittent fever may so impress the general economy and lower its vitality as to furnish the necessary elements for the exhibition of the subjective and objective symptoms detailed by Weber-Liel, Voltolini, Green, and Hotz, and these words apply particularly to the suppurative otitis media, which has been referred to a malarial origin, the analogues of which may be seen in those cases of eye disease occurring in certain forms of fever, and which were first described by Hewson (1814), Wallace (1828), Mackenzie (1843), and more recently by Reich,[1] Paul Knipping,[2] Bernard Lachmann,[3] Suchhau,[4] and J. Trompettin.[5] But the eye affection in these cases has nothing in itself characteristic of the disease with which it is associated. The same objection applies to the term malarial otitis, which would imply a specific action on the part of the "malaria."

The city of Canton, in tropical China, is an interesting region in which to study the effects of malarial fevers and a vitiated state of the atmosphere (see my letter in this journal, July 8, 1882, "Medical Impressions of China") in the production of catarrhal affections. There, the mischievous element which induces "the malarial" manifestations seems to be the exposure of the body, especially during the night, to moist air, in the natives' low, damp buildings. There is a complete absence of sanitary arrangements in the homes of these people, and affections of the mucous surfaces, especially those of the eyelids and pharynx, are very general. Of eight hundred Chinese, whose ears I examined during a journey across the Pacific in 1882, there was not a single instance in which some form of middle-ear trouble and pharyngitis did not exist; and these conditions have always pre-existed in all of the recorded cases of so-called "malarial otitis," or "otitis intermittens."

In this particular class of cases that treatment will be the most judicious which is addressed to both the general condition of the patient and that of the middle-ear. I think that large doses of quinine, frequently repeated, do more harm than good in acute otitis media. If a patient have intermittent fever in addition to an otitis, I begin with quinine, five to ten grains, and follow it up with one to two grains every hour or two during the day; but I do not think it of any benefit to continue the use of quinine long after the apparent recovery of the patient.

I am sure that every one who is interested in this subject will be instructed by a careful perusal of a case of middle-ear disease influenced by malaria (but not malarial otitis) described in great detail by Dr. Roosa, of this city, in the recent edition of his "Treatise on the Diseases of the Ear," pages 321 to 326, and which reflects in a striking manner this writer's keen sense in dissecting symptoms and selecting those particular signs which justify the diagnosis made.

JOSEPH A. ANDREWS, M.D.

40 WEST TWENTY-FOURTH STREET, NEW YORK.

[1] Monatsschrift für Ohrenheilkunde, 1871, No. 11.
[2] Ibid., 1878, No. 5, p. 57.
[3] Malarianeuralgien im Gebiete des Trigeminus und der anderen das Ohr versorgenden Nerven: Monatsschrift für Ohrenheilkunde, Mai, 1878, No. 5, p. 58; also, Deutsche praktische Medizin, 1877, No. 15 und 16; Allgemeine medizinische Centralzeitung, 1877, No. 24.

HOW TO OBTAIN CLINICAL MATERIAL WITHOUT IMPOVERISHING THE YOUNG DOCTOR.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The question who is and who is not a proper person for dispensary relief requires very careful thought. It is necessary that action be taken to prevent further indiscriminate medical charity. In considering this subject, there are two things that must be borne in mind, as their proper appreciation should influence whatever is done to remedy this growing evil.

We have in this city the largest medical schools in America and the best teaching faculties. New York is the metropolis of the country, and the colleges will always have full classes of students anxious to take advantage of the hospitals and clinics. For instruction material must be provided.

[1] Klinische Monatsblätter f. Augenheilk., 1875, p. 487.
[2] Deutsche Archiv f. klin. Medizin, 1880, vol. xxvi., p. 10.
[3] Ebend., vol. xxvii., p. 526.
[4] Virchow's Archiv, vol. lxxxii., p. 18.
[5] Klin. Monatsblätter f. Augenheilk., 1880, p. 123.

From our commercial relations and our cramped position on a narrow island, we have a great many poor. The crowded condition of our tenements (New York has more than three times as many inhabitants to a house than has London), bad hygiene, and social surroundings increase the number of the poor. The foreigners who now come to our city are not the stout, strong immigrants of years gone by, but are a poorer order, almost paupers, whose occupations, if they have any, have been hitherto almost unknown to us. With an increase in age, we have the second and third generations of people who approach in habits and surroundings the scum of European cities.

For the colleges we have to propose a more systematic, careful manner of securing clinical material. The dispensaries should be grouped, so as to contribute to the needs of the classes. The colleges *will* have cases, and it is best that they should utilize the dispensary material, rather than take cases from the young practitioner, who suffers by the present method of bidding for patients.

The people who apply for dispensary or out-door aid should understand that their cases will be investigated by the Charity Organization or any similar society. Those who can pay a modest sum should be formed into clubs, managed under the rules of the dispensaries, from among whose physicians they could choose their own attendant, to be paid by the dispensaries for each case attended.

An effort must be made to limit the number of dispensaries. The managers of a dispensary should be the proper ones to decide whether the district it covers is in need of any other institution. It is well known that these places of indiscriminate relief, started by mistaken philanthropists or ambitious doctors, if even for some specialty, can hardly keep in the narrow path, but spread out, and soon all the inhabitants of the blocks around are dispensary patients, and thus they are gradually pauperized by being taught to be improvident, as they can always go to the dispensary or hospital when sick. Advice is cheap; talk costs nothing. Groceries they pay for, but for attention to their health these people give seldom a curt thank you.

Great is the fault of the doctors as well as of the public, but something can be done to prevent the increase of this careless system, or want of system, of medical charity.

WALTER L. CARR, M.D.

36 WEST THIRTY-SECOND STREET, February 28, 1885.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from February 21, 1885, to February 28, 1885.

PATZKI, JULIUS H., Captain and Assistant Surgeon. Leave of absence further extended seven months on surgeon's certificate of disability. S. O. 40, A. G. O., February 17, 1885.

PERLEY, H. O., Captain and Assistant Surgeon. Granted leave of absence for one month, to take effect about March 5, 1885. S. O. 16, Department of Dakota, February 10, 1885.

ROBINSON, S. Q., Captain and Assistant Surgeon. Relieved from duty at Fort Spokane, W. T., and ordered for duty as Post Surgeon, Fort Klamath, Oreg. S. O. 23, Department of Colorado, February 5, 1885.

KEAN, J. R., First Lieutenant and Assistant Surgeon (recently appointed). Assigned to duty at Fort Sill, Ind. T. S. O. 23, Department of Missouri, February 11, 1885.

BENTLEY, EDWIN, Major and Surgeon, relieved from further duty at Fort Clark, Texas, and assigned to duty as Post Surgeon, Fort Brown, Texas. S. O. 17, Department of Texas, February 16, 1885.

TAYLOR, M. E., Captain and Assistant Surgeon, assigned to duty at Fort Stanton, New Mexico, as Post Surgeon. S. O. 29, Department of the Missouri, February 21, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending February 28, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
February 21, 1885.....	0	12	90	6	111	74	0	0
February 28, 1885.....	0	4	91	2	158	53	0	0
Deaths.								
February 21, 1885.....	0	4	14	5	27	31	0	0
February 28, 1885.....	0	2	20	2	25	21	0	0

CORRECTNESS IN DIAGNOSIS.—There are some men who can never learn to aim or fire at a case. Regarding their diagnosis the safest place is to get behind them and trust to luck that the gun is not heavily enough charged to kick. Such marksmen generally do best when they shoot in the dark and use scattering shot.

GIVING THE YOUNG MAN A CHANCE.—*Anxious parent to old consultant*—Tell me, confidentially, doctor, do you think Dr. Young understands my son's case? *Doctor*—Perfectly, my dear sir. I have rarely seen so much talent in one so young. No man is better read in his profession, or has used his opportunities to better advantage. I wish I had had them when I was young. He spends all his time in study. All he wants now is practice and experience to make him a great man. *Parent*—But has he any experience in these cases? *Doctor*—Really, I am surprised, under the circumstances, at his judgment and skill. Indeed he is modest to a fault, and is more open to conviction of error than any young man I have met. In all my large experience in these cases I have never seen one handled better. *Parent*—But, doctor, we would like you to take charge of the patient. *Doctor*—That would be impossible. I have too much business already, and, besides, he has called me in consultation, and I could not attend this particular case.

A PESSIMISTIC VIEW OF THE THERAPEUTICS OF CHOLERA.—Dr. D. B. Simmons, who has had a large experience in the treatment of cholera in many of the countries of Eastern Asia, from Japan to India, does not entertain a very hopeful view of success in the management of the disease should it visit our land. He is frequently asked what is the best treatment of cholera, and says that he is accustomed to preface his answer with the following statement: "The statistics of the late epidemic in Europe furnish a mortality of fifty per cent. My own statistics of the mortality in Asia give the same average rate of fifty per cent. In the former case the majority of the patients received treatment directed by men well informed concerning all the remedial agents known to modern scientific medicine. In the latter class, however, not one patient in a thousand was seen by physicians of the western school. In fact great numbers of them were not visited by the doctors of any school, preferring to put their trust in charms and prayers to their various divinities, having from long experience had quite as much reason for belief in the curative powers of one as of the other. I take it for granted that it is not necessary for me to add the moral to the above."

INFORMATION WANTED.—A correspondent writes to inquire whether any valuable results have been obtained in the use of cocaine in the cure of the opium habit, and, if so, what is the best manner of employing it?

ANTIPYRIN.—M. Dujardin-Beaumetz states that antipyrin is sometimes adulterated with quinine and sugar. Its price in this city has been about twenty to thirty cents a drachm.

PHOSPHORUS IN RACHITIS.—Both Professor Henoch and Dr. Baginsky report unfavorably on the use of phosphorus in rachitis, and they have given it a trial in many cases. The discussion of the subject has occupied much time in the medical societies here of late.—*Berlin Cor. Archives of Pediat.*

BACTERIA FROM THE SOIL TO THE AIR.—Brantlecht is said to have demonstrated that bacteria may be transferred from the soil to the air. He moistened ignited sand, clay-like garden soil, and a gravelly soil with liquid containing bacteria, and covered each with a glass bell. In a few hours the moisture condensed on the sides of the bell was found to be swarming with the same forms of bacteria.

SPRAY IN OVARIOTOMY.—Dr. John Homans, of Boston, writes: "The following is an extract from a recent work by Dr. Emmet (Emmet's "Principles and Practice of Gynæcology," p. 715): 'In this country I do not know of any prominent operator who now employs the carbolic acid spray.' This statement implies that the writer is not persuaded of the value of spray in ovariotomy. My own experience has led me to an opposite opinion. Indeed, I should not like to do a laparotomy for any purpose without antiseptic spray. I have been led to this conclusion by the results of one hundred and eighty-three cases of removal of cystic ovaries, of which I have lost only twenty-one; but more especially by the result of the last one hundred of these cases, only ten of which were fatal, while thirty-eight were consecutively successful. I feel that to omit the antiseptic spray would be to deprive the patient of one of the ready and efficient elements of success. As I can hardly hope for much better results than those I have cited, and being quite content to let well alone, I shall hesitate before disturbing my present plan of operation by giving up a detail to which I attach much importance."

MURIATE OF AMMONIA.—Nothnagel is celebrated for his scepticism about medicines, but he says the alkaline carbonates and salts are best employed in chronic catarrhal affections of the mucous membranes, notably in chronic catarrhal gastritis, and in that complex of symptoms known as the status gastricus, marked by loss of appetite, bad taste in the mouth, nausea, sometimes even vomiting, belching of gas, a feeling of pressure, fulness over the stomach, and a more or less coated tongue. The question, whether to use soda or muriate of ammonia, can be decided in favor of the latter when there is also a non-febrile bronchial catarrh present in its second stage; while soda is to be preferred when there is considerable irritability of the air-passages and an urgent desire to cough. Muriate of ammonia is to be preferred in bronchial catarrh when the fever has passed away, or the first severe febrile symptoms have disappeared, and there is only difficulty of expectoration. It is also followed by good effects in pneumonia when the crisis of the fever has passed; when there are few râles and only whistling and rattling sounds are heard, while expectoration is still difficult. It may also be given when the expectoration stops, in consequence of an acute relapse, or exacerbation of the inflammation.

FATAL POST-PARTUM HEMORRHAGE ON EIGHTH DAY —ADHERENT PLACENTA AND HOUR-GLASS CONTRACTION.—Dr. W. E. Irvin, of South Carrollton, Ky., attended a poorly nourished woman in a long and difficult labor. By podatic version and use of the forceps a dead child was at last delivered. The cervix was torn on one side, and the patient had an adherent placenta with hour-glass contraction. The placenta was stripped off and hemorrhage ceased. The woman did well until the fourth day when she had diarrhœa, which our correspondent thought might be septic. It yielded, however, to bismuth and opium. On the eighth day hemorrhage set in. The first attack was controlled by ergot, brandy, kneading, and cold. Ten hours later, hemorrhage came on again, and the patient died before the doctor reached her. Dr. Irwin says: "I am now of the opinion that the nervous system was overwhelmed by septic matter absorbed through the lacerated cervix, and in the future I shall guard against this danger by antiseptic injections in all instrumental cases. I say *instrumental* labor, because I do not believe in the antiseptic injections in *all* cases of labor." Dr. Irvin says that he has had at least twenty cases of adherent placenta in the past two years, and in these cases, and these alone, he finds hour-glass contractions.

PREGNANCY IN A WOMAN FIFTY-ONE YEARS OLD.—Dr. F. N. Burgess writes: "I delivered a woman recently aged fifty-one years, three months, ten days, of a healthy male child. Last confinement, ten years and a half previous."

DECOCTION OF VALERIAN AS A SEDATIVE.—M. Martel, the principal surgeon at the hospital at Saint Malo furnishes Dr. Arragon, of Paris, with some facts concerning the use of the decoction of valerian as a sedative. A patient was brought in with both hands and a part of the forearm crushed by a threshing-machine. Fever was absent, but the agony was great. The wounded region was dressed with an antiseptic dressing of carbolic acid. As soon as it was deemed prudent the following decoction was used in the dressing to replace water: Forty grammes of the root of valerian to a litre of water, boiled for half an hour, then strained, and ten per cent. of carbolic acid added to it. After its application all pain disappeared. The wound became clean and healthy; all the symptoms were most satisfactory. Dr. Arragon adds that country people in Normandy often use the decoction of valerian to calm pain in the case of wounds and fractures.—*Brit. Med. Journal.*

THE THERAPEUTIC EFFECT OF THE SOLANACEÆ IN OSCILLATING SPASM OF HEAD FROM LIGHTNING SHOCK.—Dr. G. F. Harvey, of Parsons, Kan., referring to Dr. Eggleston's paper on "Atropia in Severe Electric Shock," relates the history of a pertinent case of his own. A robust, hard-working young woman, three months pregnant, received an electric shock from a bolt of lightning, which struck a plough a few paces distant. For the next two months she was confined to her bed most of the time. Her symptoms were a constant rhythmical rolling of the head from side to side, at the rate of seventy-five to one hundred times a minute. This kept up more or less day and night. It was accompanied with much pain, which greatly exhausted the patient. Treatment had been "irregular," and had done no good up to the end of the two months, when she was brought to Dr. Harvey. Our correspondent writes: "Not knowing what else to do, I left fluid extract of hyoscyamus and atropiæ sulphas, with instructions to give it until sleep occurred or its physiological effect was produced. About a week after the husband reported, to his and my surprise, that no more of the symptoms had occurred since taking the hyoscyamus mixture, and during the month the patient was able to bear the journey of ten or fifteen miles travel to town, although unable to walk steadily without assistance. I left the State shortly after, and when next I heard of this case, indirectly, the account was the 'movements' had gradually returned, and after her confinement they had become almost as bad as ever. I think this would have been a good case to try the effect of the method of local compression with the steel collar recommended by me some years ago in neck chorea. The object in reporting this is to corroborate in a small way Dr. Eggleston's observation of the good effect of the 'Solanaceæ' in affections of the nervous system from shock."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 11 NEW YORK, MARCH 14, 1885 Whole No. 749

Original Articles.

RESULT OF OPERATIONS FOR THE REMOVAL OF TUMORS FROM THE BLADDER.

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RECENT writers comment on the "decided impetus which the surgical treatment of tumors of the bladder has received in late years." Yes, when we consider for how long a time these growths have been allowed to have their own way, the interest now manifested in this direction is truly remarkable. In some instances in the past the bladder has been actually opened, and yet no attempt was made for the removal of an existing tumor. Perhaps the earliest example of this is recorded of Petit, of whom it is said that, although he did not remove the polypus, the operation of opening the bladder was not attended with any bad result, but a year afterward the patient died, and the autopsy revealed a polypus the size of a *fist*, of a pyramidal figure, and attached by a *very delicate pedicle!* In several operations of lithotomy of more recent times it is stated that after the removal of the stone a vesical growth was found, *but not interfered with*. The interest manifested in this subject is apparent not only in the number of lectures and monographs that have been published during the past three years, but also in the number of operations that have been recorded during this time as compared with preceding times.

Previous to December, 1881, I could find but forty-five operations recorded.[1] Since that time I have found fifty-three. The following table will show the contrast at a glance:

Males: First period, extending from 1830 to December, 1881 (fifty-one years), 13 operations (of these 2 recorded since January, 1882); second period, extending from December, 1881, to January, 1885 (three years), 40 operations.

Females: First period, extending from 1784 to December, 1881 (ninety-seven years), 32 operations (3 recorded since January, 1882); second period, extending from December, 1881, to January, 1885 (three years), 13 operations.

Total operations to January 1, 1885: First period, 45; second period, 53. Total, 98.

Operations on males.—The male bladder has been made accessible for the removal of tumors by the following methods, named in the order of frequency: 1, External perineal urethrotomy; 2, perineal cystotomy; 3, hypogastric cystotomy; 4, hypogastric and perineal cystotomy jointly; 5, hypogastric cystotomy and perineal urethrotomy.

External perineal urethrotomy.—External perineal urethrotomy has been performed 31 times. By Thompson 18 times, by Whitehead 4 times, by Bontecou twice, and by Watson, Morris, Morgan, Rauschenbusch, Harrison, Godlee, and Roddick. In four thirteen months to three years, in four six months to eleven months, and in nine a few days to three months elapsed since the operation.

From these figures we learn simply that out of thirty-one subjects seventeen were living at the time the operation was reported. If, however, we enter into a closer examination of the condition of these patients, we find that very few indeed can be regarded as having recovered in the true acceptation of the term. In five at least it is distinctly stated that the growth was only partially removed, hence recovery or permanent relief is not to be expected. In some other cases the relief was decided, but temporary, the symptoms recurring after a longer or shorter interval of time, while in still others the operation is of too recent date to admit of any positive statement as to ultimate result. Fourteen cases terminated fatally: one within a few hours, two within a few days; three within a few weeks, and eight within a few months. For these fatal cases three principal causes may be assigned: 1, Incomplete removal of the growth—in all the fatal and unfavorable cases the tumors were attached by a broad base—sessile; 2, old standing and serious pathological changes in the urinary tract, especially the kidneys; 3, malignant disease.

Perineal cystotomy.—Perineal cystotomy has been performed ten times, by Covillard, Dessault, Crosse, Gersuny, Kocher, Humphry, Davies-Colley, Hill, Rauschoff, and Little. With one or two exceptions these operations were by the lateral method. Kocher opened the urethra by a T-shaped incision, a vertical cut in the mesial line and a horizontal one, after Nelaton's pre-rectal method. Of these ten patients six were reported recovered, three died, and of one recent operation we have no data. In regard to the deaths, the case of Hill should not militate against the operation, for this was not done with any hope of effecting a cure, but simply to afford temporary relief from intense suffering due to malignant disease in a subject sixty-three years old, already worn out and cachectic. The case of Gersuny was very exceptional, in that the tumor was inclosed in a diverticulum of the bladder and was altogether beyond reach, besides there were other serious changes in the vesical walls which even in the event of the successful removal of the tumor would have rendered recovery impossible. The patient, of course, was a child two years old, and the growths, of which there were a number, were only partially removed.

Hypogastric cystotomy.—This operation has been performed eleven times on ten subjects by Marcacci, Trendelenburg (twice), Bazy, Guyon (five times, twice on same patient), Küster, and by Sonnenburg. This enumeration does not include Liston's successful removal of a cyst. Marcacci sutured the bladder, the remainder were treated by the open method. In regard to the patients of Küster and Sonnenburg we require further data, but recovery is scarcely to be expected in the latter case. All the others terminated fatally. In the patient of Marcacci the cause of death was imperfect closure of the vesical wound. This was brought together with catgut ligatures and the abdominal wound with metallic sutures. Patient did well at first, but died within two months from extravasation of urine, pelvic abscess, and peritonitis, because, as Marcacci thinks, of the too early absorption and destruction of the catgut sutures, which probably lost their holding power before the union of the wound had become firmly established. The question might be asked, whether, when the imperfect closure of the bladder was first manifest by the appearance of the supra-pubic urinary fistula, the fatal complication might not have been averted had the bladder been opened and drained through the perineum?

In at least five instances the growths were malignant

[1] A Study of the Tumors of the Bladder. By Alexander W. Stein, M.D. William Wood & Co.

—Bazy, Trendelenburg, Guyon (two), Sonnenburg. In the other case of Trendelenburg the cause of death was extensive kidney disease, lung abscess, etc. In the two remaining cases of Guyon (one probably also malignant) the patients died in a few days from exhaustion. In four of the cases—although malignant—a remarkable amelioration of symptoms was noted after the operation. One lived six and a half months, another three months, another nearly two and a half months, and then submitted to a repetition of the operation, dying on the third day subsequent thereto, a fourth lived two months, and a fifth one month.

Hypogastric and perineal operation.—Twice has access been made to the bladder jointly through the perineum and above the pubes: First, by Billroth, suprapubic and lateral peritoneal cystotomy; second, by Volkmann, supra-pubic cystotomy and external perineal urethrotomy. The first patient, treated by the open method, recovered. The second died, apparently because of the imperfect closure of the vesical wound, which was attempted by suture. Death occurred on the third day from peritonitis and diffuse purulent infiltration of subserous areolar tissue.

Resection of the bladder.—Sonnenburg relates the case of a female aged sixty. The urethra was dilated and a tumor was detected on the anterior wall of the bladder, which afterward proved to be a fibro-sarcoma. He made a supra-pubic cystotomy and removed the anterior wall of the bladder, leaving only the lower portion and sphincter intact. The peritoneum, which had to be opened during the operation, was sutured and the bladder drained both through the abdominal incision and urethra. Nearly *four weeks* had elapsed, there had been no fever, wound was granulating on all sides, and the general condition of patient was satisfactory. We have no further data as to the termination of this most unpromising and daring operation, but it is at least suggestive of possibilities.

Females.—In the female, owing to the shortness and dilatability of the urethra, tumors may be removed by this channel with comparative ease and safety. If the tumor is not accessible, or is too large to admit of removal after bloodless dilatation of the urethra, the canal may be further enlarged and shortened by incision. Sometimes the tumor will be reached more readily by kolpo-cystotomy. If the situation and attachment of the growth is such that it should be seen to be properly manipulated, a **T**-shaped incision of the vesico-vaginal septum will enable the operator to invert the vesical walls, bring the growth into view, and perform a dissection with almost as much facility as on the surface of the body.

Forty-five operations have been performed for the removal of growths from the female bladder—37 by urethral dilatation, 8 by incision of the urethra or of the vesico-vaginal septum. The subjects varied in age from nineteen months to seventy years. Of the 37 patients from whom the growths were removed by urethral dilatation, 24 recovered (I include in this number the patients of Guillon, Bishop, and Godson, in whom, though the result is not distinctly stated, the phraseology is such that there can be little doubt as to their successful termination), 3 cases are reported as much improved by the operation, and 10 terminated fatally. The fatal termination may be assigned to: First, in at least five instances to malignant disease; second, imperfect removal of growth; third, kidney disease. It should further be noted that four of these unfortunate subjects were children, aged respectively nineteen months, twenty-two months, two years and nine months, and five years.

After the eight cutting operations five recovered and three died. In regard to the question whether the surgical interference was in any of these cases immediately responsible for the fatal termination, we can note but one instance, that of Senftleben, to be referred to below. As to the size and character of the growths that have been successfully removed through the urethra, some are given as the size of a goose's egg, turkey's egg, tennis ball, etc., which have been removed by simple torsion and avulsion, by ligature, silk and catgut, silver-wire, by écraseur, knife, Pacquelin, and by scooping out with a sharp spoon. As showing what can be done in the least promising of cases Simon successfully scooped out from the walls of the bladder a sessile growth that had occupied two-thirds of the cavity of that viscus.

The tumors removed in both sexes have included papillomata, myxomata, myomata, sarcomata, and epitheliomata. It is not the purpose of the present study to enter into the details of the various methods of surgical interference for the removal of vesical growths from the male bladder, our object at present is to ascertain if possible what are the prospects in this field of surgery, and, at the same time, form some judgment of the relative advantages and disadvantages of each of the foregoing operations. To do this we must not be guided simply by the percentage of recoveries or of deaths as given, but must examine minutely into the conditions which, in each procedure, favored success on the one hand, and the causes which determined the fatal termination on the other. Thus, each procedure will rest on its own merits, and the conclusion will, I think, be inevitable that the selection of an operation cannot be a matter of choice, but must depend upon the location, mode of attachment, and size of the growth to be removed. A disposition to routine practice is manifested, especially in favor of the simple and easily performed external perineal urethrotomy, a most valuable operation, indeed, but one which has scarcely justified the sanguine claims of its devotees. The evidence before us seems conclusive that sessile growths are not manipulated to advantage through a perineal opening, especially when the growth is located in the upper region of the viscus, or on its anterior or lateral walls. And the impression is irresistible that a number of our unfortunate cases would have terminated successfully had the bladder been opened from above, the only procedure which could have afforded in them any hope of success.

It has been observed that in very fat subjects with deep perineum and in cases of prostatic hypertrophy and lengthening of the prostatic urethra, a very serious difficulty presents to the satisfactory exploration of the vesical cavity. Again, we have to contend against the danger of working in the dark. This is illustrated in the accidents met with by Senftleben and by Stroinski, both of whom lacerated the bladder in their manipulations through the dilated female urethra (a more accessible route to the bladder than through the perineal opening). Senftleben attempted the extirpation of a sarcoma, he endeavored to seize the base of the tumor with forceps and draw it out, but this did not succeed, and because of the great friability of the tumor it had to be removed piecemeal; its broad base, however, could not be so removed. Patient died on the fourth day after the operation from purulent peritonitis. On examination there was found on the right side of the fundus a perforation large enough to admit the index finger. In the case of Stroinski the tumor, about the size of a walnut, of dense fibrous structure, had a short and dense pedicle, the bladder was lacerated by the twisting and traction made on the growth. The laceration was on the anterior wall, and Stroinski saved his patient by, as far as I know, a unique procedure. He made a complete inversion of the bladder through the urethra, discovered the rent, two centimetres long, and applied three carbolized silk sutures. The reduction of the bladder was effected, a catheter was kept *in situ* for two weeks and the woman entirely recovered.

On the other hand, external perineal urethrotomy, as the simplest, least hazardous, and, of the perineal operations, the most direct route to the cavity of the bladder, will always remain a favorite operation as a means of diagnosis, if nothing more. Evidence pointing to the

existence of a tumor in the wall should lead immediately to the performance of an external urethrotomy. Once such an opening made, if the growth is within reach and is removable, it will be so treated; if it proves to be inaccessible or too widely attached to the vesical walls to be thus removed, and supra-pubic cystotomy is found necessary, the perineal incision will not diminish but rather increase the chances of recovery by affording free drainage for the urine in the most depending position (adopting drainage by suction).[1] In Billroth's case the preliminary perineal incision proved eminently satisfactory. The number of failures in supra-pubic cystotomy should not discourage us nor should they militate against a repetition of the operation. This operation has shown excellent results for the removal of stone, and if its record is not correspondingly good for tumors, it is because the growths attacked were of malignant character, or because the operations were too long deferred. It is reasonable to assume that some of the latter cases would have terminated successfully had the operation been undertaken at an earlier period. For the removal of certain forms of tumor the fact that the parts are freely exposed to view and to manipulation is an advantage that must supersede every other consideration.

The dangers apprehended from supra-pubic cystotomy are twofold—wounding the peritoneum and urinary extravasation. The former is avoided by distending the bladder above the pubes, or, what is more practicable, elevating it by means of a colpeurynter per rectum. The prevention of urinary infiltration involves the consideration as to the best way of dealing with the vesical wound. Shall it be stitched or shall it be left open? Both methods have shown excellent results, and in both the main question involved is thorough drainage, in the one by means of the urethra or perineum, in the other through the abdominal wound, combined or not with urethral drainage. Trendelenburg[2] inserts a T-shaped drainage-tube in the bladder and placing his patient in the abdominal decubitus or on the side, by means of air-cushions, etc., elevates the pelvis sufficiently to obtain a descending direction to the outflow of urine.

Vidal de Cassis suggested dividing the supra-pubic cystotomy into two separate operations; the first to consist in making the abdominal section down to the bladder and some days after the establishment of surrounding adhesive inflammation to open the bladder. In some cases clamping the lips of the vesical incision between those of the abdominal wound may be found practicable.[3]

Finally, let us bear in mind two facts: First, tumors of the bladder, if uninterfered with, necessarily terminate fatally, death resulting either from cachexia, hemorrhage, or from the effects of mechanical obstruction to the outflow of urine; second, the results thus far attained by surgical interference are most encouraging, and in every way justify a repetition of the same.

With regard to the treatment of malignant growths there is no reason why a timely operation may not in some cases prolong life. But while amelioration of symptoms may be anticipated in some old-standing and unpromising cases, we should seek to operate early. The least suspicion of the existence of a tumor should lead to an investigation, that, if present, it may be removed while the general condition of the patient is yet favorable for an operation, before he has become exhausted from the loss of blood, or the kidneys and bladder have become so much diseased as to make recovery impossible even in the event of the successful extirpation of the growth.

[1] Chronic Cystitis—Drainage—Recovery. By Alex. W. Stein, M.D., New York MEDICAL RECORD, January 17, 1885.

[2] Nach behandlung des hohen Steinschnittes. Willy Meyer, M.D., Langenbeck's Archiv, Bd. xxxi., heft 3, 1884.

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THE ETIOLOGY AND TREATMENT OF NASAL CATARRH, WITH SPECIAL REFERENCE TO THE DEVIATED SEPTUM.[1]

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Few diseases have, until in recent years, at least within the last decade, occupied a more obscure position as regards their pathology and therapeutics than those involving the nasal passages. Such, as is generally acknowledged, being the case, it is not surprising that chronic nasal catarrh should be classed among the "opprobria medicinæ," giving rise to the somewhat general impression that it is an incurable disease. It seems to me to be our duty as medical men to determine whether this belief is based upon the reliable testimony of carefully conducted scientific investigation, and if not to promptly condemn the circulation of such an erroneous opinion.

In pursuance of a line of inquiry, recommended by me in 1880,[2] I will seek the solution of this unsettled question by discovering and removing the cause and effects. In 1882[3] I extended this line of thought and considered more in detail the part played by the deviated septum in nasal catarrh, accentuating as in the first paper, pressure irritation produced by contact of the septum with the turbinated tissues. I also gave my grounds for attributing chronic rhinitis to this and defective nasal drainage and finally offered novel remedial methods for dealing with the deflected septum.

In order to simplify and at the same time systematize the description of this deformity, I have for several years employed a classification which, at least, possesses the merit of simplicity, in addition to other advantages already enumerated by me.

Deviation of the septum narium may obviously be either, in character, osseous, cartilaginous, osseo-cartilaginous, or hypertrophic: In form these varieties may be either localized, that is, limited to small portions of the septum, or general, involving the whole extent or a large surface of the septal structure. I cannot discuss here my reasons and right for employing so simple a classification, suffice to say for the present it accords with the various conditions, and has afforded me an excellent guide for the surgical management of these conditions.

Osseous deflection of the septum rarely occurs alone, being almost invariably associated with the cartilaginous form, namely, osseo-cartilaginous. Long-standing deviated septa always exhibit hypertrophic changes over their most prominent points. These changes are due to pressure against structures lying opposite, *i.e.*, the turbinated bones. By far the most frequent form of deviated septum is the cartilaginous variety. As regards the question of the manner in which the deviated septum plays the part of a cause, I would ask attention to two most prominent and common factors, accounting for the production and persistence of the catarrhal processes in the majority of cases, namely, pressure irritation and defective nasal drainage. Farther on I shall have occasion to show that these conditions are also traceable to other important underlying causes of a more or less direct nature. The part played by pressure irritation in the causation of rhinitis hypertrophica I described in a paper read before the American Laryngological Association, session of 1880.[4] My deductions were based upon the careful and continuous study of a case exhibiting a frequent pathological condition, consisting of a thickening of the mucous membrane overlying the posterior borders of the vomer, shown in this drawing, taken from a life sketch (Fig. 1). I was persuaded that the hypertrophied tissues

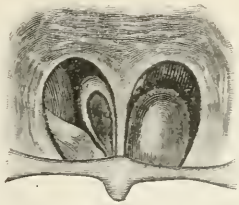


Fig. 1.

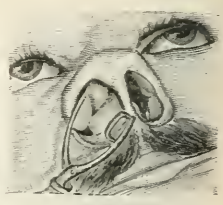


Fig. 2.

were caused by pressure of the turbinated structure lying opposite. This impression was received by my observing that the shape of the tumefaction was cup-shaped, and that the depression corresponded in shape and size with the convexity of the nearest turbinated bone. At times the depression was entirely concealed by the temporary impaction against its surface of a congestive turbinated hypertrophy. Retraction of the erectile structure soon revealed the mischief it had wrought by persistent contact, or in other words, by prolonged pressure irritation.

Do not understand me as attributing any particular pathological importance to this condition. I only consider it of value as proving the existence of a special determining factor in nasal catarrh, namely, pressure irritation.

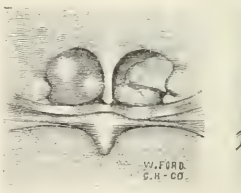


Fig. 3.

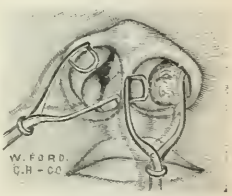


Fig. 4.

The drawing (Fig. 2.), taken from a life sketch, exhibits the action and effects of pressure irritation. The right anterior naris shows the deviated tissue pressing against the opposite turbinated structure. In the right posterior naris (Fig. 3) is seen the result—a post-inferior turbinated hypertrophy, almost entirely occluding the choana.

The next drawing (Fig. 4) was taken from a life sketch, showing an antero-inferior turbinated hypertrophy in the left nostril, caused by the combined catarrhal extension, and respiratory irritation from a deviated septum closing the right nostril.

I will now consider the second etiological factor, mentioned by me—defective nasal drainage. All intelligent observers must have been impressed with the fact that the peculiar inclination and semi-ovoid form of the nasal floor subserved a useful purpose, namely, that of a gutter for the efflux of nasal secretions and accretions. This view, described by me several years ago, has steadily gained ground in my mind until I find myself this evening prepared to present it in a more elaborate and favorable form.

This diagram (Fig. 5), built up from drawings of the normal structures will enable you to trace with me the nasal discharges from their origin, through the pharynx and gullet, until, with the salivary and buccal secretions, they find their way into the stomach. The heavy, dotted lines represent the course of the nasal fluids. Beginning at the anterior portion of the nasal gutter, the nasal mucus streams slowly downward over the easy convexities of

[1] Read before the New York Academy of Medicine, March 5, 1885.
[2] Archives of Laryngology, vol. ii., p. 147.
[3] Archives of Laryngology, vol. iii., p. 300.
[4] Loc. cit.

the turbinated bodies, and striking the nasal floor, gravitates backward along its gradual incline toward the posterior nares and pharynx. Posteriorly it is prevented from oozing down along the uvula and dripping into the larynx or pharynx by a slight elevation of the mucous membrane over the palate, which I have denominated the palatine prominence (*prominentia palatina*). This peculiar ridge-like elevation (Fig. 5. *pp*), beginning at the lower edge of the vomer and extending backward to a point just over the uvula, has, as far as I have been able to ascertain, been assigned no special function; the absence of this constant condition, in numerous drawings of the posterior nares, is a familiar example of its oversight. An attack of acute uvulitis, with obliteration of this palatine prominence, and consequent discharge of mucus into the larynx and pharynx, will convince one of its value in the economy of the throat. After leaving this point, the nasal fluids stream down, in a fan-shaped manner, along the pharynx, to the gullet. The discharges are prevented from falling into the larynx by the semicircular ridge formed by the arytenoid and Wrisberg prominences and their various folds.

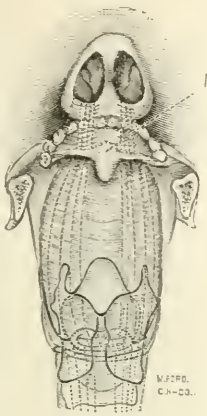


FIG. 5.

The importance of this system of nasal drainage is very clear, when one considers that it not only disposes of the natural excess in moisture, employed for olfaction, moistening the respired air, etc., but also is a means for the removal of the accumulations from the eye and accessory nasal cavities. This system once understood, it is easy to appreciate the consequences due to disturbance of its balance. Prominent among disturbing causes is the deviated septum. This interference, on the part of a deviated septum, is invariably associated with more or less turbinated hypertrophy. To these combined conditions are to be attributed most of the troubles due to defective drainage. Nasal mucus, of the proper specific gravity, readily finds its way into the stomach as just described. The obstruction presented by a deviated septum stops the nasal fluids on their way into the throat, the retardation leading to evaporation and consequent inspissation of the nasal discharges, producing the well-known train of symptoms, such as clogging of the nostrils, dropping of phlegm into the pharynx and larynx, etc.

The importance of pressure irritation and defective nasal drainage merits a more extended notice than I have accorded it, but the consideration of other causes which help to account for their existence urges me to leave it for the present.

Deviation of the septum can be traced as originating from certain well-defined causes, conspicuous among which I might mention heredity, traumatism, and acquired deviation of the septum.

Heredity.—In 1880 I reported[1] a case of congenital stenosis relieved by operation, in which was noted a peculiar malformation of the superior maxilla, and I sought to establish a relationship between it and the co-existing coryza and turbinated hypertrophies. Since then, by dint of close investigation and comparison, I have been able to supply the necessary links in a chain of evidence which demonstrates, at least to my mind, that one of the most common indirect causes of catarrh is to be found in the conformation of the hard palate. This peculiar malformation is transmitted from parent to offspring, and by its proper recognition we can at once account for the origin of a vast majority of certain cases of chronic nasal catarrh. Attention has been called, from time to time, to the various congenital conditions of the hard and soft palate, known as cleft palate, bifid uvula, etc. I shall, however, have nothing to say concerning these malformations. Several years ago a medical student, whom I was examining, called my attention to the great height of the roof of his mouth. I had been treating him for an extreme deflection of the nasal septum; the deviated structure was pressing directly against the left lateral nasal wall and had been in this position as far back as he could remember. I at once associated the high-pitched and narrow palatine arch with the bend in the septum, reasoning that inasmuch as the septum lay directly over the point of highest elevation, there must be a corresponding bulging of this structure, its amount depending upon the extent of encroachment of the elevated and contracted arch upon the nasal chambers.

Subsequent observations not only proved this inference to be correct, but also enabled me to trace the condition in many instances to its origin, the parent. These plaster impressions, kindly presented to me by Dr. Eddy, nicely illustrate this peculiar palatine formation. They were selected from among thirty other plaster casts, as the only two in which I could positively pronounce the existence of a chronic nasal catarrh. The doctor then referred to the name of the subject, who, happily for me, proved to be one of my old patients, afflicted with a severe catarrh, and almost forgotten by me. This was the only case of well-marked catarrh sent me by the Doctor, and both casts had been taken from the same patient.

On comparing this plaster impression (Fig. 6) with the normal palatine arch, you will readily discern certain

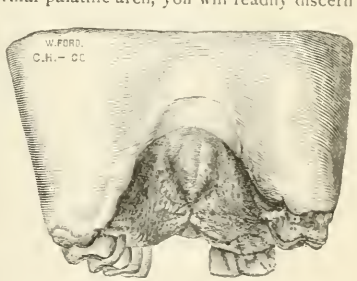


FIG. 6.

well-defined differences. The distance between the alveolar ridges is much greater in the normal specimen. The transverse diameter in the abnormal specimen is not only smaller, but its surface is markedly irregular.

The palatine arch may be considerably higher than this normal specimen, and yet not constitute a pathological condition. No two palatine arches are exactly alike, and some show an elevation readily mistaken for a deformity. The important distinction to bear in mind is the abrupt elevation along the line of the median raphe. When such a condition is observed, we may at once look for, and, in my experience, invariably find, a corresponding deviation of the septum.

Such, in numerous cases observed by me, has always proved the case, and the condition has been invariably associated with a chronic rhinitis. Indeed, I believe it is possible to diagnosticate the existence of a chronic nasal catarrh by the simple inspection of the roof of the mouth, or, what amounts to the same thing, an impression in wax or plaster sent from any part of the world. Having interested myself from time to time in the study of the external nose, and particularly in the persistence of certain types in the same family, I was induced to consider it a special hereditary manifestation.

By employing a similar method of reasoning to the internal configuration of the nares, I have been able to

[1] Archives of Laryngology, vol. ii., p. 105.

trace the same condition back to a common parental origin. This, in my experience, occurs as an hereditary manifestation with great constancy. Once the peculiar nasal type of the parents recognized, its modifications in the children is easily determined. Sometimes this condition, with the co-existing intra-nasal catarrhal processes, can be inferred or diagnosticated at a distance by the conformation of the nose and the alveolar borders of the upper jaw. Last year I was afforded an excellent example of this in the family of a physician, the facial expression of whose children I had the opportunity of observing at a respectful distance. I afterward became acquainted with the gentleman, and was consulted by him concerning a throat affection afflicting his wife. I surprised the doctor by not only diagnosticating the catarrhal troubles of his children, but also satisfied him that the peculiar shape of his hard palate accounted for the existence of the disease in his offspring.

A few days since I examined several members of the same family, all adults, the condition of whose nostrils I correctly diagnosticated through a single member of the same family, who happened to be my patient.

In this family the nasal asymmetry was very well marked, the septum in one instance being deviated to such an extent as to disturb the external symmetry of the nostril. All the young men, three in number, possessed the paternal nasal type and palatine arch in an exaggerated form. All have suffered with nasal catarrh, dating far back in the memory of the family, and, I am informed that an absent son, not yet examined by me, is severely afflicted with the same complaint. The patient, an engineer by profession, and a very intelligent individual, referred to me by Dr. J. L. Corning, stated, without giving me his name, that a physician had informed him that his condition was due to a scrofulous taint probably inherited from his father. This piece of news did not surprise me, since it was only a few years ago that a statement was made in this Academy involving a similar proposition; and just here I would like to emphatically express my disagreement with this too prevalent idea of a diathesis or specific constitutional taint being the determining factor in *the majority of those* suffering with nasal catarrh from childhood. Furthermore, the view that these manifestations, though not retraceable one or more generations, are nevertheless to be attributed to diluted syphilis of several preceding generations, seems to me even more unreasonable, and yet we find it mentioned in recent works on the subject and soberly discussed by physicians. Although scrofula and inherited syphilis are responsible for certain cases of catarrh, it is high time that these stigma, too often placed upon innocent and intellectual families, should be removed. I say intellectual advisedly, for it is my conviction that remarkable mental development is likely to be associated with a nasal catarrh.

It is well known that a marked increase in the dimensions of the cranial dome is apt to be accompanied by a contraction of the osseous framework of the face. A remarkable example of this kind lately came under my notice, in the person of a girl, aged sixteen, the daughter of a physically and intellectually enormous man. The father's head measured seven and three-eighths inches, and yet his large hat closely covered the head of his delicate little daughter. She, in other words, possessed the face and body of a child, with the head of a Webster. I was not surprised to find the contracted nares of this child the seat of extensive disease. If you compare these two sections taken from a wax cast, you will observe the high palatine arch of the father is markedly exaggerated in his daughter. I could cite numerous other instances in proof of the correctness of this view did time and space permit. From what has been said, I think I can safely say that early acquired nasal catarrh, instead of being of scrofulous or diluted syphilitic origin may in many cases prove to be an intellectual disease.

I will now briefly consider the second mentioned direct cause of a deviated septum, and indirect cause of nasal catarrh, namely, traumatism.

Traumatism.—The effects of injury as an etiological factor, are identical with those resulting from heredity. So much so is this the case that I am not surprised to find the bulk of easily discernible deviated septa attributed to blows of various kinds, for want of a better explanation. There is now but little excuse for such a mistake, for although the deviated septum of a malformed maxilla may be increased by injury, the discovery of such a condition, associated with the usual signs, furnishes reasonable grounds for the assumption that it is hereditary and not of traumatic origin. This inference is, of course, strengthened by the history of the patient. Traumatic deviation of the septum, though occasionally found in the higher strata of society is more frequently met with in low life, the exposure and recklessness of the latter class of individuals rendering them more liable to injury. As an example I might state that I have yet to discover the nostril of a prize-fighter or reckless sparrer unaffected with a chronic nasal catarrh. It matters little what may be their so-called powers of resistance, the strongest must as surely succumb to nasal catarrh as a child similarly afflicted from a button in the nose.

By acquired or induced deviation, the third variety mentioned by me, I include such internal agencies as prolonged intra-nasal pressure upon the septum, as produced for instance by turbinated hypertrophies, polypi, and various tumors, the action of foreign bodies, inflammatory infiltration, the frequent employment of the finger for freeing the nostrils, etc.

The indirect influence of the high-pitched palatine arch and deviated septum observed in the production of aural, pulmonary, and eye troubles, also gelatinous polypi, and other intra-nasal growths, and its interesting etiological relation to phthisis must be passed by for the present, with little more than a mere mention.

Treatment.—I shall conclude my remarks with a necessarily brief consideration of the treatment of deviated septa. Employing a modified scriptural paraphrase of Dr. Didama's, "and now abideth Physiology, Pathology, and Therapeutics, these three, but the greatest of these is Therapeutics."

In other words, just in proportion as the first two elements add meaning to the third, are they to be valued as aiding in the one grand effort to ameliorate the misery of mankind. To accentuate this point I may be permitted to recall a remark made by a distinguished anatomist, the late Dr. Darling, who several years ago, after encouraging me to enthusiastically converse upon certain pathological conditions observed by me in the nose, suddenly interrupted the conversation with the remark, "But do you cure your patients?" That, gentlemen, is the important question with all of us.

An experience derived from several hundred operations has convinced me that no single method can be fairly recommended or successfully employed to remedy all deviated septa. Assuming the correctness of the propositions embodied in my previous remarks, I shall discuss the treatment of the deviated septum, as a most common cause of catarrh. As with a button in the nostril, so that thorn in the flesh, a deviated septum, must be removed to cure the catarrh.

Since several instruments will be presented to your notice, I trust you will not interpret them as indicating dissatisfaction with any one method and recourse at random to another, but as providing against certain possible contingencies. The very structure and shape of the septum warrants this assertion. We may meet bone, cartilage, or mucous membrane. The bone will dull or break our knives, the rongeur-forceps may strip off and mutilate unnecessarily the mucous membrane, and either may unfortunately perforate the deviated cartilage. For opening the field of operation I employ my ring-drop nasal speculum, since in my hands it has proved the

best for painlessly and persistently dilating the nostrils. In the treatment of cartilaginous and soft structural deviations of the septum, I have for several years employed nothing more than my écraseur with transfixion needles. Instead of using the No. 5 piano wire originally recommended and introduced by me for the removal of turbinated hypertrophies, I employ No. 0 and 00 piano wires. The exclusion of the question of hemorrhage in operations by ecrasement, is an additional recommendation for the employment of fine wires, cutting like knives. The employment of the écraseur for this purpose must be invariably combined with the use of my transfixion needles. These needles (Fig. 7) require no special description. They are pointed like the ordinary glover's needle.

Fig. 7.

Four sizes are made, running from one to four inches in length. Each number has a straight needle and three others of varying curves. They are all furnished with a light, convenient handle.

The removal of cartilaginous and soft deviated tissues by ecrasement has been followed by most excellent results in my hands, and where there is plenty of time at the operator's disposal, it is to be preferred for this purpose.

It is often desirable to economize time, and in order to do so I have devised instruments with which I have most satisfactorily accomplished this purpose. They are essentially cutting instruments, and consist of a fenestrated cartilage forceps and trimming scissors. Their blades are made almost at a right angle to enable the operator to obtain a clear view of the field.

The cutting edges of the fenestrated forceps (Fig. 8)

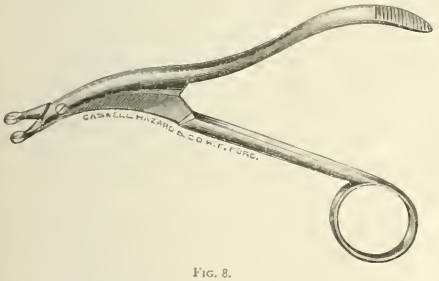


Fig. 8.

resemble somewhat, in shape and action, the ordinary ticket-punch. A ring on the fixed blade is intended to slip over the middle finger, and a knob on the free one is manipulated with the thumb. This arrangement enables one to seize and divide the cartilage with great facility. The trimming scissors (Fig. 9) are convenient for removing asperities remaining after the other instruments have been employed. The instrument is grasped like a pistol, firm pressure being exercised against its lateral margin by the index finger.

Thus far the instruments shown have applied only to cartilage and hypertrophied mucous membrane. Bone blunts or breaks their keen edges, and we may have to treat an osseo-cartilaginous deviation of the septum.

This little instrument (Fig. 10), essentially a rongeur forceps, has, in my hands, most satisfactorily accomplished this result. Its two blades are hollowed to cut like the teeth of a rodent. The instrument has the proper nasal curve.

A great advantage possessed by this bone forceps is the control exercised over it by the operator. Each osseous projection can be distinctly distinguished over the edge of the upper blade and deliberately crushed away by the keen-edged cutting surfaces, and by a kind of gnawing process large sections of the bone are

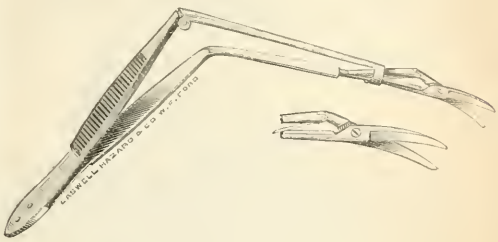


Fig. 9.

removed with rapidity and precision. All the methods thus far mentioned accomplish their purpose by removing the superfluous or deviated tissues or the turbinated structures opposite the deviated point.

Although this, in the majority of instances, can be accomplished without perforating the septum narium, or weakening the nasal supports, it is obvious that a certain class of cases, usually those presenting an extreme degree of deflection, may be followed by the above-mentioned undesirable consequences. I have, therefore, made it a rule to resort to a different method in this class of cases. This consists in the employment of Steele's stellate punch in conjunction with a peculiar nasal clamp or splint. Probably the least important feature of the operation is the cutting part, at least such a view is now current. The great difficulty rests in the proper approximation of the divided fragments, and just at this stage the bad results show themselves. While observing the behavior of a case operated upon and afterward treated by the usual method, the nasal plug, I was convinced that just here the trouble arose. From what I have already said, you will thoroughly appreciate the effects of such a foreign body lodged within the nostril. The intense irritation and secondary hemorrhage, profuse rhinorrhœa, high fever and inflammation, and general misery, is no exaggerated picture in my experience. Why, then, should we expect other than unfavorable results from the practice of this method? This little clamp has, in my practice, relegated these inconveniences to the history of the past. The septum, made sufficiently plastic by means of the punch, is simply held in place by a slight pressure

Fig. 10.

exercised over the cutaneous surfaces of the alæ nasi. No foreign substances disturb the equilibrium of the inner nares, and, therefore, the above undesirable consequences are avoided. The pressure of the splint can be nicely regulated by the patient by means of a delicate screw. Any tendency to loosen may be easily overcome by affixing adhesive plaster to the pressure-pads, and then sticking it to the skin.

This rhinometer (Fig. 11) is used for measuring the size and shape of normal and diseased nares.

Pain.—I will not weary you with more than a passing reference to cocaine. My experiences have been already recorded, with a series of reported cases.[1] I con-

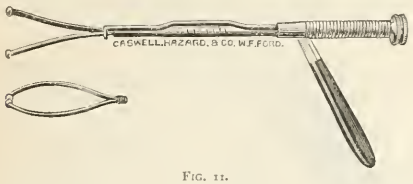


Fig. 11.

tinue to find it useful in operations on the septum, and consider it more effective when the displacement is situated well anteriorly, or less when deeper within the nares. Believing with Jebinek in the increased efficiency of concentrated solutions. I employ a ten per cent. preparation of Foucar's cocaine hydrochlorate. In spite of every precaution, extreme pain will be at times inflicted in a certain class of cases. In these instances I employ rhigolene in the form of a fine spray, with the same success as already reported by me. I have now been using it for more than a year. Pain is an actual impossibility when rhigolene is properly employed for this purpose.

The great and only objection to its use in the nose is the danger of an explosion. This I have effectually removed by employing an electric light isolated in a glass bulb. The carbon filament is rendered incandescent by means of Mr. W. Foster's electric cell. This cell is the same exhibited by me at the last meeting of the New York State Medical Society, and continues to prove highly satisfactory in my hands. It amounts really to a combined battery and secondary accumulator in a single cell, and runs without refilling for many months. Foster's portable mercury bisulphate battery may also be employed for the same purpose.

ILLUSTRATIVE CASES.

I shall very briefly report three cases selected as examples from a number of the same kind:

Mr. ——, from St. Catherine's, Canada; aged twenty. Referred to me, March, 1882, by Dr. W. H. Snow. Very much annoyed by constant accumulation of phlegm in throat and larynx, and by nasal stenosis. Examination: Post-inferior turbinated hypertrophy (bilat.), localized deviation of septum to left. Turbinated obstructions and deflected septum removed in twelve operations by means of transfixion needles and écraseur. The patient reported in person two years subsequent to the operations, pronouncing himself perfectly well.

Miss ——, aged nineteen, New York City. Referred to me in February, 1884, by Dr. J. Williston Wright, for a long-standing chronic coryza. Breathes at night through the mouth and suffers from other catarrhal complications. Examination: Complete occlusion of left nostril from an osseo-cartilaginous deviation of the septum with associated turbinated hypertrophies. Extraordinary elevation of the hard palate, traced back to the father, a life-long sufferer from catarrh. Successfully removed the hypertrophied and deviated tissues by means of cartilage and bone forceps. Reported six months afterward as free from catarrh and respiratory disturbances. The structures operated upon presented all the appearances of a normal nostril.

Dr. ——, New York State; aged forty. December, 1884. Complete occlusion of left nostril, with partial and increasing deafness. Extreme general deviation of cartilaginous septum to the left. Operated twice with Steele's forceps, using elliptical glass tubes and nasal clamp, with rhigolene and cocaine. Stenosis and pressure relieved. Decided preference given to nasal clamp and rhigolene. The good results reported as permanent.

25 East Thirty-first Street.

[1] The Medical Record, December 13, 1884.

ON THE CHOLERA OF EGYPT IN 1883, AND FRANCE, ITALY, AND SPAIN IN 1884.

By JOHN C. PETERS, M.D.,

NEW YORK.

I have read many brilliant essays of late on these topics, but not with unalloyed pleasure, for I believe that many writers have fallen into errors which it is important to correct. No really well-informed person has believed for a long time that carbolic alcohol will destroy the cholera poison; but many fully and correctly believe that real germicides will. It has been known since 1872 that microbes, bacilli, and bacteria could live in very strong solutions of carbolic alcohol, and that the dilute mineral acids, tannin, chloride, corrosive sublimate, and others would kill them.

In 1883 cholera did not arise alone in Egypt from filth, but from importation. It did not commence at Alexandria, but at Damietta, which is the nearest Nile port to Port Said, which is the outlet of the Suez Canal. These were 37,500 deaths from cholera in the Bombay Presidency in 1883. Bombay merchants came both to Port Said and Damietta to attend a great fair there, to which at least 15,000 people congregated, in addition to the 35,000 inhabitants. The barbers who shave and prepare the dead are the first registrars of vital statistics in many Egyptian towns, and the principal barber of Damietta was among the first to die of cholera; hence all the earliest records of deaths were lost, and the more fatal and infective diarrhœal cases were never recorded. Next the principal European physician of Damietta had his attention called to the rumors of numerous deaths, and investigated the matter to find that cases of cholera had occurred in May, whereas none had been reported publicly until June 21st. A *zadig*, or canal, runs through Damietta from one branch of the Nile to another, and this is the principal source of the water-supply.

Mosques and many houses are on the banks of this canal, and their drainage goes into it. Every mosque has a public privy, and also a tank for the ablution, which all good Mohammedans must use before entering a holy place. There was, of course, great choleraic water contamination, and a sudden outburst of cholera took place. The 15,000 people who came to the fair were stampeded out of Damietta, together with about 10,000 of the inhabitants, who carried the disease with them back into Egypt. Then only was a rigid quarantine established, and a cordon put round Damietta to keep everybody in, and let no one go out, neither food or medicines, or doctors, or supplies of any kind. Such is nearly the history of every town attacked in Egypt in 1883.

When the pestilence had been let out *en masse*, severe measures were taken to keep it in Cairo, for up the Nile was attacked long before Alexandria suffered. This cholera broke out, as it almost always does in Egypt, when the river Nile is low and the water unusually bad. It disappeared like magic, as it always does in Egypt, when the Nile rises and washes all impurities away. There had been little or no cholera in Egypt since 1865, and there had often been as much filth as in 1883. It has never become endemic there, as it is a rainless country, and generally too dry for the cholera germ to thrive.

Marseilles had a small outbreak of cholera in the fall of 1883, probably derived from Egypt, which she carefully concealed. In addition, cholera was also brought to Toulon from Tonquin by the Sarthe and other vessels. Toulon concealed her cholera for at least seventeen days, and did not confess it until it had got such headway that it could no longer be concealed. At least twenty thousand Italians fled from Toulon and Marseilles, and others were brought away in transports by the Italian government. Rome refused to receive any fugitives; Genoa and Naples welcomed them. There were at least three large importations into Naples. The

outbreak in Genoa was connected with washing soiled cholera clothes in one of the principal water-supplies of the city, and Naples has many privy-pits and surface wells. These privies, or *pozzis*, in the poorer parts of many Italian towns, are in the yards or cellars, and are so arranged that when they overflow the surplusage is carried through drains or gutters into the streets.

In the lowest parts of Toulon there were no privies at all, and the people emptied their chamber-pots into the streets every morning. This flowed down toward the harbor, which is almost tideless. Toulon always has much typhoid fever from this cause; but no cholera unless it is imported.

The great outbreaks of cholera in Paris in 1832, 1848, 1854, and 1865 have been explained at last by Dr. Marcy. The canal de l'Ourcq is one of the principal water-sources of Paris. The market-boats or vessels upon it and at La Villette are so numerous that Marseilles and Havre alone outrank it in shipping. The parts of Paris which are always most severely attacked with cholera, and where the most typhoid fever prevails, are supplied with this water, into which not only all the filth of the boats goes, but many sewers empty.

I agree with all that is generally said about civic filth favoring the spread of cholera, but it does not generate, but only supplies the pabulum for the germs. I believe as long as the Croton water is kept pure there can be no general outbreak of cholera in New York, only isolated cases, or at most a few in each house, and those only into which diarrhœal cases come, or soiled clothes are brought; that it will not spread even to the next house, and that there are no pandemic waves of cholera.

I think it impossible to pump New York dock-water into the sewers, and that it would be very injurious if it could be done. Almost all our sewers empty into the docks, and the water there is of the foulest kind. I do not believe in a long quarantine, and think that of the Dutch is the best. They only detained the sick, but took the addresses of all who were let through, or kept back all their soiled clothing, which they had washed, disinfected, and sent after their owners in three days.

St. Louis still has 20,000 privy-pits and as many surface wells. The importation of cholera into St. Louis is well proven for 1832, 1848, 1849, 1854, 1866, and 1873. Those who used surface well-water suffered much more than those who drank Mississippi water, however foul that may have been. The history of cholera in St. Louis has been better and more accurately written up quite lately by Mr. Robert Moore, civil engineer, than that of any city in this country. He has kindly given me maps of the city, with every case marked down, with street and number, for all the epidemic.

Hypodermic injections of atropine and morphine have failed sadly in many cases. Subcutaneous injections of large quantities of salt and water, with some soda, and large rectal injections of tannin and laudanum have been very successful in Italy. If there is plenty of acid gastric juice in the stomach the cholera poison and microbes may be swallowed with impunity. The worst cases of cholera are produced by drinking large quantities of cholera-contaminated water, when the stomach is empty and alkaline. I think it probable that large quantities, as much as the thirst requires, of a weak acid water will prove very beneficial in cholera. Water slightly acidulated with sulphuric, nitric, or muriatic acid will probably be the best, but it is hoped that phosphoric, acetic, and lactic acids will prove equally good. Lemon-juice and vinegar are merely acetates and citrates of potash and are not as good.

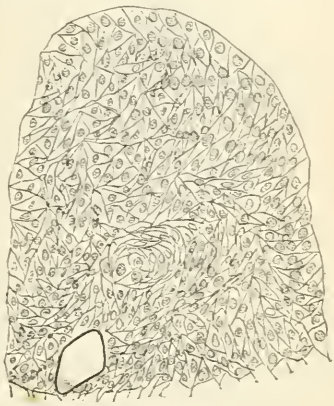
Gum Ammoniac, rubbed up with camphor, makes a mass at once suitable for pills, which are very useful in some nervous and spasmodic troubles, not only of the stomach and bowels, but also of the chest, especially when there is a too copious bronchial secretion.

THE MICROSCOPICAL EXAMINATION OF SPECIMENS REMOVED FROM GENERAL GRANT'S THROAT.

By GEORGE R. ELLIOTT, M.D.,

NEW YORK.

From numerous inquiries that have been made of me regarding my microscopic examination of the specimens removed from General Grant's throat, and from the great interest manifested in his case, I have consented to place



Epithelial Lobule showing Cell-nests.

before the medical profession the data upon which the diagnosis rested.

When the importance of using the microscope to determine the exact nature of the malady became apparent, I was invited by Dr. J. H. Douglas to assist him, and he then sent me some scrapings from the surface of the sore on the right posterior pillar of the fauces. These little particles I carefully prepared in the usual way and examined with the microscope. Little, however, of definite value could be made out, because the specimens had, unfortunately, been allowed to dry up before they came into my possession. They were consequently useless for purposes of microscopic examination.

On the morning of February 18, 1885, the importance of a further and more satisfactory investigation was sug-

Fig II

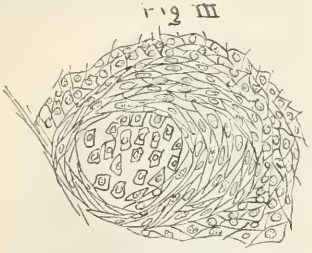
Proliferation of Epithelial Cells.

gested to General Grant, and the necessity of removing a small piece of the diseased tissue for that purpose was made known to him. Consent was readily obtained. I was then permitted to see the extent of the gross lesion, and was furnished with a history of its development.

The description given in The Medical Record on March 7, 1885, of the site and extent of the disease, corresponds with my recollections of the accounts that I

received at that time. As there stated, the area of disease was not great, and the pillars of the fauces on the right side were the parts most involved, the adjoining side of the tongue being indurated to a slight extent only.

Preliminary to cutting off any of the diseased tissue the throat was sprayed with a four per cent. solution of the hydrochlorate of cocaine, which allayed, to a great extent, the irritability of the affected tissue. A piece about



A Developing Cell-nest.

as large as a small pea was then removed by Dr. F. C. Riley, from the ulcerated edge of the posterior pillar of the fauces. The removal took but a moment, and gave the patient little discomfort. The specimen was placed at once in alcohol and water, equal parts, for the purpose of hardening it. After immersion for twenty-four hours, the specimen was transferred to absolute alcohol, in which it was kept for twenty-four hours longer, when it was found possible to make thin sections. The latter were stained, in order to bring out more clearly the minute component parts. The staining reagents used were hæmatoxylon, Bismarck brown, and hæmatoxylin and eosine. Subsequently these sections were mounted on glass slides in Canada balsam.

I found that the tissue examined was composed largely of epithelial elements, grouped frequently under the form of distinct lobules. The cells forming these lobules lay in close contact, and showed a marked tendency to be arranged in concentric globes or "nests." This latter arrangement of epithelia is characteristic of that form of cancer known as the epithelioma.

Most of the globes were found to be in an early stage of formation. I do not wish to be understood as basing my diagnosis of epithelial cancer upon these globes or

A Cell-nest showing Corneous Degeneration.

nests only, but in connection with other pathological and clinical data I regard their presence as highly significant.

Marked multiformity in the shape of the epithelial elements was another of the important findings in the specimens under examination, while distinct evidences of cell-proliferation were seen in the Malpighian layer. By the lobulated appearance of the epithelial mass referred to above is indicated a tendency of the new cell-formation to burrow into the deeper parts of the underlying tissue. Extravasations of blood were also found among the epithelia. This condition I regard as pointing to a low vitality of the newly developing growth, and cell dissolution, leading to rupture of the capillary blood-channels, by which their contents escape into the surrounding tissue.

Finally, in some parts of the diseased tissue a fibrous framework was found.

By way of summary, then, the more or less lobulated appearance of the epithelial mass; the actual existence of some "cell-nests;" the great diversity in the shape of the cell elements; the marked evidences of epithelial proliferation, and the peculiar appearance of the stroma, warrant the diagnosis of epithelioma of the squamous variety.

This conclusion has been arrived at, after the greatest possible care had been taken to exclude all possibilities of error; after an exhaustive study of every detail, with a knowledge of the clinical history of the case, and this, too, with a mind anxious only to find microscopical evidence that the disease was of a benign or innocent nature.

Since sending in my first report I have shown the specimens to Dr. T. E. Satterthwaite, the well-known pathologist, and he fully corroborates my diagnosis. I have also, upon request, shown the same specimens to Drs. Fordyce Barker and J. H. Douglas, the eminent gentlemen in charge of the case, and to Drs. Henry B. Sands and George F. Shrady, the consulting surgeons, all of whom appreciated the significance of the appearances, and expressed themselves accordingly.

In conclusion I may say that this case illustrates the peculiar value of the microscope as an aid in diagnosis, since without it a positive conclusion could not have been reached upon the exact nature of the disease. In many instances, it is true, we cannot be so positive, either because we are not fortunate enough to obtain the particular part of the diseased tissue that shows the characteristic structure upon which the diagnosis is made with the microscope, or it may be that the disease is at that early stage, when it exhibits nothing that is pathognomonic.

The great interest of this case, not only to the medical world, but to the public at large, has induced me to describe in some detail the examination of a specimen that exhibits nothing but what is constantly found in an epithelioma of ordinary type that is fully developed.

TOXIC ENTERITIS, CAUSED BY CORROSIVE SUBLIMATE AS A SURGICAL APPLICATION.[1]

BY GEORGE L. PEABODY, A.M., M.D.,

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IN the February number of *Virchow's Archiv* an article with substantially the above heading appears, by Dr. Eugen Fränkel, prosector in Hamburg. His attention seems to have been called to the subject by a short communication in the *Centralblatt f. Gynäkologie*, by Stadfeldt, of Copenhagen, in which is reported a fatal case of poisoning in a woman who was treated for retained placenta. After manual removal, her uterus was washed out with a solution of the poison in question, of the strength of 1 to 1,500. Four hundred cubic centimetres of this solution had been injected when she suddenly suffered from collapse, from which she rallied under appropriate treatment. On the evening of the same day she had diarrhœa and tenesmus, and later bloody stools which continued until her death, ten days later. The autopsy revealed in the large intestine numerous ulcers of an irregular or circular shape. The mucous membrane was congested, generally, and the ulcers were especially frequent in the rectum.

This condition of ulceration throughout the large intestine corresponded so closely with the results which I have found in several autopsies, recently, of persons subjected to the action of bichloride of mercury, that I was tempted to search my records for facts bearing upon the question, and was quite surprised at the evidence which

[1] Read before the Practitioners' Society, on March 6, 1885.

was thus acquired. Before proceeding to narrate my own cases, however, which I shall do briefly a little later, it may be interesting to proceed further with Dr. Fränkel's paper. He goes on to quote those fatal cases, of a similar kind, published by Winter in the *Centralblatt f. Gynäkologie*, No. 43, 1884. He then says that he has made autopsies of fourteen cases, treated by Schede with this poison, in which toxic enteritis was produced by it, during the last two years and a half. Of these fourteen cases, two, he thinks, were killed by the action of the poison directly. In the others, he seems to think that the action of the drug was not *wholly* responsible for the fatal issue. These cases were of the following kinds: seven phlegmons, two caries of vertebræ, one psoas abscess, one amputation of thigh, one removal of mamma and axillary contents, one laparotomy for the removal of uterus and its appendages, one supra-hepatic echinococcus cyst, one myomotomy. This list, it will be observed, includes fifteen cases instead of fourteen.

Salivation is very exceptional in these cases of poisoning. The inflammation was always present in the large intestine, but only exceptionally in the small intestine. In the former he found often very extensive superficial ulcerations, sometimes covered with loose masses of epithelium, and sometimes by a torn diphtheritic membrane. If the patients lived long enough this membrane was cast off and deep ulcerations, often exposing the muscular coat, were apparent. Sometimes many small, round, cleanly cut ulcers were found.

With great care he proceeds to point out the differences between this form of dysentery and the lesions of these parts caused by pyæmia. Moreover, the lesions of pyæmia in the other organs of these subjects were uniformly absent. He considers the ulcerative process due to an elimination of the drug by the large intestine, and holds up to ridicule the assertion made by Bott that corrosive sublimate applied to the surface has only a local action, as proved by the absence of mercury from the urine of patients thus treated. Its absence from the urine, in these cases, proves merely that it is not thus excreted in these cases; and we should, therefore, search for mercury first in the stools, second in the saliva, and third in the urine.

To the list of cases which seem to illustrate well the danger of corrosive sublimate as a surgical antiseptic, I may add one quoted from the *Lancet* of September 16, 1881, by Wood, in his "Handbook of Therapeutics, Materia Medica, and Toxicology." In this case a solution of the strength of gr. ij. ad 3 j., was applied to the scalp of a child nine years of age, for the cure of tinea tonsurans. The symptoms following it were diarrhœa, profuse salivation, great prostration, and death.

The records of the New York Hospital for the past eighteen months, have been searched by Dr. H. W. Stevens and myself for similar cases. Accounts have been discovered of eleven cases in which the use of the poison, as an antiseptic dressing or application, was followed by obstinate diarrhœa, which did not yield to the usual remedies, and which sometimes ceased on the drug being discontinued, but which, in seven instances, was followed by frequent bloody discharges, griping, tenesmus, prostration, and death.

In three of these seven cases autopsies were made, and in each of them a very extensive diphtheritic inflammation of the large intestine was found.

The cases, briefly narrated, are as follows:

Edith S——. Necrosis of femur, with extensive sinuses and granulating surfaces. Irrigation with solution of bichloride 1 to 2,000, followed by persistent diarrhœa, which ceased on discontinuance of bichloride.

C——, an Italian, with compound fracture of femur, tibia, fibula, with much laceration. Wound irrigated with bichloride, 1 to 1,000. Four days after this treatment was begun diarrhœa commenced; soon discharges became dysenteric, with griping, and bloody stools and delirium. Amputation was resorted to, followed by death. No autopsy.

Annie M——. Large abdominal abscess. Solution of bichloride, 1 to 2,000, freely used for irrigation; followed by diarrhœa, with subsequent dysenteric discharges, and death. No autopsy.

Albert J——. Large abscess cavities and sinuses about shoulder. Irrigation with solution of bichloride, 1 to 2,000, followed by uncontrollable diarrhœa, which ceased on discontinuance of irrigation.

Bruno S——. Necrosis of pelvis; large abscess cavity. Irrigation with solution of bichloride, 1 to 2,000; uncontrollable diarrhœa, at times dysenteric. Death. Autopsy showed diphtheritic inflammation of large intestine.

James McG——. Necrosis of femur and pelvis; large cavities. Irrigation with solution of bichloride, 1 to 2,000; uncontrollable diarrhœa; at times dysenteric. Death. Autopsy showed diphtheritic inflammation of large intestine.

James O'N——. Suppurating arthritis of knee; burrowing of calf and thigh; counter-openings and irrigation with solution of bichloride, 1 to 2,000; persistent diarrhœa, ceasing on discontinuance of bichloride.

George C——. Crushed leg; very large granulating surface. Irrigated at dressings with solution of bichloride, 1 to 2,000. Persistent diarrhœa, which ceased on discontinuance of bichloride.

A. C——. Amputation of breast and removal of axillary contents. Irrigation with solution of bichloride, 1 to 2,000. Copious dysenteric discharges on third day. Death. Autopsy showed operation wound in perfect condition, and diphtheritic inflammation of large intestine.

H——. Supra-hepatic hydatid cyst. Opened; irrigated with solution of bichloride, 1 to 5,000, on fourth day. Soon after, vomiting, hiccough, diarrhœa, dysentery, with griping and bloody stools. Exhaustion, death. No autopsy. In this case the patient suffered from nausea, headache, and partial suppression of urine, before the use of the bichloride.

S——. Laparotomy for fibro-myomata. Peritoneum wiped with sponges wet with bichloride solution, 1 to 2,000. Diarrhœa, which became dysenteric, with griping and bloody discharges. Death. No autopsy.

After having written the above brief communication, my attention was called to a publication by Schede,[1] of Hamburg, on the subject of antiseptic treatment of wounds with corrosive sublimate, bearing date February, 12, 1885, and also to one of the same date by W. Thorn,[2] assistant at the Female Clinic in Halle, which is an urgent plea against its use in midwifery.

Schede admits frankly the dangers in certain conditions, and under certain circumstances; but thinks it still doubtful whether some of the intestinal lesions which have been ascribed to it, may not be due to other causes, especially to pyæmia.

Fränkel, however, carefully differentiated his cases from pyæmia, and in my own cases the usual lesions of pyæmia were absent.

Schede gives histories of several fatal cases of poisoning, with greater or less destruction of mucous membrane of the large intestine, reported by different observers in lying-in women, in which, however, other contributing causes of death are alleged. He concludes that for surgical purposes it is still the best antiseptic, if it be used discreetly, and with the full knowledge of the symptoms of its poisonous effects; but he instances several classes of cases in which even he considers it unsafe.

Thorn makes an urgent plea for its total abolition from midwifery and gynecology, alleging its great inferiority to carbolic acid, and the dangers attending its use. His paper is accompanied, as is Schede's, by elaborate statistics, which will well repay perusal.

[1] Volkmann's Sammlung klin. Vorträge, No. 251. [2] Ibid., No. 250.

It is not my purpose to do more than call attention to the facts which have come to my knowledge on this subject, and to sound a warning to those who are using the bichloride of mercury extensively in surgical, obstetrical, and gynecological work.

It seems only right to emphasize the fact that, so far as I have been able to learn, death has not resulted from its use in surgical dressings, such as bandages, etc., but only after irrigation of abscess cavities, uteri, vaginæ, large wounded surfaces, the peritoneum, etc., etc.

It is not unlikely that many deaths have resulted from its use that have been ascribed to other causes, for the reason that we have only recently become aware of the possible dangers that attend it.

Progress of Medical Science.

Infectious Pseudo-Rheumatism.—All the infectious diseases, although in varying degree of frequency, may be complicated by articular affections. These articular localizations are often mistaken for rheumatism, but ought to be clearly distinguished, since they are only the local manifestations of a general infection. In addition to these well-defined diseases there are certain other ill-understood infectious conditions which present in their course rheumatical affections, which are frequently attended with suppuration. Most of the reported cases of acute suppurative rheumatism are, according to Dr. Bourcy Paul, instances of this nature. All the forms of infectious pseudo-rheumatism, the author states, have a certain number of characters in common, which serve to establish their relationship: 1. They are met with during the course, or at the decline, of infectious states in persons absolutely free from rheumatism or any of the conditions related to it, as nephritis, asthma, etc. 2. The course of the temperature is not that of true rheumatism. 3. Albuminuria is usually present, and whenever an examination could be made, inferior organisms have been found in the urine or blood. 4. The visceral lesions (fatty degeneration of the liver or kidneys, enlarged spleen, sub-serous hemorrhages, etc.) show that the articular localizations are simply epiphenomena of a general disease. 5. These joint affections are remarkable for their gravity, for the predilection which they show for the larger articulations, and for their tendency to suppuration and rigidity. 6. All the joint tissues may be involved. 7. When suppuration occurs micro-organisms are found in the pus. 8. The action of cold appears to be only in exceptional cases the determining cause. 9. Salicylate of soda is of very little efficacy in the treatment of these joint troubles. Affection of the cardiac serous membranes may coincide with the articular disease, and is not subordinate to it, since both originate from a common cause, viz., the general infection of the organism.—*Simale Internazinale delle Scienze Mediche*, December, 1884.

Percussion of the Intestine.—Dr. P. Jashchenko writes in the *St. Petersburger Medicinische Wochenschrift*, No. 41, 1884, upon percussion of the intestines and what it teaches. He states that by means of this method of examination it is possible to determine the amount and the position of the intestinal contents, and also to follow their course from the time that they are expelled from the stomach until they enter the sigmoid flexure. The ingested food, he says, enters the small intestine in about four hours after it has been swallowed. In the evening (about ten o'clock if the individual has dined about two o'clock) it begins to pass from the small into the large intestine, and on the morning of the following day, soon after stool, it finds itself in the right half of the transverse colon. The following morning it passes into the left half, and soon after stool passes into the sigmoid flexure, where it remains until the morning next following (that of the fourth day), when it enters the rectum. In constipation the percussion-note over a greater or less extent of the large intestine becomes dull, after a three days' constipation, indeed involving almost the entire length of both the descending and transverse portions of the colon. It is thus possible often to tell with a considerable degree of accuracy the length of time that constipation has lasted, and to institute, therefore, a rational mode of treatment. By means of percussion, also, it is often shown that a diarrhœa, which has been treated by opiates and astringents, is due really to the presence of fæcal masses in the intestine. In an ordinary case of constipation Dr. Jashchenko seeks to restore normal action by regulation of the diet rather than by purgatives.

Contra-indications to Mercury in Syphilis.—At the recent meeting of the British Medical Association, A. Cooper, F.R.C.S., read a paper on syphilis. After pointing out the great value of mercury in the treatment of the disease, and the necessity for prolonged courses of the drug, he draws attention to the contra-indications, which many physicians are apt to overlook or to neglect. Mercury should not be given to phthisical subjects, unless the chest affection is slight and the patient's health is good in other respects. When albuminuria exists mercury must, of course, be withheld, unless there is reason to believe that the renal affection is due to syphilis. When syphilis exists in scrofulous subjects, if the symptoms of scrofula are not very severe, mercury may be given with care in small doses. Mercury is contra-indicated in profound anæmia, when non-specific. The least symptom of sloughing or phagedena should prevent any thought of administering mercury. If any of these complications set in during a course of the medicine, it should be at once discontinued. Alcohol and tobacco should be avoided or used sparingly during a course of mercury. Exercise and fresh air tend to prevent salivation; and the skin should be kept perfectly clean. Confinement to the house is desirable when any eruption appears.

Caffein in Heart Disease.—Professor Riegel, of Giessen, recommends caffein as a substitute for digitalis in cardiac affections. He has tried it in several cases, chiefly in the form of a double salt of soda, and has found it of great service. It regulates the heart's action, diminishing the frequency while it increases the volume of the pulse, and increases the urinary secretion. It is suitable for all cases in which digitalis is indicated, and it sometimes succeeds where the better known remedy fails. Its action is also more prompt than that of digitalis, and it has no cumulative effect. It is most efficacious when given in repeated small doses. Dr. Bechers also favors the employment of this drug. He cites some cases in Professor Nothnagel's clinic, where caffein had been employed in cardiac affections, to the amount of thirty grains *per die*. It was found to be in some cases more efficacious than digitalis, and in all cases the absence of cumulative action was very beneficial. The citrate was most frequently employed, and sometimes also the hydrobromate. Toxic effects, consisting of confusion in the head, giddiness, and vomiting, were observed in one case after the administration of two grammes a day, but larger doses were taken repeatedly without producing any disagreeable symptoms.—*Wiener Medizinische Blätter*.

Hydrobromate of Quinine.—From an experimental study concerning the pharmacological action of hydrobromate of quinine, Dr. Tumas (London *Medical Record*, December 15, 1884) draws the following conclusions: 1. Hydrobromate of quinine markedly arrests alcoholic fermentation as well as putrefaction of blood. 2. Subcutaneous or intravenous injection of small (2½ milligrammes to 1 centigramme per kilogramme of the animal's weight), middling (1 centigramme to 25 milligrammes per kilogramme), and large (3 to 5 centigrammes per kilogramme) doses is immediately followed by a decrease of the arterial tension, the fall being of various degree and duration according to the dose used. 3. Under small

and moderate doses the pulse increases in frequency, but soon returns to the standard; with large doses, it is retarded from the beginning, the retardation lasting for a prolonged period. 4. The fall of the blood-pressure is dependent upon paresis of the vaso-constricting, and stimulation of the vaso-dilating, nerve-apparatus. 5. Muriate of quinine brings about similar phenomena, but the hydrobromate acts more strongly and for a longer time than the muriate. 6. In moderate doses, hydrobromate of quinine at first slightly increases the frequency of the respiratory movements, but very soon there appears a marked decrease in the number of the latter, and in the degree of the respiratory excursions. Repeated injections of a moderate dose, or the administration of a large dose, diminish the frequency of respiration and the degree of respiratory excursions, and finally arrest respiration in the stage of expiration. 7. Hydrobromate of quinine, whatever the mode of its introduction may be, very strongly depresses the excitability of the psycho-motor centres. The period between the stimulation of the pysycho-motor centres, and the contraction of corresponding muscles becomes twice or three times longer than in the normal conditions. To bring about epileptoid convulsions after an injection of hydrobromate, a stronger electric current is required than before the injection. 8. To produce a certain fall of the blood-pressure, in an animal with "sthenic" fever, a far larger dose of hydrobromate is required than to bring about an equal fall in a healthy animal. On the contrary, in cases of "adynamic" fever, the blood-pressure falls from considerably smaller doses than in a normal animal. 9. Chronic poisoning by hydrobromate of quinine, produced in puppies by means of daily subcutaneous injections of moderate doses for a month, is manifested by loss in weight of the animal's body, general sluggishness, permanent slight decrease of the temperature, diminution of pathic and electric sensibility, and decrease of excitability of the psycho-motor centres.

Tetanoid Symptoms Occurring in Dilatation of the Stomach.—Among the numerous complications which have been attributed to dilatation of the stomach tetanoid accidents are of rare occurrence, yet have occasionally been observed. M. Laprévotte has collected several cases in which this symptom was associated with the organic affection. From a study of these cases he concludes that the convulsive attacks occur at an advanced stage of the disease. Sometimes they are of short duration and are not repeated, and at other times they are so severe and occur so frequently as to render the prognosis quite grave. The principal diagnostic difficulty lies in the fact that the gastric affection is apt to be overlooked. M. Laprévotte believes that the tetanoid convulsions, like the other nervous symptoms occurring with gastric dilatation, are due to the formation within the stomach of alkaloids of decomposition analogous to ptomaines. — *Archives Médicales Belges*, November, 1884.

Carcinoma and Syphilis.—The relations between these two affections have been studied chiefly by Verneuil, but in a recent article Dr. Ozenne treats at some length of the characteristics of this hybrid condition as it is observed in the buccal cavity. The paper has to do only with cancer as associated with the tertiary manifestations of syphilis, for hitherto the disease has not been observed in connection with the earlier syphilitic lesions. The hybrid affection is seen under three forms: the sclero-cancerous, the gummo-cancerous, and the sclero-gummo-cancerous. In the first of these forms the cancerous tumor usually appears first, though sometimes the syphilitic lesion precedes, and then suddenly we have presented a mixture of the carcinomatous neoformation with the alterations of sclerotic glossitis. The tongue is increased in volume, and at a certain point the cancerous tumor is seen as an irregular induration of variable size, either projecting above the surface if the neoplasm is superficial, or under the form of an elastic, resisting, submucous tumor, with indurated base, if the epithelioma is of the interstitial variety. Alongside of this part invaded by the cancer are seen the indurated lesions of the syphilitic affection, over which the mucous membrane appears smooth, glistening, and pale. More frequently, however, we have a dermo-parenchymatous glossitis, the induration of which, instead of being lamellated is diffuse and deep, and gives to the finger a peculiar, dry, hard feeling. In the gummo-cancerous form, the two diseases are so blended together that the characters of either are almost wholly lost. There is a deep ulcer, the base of which is indurated as in cancer, but whose edges are not sharply cut, and it does not bleed as does the cancerous ulceration. The third form is still more complex. Gumma, carcinoma, and dermo-parenchymatous sclerosis are associated together in variable proportions, sometimes one or the other being the most distinct, and sometimes all being blended together in indistinguishable confusion. As regards the functional symptoms of this hybrid affection, they are less severe usually that when either one of the lesions occurs separately. Thus hemorrhage is rarely seen, and the pain which accompanies cancer is often wanting. The prognosis, however, is, unfortunately, always that of carcinoma. Yet treatment with the iodides should be tried whenever it seems probable that a syphilitic lesion is engrafted upon the cancerous one, but mercury exerts a most injurious effect upon cancer of the mouth, and should therefore never be exhibited.—*Archives Médicales Belges*, November, 1884.

The Etiology of Progressive Ossifying Myositis.—We have received a reprint from the *Zeitschrift für klinische Medicin* containing a report of several cases of this affection by Dr. Gyula Pintér. The author excludes heredity and traumatism as etiological factors, but believes that there exists a congenital predisposition in the subjects of this disease. His grounds for this opinion are as follows: 1. He was unable in the cases collected or observed by him to discover any cause—either traumatism or unfavorable hygienic surroundings—to which the origin of the affection could be referred. 2. In almost all the cases the disease made its appearance in early childhood. 3. In a series of cases in which the disease appeared at a later period it was always preceded by a peculiar symptom, viz., a growth of nodules or boils in the scalp, which disappeared after some months, leaving no traces of their presence. This symptom was noticed either shortly after birth or at a period preceding by some years the commencement of the ossifying myositis. 4. Finally, in a large proportion of the cases there was a congenital microdactylus, and such a peculiar deformity occurring with such frequency would seem certainly to point to some congenital predisposition. The author does not venture an opinion as to the nature of the embryonal predisposition, but remarks upon the fact that the only muscles which were never involved in the ossifying process were those formed from the parietal zone of the inner group of embryonal elements, while those derived from the parietal zone of the external blastodermic membrane and from the intermediate layer were sometimes affected and sometimes free. The proportion of males to females suffering from the disease was as two and one-half to one, but the females seemed to be affected in greater degree than the males. Eighteen of the twenty-two cases collected were reported in Germany, England, and America. The author asks whether the fact that the disease occurred with greatest frequency in the bony German and Anglo-Saxon races is merely a coincidence, or whether it is of some etiological importance, but he leaves the question unanswered.

Nitrite of Amyl is well given in sweet spirits of nitre, which is also useful in arterial spasm and in the heart-pangs of angina pectoris.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, March 14, 1885.

NATIONAL HEALTH LEGISLATION.

CONGRESS has adjourned, and we can now estimate the character of the legislation relating to questions of medical interest. And, first, we notice the fact that the National Board of Health has not only obtained an appropriation covering deficiencies, but a fund has been supplied it for the coming year. Considering the persistent and unscrupulous efforts of certain officials of the Treasury Department to destroy the Board, and obtain control of the funds appropriated for the prevention of epidemics, the action of Congress is eminently satisfactory, and insures the permanency of a competent national health authority. Fortunately for the public health interests of the country, the official of the Treasury Department who organized and promoted the schemes for the injury and final destruction of the Board was promptly dismissed by the new Administration, and it is to be hoped that all the evil influences which he created will follow him into obscurity. But for this single individual, who was so placed as to be able to prejudice the minds of Congressmen, and divert the appropriations for the public health into other channels, we are convinced that the National Board of Health would always have been as popular with Congress, as with the public at large.

The fund appropriated to be used at the discretion of the President, in case of a threatened or actual epidemic of cholera or yellow fever, amounts to about $340,000. A clause ingenuously inserted in the Sundry Civil Service Bill, requiring that the President shall expend this fund *through the Marine Hospital Service*, was stricken out. The President is, therefore, left to select, at his discretion, the method of making the best possible use of the fund at his disposal to prevent the introduction of cholera into this country, and to aid local boards. There is no doubt that he will select the National Board of Health, and that this body will immediately meet and mature plans for the prevention of cholera. We have already stated, in outline, the measures which we have reason to believe, from its published reports, that Board would adopt, and we wish to reiterate the statement that no time should now be lost in perfecting the necessary machinery, and setting it in operation. As we view the matter, it will prove no slight task to organize the proper maritime and coast defences, and successfully administer the details of work. Health officers of ports, State boards of health, and the Canadian health authorities should meet the National Board in conference, and agree upon common methods of defence, with a view to co-operation and concert of action.

A weekly bulletin of the public health of cities, foreign and domestic, with the progress of contagious and infectious diseases, should be issued at once for the information of health officials.

To accomplish these results time will be required—which is now precious—if we hope for successful results. We trust the President will not delay action, but will at once call the National Board to his assistance, and empower it to act promptly and decisively in this great emergency.

The appropriation to erect a building for the museum and library of the Surgeon-General's office was passed, and we are, therefore, to have a building on the grounds of the Smithsonian Institution worthy of the object for which it is created.

The bill to purchase the Seamen's Retreat, Staten Island, for the use of the Marine Hospital Service, failed to pass. It proved to be a piece of jobbery of no small dimensions. An appropriation of $7,000, to enable the Supervising Surgeon-General of the Marine Hospital Service to go abroad, and study hospital construction, was very properly defeated. We shall take occasion hereafter to show that the whole system of establishing hospitals for sailors ought to be abolished.

THE MEDICAL VIEW OF ROLLER-SKATING.

IT seems as if America were peculiarly susceptible to epidemic influences of a mental kind. We hear of no other country so violently perturbed by "waves" of temperance crusading, religious revivals, velocipede crazes, pedestrianism, and, finally, roller-skating, upon which latter pastime the thoughts and feelings of three-fourths of the rising generation are at present centred. In intensity and extent, the roller-skating mania has far exceeded all its predecessors, and it must be inferred, either that the psychological contagium is particularly strong, or that the susceptibility of young America to affective epidemic influences is increasing.

Modern scientists of the "Psychical Research" school are putting forward the theory of brain-waves as a possibly potent element in the production of panic fears and epidemic fashions and feelings. The mind acts "exoneurally," we are told, and the vibrating brain-cells of the enthusiastic roller-skater communicate their rhythmical pulsations to the previously insensitive spectator. Whatever the mechanism, there is certainly at present a morbidly exaggerated passion for, and indulgence in, roller-skating. And the question comes home to the physician, whether it is doing any physical or mental harm.

On the whole, we are inclined to take a rather lenient view of the present craze. Considerable inquiry has failed to elicit any facts showing that roller-skating, temperately indulged in, does any harm to growing children, or produces any diseases and injuries peculiar to the sport. Severe sicknesses have been known to result from violent exercise in hot, ill-ventilated rinks, and occasionally serious injuries are produced by falls and collisions. In proportion to the immense number of persons who have been engaged in propulsive divagations upon polished floors during the past winter, the pathological outcome has been small.

GENERAL GRANT'S CONDITION.

Since the last bulletin of The Medical Record was issued a consultation has been held on General Grant's case, attended by Drs. Fordyce Barker, J. H. Douglas, Henry B. Sands, and George F. Shrady. At that time, Sunday, March 8th, the general condition of the distinguished patient was quite feeble, although he was able to walk across his library and seat himself in the chair for the necessary examination of his throat. The latter was possible without giving him pain. It was found that the ulceration of the posterior pillar of the right fauces had extended and that the perforation at the base of the anterior pillar had increased, so that its internal edge was converted into a small bridle of tissue. The entire soft palate was uniformly reddened and swollen, and the right posterior border of the tongue was indurated from a point just in front of the anterior pillar of the fauces as far back as could be reached by the finger. The gland under the right angle of the jaw was still enlarged and hard, but quite movable.

The pain in the ear had entirely disappeared and there was no special difficulty in swallowing, neither was there any marked salivation. The most grateful local application to the throat next to the spray of a four per cent. solution of cocaine was that of a hot solution of salt and water, in the proportion of five parts to the thousand, used occasionally as a gargle.

The patient complained that his sleep was irregular and fitful and that he was thereby converting night into day. Codeine in grain doses was accordingly recommended as the anodyne, otherwise no change in the general treatment was suggested. The local applications employed by Dr. Douglas were fully indorsed. The previous diagnosis of the disease of the throat was unanimously confirmed.

The administration of the anodyne was subsequently attended with the good result of securing five hours of uninterrupted slumber at a time. In the course of the following three days the effect was not so marked, and another sedative was prescribed.

The angry redness of the palatal curtain has in a measure disappeared, and there is now occupying a considerable portion of its left side a triangular-shaped, sharply defined granular exuberance which has an ominous appearance.

The ulcerative process in the anterior pillar has, since the consultation, extended to the adjoining side of the tongue, and the bridle of tissue bounding the perforation of the anterior pillar internally gave way on Wednesday. During Thursday the patient was in a reasonably comfortable state; his temperature was normal and his pulse regular, but he was suffering somewhat from the effects of insomnia. His digestion is good, and semi-solid food is taken easily and with a reasonable relish. He suffers no pain. In the face of all these general symptoms the local difficulty has markedly increased, and the parts in the vicinity of the ulcerations are becoming more infiltrated.

THE DIFFICULTIES OF MEDICAL LEGISLATION.

The medical profession in several States of the Union are in the throes of prospective legal regulation. The matter is being particularly agitated in Kansas, Texas, and Ohio, as well as in New York. The bills prepared for passage in these States do not any of them appear to be above just criticism, and we must urge upon the State Societies that they go very slowly in pressing them.

Aside from the problem in legislation of how to treat those already in practice, the two points which involve the greatest doubt and excite the greatest controversy are those regarding the legal recognition of eclectics and homœopaths, and of a licensing board separate from the schools. Medical opinion is now practically unanimous upon the latter point. There should be a separate licensing board. As to the recognition of special schools, much difference still exists even among the wisest. In many States the profession must either allow this recognition or postpone any attempt at regulating medical practice for a long time. It is a question for each State to decide. The regular profession, those who practise rational medicine, should be extremely careful in making such concessions to special schools as would give them a fixed and legal status. Their strength is often exaggerated, and in any event it is the strength that comes from assurance more than justice. In many cases it may be possible to pass a law which will concede enough without giving any formal legal recognition of the existence of "schools," of any kind. In these days it is an anachronism that there should be dogmatic schools of medical theory and practice. We want no legal recognition of "allopathics," or "regulars," or homœopaths, but only a recognition of educated physicians.

A SIMPLE METHOD OF TESTING THE QUALITY OF HUMAN MILK.

Undoubtedly the best way to test the quality of milk is to have a thorough examination of it made by a competent chemist. As this is generally too expensive and elaborate a procedure, we have various makeshifts in the way of lactometers, cremometers, lactoscopes, etc. All these necessitate expenditure of money and time without a corresponding return in practical results. So true is this, that Professor Tarnier recommends for testing the quality of milk as primitive a method as the following: Take a little milk in a spoon or glaas, put a drop on the nail, and judge by its transparency and the way in which it flows, whether it is rich or poor in nutritive elements.

Dr. Paul Helot, Surgeon-in-Chief to the Maternity Hospital at Rouen, has suggested another method almost as simple and much more precise. Taking advantage of the fact that the size of the drops of different liquids differs according to their density or molecular cohesion, he determined the average number of drops in a certain volume of healthy human milk at a temperature of about 15° C. (60° F.). The same was done for distilled water. He used for the purpose a Pravaz syringe, holding one cubic centimetre without the needles. It was found that one cubic centimetre of good human milk gave thirty-five drops from the syringe; the same volume of water gave thirty drops. Hence the formula: In a dropper of a given capacity the number of drops of distilled water at 15° C. is to that of woman's milk as six is to seven. Some variations occur within healthy limits; if, however, the number of drops was below thirty-three or above

thirty-nine or forty, the milk should be rejected. As human milk varies at different times, the standard adopted was that of a healthy mother nursing a healthy two months' child, samples of milk being taken from each breast at the mid-period of nursing.

Doubtless Dr. Helot's method will prove a useful one when a physician is called upon to judge of the quality of the milk of a wet-nurse or a mother. It is at least easily tried, and involves no apparatus but a hypodermic syringe.

A NEW METHOD, BY WHICH ONE CAN SEE THE SHADOWS OF ONE'S OWN RETINAL VESSELS AND YELLOW SPOT.

THE visual sense is perhaps the most completely specialized, as it is the most delicate and complex of all the functions of the body. An enormous amount of patient labor and minute investigation has been expended upon its elucidation. Some of these investigations are not unattended with danger, as for example, the prolonged study of the retinal after-images, in which one celebrated physiologist almost lost his vision. One of the most curious lines of investigation has been that of the self-study of the retina. Purkinje was, we believe, the first to describe a method by which the shadows of the retinal vessels and yellow spot could be seen. This method is as follows: While looking at a dark ground in a dark room, one concentrates with a lens the rays of light from a gas jet, and throws them obliquely on the sclerotic immediately behind the sclero-corneal junction, or on the cornea itself. On rapidly moving the lens up and down or from side to side, one then sees projected on the dark wall the image of the retinal vessels.

Dr. W. Odillo Maher, of Sydney, has published in the *Australasian Medical Gazette*, of November, 1884, a new method by which the same object is accomplished, as he believes, more perfectly.

Standing at a short distance (ten or twenty feet) from a lighted gas-jet in a dark room, and covering one eye, say the left, with the left hand, the observer takes between the forefinger and thumb of the right a strong convex lens, and holds it at about its focal distance in front of the right eye. Then, steadily gazing at the light through the centre of the lens, he shakes the lens rapidly backward and forward along its axis, or up and down, or from side to side. After a few seconds the shadow of the fovea centralis appears in the axis of vision as a light yellow patch studded with dark coarse granules. Simultaneously the retinal vessels in the region of the yellow spot, including the finest capillaries, appear as dark cords against the yellow light. This appearance, according to Dr. Maher, is not unlike Plate 72 in the last edition of Nettleship's book on "Diseases of the Eye," except that the difference between the arteries and veins is not so marked, and that one gets a more extensive view, seeing the shadow of the retinal vessels as far as the optic disk. The outline of the shadow of the fovea centralis, which falls upon the most sensitive part of the retina, the yellow spot, is well defined, while the outline of the shadow of the optic disk cannot be distinctly seen, as it falls upon a much less sensitive part of the fundus. The shorter and more rapid the movements of the lens, the sooner the shadows of the retinal vessels and fovea centralis appear, and the more distinctly are they seen.

Dr. Maher claims that this is a simple and easy way of demonstrating:

First.—That there are no blood-vessels in the fovea centralis.

Second.—That the structures in which the visual impulses originate must be behind the retinal vessels.

Third.—That the fovea centralis differs in structure from the other parts of the retina.

THE FUTURE TRIUMPHS OF MEDICAL ART.

WE can recall the time when the public press would no sooner have ventured to discuss the problems of sanitary science than those of the pathology of lupus Now the daily papers have become most apt upon these matters, and are almost taking sanitary subjects away from the domain of technical journals. It is a sign of the times which is most encouraging. We may predict, however, that in the future, as this tendency continues, preventive medicine will eventually pass from the hands of the individual physician and be placed with a separate class of special workers and State officials. The triumphs of the medical art of the future have often been rhetorically described as lying in the prevention, not in the cure, of disease. This cannot be strictly the case, since the doctor's work will become more and more limited to patching up the remnants which sanitary art and State care fail to keep whole. The steady decline in the mortality-rate in England, for example, is due more to governmental sanitary organization than to the work of the practising physicians. The doctor by individual advice will always do something to prevent disease, but his main office must ever be that expressed in the motto: "Guérir quelquefois, soulager souvent, consoler toujours."

THE ALLEGED INCREASE OF CANCER.

THERE has been considerable discussion in the past few years regarding the increase in the annual deaths from cancer. The figures of the Registrar-General's report, the writings of Dr. Charles Moore and of Mr. Dunn, have especially drawn attention to this question.

The deaths from cancer in England and Wales in the ten years 1860–69 were 80,049, with an average annual increase of 248. In the next decade, 1870–79, the number of deaths was 111,300, with an annual increase of 320. The total increase in deaths from cancer in the decade 1850–59 was 2,000; in the decade 1860–69 it was 2,400; and in the decade 1870–79 it was 3,200.

In 1874 Dr. Farr remarked that, in England, "cancer, one of the largest and most painful diseases to which mankind is subject, is growing more fatal." The rate of deaths from this disease in that country, from 1873 to 1874, was equal to 443 in every 1,000,000 of population.

In this country the vital statistics of this city show that the number of deaths from cancer in 1869 was 304, in 1875 was 415, and in 1883 was 678. The estimate was made ten years ago by our City Board of Health that the rate of deaths from cancer was but little over four hundred per million inhabitants. According to the last reports it is about five hundred and thirty per million. These figures, however, include a large hospital mor-

tality. In Brooklyn the deaths from cancer in 1883 were only 262 in a population of 624,118, which gives about the same rate as that of New York ten years ago.

It cannot be denied, in the face of statistics like the above, that the death-rate from cancer is increasing absolutely and relatively in some parts of the world.

But that there is now a greater susceptibility to cancer than formerly has not yet been proved. Cancer is a disease of the degenerative period of life. It occurs between the ages of forty and sixty. Now, improved modes of living have increased the number of persons who reach these ages. In England and Wales, for example, during the years 1838–54, out of 1,000 children born, only 309 reached the age of sixty-five; during a subsequent period—1876 to 1880—out of 1,000 children born, 333.4 reached the age of sixty-five, being an increase of nearly one-tenth. Investigations thus carried out would show, perhaps, that the number of persons reaching the age susceptible to cancer has increased in a greater ratio than have deaths from the disease. The volley from the enemy is the same, but the number brought to the front is greater.

A NEW "HABIT."

In the *Detroit Lancet* for December, 1884, the distinguished editor and Dr. J. E. Clark contribute articles upon the subject of the chloroform habit. According to the latter writer the habitual use of chloroform as an intoxicant, hypnotic, and anodyne is becoming more and more extensive, and, octopus-like, "is slowly but surely fixing its tentacles on modern society." Dr. Clark adds "that such a habit is becoming prevalent is scarcely known outside of the profession and the life-insurance companies." We might supplement this by saying that the existence of such a habit is probably unknown to most medical men, and we regret that some facts were not given that would establish solidly Dr. Clark's rather loose assertions. He himself reports five cases coming in his own personal experience, and states that in Detroit there have been three deaths as the direct result of this habit in the past eighteen months.

Of Dr. Clark's cases three were women, one of whom contracted the habit in consequence of its use to relieve toothache; a second acquired it directly as the result of the prescription of a physician, her husband, to allay headache; a third contracted its use, after parturition, to relieve dysmenorrhœa. The following case illustrates the results of the habit: "A drug clerk; addicted to the practice for over eight years; bodily and mental faculties all affected; indecision; wakefulness; nervous tremors; loss of appetite; indisposition to exertion, either mental or physical; irritable stomach; nausea and vomiting; an uneasy feeling in the precordial region, with an increasing desire for the cause of his troubles."

Another patient took about half a pint daily by inhalation. The practice usually begins by the individual inhaling a drachm or two from a handkerchief to relieve a pain or procure sleep. This dose causes no unpleasant after-effects at first, and it is continued. In course of time, however, the dose has to be increased, a craving for the drug is felt whenever there is any indisposition; dyspeptic symptoms, mental and physical debility result.

Dr. Leartus Connor contributes an interesting and graphic account of the chloroform habit as described by one of its victims. This latter tells the story of the way in which the habit was formed;

"I was a young man, just finishing my education, fond of study, and taking a keen interest in everything about me. I had had some curiosity to know what it was like to be put to sleep with chloroform, and one night, just before retiring, I happened to see a one-ounce bottle of chloroform, which had been bought to use for a toothache, I believe. I took the bottle home with me, and when I went to bed put a little of the chloroform on a handkerchief, and for the first time felt the delightful sensation of being wafted through an enchanted land into Nirvana."

He kept up the practice of inhaling chloroform every night for two years, still performing his daily duties. By the end of that time, however, he had become a slave. He as yet used only about three drachms, but after an ineffectual effort to break off, he changed his mode of indulgence, and every few weeks would go upon chloroform "sprees," when he would consume from four to eight ounces of the drug.

He at last was barely rescued from death by a physician, who subsequently attended him and cured him of his habit. The patient pays a tribute to his professional attendant, which we take pleasure in quoting:

"At last discovery came. You well remember how I was found apparently lifeless, and how by the active use of restoratives, you brought me to myself. How my moral perceptions were quickened the moment I saw myself through the eyes of another! You were a true friend to me in that hour of my trouble. I had thought the doctors only mercenary creatures like the rest of us; perhaps the majority of them are so, but when you came to me in my humiliation, and tenderly, and without word of reproach, helped me to recover my self-respect and my power of will, I gained a new idea of what the true physician may be, and sometimes is, for the sick."

Whether or not the chloroform habit is at all an extensive or growing one facts do not yet enable us to say. Physicians occasionally learn of cases, and it is well known that it is a habit easily acquired, and that it is in its beginning a most insidious and seductive one, being for some time attended with no disagreeable after effects.

Free Beds for Sick Saleswomen.—We are glad to notice that the movement in aid of saleswomen has taken the shape of an effort to secure free beds for them in a hospital, rather than in trying to establish a new hospital. The announcement is made: "The Saleswoman's Fair, which is to be held in the Metropolitan Opera House, will be opened Monday, April 20th, and continue about ten days. Its proceeds will be used for the establishment of free beds in one of the best hospitals for the use of sick saleswomen."

Alcohol in the Treatment of Insanity.—Dr. W. B. Fletcher, Superintendent of the Indiana Hospital for the Insane, and Dr. R. M. Bucke, of the London, Ontario, Asylum, have entirely abandoned the use of alcohol in any form in the treatment of the insane. They believe that their patients do just as well as before, and perhaps better.

News of the Week.

Cholera has broken out at Java.

Small-pox has appeared at Syracuse, N. Y.

Dr. Edward S. Peck has been appointed ophthalmic surgeon to the St. Elizabeth's Hospital, New York City.

The American Veterinary College held its annual commencement March 4th, graduating a class of twenty-eight.

The Minnesota Hospital College held its fourth annual commencement on February 27th, graduating a class of sixteen.

The Nebraska State Medical Society will hold its seventeenth annual session at Grand Island, Neb., Tuesday, May 26, 1885.

Miquel's Experiments appear to show that the number of microbes in the air is always proportionate to the density of population.

The Woman's Medical College of Philadelphia held its annual commencement on March 11th, graduating a class of twenty-two.

The Louisiana State Medical Society meets at New Orleans on April 21st. The American Medical Association meets the following week.

Paris as a Medical Centre Again.—In 1876 the number of medical students matriculated in Paris was 1,924; in 1883–84 the number was 5,386.

The Longest Compulsory Medical Course.—According to *The Medical Counsellor*, the Boston University School of Medicine (homœopathic) now requires of its students four annual courses of eight months each.

Civil Service Examinations in Brooklyn.—Dr. Robert L. Dickinson, of Brooklyn, outstripped sixteen competitors in a civil service examination for the vacant position of police surgeon, and received his appointment last week.

No Marine Hospital for New York.—Congress has failed to appropriate money for the purchase of the Seamen's Retreat, at Stapleton, S. I., for use as a Marine Hospital.

Dr. Nathaniel Ford, one of the oldest physicians of Brooklyn, and the *doyen* of the Kings County Medical Society, died on March 9th, in the seventy-third year of his age. Dr. Ford graduated from Bowdoin Medical College in 1836.

Failure of Homœopathy at Ann Arbor.—The classes of the homœopathic students at the Ann Arbor Medical School have fallen from eighty-eight in 1880–81 to thirty-four in 1884–85. It is admitted that the school is in a bad way.

Medical Legislation in Massachusetts.—It is reported that a committee, of which Dr. Henry O. Marcy is chairman, has prepared a bill for submission to the proper legislative committee, establishing a Board of Medical Examiners in the State of Massachusetts.

Bellevue Hospital Medical College held its twenty-fourth annual commencement on March 9th, graduating a class of 134. The address was made by Mr. Andrew Carnegie, who congratulated the class on being poor, and hence under the necessity to work. Medicine he believed was the most progressive and broadest of the professions. A short address was delivered by Hon. William H. Dorsheimer.

Albany Medical College held its fifty-third annual commencement on March 4th, graduating thirty-three students. The Alumni Association celebrated its anniversary on the same day. An address was delivered by the president, Dr. Horace T. Hanks, and Professor William H. Thomson delivered the first alumni lecture on "The Germ Theory of Disease."

Pneumonia and the Weather.—The Committee on Hygiene of the County Medical Society, one year ago, set on foot a collective investigation regarding the relations of lobar pneumonia and bronchial catarrh to the weather. Already there has been a good response. A report will be made in April or May, and gentlemen are requested to send in their cards at once.

Sleeping with Closed Windows.—The editor of the *Medical and Surgical Reporter* portrays the dangers of night air, and counsels against sleeping with open windows. Evidently our contemporary did not get his education in New York, and have to sleep in a ten by four hall-bedroom of a city boarding-house. The night air may be a poison to a few, but the average healthy man had better inhale it than take his chances with sewer-gas, carbonic oxide, and the organic matter of the breath.

Good Commencement Advice.—The New York College of Dentistry graduated twenty-four students at its commencement on March 9th. Dr. J. Smith Dodge, Jr., gave the class some advice which has a very wide application. In pointing out the road of success he warned them against the too free use of the buccinator—sometimes called the "Great American"—muscle; told them to spare their patients from the fumes of whisky or tobacco, and cautioned them not to be off fishing when they were wanted. Dr. Dodge gave the graduates three strands to weave in the rope of prosperity—mastery of their art, the character and bearing of a gentleman, and common sense.

The Marine Hospital Service and Dr. Bell.—It is stated in a Washington paper that Dr. A. N. Bell, of New York, Editor of *The Sanitarian*, is a candidate for the position of Supervising Surgeon-General of the Marine Hospital Service. Thi sappointment would be eminently fitting. Dr. Bell, as a Surgeon of the Navy, has had a service among sailors in every climate of the globe, and has studied the hygiene of ships under every varying condition which can occur. He is also personally and practically familiar with the care and treatment of the great epidemic diseases, cholera and yellow fever, and as a former Quarantine Commissioner of the Port of New York he has a large experience in this branch of preventive medicine. His appointment will, we have reason to know, give great satisfaction to the sanitarians, as well as to the medical profession throughout the country.

THE DIVISIONS OF HOMŒOPATHY.—Judging from expressions in the various homœopathic journals, the homœopaths of the country are more or less strictly divided into three sects. One represents uncompromising Hahnemannism, and its special organization is the International Hahnemannian Association; the second is homœopathy tinctured with rational medicine, and is represented by the American Institute of Homœopathy; the third class includes the so-called "liberals," who believe in the value and soundness of certain homœopathic principles and artistic methods, but who repudiate dogmatic medicine, and advocate giving up the title "homœopath."

RECENT STUDIES OF MICRO-ORGANISMS.—M. A. Béchamp has read a paper before the Academy of Sciences, Paris, on the origin of the microzymes and of the vibriones everywhere present in the atmosphere, in connection with M. Duclaux's recent communication. Béchamp argues against Pasteur that these germs are not to be sought originally in the air, where they are disseminated by the winds, but in the ground and water, where they are deposited by the disintegration of the neozoic and paleozoic rocks, and by decomposing animal and vegetable matter of all sorts. He holds this not as a mere hypothesis, but as a conclusion actually determined by his own researches.

THE SANITARY COUNCIL of the Mississippi Valley met at New Orleans during the past week. Dr. Kedzee, of Michigan, chairman of the special committee appointed to suggest a plan of co-operation between the States of the Valley to prevent the introduction of cholera, yellow fever, and other epidemic diseases, submitted a report, which was adopted. The report recommends that special sanitary regulations, such as an inspection service on lines of travel, a thorough cleaning up of cities and towns, the distribution of sanitary information, etc., be adopted by the State boards of health. A resolution was adopted asking the boards of health represented in the council to suggest the manner in which they think the money appropriated by Congress ($340,000), to be used at the discretion of the President, should be applied.

DEATH OF PROF. ELLERSLIE WALLACE.—We regret to learn that Dr. Ellerslie Wallace, who, up to two years ago, was Professor of Obstetrics in Jefferson Medical College, died on March 9th, after a long and painful illness. Dr. Wallace was born in Philadelphia, June 15, 1819. He claimed to be a direct descendant of Robert Bruce. Early in life he was a surveyor, but he afterward studied medicine under his brother, who was Demonstrator of Anatomy at the Jefferson Medical College. Dr. Wallace graduated from that college in 1843. After practising in Philadelphia and gaining a wide reputation for his skill, he succeeded his brother in Jefferson College. He afterward resigned this position to take the chair of Obstetrics. Failing health compelled him to resign his professorship about two years ago. Dr. Wallace was for two months Dean of the College, succeeding Prof. Gross.

COMMENCEMENT OF THE UNIVERSITY MEDICAL COLLEGE.—The medical department of the University of New York held its forty-fourth annual commencement on Tuesday, March 10th, graduating a class numbering 168. The address to the class was delivered by Dr. John Hall, who advised the young men to be at pains to stand well with their own profession. According to his observation the man who did not earn the good opinions of his own order did not enjoy a long success. He further advised his hearers not to confine their reading to their own exclusive line. They should widen their minds by looking into other departments of thought and inquiry. They should, moreover, strive to be educated leaders in towns and villages, where the diagnosis of sanitary troubles and the prognosis of epidemics might make a modest man a public benefactor. The following prizes were awarded: Mott gold medal to W. B. Waterman, for the best anatomical preparation; the Mott bronze medal to G. K. Meynen, for best report of surgical clinic; prize of hospital appointment for best general examination for the degree, James Clifton Edgar, Ph.B.; for competitive prize examination—first prize of $250, R. H. Wylie; second prize, of a hospital appointment, A. W. Berle: third prize, $150, E. F. Arnold; fourth prize, $100, F. A. Rand; fifth prize, hospital appointment, C. H. Gardner; sixth prize, hospital appointment, J. C. Clark.

THE TURPENTINE "THERAPEUTIC DELUSIONS."—Some time ago we published editorially a correspondent's enumeration of certain therapeutical delusions. Considerable comment was excited by the somewhat iconoclastic position taken. *The Medical Press and Circular* has recently discussed the subject in an able manner, and has in some way discovered that our correspondent is a Dr. "Iliff," a name which we hear for the first time. The only one of this correspondent's statements which is seriously criticised is that regarding turpentine. The idea that turpentine is a stimulant, according to this "Dr. Iliff," is a delusion. His opinion is at least based on some authority. For example, Rossbach, as the result of a careful study, comes to the conclusion that oil of turpentine, "if administered in a painless manner and deprived of its odor, does not cause any irritation, but rather a paralysis of the nervous centres." Administered to men it produces headache, vertigo, weariness, and sleepiness. Purkinje could hardly keep awake after taking a dose of four grammes. In all animals experimented upon, turpentine affected the heart's action very little if at all, and it invariably lowered the blood-pressure. Copeland, in fever patients, found a diminution in pulse-rate. Mitscherlich found that in men, doses of one to two grammes produced only a very slight acceleration. The conclusion is, that oil of turpentine lowers the irritability of the nervous system, and diminishes respiration, circulation, and temperature. Clinical experience in the treatment of neuralgias and other neuroses confirms this view.

DOCTORS' SIGNS IN AUSTRIA.—Austrian physicians do not generally seem to be affected with the extreme degree of modesty that is shown by the New York doctors in their signs; in the cities they are of moderate size, but in the country districts occasionally rise to alarming proportions. Once this summer I saw one in the village of St. Gilgan, in the Salzkammergut, that extended a length of fourteen paces, and was equally broad in proportion, almost covering one side of the house of its owner.—*Cor. Maryland Medical Journal.*

Obituary.

LOUIS BOPP, M.D.,

NEW YORK.

Dr. Louis Bopp died of pneumonia after a short illness, February 22, 1885. Dr. Bopp was born in Landau, Bavaria, in 1840, and received a liberal education in his native place. He studied medicine at the universities of Freiburg, Munich, and Wurzburg, and obtained his degree in 1864. He subsequently entered an asylum for the insane as junior physician, and also served a brief period as assistant surgeon in the Bavarian army during the Austro-Prussian war of 1866.

In 1867 Dr. Bopp came to the United States, settled in New York City, and began the active practice of medicine. He was a well-informed, careful, and progressive practitioner, who readily obtained and retained the confidence of his patients and met with signal success throughout his practice. He was attending physician for diseases of women at the German Dispensary for over fifteen years, and visiting gynecologist to the German Hospital; and one of the first in this city to perform the operation for the entire removal of the uterus per vaginam.

Personally Dr. Bopp was amiable, modest, and strictly honorable. He was as much esteemed by his patients as he was respected by a large circle of professional friends. He leaves a widow and two children.

Reviews and Notices.

The Human Body and its Health. By Wm. T. Smith, M.D. 12mo, pp. 203. New York and Chicago: Ivison, Blakeman, Taylor & Co. 1884.

This is an excellent little book for use in common schools, either as a text-book for pupils, or as a guide for the teacher in oral instruction. It contains the elements of anatomy, physiology, and hygiene, and at the end of each chapter are questions for specification and review. Special attention is paid to the effects of alcohol and narcotics, particularly the former, on the various parts of the human system; and though the deleterious effects of stimulants are rather overdrawn, still this is a fault in the right direction for impressing the youthful mind. The glossary at the end of the book is a useful addition. It is clearly printed in large type on good paper, and altogether is a most creditable little work.

Topographical Anatomy of the Brain. By J. C. Dalton, M.D., Professor Emeritus of Physiology in the College of Physicians and Surgeons, New York. 4to, 3 vols. Pp. 175. Philadelphia: Lea Brothers & Co. 1885.

It is a matter for great congratulation that some men can be found with qualifications and opportunities requisite for such a work as the one before us. The name of the author is a guarantee for the gratifying results of such labors.

The three beautifully printed quartos contain respectively ten magnificently executed heliotype plates, natural size, of ten longitudinal sections, fifteen horizontal sections, and twenty-three vertical sections of the brain. Each of these is faced by a diagrammatic representation of equal dimensions, tending to accentuate the important sulci, convolutions, and lobes brought out in the plates. Each representation has a descriptive page or two of explanation, bringing out the anatomical points shown. It is difficult to give an idea of the excellence and accuracy, in detail, of these plates—in fact there is no room for imagination as to how they could better or more satisfactorily represent what the author intends to convey of the topographical anatomy of this complex organ.

There is no question of the importance of the study from the points of view of the author. Anatomically and physiologically, the brain deservedly is a much studied organ. Its complexity of structure, its peculiar relation of parts, and the significance of different regions, must naturally direct attention to every renewed effort toward studying the brain topographically, and the means to that end adopted by the distinguished author seem scarcely susceptible of improvement. His methods of brain-section leave nothing to be desired in careful detail or satisfaction in results.

The series of plates represent successive sections of the entire brain, vertical, longitudinal, and horizontal, in such proximity to each other, that the continuity of the parts may be recognized and their variations of structure followed from point to point in different regions.

The work, as a whole, is a treasure for any library, and in its scope of observation and originality of design is an uniquely valuable contribution to literature.

The Sabbath for Man: A Study of the Origin, Obligation, History, Advantages, and Present State of Sabbath Observance, with Special Reference to the Rights of Workingmen. By Rev. Wilbur F. Crafts, A.M. Pp. 633. New York: Funk & Wagnalls. 1885.

Into these pages are condensed the results of correspondence by the author with over two hundred leading men all over the world, and representing every profession and industry, regarding Sabbath observance. His own views are the essentially orthodox ones, forcibly stated, yet free from the prejudice of the bigot and the hasty, illogical conclusions of the shallow thinker. He is an optimist, believing that, taking the whole world over, the sum total of Sabbath observance is greater than ever before. He regards the sanctity of the holy day as in danger from legislative action, judicial misinterpretation of law, irregular and spasmodic enforcement of existing statutes, and from "our national habit of treating the laws as a bill of fare from which each can take what he pleases." Under the topic, "Are Sabbath Laws consistent with Liberty?" he shows the distinction between the civil and religious aspects of the question, and points out how our law-making bodies rightly may, and how they do, regulate those phases of religious conviction which have to do with the self-preservation of the republic. As remedies for existing evils he suggests strict personal example, public agitation, stringent laws, and instruction in the public schools on the relations of Sabbath observance to public hygiene.

Aloes.—A high temperature converts some of its active principles into insoluble and inert substances. Especially it decomposes aloin, which forms from fifty to eighty per cent. of aloes. Carbonate of potash assists in the solution of the resin of aloes, and it is well to follow aloetic pills by small doses of liquor potassæ, given in aniseed-water. Some physicians give a dose of potash both before and after the aloes to develop all its powers, which it does without increasing its tendency to gripes. Gum ammoniac with aloes is said to be a better combination than myrrh. In constipation with anæmia and debility there is no better combination than one or two grains of aloes, with an equal quantity of dried sulphate of iron. A favorite prescription with some is: Tinct. aloes socot., U. S. P., ℥ j.; aq. anisi, ℥ iiss.; liquor potassæ, ℥ ij.; ol. anisi, gutt. x. Dose, ℥ j. to iv. Sometimes the excellent and pleasant liquor ammoniæ anisati of the Germans is better.

Dilute Sulphuric Acid.—In some skin diseases, such as lichen, prurigo, chronic nettlerash, few remedies are so successful in relieving the distressing itching, formication, and tingling of the skin. It is applied locally and given internally in ten minim doses. The mouth should be rinsed with a weak alkaline wash after each dose.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 5, 1885.

A. JACOBI, M.D., PRESIDENT, IN THE CHAIR.

DR. ALFRED C. POST, M.D., LL.D., and JOHN T. METCALFE, M.D., were unanimously elected honorary fellows.

DR. FRANCIS V. WHITE made complimentary remarks concerning the candidates for honorary fellowship, who were the only two surviving members of the Faculty of the Medical Department of the University of the City of New York who signed his diploma in 1855.

DR. G. M. SMITH, Chairman of the Committee on Ways and Means, moved that Dr. Willard Parker, Treasurer of that committee, be authorized to pay to the Treasurer of the Board of Trustees of the Academy the sum of three thousand dollars, to be used toward liquidating the mortgage on the property of the Academy.

DR. WILLIAM C. JARVIS then read a paper (see page 284) on

THE ETIOLOGY AND TREATMENT OF NASAL CATARRH, WITH SPECIAL REFERENCE TO THE DEVIATED SEPTUM.

He made the following varieties of deviation of the septum: first, osseous; second, cartilaginous; third, osseo-cartilaginous; fourth, hypertrophic. The cartilaginous occurred the most frequently; the next in frequency was the osseo-cartilaginous.

The special features in etiology to which he directed attention were, first, pressure irritation; second, defective nasal drainage.

Besides the well-recognized causes he spoke especially of heredity, traumatism, and acquired deviation of the septum. He dissented emphatically from the view that diathesis or specific constitutional taint had anything to do with the production of these nasal affections.

Dr. Jarvis then discussed the above questions in their order, after which he directed especial attention to the treatment of the deviated septum, which consisted chiefly in its removal by means of instruments, a large variety of which were exhibited.

DR. F. H. BOSWORTH took issue with the reader of the paper on certain points. He would drop the word nasal catarrh and use the term discharge. He thought the term nasal catarrh covered the entire area of nasal diseases.

With reference to pressure irritation, in the January number of *The American Journal of the Medical Sciences* for the year 1876, Dr. Harrison Allen brought forward this topic in a paper which gave rise to a great deal of comment, the theory being that two mucous surfaces within the nasal cavity lying permanently in contact with each other were likely to be diseased. Dr. Bosworth thought, if that were true, that the result differed from what was seen in any other of the cavities of the body. He had not been satisfied that contact of two mucous surfaces did much harm, and in seeking for the etiology of nasal affections he believed that pressure contact did not enter at all.

He also regarded the mucus from the nasal cavity as harmless as anything could be, and therefore the question of deficient drainage did not become an important etiological factor. Whether the usual nasal discharges were retained or went in one direction or another, he thought, was a matter of secondary importance, as they were essentially harmless.

With regard to the deviated septum, however, he thought that this was the cause, in perhaps nine out of ten cases, of nasal catarrh, but that it was due to pressure contact or deficient drainage he did not believe. He believed that in most cases the deviation was due to disturbance of the normal function of the nose as a breathing cavity, compelling the respired air to pass through a narrowed conduit, giving rise to rarefaction, which led to collapse and dilatation of the venous sinuses.

He did not believe in a diathesis in etiology of nasal catarrh, but thought Dr. Jarvis unfortunately referred to one single condition where struma was pretty well demonstrated as a cause—namely—that carious disease called mollities ossium, in which the palatine arch was changed and gave rise to deviation of the septum.

With regard to the ingenious instruments which Dr. Jarvis had exhibited, the question of instrumental interference resolved itself largely into the tact and skill of the operator. The indications for treatment of the deviated septum were perfectly clear—namely, to remove the obstruction, which was to be accomplished by whatever instrument could be used to the best advantage. He had employed with very satisfactory results a modification of Dr. Lent's subperiosteal saw.

DR. F. A. CASTLE remarked that considerable stress had been laid upon the evil effects of thumb-sucking, by writers on diseases of children, from the fact that this habit was one of the causes of deformity of the arch of the palate, and indeed upper maxilla. It had occurred to him while listening to the paper, that the habit of thumb-sucking might not be so injurious after all; for, if the habit was to result in deformity of the arch of the palate, that give rise to deflection of the nasal septum, then to chronic nasal catarrh, and thereby to the development of the intellect, much of the terror attending the evil habit might be dissipated.

DR. S. O. VANDER POEL, Jr., referred to the treatment of the deviated septum recommended by Dr. John B. Roberts, of Philadelphia—namely—division with the bistoury and the retention of the divided septum in the replaced position by means of a pin introduced through the nostril on the side opposite to the deviation. He had employed this method in five cases with a fair degree of success. The advantages claimed for the method were that it did not leave any large foreign body in the nares, and the patient was not annoyed by the appearance of deformity from wearing any form of retentive apparatus. In the first two cases the results were very satisfactory; in the third and fourth cases the results were also satisfactory; and in all the nostril had been made permanently patent.

DR. D. B. DELAVAN thought it impossible to lay down any fixed rule which was applicable in the treatment of all cases of this character. The plan of treatment, however, which Dr. Jarvis had proposed was one to which he would take exception. He regarded deviation of the septum as due essentially to a distortion of the skeleton of the nose, and while the deflection itself was the factor to which attention was usually directed at first, it would be found that other external changes preceded it, which might become pathological. It was generally believed that the nostril toward the cavity was freer than the other, but while it was probably wider it was not necessarily more patent. He had found, in a large proportion of cases in which there was a deviation of the septum, that there was hypertrophy of the opposite middle turbinated body, and in a close ratio to the amount of the deviation.

Dr. Delavan thought it irrational to remove the mucous membrane and the underlying structures from the convexity of the septum, as it did not relieve the condition of the other nostril, neither did it always give relief, while the condition of the opposite nostril remained unchanged. He had, therefore, suggested that before operating upon the deviated septum it should be determined whether there was an enlarged turbinated body in the wider nostril, and if so, first remove it, and then straighten the septum. Of course, it was impossible to replace the deflected septum with a large turbinated body upon the concave side: for, no sooner was it pressed into place than the enlarged body acted in a way to restore the deformity.

In cases of deflected septum, the difficulty was far

more extensive than was usually supposed. The deformity was so extensive that no ordinary operation would relieve the patient, and it required marked diagnostic skill, in many cases, to determine whether or not the remedy which would remove the difficulty could be applied easily.

Dr. A. C. Post suggested that, in cases of stenosis of the nasal passage from deviation of the septum, where it became necessary to remove a portion, the operation could be facilitated by a transverse division of the columnæ, which could afterward be replaced with sutures, and not add to either the difficulty or the gravity of the operation.

Dr. Jarvis, in closing the discussion, said that he employed the term, "nasal catarrh," because it was well known and more familiar than other terms which had been used. As to pressure irritation, he believed there was no doubt that such a condition existed. He had made his experiments independently, with a study of the normal physiological action of the turbinated tissue, the size of which was constantly changing.

With regard to the nasal mucus, he distinctly stated that mucus of the normal specific gravity did no harm, but when it became thickened and changed in character, it fell into the larynx, where it became equivalent to a foreign body, and produced, as was well known, not only congestion, but marked pathological changes.

With reference to the malformation of which Dr. Delavan had spoken, he believed that it could exist, although he had seen but two cases which he would term turbinated shell associated with deviation of the septum. If an osseous formation existed, it was proper to remove it, and treat the deflected septum afterward.

Concerning Dr. Roberts' method, spoken of by Dr. Vander Poel, he had not succeeded in getting his patients to submit to it as readily as to the operation which he usually performed.

Dr. George G. Hopkins, of Brooklyn, then gave the history, and exhibited microscopic specimens, of

A RECURRENT FIBROMA OF THE BREAST,

removed from a girl seven and eleven years of age, respectively, at the time the operations were performed. The tumors were removed under antiseptic precautions. The chief interest in the case was the early age at which the disease had manifested itself.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 11, 1885.

John A. Wyeth, M.D., President, in the Chair.

(Continued from page 276.)

DIPHTHERITIC CROUP—TRACHEOTOMY—RECOVERY.

Dr. Ripley presented a cast of the trachea and upper part of one of the bronchial tubes removed from a child who was taken with diphtheritic croup early in February, and on the second day Dr. Charles Milne was called, when he found considerable dyspnœa, which increased, and on February 3d, Dr. Ripley was called and performed tracheotomy. Although the disease had been exceedingly rapid, the trachea was filled with muco-pus and membrane. The child breathed perfectly easily after the operation and did well through the next day. Early in the morning of the second day after the operation dyspnœa was again very urgent; the child was suffering so severely at four o'clock in the morning that he was called, and with Dr. Milne they removed both tubes, and succeeded in removing a cast of the trachea having attached to it a cast of one of the limbs of the bronchial bifurcation. Several other large pieces of membrane were also removed, the tubes were replaced, and the child breathed easily. From that time the case progressed favorably, the tubes had been removed, the wound was granulating, and there was fair promise of complete recovery.

Dr. Gerster asked if, when the trachea was first opened, before the canula was introduced, any membrane was noticed.

Dr. Ripley replied that the operation was performed with a good light and great deliberation, and the trachea was thoroughly examined, and no membrane was detected.

TUBERCULOSIS OF LUNG—TUBERCULAR ULCERATION OF LARYNX AND PHARYNX—MEASLES—CATARRHAL PNEUMONIA.

Dr. Van Santvoord presented specimens with the following history: The patient, M. C——, a foundling, had been an inmate of the Randall's Island Infant Asylum for several months. During that time it had been cachectic and had suffered from cough. During the summer of 1884 it had an attack of impetigo contagiosa, it being one of a number of cases. The cachectic state of the child and the fact that the eruption was hemorrhagic and more pustular than in the other children, gave rise to the suspicion that the cutaneous disease was a pustular syphilide. The fact that its attendant had two or three of the characteristic vesicles on her arm, that the disease followed the same course as in the unquestionable cases of impetigo contagiosa, causing no deep ulceration, and that no history pointing to syphilis in the infant could be obtained, rendered specific disease improbable. The swelling of the third phalange of the index-finger of the left, and the middle metacarpal bone of the right hand existed on admission. Ulceration of the metatarsal bone existed for some weeks, of the phalange only a few days before death. The child suffered from dysphagia for some time before her death, which resulted from measles, complicated by extensive catarrhal pneumonia, at the age of thirty-one and one-half months.

Post-mortem, three days after death.—Child small for her age, emaciated, integument yellowish. Numerous thin masses of desquamating epithelium, about one-eighth of an inch in diameter, on a slightly hemorrhagic base were observed, chiefly on the arms. The third phalange of the left index-finger was about one-half larger in diameter than its fellow, and fusiform in shape. A round opening, with smooth red edges, about one-twelfth of an inch in diameter, on the ulnar side of the finger lead down into the interior of the bone. Its bottom was a yellow slough. On section the bone was found to be shorter than its fellow. The section was biconvex in outline. The medullary tissue about the cavity was yellow and soft. Toward the epiphyses it was redder and softer than normal. The middle metacarpal bone of the right hand had a large ulcer, similar to the above, about one-eighth of an inch long by one-fourth of an inch broad, leading into the interior of its shaft at its middle from the back of the hand. At the bottom of this ulcer was a loose, carious piece of spongy bone, equal to about one-fourth of the shaft. A narrow strip of apparently new bone was seen, on section, connecting the epiphyses. As the strip approached either extremity it was broadened into a wedge-shape, by what appeared to be residual portions of the cancellous tissue. The bone, as a whole, was curved forward. Brain: normal. Larynx and pharynx: Three or four small deep ulcers, size of a large pin-head, were seen on the posterior pharyngeal wall. Ulcers penetrating the mucous membrane were observed on the tip of the epiglottis, both the aryteno-epiglottidean folds, the posterior wall of the larynx, and on the upper and posterior surface of both vocal cords. The non-ulcerated portions of the cord were red and thickened.

Lungs: Trachea and bronchi much injected. Both lungs adherent throughout by old adhesions. The left upper lobe was honeycombed, with cavities containing pus, small cavities with considerable old fibrous thickenings existed in the right upper lobe. Extensive consolidation by recent broncho-pneumonia existed in the non-tubercular parts of these lobes. In the lower lobes a few small cavities and considerable foci of recent lobular

pneumonia existed. Heart: Normal. Liver: Pale, with isolated patches of yellow parenchyma on cut surface. One small grayish nodule on surface. Kidneys: Pale. Spleen: Normal. Intestines: Slight enlargement of solitary follicles. Mesentic glands not enlarged.

Dr. Van Santvoord regarded the case as unique on account of the age of the patient. In looking up the subject of tubercular laryngitis in young children he had found in Dr. Smith's work the statement made that he had not seen a case in a child of this age. Rilliet and Barthez had also said that in three hundred autopsies it had not been found in children under three years of age. In the specimen there was an ulcer at the tip of the epiglottis, and he thought that form of ulceration was rare in syphilis.

Dr. Ripley thought that Dr. Van Santvoord was mistaken on that point.

The specimen was referred to the Committee on Microscopy.

Dr. S. J. McNutt presented specimens accompanied by the following history:

COMPLETE DESTRUCTION OF ONE LUNG IN THE COURSE OF PULMONARY PHTHISIS IN A CHILD.

I have here the thoracic and the abdominal viscera from a child of four and one-half years whose autopsy I made at the Morgue and whose history I do not know, not having been able to obtain even the death certificate of the case.

The body was extremely emaciated, and upon opening the chest both lungs were found to be adherent through their entire extent. Over the right lung the adhesions could be readily broken. The middle two-thirds of the anterior surface of the left lung also was only slightly adherent. Upon breaking these adhesions the left lung presented the appearance of a single distended sac occupying both lobes, and covered by a smooth, opaque, bluish-white membrane dotted with irregular yellowish-white patches. At the apex of the left lung the pleura was greatly thickened, so as to form a kind of hood. The adhesions here could not be broken down but had to be cut away from the periosteum of the ribs and the intercostal tissues. Posteriorly and at the side the adhesions could be torn, but only with considerable effort, and at the base, where the lung came in contact with the diaphragm and the pericardium, separation could not be effected, and these parts were cut away with the lung.

There was no appearance of external perforation or cicatrix on either lung. There was in neither pleural cavity air, gas, blood, or pus.

When the lungs were removed from the cavity there was a quivering sensation conveyed upon grasping the left lung, and when the larynx was cut from its attachments a considerable amount of a dirty grayish fluid escaped, with a sensible diminution in the size of the left lung and a partial collapse of its walls.

Continuing the examination of the left lung, every part of the pleural surface which was not covered by a thick fibrinous deposit presented fine semi-transparent nodules, pin-point in size, embedded, and yet so near to the surface as to be distinctly seen. They were the most abundant over the lower anterior tongue and on the surface toward the diaphragm. Surface of the right lung also was studded with these shining masses through its whole extent, but most abundantly between the lobes. The pleura covering the diaphragm was similarly studded. Upon the costal pleura, where it had not been stripped off, these masses were found, but of much larger size.

Upon opening into what represented the left lung there was found a sac, which was partially filled with a dirty, greenish-yellow, thin, purulent fluid mixed with cheesy masses and shreds of tissue. The cavity was irregular in shape and involved the entire lung. A partial septum separated what had been the upper and the lower lobe, also a partial thin septum divided what had been the lower lobe into an anterior and a posterior portion, and in this septum was the bronchus to that part of the lung. It opened into the cavity. Near it were what appeared to be the remains of pulmonary vessels. The walls of the sac were ragged, but there were no traces of vesicular tissue nor any crepitation in any part. There were in them areas of thickened tissue, with cheesy nodules, a few isolated trabeculæ, and hanging necrotic shreds. All of the bronchi opened into the sac, their free extremities presenting irregular ulcerations of the mucous membrane. There were also small superficial ulcerations prolonged into the main bronchus up to the lower part of the trachea. In the larynx there were also small points of ulceration, the greatest aggregation being just below the vocal chords.

In the right lung the only portion which crepitated under the finger was the lower anterior half of the middle lobe. Here also there was marked interstitial emphysema, and in the remainder of the lung there were spots of atelectasis, with many cheesy masses, varying from the size of a pigeon's egg to that of a small pea, surrounded by more or less inflammatory tissue. On section a large number of these nodules showed cavities filled with pus. There was considerable œdema posteriorly in the lower lobe.

There was more or less hyperplasia in all of the bronchial glands, which varied in size from that of a filbert to that of a small pea. A number on section showed cheesy degeneration, while others had cavities which were filled with pus.

There was the normal amount of fluid in the pericardium. The heart was square in shape, of a pale color, and a yellow tinge. The wall of the right ventricle measured one-twelfth of an inch in thickness, its cavity being much larger than that of the left. The wall of the right auricle was extremely thin, presenting the appearance of a delicate membrane. Its cavity was twice as large as that of the left side.

The spleen was hard and heavy. Its edges were rounded and its cut surface gave a smooth, dark, transparent appearance.

The liver was very much enlarged, particularly in its antero-posterior diameter. It was firm to pressure, its edges were rounded, and upon section it had a transparent waxy appearance with a yellow tinge.

The kidneys were small, pale, and of a yellowish color, similar to that of the liver. The liver, spleen, and kidneys all showed markedly the iodine reaction indicative of an amyloid change.

There was marked ulceration throughout the intestinal tract, particularly in the lower part of the small intestine and in the colon. These ulcers were rounded and irregular in shape, with elevated edges, and inclined to extend laterally, in some parts of the colon almost encircling the gut.

The brain was very anæmic, but there were no tuberculous masses to be seen by the naked eye in any part. Throughout the body, however, in the trabeculæ of the lungs, in the liver, in the spleen, in the kidneys, and throughout the mucous and the serous layers of the intestine, a very low magnifying power brings into view myriads of little shining transparent granular bodies.

A particular point of interest in this specimen is the total destruction of one lung, and especially its coexistence with infiltration and degeneration through the greater part of the lung of the opposite side. In this case the function of one lung was entirely abolished, the only portion of the opposite lung which could be utilized for respiratory purposes being the lower one-half of the middle lobe, anteriorly, and even in this part there was marked interstitial emphysema.

We know of no case upon record in which life has been prolonged until there had occurred so great a destruction of aërating tissue as is present in this specimen. Two cases have been recorded which in the amount of

the destruction resemble this, but in which the pathological process was different. A case is reported by Dr. W. H. Porter, in the "Transactions" of this Society, 1881, in which the left lung was compressed into a small mass, not larger than a man's fist, in a state of complete carnification, the result of a pleurisy with effusion and empyema, and in which the right lung was a group of small cavities surrounded by zones of cheesy masses. An unabsorbed pleuritic effusion had been the primary trouble in this case. Beverley Robinson also, in 1881, presented to you atrophy of one lung found in a man, aged thirty-five. Both lungs were firmly adherent to the chest-walls, the right was markedly emphysematous. It had fibrous phthisis in the upper half, while the upper part of the middle lobe was tubercular. The whole lung was enlarged so that it extended into the left side of the chest, while the left lung was contracted to the size of the closed fist; it was cheesy and had an entire obliteration of air-cells. Dr. Robinson says that the atrophy of the left lung was probably due to the contraction of an hypertrophied pleural membrane. The President, Dr. Satterthwaite, remarked of this case, that in only one previous case had he seen so complete an absence of the aërating structure as was manifested in the specimen presented. In this mention Dr. Satterthwaite referred to a case reported by Dr. Alonzo Clark (MEDICAL RECORD, January 2, 1875). This case was designated as a case of destruction of the lung by inflammatory phthisis. The patient was a male, twenty-three years of age, with a history of pulmonary hemorrhage, followed by a pneumonia involving the whole of the left lung, and which did not resolve. Nine months later a cavity was discovered in the left lung. At the end of two years and ten months after the time attacked he died of hemorrhage. In commenting on this case Dr. Clark says that it is common enough for people to say of themselves, or of others, that one lung was, or is, all gone, but examination has so frequently contradicted the statement that he, for one, had about persuaded himself that death must occur before so much devastation could be accomplished; but here was a case, really a case of phthisical inflammatory destruction of one lung.

It is an interesting point to notice how small an amount of lung-tissue can support life. Dr. Clark's patient is said to have attended to his business a greater part of the time, and his non-professional friends thought him almost completely restored.

The marked amyloid degeneration found in our case will probably account for the marked dilatation of the right heart instead of hypertrophy, from the fact that the blood was so deteriorated that the compensatory growth of muscular tissue could hardly occur, at least not sufficiently to overcome the great interference in the pulmonary circulation. From this obstruction also would happen the setting back of the current of venous blood, with the consequent congestion and enlargement of the kidneys, liver, and spleen.

A second interesting point is the question of priority between the generalized tuberculosis and the abscess in the lungs. Did we have here first a pneumonia with infection and breaking down and the scattering of its product, and the establishment of these scattered foci as a secondary result?

A third interesting point is the fact that of the cases here collected in our own only did this great destruction of lung-tissue occur in a child.

DR. W. M. CARPENTER referred to two specimens which he had seen recently, one exhibited by Dr. M. N. Miller, Curator to Charity Hospital, and the other by Dr. H. P. Loomis, Assistant Curator to Bellevue Hospital. In the first all that was left of one lung were the root of the organ with stumps of blood-vessels, some bronchi, and shreds of fibrous tissue. The opposite lung was emphysematous, and the seat of an acute process which terminated life. In the second specimen essentially the same condition of things existed, with the addition of advanced phthisical process with cavities in the opposite lung.

Both specimens were from the bodies of adults. Dr. McNutt's specimen was interesting because of its occurrence in so young a subject.

DR. RIPLEY thought that the ability to tolerate any disease depended upon the rapidity of its invasion. The more slowly the lung was invaded the more the patient was enabled to tolerate the disease.

DR. FERGUSON presented a specimen in behalf of a candidate, and the PRESIDENT presented specimens of the comma bacillus obtained from Dr. Billings, of Boston, who had received them directly from Dr. Koch, of Berlin.

The Society then went into executive session.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, February 6, 1885.

A. BRAYTON BALL, M.D., PRESIDENT, IN THE CHAIR.

A DISCUSSION was opened upon the subject of

PRACTICAL CONSIDERATIONS REGARDING THE ACUTE INFECTIOUS FEVERS,

especially scarlet fever.

The first question raised was

WHETHER SCARLET FEVER IS CONTAGIOUS DURING THE STAGE OF INCUBATION,

before the period of invasion, and, if so, to what extent.

DR. BEVERLEY ROBINSON said that his impression was that he had seen cases in which the contagion had evidently been carried during the incubative period. He thought such cases very difficult to prove and very exceptional.

DR. CLEMENT CLEVELAND had no experience to warrant him in believing that scarlet fever was contagious in the period of incubation, but he had the impression that it was contagious during that time.

DR. KINNICUTT had met with two cases in the past several years, which might be of interest as showing the slight power of the contagion during this stage. At a children's party, numbering thirty or thirty-five, one child was present who, not more than three hours afterward vomited and showed other signs by which scarlet fever was diagnosticated. Of the other children at the party, a large proportion had never had scarlet fever, and none of them took the disease.

In the second instance, one child sat for nearly the whole afternoon with his arm about another who was complaining of not feeling well. Six hours later, Dr. Kinnicutt saw the sick child and diagnosticated scarlet fever. The other child did not take the disease, though he had never had it.

These cases, the speaker admitted, furnished only negative evidence.

DR. JAMES B. HUNTER related the history of a case furnishing similar negative evidence.

THE PRESIDENT thought such negative evidence not very valuable, because it is well known that scarlet fever is not communicated with the same ease as small-pox or measles. He remembered an instance, years ago, where two children passed the night together. One of them broke out with scarlet fever two days afterward, and the second four or five days later. It is to be remembered, however, that the contagium of scarlet fever has a remarkable tenacity for articles of clothing. There was no doubt that the disease is much more contagious in later stages.

DR. E. G. JANEWAY had never met a case illustrating the contagiousness of the incubative stage.

DR. S. BARUCH had met with a case similar to those of Dr. Kinnicutt. Three children slept one night in the same room. A short time after two of the children de-

veloped scarlatina; the third did not, until five weeks later, when the first were convalescent.

The second question presented was:

WHAT MEASURES ARE DEEMED NECESSARY DURING THE SICKNESS OF THE SCARLET FEVER PATIENT TO PREVENT THE SPREAD OF THE DISEASE?

Dr. Beverley Robinson said that he adopted the usual means of isolation. He had the meals and medicines served by one person who would not come in direct contact with other members of the household.

He used disinfectants, usually the chlorides, but in rather a perfunctory and routine way, and he did not feel now that they did much good. The main thing was to secure good ventilation, which is the best disinfectant. He put the disinfectant over the bed-clothes, in the fecal and other discharges, and placed it about the room.

Dr. Clement Cleveland tried to make isolation as complete as possible. He believed in the great importance of ventilation. He usually had a spray of carbolic acid ʒ j. to Oj., or of a bichloride solution frequently used in the room. All the clothing taken from the patient was disinfected at once. As soon as the eruption was out he had the skin anointed with carbolized vaseline, gr. v. to ʒ ij. The skin was bathed every day, and after this reanointed.

Dr. S. Baruch said that his practice was isolation and plenty of air. He had

GIVEN UP DISINFECTANTS

in the room entirely. He believed that they did no good, and did harm by encouraging a false sense of security, to the exclusion of ventilation, etc. He had all the clothing after use soaked in a chloride of zinc solution, until it was ready to be washed separately.

Dr. George L. Peabody followed very much the same practice as Dr. Baruch. When so requested, he sometimes suspended sheets in the room wet with a disinfectant solution. In one recent case he had had the stools disinfected, although he was not clearly of the opinion that the contagion was carried in them.

Dr. E. J. G. Janeway advised disinfecting the excreta, because infectious material from the skin and elsewhere was apt to get mixed with them.

Another point was, if possible, not to have the clothing taken through the house. He had them thrown out of the window into the yard below, after having them thoroughly boiled or soaked in a disinfectant solution, *e.g.*, chloride of zinc made up by the Board of Health rules. Beyond this, he went no further in the use of disinfectants, except that he took great care about the patient, that all articles which had come in contact with the skin or had been used by the patient be burned up or disinfected; trusting also to thorough disinfection after the patient got well. He did not know that the carbolic acid did much good, but vaseline is useful if rubbed into the skin. He thought it a good plan, when there were other families on the same floor, to hang a sheet dampened with a disinfectant over the door. He preferred burning the rags, and as far as possible the clothing used about the patient, to taking the risk of inefficient disinfection.

Dr. Kinnicutt believed in isolation, ventilation, and thorough disinfection. He recommended that the clothes, unless thoroughly disinfected, be thrown out of the window instead of carried through the house.

Dr. James B. Hunter attached much importance to

SANITARY PORTIÈRES,

or sheets hung over the door and kept wet with carbolic acid solutions. He had the clothing disinfected and put in a separate wash.

The President thought that there was good reason for believing that the infectious poison was a blood poison, and that it passed off in all the excreta. Therefore their disinfection was a rational one.

Dr. Baruch asked if any gentleman had had any experience with instances of

CARBOLIC ACID POISONING

as the result of too vigorous disinfection. In a case of his own the mother was very anxious, and sprinkled carbolized water over the floor and upon wet sheets so liberally that the patient had black urine for two days. There was no albumen, and there were no bad symptoms.

Dr. Cleveland asked the opinion of the members as to the value of

ANOINTING THE BODY.

He thought it very important.

The President believed it to be a very prevalent practice.

Dr. Kinnicutt thought that it relieved very greatly the irritation.

The third question proposed was:

HOW LONG THE SCARLET FEVER PATIENT SHOULD BE ISOLATED.

Dr. Robinson said that his rule had been the usual one of isolating for six weeks. This furnished a good working basis. He had known of cases which had been isolated for a longer time and yet had carried the disease. He felt, therefore, that there was no definite period which could be absolutely fixed as safe.

Dr. Cleveland never felt willing to take the responsibility of removing the isolation and giving a positive assurance that there was no further danger.

He followed about the same practice as Dr. Robinson as to limit of time.

Dr. Baruch said that the principal trouble was in preventing the too early use of the infected room.

THE ROOM,

not the child, was the source of danger.

Dr. Janeway doubted if the whole of the desquamative period was contagious. Carpenter claims that scarlatina is not contagious after the tenth day. Some years ago he had a case which made him take a different view to that which he had held formerly. A woman living in a tenement-house was taken with scarlet fever. The rest of the family, including children, were sent away for three weeks. While the woman was still desquamating freely the family insisted on returning. The rooms were thoroughly disinfected, and the woman given two baths. The family then returned and none caught the fever.

Dr. Janeway thought that the danger in the desquamating stage was more about the room or clothes which had not been thoroughly disinfected.

He waited until desquamation was complete, and then had the head shampooed twice.

Dr. Kinnicutt said that careful thermometric observations showed that a slight elevation of temperature persisted into the third and fourth weeks in a large number of uncomplicated cases. This would seem to indicate that the morbific action was not exhausted, although the more palpable symptoms of the disease had disappeared. Certainly as long as this elevation of temperature exists, we must expect that there is danger of contagion from the person.

Referring to the opinion that intercourse should not be permitted until a week after desquamation had ceased, the speaker said that cases had been reported, in which desquamation had lasted until the seventy-seventh day. In such cases, Dr. A. Jacobi had expressed the opinion that the *prolonged* desquamation was free from danger, as it might be regarded as a simple dermatitis. Dr. Carrol, of the State Board of Health, had recently expressed a similar view in an interesting paper, a view in which the speaker fully concurred. Dr. Kinnicutt regarded forty days as the full limit of time in which *contagion from the person* was probable.

Dr. Hunter reported a case where scarlet fever had been conveyed by a box of toys, sent down to Long Branch, from a sick patient in New York. His rule as to duration of quarantine was six weeks.

The President said that this period had recently been adopted in England by a convention assembled for the purpose of discussing these questions.

Dr. Janeway said that he did not feel afraid of contagion from the person after the first month. In practice, however, he would probably advise a longer quarantine.

The fourth question was

WHETHER THE PHYSICIAN WHO IS ATTENDING A CASE OF SCARLET FEVER OUGHT TO TAKE MIDWIFERY CASES.

Dr. Robinson thought that, as a matter of prudence, the physician ought not to attend midwifery cases and scarlet fever at the same time. Still, he did not think that there was a great deal of danger of either the mother or child taking the fever.

Dr. Cleveland said it was his rule not to attend scarlatina and obstetrical cases at the same time.

Dr. Baruch did not believe that the scarlet fever poison could cause puerperal fever, and did not think that physicians could convey puerperal fever from scarlet fever cases. He thought that, practically, it would very much limit the work of the general physician, if he had to give up obstetrical cases whenever he had a case of scarlet fever. He did not think that scarlet fever could be conveyed by a third healthy person, and quoted Henoch's statement in support of such a view.

Dr. Janeway spoke of the

ADIRONDACK REGION

as the best place to study the spread of the infectious fevers. People lived widely separated, and yet were in constant inter-communication. Scarlet fever and diphtheria had travelled through that region.

Dr. Hunter thought it not advisable to attend scarlet fever and obstetrical cases at the same time. He would not perform a serious surgical operation, such as ovariotomy, while attending a scarlet fever patient. He looked upon a puerperal woman as very much in the same state as a person upon whom a surgical operation had been performed.

Dr. C. L. Dana related an instance in which a physician had brought the scarlet fever into his own household, as illustrating the positive fact that physicians may be carriers of the infection. He thought it important to know to what extent they could carry the poison, and what practical means might be adopted to lessen the danger.

Dr. Cleveland said it was his practice always to make calls on such patients last, and then to change his clothes.

The President had never seen any bad results from physicians taking confinement cases while attending scarlet fever, and he thought the danger

GROSSLY EXAGGERATED.

A great deal of what is called scarlet fever in puerperal women he believed was not scarlet fever at all.

The fifth question was

AS TO WHETHER DEFECTIVE SEWERAGE HAS ANYTHING TO DO WITH SCARLET FEVER.

Dr. Janeway did not believe that there was any proof at all that defective sewerage has anything to do with scarlet fever. One sees the most defective sewerage arrangements and no scarlet fever, while on the other hand one finds scarlet fever where the sewerage is perfect. The same was true with regard to slaughter-houses. Philadelphia and Boston had their slaughter-houses moved away, but without affecting the amount of scarlet fever.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

COMPARATIVE PATHOLOGY—LUNG DISEASES IN CAPTIVE WILD ANIMALS—THE HUNTERIAN ORATION.

London, February 21, 1885.

At the last meeting of the Pathological Society the event of the evening was the reading of a paper by Mr. Bland Sutton on the subject of "Lung Diseases in Wild Animals." Although quite a young man, Mr. Sutton has already acquired no inconsiderable repute as a comparative pathologist. To some of his researches I have previously alluded. His present paper attracted an unusual amount of interest.

Mr. Sutton's investigations have shown him that the popular opinion that captive wild animals die from tuberculosis is erroneous. He found, though, that a considerable number suffered from pulmonary affections. In the Zoölogical Gardens, from October, 1881, to December 31, 1884, the total number of deaths was 2,779, of which number 583 were mammals. Of the mammals 303 were quadrumana, including 7 anthropomorphous apes. Of these mammals only 5 died from pulmonary tuberculosis and only 1 case of general tuberculosis occurred. All these tuberculous animals came from the tropics. In several of them the lungs had been examined for bacilli and they had been found to be present literally in millions. Twelve cases of pneumonic phthisis had been seen, and more bacilli had been found in them than in cases of tuberculosis, but even if we included these cases under tuberculosis, which Mr. Sutton seemed disinclined to do, that disease was far from being a frequent cause of death in wild animals kept in captivity.

Mr. Sutton then proceeded to discuss the fatal diseases of animals in confinement. He remarked that each group of animals had certain forms of chest affections common to it. Primates, excluding man, suffered from bronchitis, atelectasis, and lobular pneumonia. Carnivora were very liable to double pleurisies, lobar pneumonia, and bronchitis. Ruminantia suffered from bovine tuberculosis (Perlsucht), bronchitis, and "worm" bronchitis. In reply to a question, Mr. Sutton said that about thirty per cent. of the quadrumana he had seen suffered from lung disease. He observed that, zoölogically speaking, bronchitis was widely diffused. This was accounted for by the vicissitudes of the English, as compared with the tropical, climate from which many of the animals had been brought.

Mr. Sutton said that, so far as tuberculosis had been concerned, birds had been excluded from this report, yet there was one diseased condition peculiar to them which was of great interest, and the exact nature of which had not previously been noted by any previous observer. The bronchia of birds communicate with a series of membranous air-sacs. He had found that the lining membrane of the sacs was, especially in water-fowl, liable to undergo inflammation giving rise to exudation. This coagulated and often formed a layer half an inch thick, providing an excellent nidus, in which the mould penicilium could flourish and form a thin layer extending through the whole series of air-chambers. The presence of the mould had been observed by Hunter, Owen, Robin, and others, but the exudation had been overlooked. This condition was exceedingly interesting, because the penicilium did not confine itself to the air-sacs, but even permeated the intercapillary air-spaces of the bird's lung, which corresponded to the alveoli of the mammalian lung. Mr. Sutton asked whether, in view of these facts, it was a matter for wonder that in the human lung, vegetable organisms (bacilli), a fraction of the size of the spores of penicilium, but requiring similar conditions for existence, should occur?

The Hunterian Oration at the College of Surgeons was

delivered on Saturday last by Mr. Marshall, F.R.S., Past President of the college. According to custom, the first part of the address was devoted to making some reference to distinguished members and Fellows who had died during the preceding year. Mr. Marshall referred to Robert Druitt, Allen Thomson, Cæsar Hawkins, and Erasmus Wilson. He then took up his subject proper, viz., Hunter, his life and works. There were, he remarked, two methods of constructing biography, viz., one to pursue the well-trodden path of sketching a career from the cradle to the grave, the other to reverse the order, follow an upward course, and thus pass from the later and better-known periods to the earlier and less known—or even unknown—moments of any individual existence. As in the case of a river, in the upward struggle against the stream, with its halts and delays, we had larger opportunities of becoming familiar with its opportunities, its shoals and rocks, its rapids and cataracts, and so on.

Mr. Marshall said he preferred, if it were not too presumptuous, to adopt another method, and imagine Hunter now with us, and try and point out the attitude he would assume in regard to the active work and salient opinions of our own times. He did not doubt that Hunter would first wend his way to the museum and feel gratified at its great extension and present condition. As to the college library, he suggested that as Hunter said, "I do not read many books," he might be comparatively apathetic to its extension. The advances made in comparative anatomy would be welcome to him. The revelations of microscopical research would fill his mind with amazement and delight, and he would be struck with admiration at the appliances available in modern physiological laboratories. Hunter was a great vivisector, and anæsthetics were then unknown, but he would be sure to approve their use now. Hunter would doubtless appreciate the modifications of the Cuvierian classification found necessary by succeeding zoölogists. He would probably give in his adhesion to Darwin.

The advances made in scientific and practical surgery would receive his eager acceptance, for although he looked upon operations as a tacit admission of inability to cure, and said they should be approached with a sacred dread and reluctance, we might be sure that the new and bold procedures which have been crowned with success with the aid of anæsthetics would be approved and adopted by him.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 1, 1885, to March 7, 1885.

Byrne, Charles C., Major and Surgeon. Ordered to Department of the East on expiration of his present leave of absence. S. O. 50, A. G. O., March 3, 1885.

Woodruff, Ezra, Captain and Assistant Surgeon. Ordered for duty at Fort Maginnis, Montana Territory. S. O. 23, Department of Dakota, February 25, 1885.

Porter, J. Y., Captain and Assistant Surgeon. Leave of absence further extended fourteen days on account of sickness. S. O. 51, A. G. O., March 5, 1885.

Ewing, C. B., First Lieutenant and Assistant Surgeon. Having relinquished unexpired portion of leave of absence, ordered for temporary duty in the field. S. O. 23, Department of the Missouri, March 2, 1885.

Raymond, Henry I., First Lieutenant and Assistant Surgeon (recently appointed). Ordered for duty in Department of California. S. O. 50, A. G. O., March 3, 1885.

Carbonate of Ammonia has gained much credit in the gastric disturbance which follows a drinking bout or debauch. The aromatic spirits of ammonia, curiously called sal volatile by the English, is much used in chronic bronchitis.

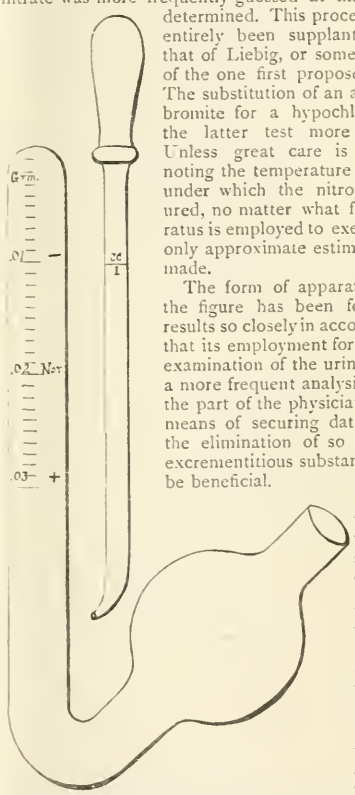
New Instruments.

APPROXIMATE QUANTITATIVE ESTIMATION OF UREA.

By CHARLES A. DOREMUS, M.D., Ph.D.,

PROFESSOR ADJUNCT TO THE CHAIR OF CHEMISTRY AND TOXICOLOGY IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

The old method of adding nitric acid to urine in order to estimate the quantity of urea, a method which commended itself to the medical profession through its apparent simplicity, was at best only approximate. It involved frequently the evaporation of the urine, a tedious process, and the degree of concentration necessary to bring about the formation of the crystals of urea nitrate was more frequently guessed at than accurately determined. This process has almost entirely been supplanted by either that of Liebig, or some modification of the one first proposed by Davey. The substitution of an alkaline hypobromite for a hypochlorite renders the latter test more satisfactory. Unless great care is exercised in noting the temperature and pressure under which the nitrogen is measured, no matter what form of apparatus is employed to execute the test, only approximate estimations can be made.



The form of apparatus shown in the figure has been found to yield results so closely in accord with theory that its employment for rapid clinical examination of the urine may lead to a more frequent analysis for urea on the part of the physician, and be the means of securing data concerning the elimination of so important an excrementitious substance which will be beneficial.

The manipulation of the ureometer is simple in the extreme. By inclining it the long arm may be filled with the hypobromite to the bend at the bulb. By means of the nipple pipette a measured volume of the urine (1 c.c.) is injected slowly up the long arm by compressing the nipple. A rapid decomposition of the urea takes place, the bubbles of nitrogen rising in the long arm, while the displaced liquid flows into the bulb, which serves as a reservoir. With a little care the urine may be delivered at a rate that permits the decomposition to take place without loss of gas. The graduation on the glass indicates the weight of urea in the urine used. Two forms of the apparatus are made, one graduated to read fractions of a gramme (0.00 to 0.03 per 1 c.c. of urine), the other to show grains of urea in the fluid ounce of urine. When the volume of urine passed in twenty-four hours is known the calculation of the analysis is very easy. Total quantity of urine voided, 1,600 c.c.; urea in 1 c.c. of urine (result of analysis), 0.024 grammes; urea in 1,600 c.c. = 0.024 × 1,600 = 38.4 grammes. When the centesimal graduation is used the weight of urea in 100 volumes of urine is ascertained by multiply-

ing the result of the test by 100. This gives what is commonly termed the percentage of urea. This is not strictly correct, but the true percentage can be calculated when the specific gravity of the urine is taken thus: Specific gravity of urine, 1.020; urea in 1 c.c. of urine, 0.02 grammes; 100 c.c. of urine would contain 2 grammes of urea; 100 c.c. of urine would weigh 102 grammes if the specific gravity was 1.020, therefore,

102 : 100 :: 2 : x = 1.96, the true percentage.

When the tube graduated in grains is used the calculation of the percentage is a more complicated arithmetical problem. The ounce contains 455.7 grains. From this, the specific gravity, and the result of the analysis, the computation can be made.

The hypobromite solution is prepared according to the formula of Knop, by dissolving 100 grammes of sodium hydrate in 250 c.c. of water. This solution may be kept in a bottle with a paraffined stopper. Bromine is mixed with this in the proportion of one volume to ten; 2 c.c. of bromine with 20 of the sodium hydrate will suffice for two tests. After the bromine has united with the alkali the liquor is diluted with its own volume of water.

When using English weight six ounces of sodium hydrate are dissolved in a pint of water to make the alkali. The bromine should be added to this in the proportion of one to ten, and the liquid diluted with its own volume of water. A fresh, good, hypochlorite will serve for the hypobromite when the latter cannot be obtained.

The normal quantity of urea voided is two per cent. or .02 grammes per c.c. or 10 grains per ounce. The elimination of a diminished or increased quantity of urea is speedily determined by the use of the apparatus.

Messrs. Eimer & Amend supply either form at a very moderate price.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 7, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
February 28, 1885.....	0	4	91	2	158	53	0	0
March 7, 1885.....	0	6	95	1	174	47	0	0
Deaths.								
February 28, 1885.....	0	2	20	2	25	21	0	0
March 7, 1885.....	0	2	12	0	25	23	0	0

Climatic Health Resorts.—Accurate, full, and unprejudiced information respecting health resorts being at present very difficult to obtain, the contributor of the articles on *Climate* and on *Health Resorts* for "A Reference Handbook of the Medical Sciences" will be glad to receive, from those competent to furnish them, any facts or data bearing upon these subjects which they may be disposed to communicate. Address (at earliest convenience), "Climatology," Care of Messrs. Wm. Wood & Co., 56 Lafayette Place, New York City.

Intestinal Strangulation—Symptoms Masked—Curious Fatty Deposit in Peritoneum.—Dr. C. M. Fenn, of San Diego, Cal., was called to see a butcher, thirty-five years of age, of intemperate habits, and corpulent in body, who, while driving along the street, was suddenly seized with severe pain in the abdomen. He went home to bed and was treated with morphine injections, repeated for thirty-six hours, without relief. Dr. Fenn was then called in. He found the patient suffering great pain, especially in the left hypochondriac region. He had vomited two or three times, but not stercoraceous matter. His abdomen was not tympanitic nor markedly tender. The bowels had moved twice. Believing the spleen to be at fault, Dr. Fenn ordered laudanum fomentations over it, followed by a blister and morphine. The pain gradually yielded, and the patient improved very much. A few hours later, however, he rapidly sank and died. Post-mortem showed the thoracic organs normal; the spleen was three times its normal size, adherent to the abdominal wall, "and showed other signs of acute parenchymatous inflammation."(?) "Traces of peritonitis also, chiefly confined to the left hypochondriac region, were visible. In the upper and posterior portion of the umbilical region there was discovered a mass of sphacelated intestine, the relations of which could not be determined after the rude displacement of the adjacent viscera. My impression at the time was that it included a portion of the splenic flexure of the colon. The liver was typically cirrhotic, or a gin-drinker's. The abdominal cavity, from the diaphragm to the floor of the pelvis, was lined, or inlaid, with a substance resembling solidified tallow, more than an inch thick. It presented the glistening, yellow appearance characteristic of the fat of slowly fattened animals. A more complete cast of the cavity or cavities could not have been made with gypsum. The kidneys and other viscera were enveloped in masses of the same, from which it became necessary to "shell them out," before they could be examined. Remarks: Though the cause of death was revealed at the autopsy, no light was thrown upon the origin of the intestinal obstruction. If tympanitis was at any time present it was entirely obscured during the progress of the disease by the unusual thickness of the abdominal integument. The remarkable aggregations of fat may, I presume, be regarded as pathological."

Himrod's Asthma Cure.—Dr. A. J. Campbell writes in the *British Medical Journal*: "In Martindale's *Extra Pharmacopœia* there is an excellent substitute for Himrod's asthma cure, which I have tried and found very useful. Dissolve two ounces of nitrate of potassium in two ounces of boiling distilled water, and add two ounces each of lobelia, stramonium leaves, and black tea well powdered; mix well and dry thoroughly. A teaspoonful burned, and the fumes inhaled, generally gives immediate relief."

The New Antipyretics.—Of the new remedies, kairin has been little used; antipyrin was in some cases efficacious; thallin the writer has seen used in adults with varying success; but in the large majority of cases nothing reduces fever and *keeps it down* as well as the old friend quinine.—*Berlin Cor. Archives of Pediat.*

The Determination of Sex.—Carl Düsing concludes from the results of investigations made by W. Preyer and himself that in general the fructification of a young ovum with old sperm, the mother being well nourished, produces females more often than males; that the fructification of an old ovum with young sperm, the mother being somewhat badly nourished, produces males oftener than females.

A Test for Albumen in the Urine.—Dr. Kemper writes: "Take a solution of salt and vinegar in a test-tube, heat over a lamp, then overlie the solution with one drop of the suspected urine, and if albumen be present, it will plainly be seen by the appearance of a coagulum on the test solution. If no coagulum appear, albumen is not present. This test is given by Professor J. North as a modification of the acidulated brine test."

Treatment of Oxyuris Vermicularis in an Adult.—A correspondent asks for a remedy for seat worms. He has unsuccessfully used injections of quassia with santonin and castor-oil.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 12 NEW YORK, MARCH 21, 1885 Whole No. 750

Original Articles.

REMARKS ON DIPHTHERITIC CROUP, AND THE QUESTION, "IS THE OPERATION OF TRACHEOTOMY IN DIPHTHERITIC CROUP DANGEROUS?"

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I.

IN THE MEDICAL RECORD for December 13, 1884, Dr. Joseph E. Winters has published his twice publicly read and twice publicly discussed essay on the question, "Is Tracheotomy in Diphtheritic Croup Dangerous?" He concludes that the operation of tracheotomy, if performed with care, involves little if any danger to life.

Taken generally, but making due allowance for certain conditions and other not always to be foreseen eventualities, no one, I think, will combat this conclusion. But in concluding as to the dangerousness, or easiness and simplicity of this operation, these conditions and possible eventualities referred to must not be lost sight of.

Professor Winters also states that accidents during operation generally result from want of care. Also, he says, that tracheotomy never adds one element of danger to the original disease.

He asserts, furthermore, "Persistence of the original disease, delay in the performance of the operation, and neglect after, are the causes of failure."

In the consideration of these quotations from Dr. Winters' essay it should not be forgotten that they apply to tracheotomy for *diphtheritic* croup. Desault (and who not else beside) held that the simplicity with which an operation may be performed is the measure of its perfection.

Professor Winters, in the discussion following the second reading of his essay, said: "The operation should be performed by a man accustomed to sit by the bedside and watch the progress of the disease, and who therefore knows that it matters not if he complete the operation in one or twenty minutes." He also makes the statement, "Any man competent to practise medicine can, in time of emergency, without a single surgical instrument, perform tracheotomy in diphtheritic croup in a young child with a short, thick neck, with absolutely no danger to the patient." And this, he says, may be done with a pair of scissors and an ordinary penknife, and with the loss of less than a drachm of blood.'

Another statement made by him is, "When death occurs on the operating-table, the death is not due to the operation, unless performed by carelessness."

In closing the second discussion, the Professor remarked: "Regarding the entrance of blood into the trachea, there has been a great misconception concerning the performance of tracheotomy. Tracheotomy properly performed is almost bloodless."[2]

To quote another physician, who seemingly has taken sides with Dr. Winters: "It would surely be far more rational and just to temper our egotism by utilizing as guides the published experience of others, obtained from large clinical material—*plus* our own experience."[3]

[1] THE MEDICAL RECORD referred to, p. 669. [2] Ibid., p. 668.
[3] Tracheotomy in Croup and Diphtheria. Letter to the Editor of THE MEDICAL RECORD, December 20, 1884. p. 700.

Now, it is this encouragement, given by Dr. Barsch, and the hope he expresses that this question be not allowed to flag, that I, in great measure, have felt myself justified in publishing what is here written. The quoted statements from Dr. Winters' essay are based on what? He tells us upon his "impressions from reading," and secondarily, upon his "own personal experience."

Many of his statements are at variance with the reported experience of men much older and more experienced than himself, who, in learning, ability, and honesty of purpose, are, to say the least, his equals. Moreover, many of his statements not only contradict the teachings of generally accepted authorities, but are announced with that fervor and force, and formulated in such a manner as to assume the appearance of surgical dogma, and ethical judgments on those who might dare to differ with him. He being a public teacher, his assertions are all the less irresponsible. It is, therefore, very important for all of us to settle for ourselves the question which Dr. Winters has raised and answered (for himself).

Dr. Winters' essay gives evidence of wide reading by the richness of the quotations. But, after all, in this there is nothing of especial note; for it has been truly said that we all quote, and by necessity. Burke says: "He that borrows aid from an equal understanding doubles his own; he that uses that of a superior elevates his own to the station of that he contemplates." This is as significant of the proprieties as of the propriety of quotation. Respecting quotations for scientific purposes, the rule followed by Robert Boyle is even now a very good one, namely, to appeal to authors rather as witnesses than as judges.

Extensive reading and the ability to quote largely do not invest one with the right of laying down the law for others. Reading has been called thinking by proxy. Perhaps it was for reasons of this kind that Sir Astley Cooper advised students not to read much. He who would act for himself must think for himself. This is character. Who would presume so much as to ask others to have their thinking done for them, yet continue responsible for their acts? The thinkers were irresponsible tyrants; the actors, the workers, fools. Still, however independent we may presume to be, we go very willingly for help when we feel that we need it.

In illustration of the importance of what has been said of thinking for one's self, I shall quote Professor Schüller on tracheotomy, which operation, according to Dr. Winters' asseverations, is such an easy and simple one. In his work on "Tracheotomy," etc., Professor Schüller writes essentially as follows: "Unfortunately, widespread is the notion that venous hemorrhage especially is matter of no serious concern in tracheotomy; it is thought that this bleeding *must* stop as soon as the windpipe is opened, and the patient given a chance to breathe. However, in cases of laryngeal obstruction, the patient will not always breathe the instant the trachea is opened, and thus sufficient time will elapse for blood enough to enter the windpipe, and to make a desperate case a hopeless one. And," continues Professor Schüller, "no more deplorable and dangerous superstition has gained credence than that tracheotomy is always easily performed on the child, be the hemorrhage profuse or little." For the spread of this superstition, the Professor goes on to say, inferior surgical text-books and surgical ignoramuses are to blame, individuals who have done one or two operations or none at all, but who with facile grace have writ-

ten up this chapter of operative surgery at their writing-tables. Children, according to Schüller, who have died from suffocation caused by blood flowing into the trachea through a tracheotomy wound, are not so few as the records in the literature of this operation might lead one to suppose; for it is quite natural for operators to keep such instances from gaining publicity.

These words of Professor Schüller's are in the main opinion, but opinion not without very good foundation, as shall be seen further on. However, it is by demonstration rather than by reasoning alone, however sound, or by the expression of opinion, however well founded, apparently, that the harmlessness or danger of this operation in diphtheritic croup can be established. The quotations from Schüller prove this much, that the question raised by Professor Winters is answered every bit as forcibly in the affirmative as has been negatively done by himself.

II.

What Froude says in reference to the historian in general I would apply to the historian of tracheotomy. Froude says: "History itself depends on exact knowledge on the same minute, impartial, discriminating observation and analysis of particulars, which is equally the basis of science." Further: "The business of the historian is not with immediate realities which he can see and handle, but with the combinations of reality and human thought, which it is his business to analyze and separate into their component parts."[1]

I am merely offering remarks, and shall not be required to furnish a history of this operation. Dr. Winters deprecates the age in which he moves and has his being by rounding off his remarkable essay with a quotation from Professor Letamendi, who says: "In the days of more knowledge, and less nonsense, tracheotomy will be ranked among the minor surgical operations." In his historical survey of the opinions entertained regarding this operation, Dr. Winters begins by saying that the "older authors always spoke from the force of their convictions in definite, unmistakable terms." He cannot mean only those authors who speak so favorably for the thesis he is advocating, for he quotes the older authors of both sides of the question. Medicine, in ages so far away from us as those in which Asclepiades, Ætius, and Antyllus flourished, is somewhat enigmatical to most of us, because we can find out so little about them and their thought that is practically worth knowing and thinking about. It is evident that practitioners are not the worse off practically for living and working in ignorance of these once eminent men.

Adams[2] writes that Ætius makes mention of tracheotomy in such terms as prove that it must have been done in his time, at least occasionally. He did not approve of this operation; not in cases of angina is sure. We may fairly assume that Ætius did not disapprove of this operation, because he knew nothing about it.

Although Cælius Aurelianus is reported as telling us that Asclepiades saved many lives by tracheotomy, he himself had not enough faith in the operation to think it well to advocate it as a safe, easy, and harmless remedy.

More than fifteen hundred years ago, Antyllus is credited with having revived this operation. And of him Adams says: "Of all the Greek writers, Antyllus is the only one who has left a description of this operation." And his description is very far from being that described as being the proper conception of the operation. Antyllus cut across the throat—transversely—and in the region of the third or fourth cartilaginous rings of the windpipe, and then between these, transversely across, into the lumen of the trachea. He chose this part of the throat in order to avoid as much hemorrhage as possible. But Antyllus approved of the operation only "in inflammations about the mouth and palate, and in cases of indurated tonsils. . . ." He held that it was of no avail to operate "when all the arteries (the whole of the trachea?) and lungs are affected" (Paulus Ægineta—by Adams). If Paulus Ægineta operated, he probably followed Antyllus.

After Paul, in the history of medicine, as it is generally written, came the Arabian doctors, who, it is said, knew more of, than the operation practically.

In medical history the advances go by centuries.

In the sixteenth century we find Fabricius ab Aquependente, whom Dr. Winters quotes as saying, "The operation is absolutely free from danger; . . . there is no part of the least consequence exposed to injury in this operation." After having been performed for more than one thousand years according to the method of Antyllus, this Fabricius has thoughts of improving on that method, and he sets about to realize his cogitations. Fabricius makes his cut *over* the trachea *longitudinally*, and why? To avoid the dangers incident to the operation as done by Antyllus. Fabricius would avoid cutting across blood-vessels and muscles. Thus a step toward the simplification of this operation and its proper conception was attained. He, however, cut between the rings (third and fourth) transversely into the trachea. Fabricius introduced the canula.

In the seventeenth century one Habicot, of Paris, advocated tracheotomy for severe inflammatory conditions of the trachea; and about the same time Severinus, Professor of Surgery at Naples, advocated and lauded the excellent results it afforded in the treatment of croup.

Not only in France and Italy, but also in Germany the operation was now utilized as a remedy for what seems to have been croup or diphtheria.

In the latter part of the seventeenth century, "Dekkar proposed to perform the operation with a cutting canula;" and why? Can any other answer be given in justification of this proposal than that Dekkar thereby meant a simplification of the operation, a diminution of its risks, as well as expedition in its performance? Since Dekkar's time many and various tracheotomes have been devised by eminent surgeons, but these instruments have never become popular.

In the early part of the eighteenth century, Heister made the next tangible advance in the thought of this operation. He demonstrated that wounded cartilage heals, and the fear of cutting through the tracheal rings ceased to plague surgeons, and the incision was made through the rings—and the whole operation was done longitudinally to the long axis of the trachea. Vast improvements these in the methods of the ancients! Improvements needing much more than a thousand years for their consummation. And yet this operation is called a simple, an easy one; and the "older authors," who are so much in the clouds, as far as we are concerned, are dragged into our midst to bear witness against themselves.

Whatever may have been the opinion of individual surgeons as to the non-dangerous character of this operation, general opinion evidently was against considering it an easy affair. Even those quoted as considering it an easy operation, certainly did their best to make it so, and subtract from its risks and dangers by their innovations. This, it seems to me, the history of this operation, or as much as we can get of it, demonstrates clearly enough.

In our own century the improvements concerning this operation have not been few, but rather of detail than principle. The operation has been more variously applied, its indications better founded, and its therapeutic value more correctly and soberly estimated. For all these later improvements we are greatly indebted to the French, who not only pointed out, but most courageously pushed on the way to their achievement.

To avoid the profuse hemorrhage sometimes attendant on this operation in some localities, the galvano-cautery

[1] Scientific Method Applied to History. Short Studies, etc., vol. ii.
[2] Paulus Ægineta, vol. ii., pp. 301–303.

has been proposed and used, and, I believe, first by Professor Bruns, of Tübingen.[1]

III.

"True medicine," says the wise Sydenham, "consists in the discovery of the real indications rather than in the excogitation of remedies. Those who have neglected this have put arms into the hands of the empiric, and taught him to imitate the physician." So, from even a rapid glance at the history of tracheotomy it may be seen the "older authors thought and taught." And so, too, those who will take the trouble to carefully read the literature of this operation with reference to croup, and diphtheritic croup in recent times and our own, will not fail to find that men in these "ignorant and nonsensical times" have not ceased to think and teach. Quite *à propos*, in connection with this question, is the remark made by Professor Moxon in his eulogy on Professor Fagg: "In much of our treatment, no doubt, the idea of the remedy is inserted into the idea of the disease when nothing really exists corresponding to the ideas with which we suppose ourselves to be acting."[2]

Now, how do the ideas of tracheotomy and diphtheritic croup correspond?

Diphtheria is a constitutional disease, probably primarily local in character. Its severity is not proportional to the faucial or visible exudation. There may be a good deal of faucial and pharyngeal exudation, with moderate constitutional disturbance. There may be great constitutional disturbance, possibly eventuating in death, and little or no discoverable exudation in the mouth, fauces, pharynx, or nose. Neither is the severity of the sequelæ proportioned to the amount of exudation. Death may result from heart-failure, respiratory failure apart from laryngeal stenosis, deglutitional failure, renal complications, and even by ear and brain complications, etc. It is usually a short-time disease, that is, limited; but irregular and treacherous in its phenomena. The complexion of the disease varies with the epidemic, so, too, its severity. Laryngeal stenosis or croup as a complication is commoner in some epidemics than during others, and at times may rarely occur, or not at all.

In his first experience with the disease, Dr. Ripley[3] rarely met with a croup complication.

When death by laryngeal stenosis threatens, in diphtheria, tracheotomy is the one remedy, of many recommended, which is more certain of prolonging life long enough for giving the patient a chance for outliving the disease, and escaping impending suffocation.

Dr. Ripley, whose experience in the treatment of this disease is a large one, and who is a careful observer, with nothing of cheap sentimentalism about him, says: "Thus far in the history of the treatment of croup tracheotomy has done more in saving life than all other means combined."[4]

Professor Jacobi says: "Diphtheria of the larynx, whether it be of primary origin or the result of extension from the fauces, is nearly always fatal. In severe epidemics the mortality is ninety-five per cent. Tracheotomy, too, saves but few of those who take the disease at such a time. In fifty consecutive tracheotomies, from 1872 to 1874, I did not see one recovery. In the last few years I have seen few good results. In average epidemics, tracheotomy will save twenty per cent."[5]

This statement is praiseworthy, because it is so honest; but, though rather of gloomy portent regarding the operation, it is not meant to, nor does it prove, the inutility of tracheotomy even when epidemics are severe.

Dr. Ripley says: "If diphtheritic deposit on the fauces or in the nasal passages have preceded the onset of the croup for a number of days I consider it a favorable circumstance." He gives in proof of this statement the following interesting statistics: "In 70 of my own operations, in which I have carefully noted whether the croup were primary or occurred secondarily after several days' illness from nasal or pharyngeal diphtheria or one of the eruptive diseases, the proportion of recoveries in 25 cases of late croup was forty per cent.; in primary croup, twenty-four per cent.

Krönlein[1] found that when the diphtheritic exudative process remained stationary in the fauces, pharynx, and nose, the mortality of the disease was thirty per cent.; but when this exudative process extended down into the larynx and trachea, though the cases were tracheotomized, the mortality ascended to over seventy-three per cent.

Besides the peculiarities of epidemics, and of the pathological process, the age of the patient operated upon very materially influenced the percentage of recoveries after tracheotomy.

Krönlein found that the younger the patient the less are the chances of recovery. The percentage of recoveries improves up to the eighth year of life, and from this to fourteen years of age remains about the same. Of fifteen children tracheotomized in the first year of life, only one recovery is noted. Of five children tracheotomized during the twelfth year of life three recovered.

The statistics of cases done in private practice are said to be better than those of hospital practice. This may be so in some kinds of private practice; but the private practice among our tenement population would probably not offer better tracheotomy statistics than the hospitals do, and I doubt if they would be as good.

Dr. Winters, in one of his conclusions in his essay, says: "Performed early, it (tracheotomy) snatches from certain death fully two-fifths of all cases." No other warranty for the infallibility of this conclusion is given than its mere assertion.

When men, whom we know to be as experienced as Dr. Jacobi and Dr. Ripley are, give us demonstrations of fact rather than bald assertion, how can it be fairly expected that we shall allow ourselves to be influenced by such a conclusion as Dr. Winters has offered?

Lindner[2] says: "Of 101 tracheotomized patients 63 died, or about sixty-three per cent.; 38 recovered, or about thirty-seven per cent. At a first glance these figures look very well, better than many a larger array of figures; but these calculations are worth about as much as the calculations based on larger statistics, until now published, namely, of no value at all." They are of no value when the circumstances peculiar to each case operated are left out of account. Statistics are not tables of absolute facts and truths; but rather indices of these. Neither can statistics be justly used in passing judgment on the fortunes of practice. Practice consists in the treatment of single cases, and the physician or surgeon is not privileged to pick his cases by rule of statistics. Thus Dr. S. S. Jones, of this city, has the courage to let us know that he has had only one successful tracheotomy in seven. Krönlein instances the case of a Berlin surgeon, who tracheotomized sixteen times before he could record one recovery. And I have already quoted Jacobi's statement of fifty consecutive tracheotomies without one recovery.

Krönlein, in his splendid essay on this subject, already quoted from, gives encouraging proof, in various shapes, of the utility of this operation in overcoming the laryngeal stenosis at times incidental to diphtheria. What can be more convincing in this respect than that of twenty-two children tracheotomized, though in a state of asphyxia, and yet two of these brought back to life by means of the operation! One child was two years and eleven months old; the other three years and three months. The asphyxia had been caused by diphtheritic laryngeal stenosis.

Professor Jacobi[3] tells us that "the diphtheritic exu-

[1] In the text I forgot to mention that George Martin introduced the double canula into use, or proposed it, about 1730.
[2] London Lancet, August 30, 1884, p. 357.
[3] The Medical Record, April 5, 1884, p. 369.
[4] Ibid., p. 367.
[5] Treatise on Diphtheria, p. 150.

[1] Langenbeck's Arch., vol. xx., p. 295.
[2] Tracheotomy in Croup u. Diph., Deut. Z. f. Chirurgie, xvii., p. 440.
[3] Gerhardt's Handbuch, B. ii., p. 759.

dative process which ascends into the larynx from the trachea is absolutely fatal. In these cases tracheotomy postpones the fatal issue only for a few hours." I have heard other experienced physicians express a similar opinion. These men have seen much of diphtheria during the last thirty years. But Dr. Winters' experience must have been different from theirs, for he boldly tells us: "When the disease involves the trachea, it is *by propagation from the larynx, and not by a simultaneous attack* on the larynx, trachea, and *bronchi*. In many cases this *extension downward may* be prevented by early making a way for sublaryngeal respiration, so that the inflamed larynx may be allowed to rest, and be saved from irritation by the passing breath, and thus cause arrest of the diseased action there." Except the mere assertion no proof is given for it, which I suppose we are to infer rests on his experience. He also assures us that this diphtheritic exudative process goes beyond the larynx less frequently than many of us suppose, and in confirmation of this we are told that Krönlein found it only forty-six times in two hundred post-mortem examinations extend beyond the limits of the larynx.

Dr. Henry Wm. Fuller, in his essay on "Tracheotomy in Croup,"[1] tells us: "With the view of determining the existence, seat, and extent of false membranes in the air-passages, M. Chanantais has reported the post-mortem appearances observed in one hundred and forty cases of croup. They occurred in France, and therefore the majority of them were probably examples of the diphtheritic form of the disease:

In 25 no false membrane beyond the larynx and middle of the trachea.

In 50 the affection reached the lower part of the trachea.

In 22 the larger bronchi were affected.

In 19 the false membrane reached the smaller bronchial ramifications.

In 7 the seat of exudation was not precisely limited.

In 7 no false membrane was found in the air-passages.[2]

Another series of 171 cases has been collected and reported by M. Hussenot.[3]

In 30 the larynx and trachea implicated; condition of bronchi not mentioned.

In 78 the false membrane in the trachea, but not below.

In 26 the larger bronchi affected.

In 16 the smaller bronchi implicated.

In 21 no false membranes found.

If these figures did not disprove Dr. Winters' assertion, they would at least prove that trusting to one set of figures is apt to lead us into a fallacious course of reasoning.

With reference to Krönlein's cases it is plain that Dr. Winters has stated only so much concerning them as his argument needed for appearances of validity. Krönlein,[4] in the table in which these forty-six cases are mentioned, states that they were cases of laryngo-tracheal diphtheria, without any discoverable accompanying exudation in the throat or nose. As to whether or no the early performance of tracheotomy is capable of preventing the descent of the exudative process into the lower air-passages, Dr. Winters is himself really not so sure about it as at a first glance seems. He merely says this progress *may*, *not that it is*, prevented. He does not tell us in how many, nor in which cases this *may* occur. His arguments of rest to the larynx as a preventive of the spread of the exudative process are only analogical in character. Syphilitic and tubercular ulcerations and other chronic laryngeal troubles have nothing pathogenetically in common with the diphtheric process.

In the discussion following the second reading of his paper Dr. Winters said: "With reference to the extension of diphtheria to the bronchi, if diphtheria extended into the bronchi it almost always did so before the performance of tracheotomy. Dr. Winters did not think that a post-mortem record could be found which would tend to show that the membranous exudation of diphtheria appeared in the trachea and bronchi *after* the performance of tracheotomy when it did not exist previous to the operation. The extension of the disease was by its propagation downward, and in those cases in which it was found death occurred within a comparatively short period, before sufficient time had elapsed for the disease to extend there after the performance of the operation."

In the "Transactions of the Medico-Chirurgical Society" for the year 1857, vol. xl., Dr. Henry William Fuller reports the following case: A boy, four and a half years of age, was admitted into the hospital under the care of Dr. Wilson. The child had had scarlet fever six weeks before the present illness of croup set in. As the child had been barely twelve hours under treatment, and the dyspnœa, though considerable, was not accompanied by any great degree of pallor or lividity of countenance, it was judged expedient, for a time at least, to continue the administration of calomel and salines, and tartar emetic in one-fourth grain doses. The child slept at intervals during the night, and though he suffered one or two attacks of urgent dyspnœa, he appeared somewhat easier the next morning. Toward noon, however, the symptoms assumed an alarming character, and in a short time the countenance became ghastly pale, and suffocation became imminent. Mr. Hewitt was therefore asked to perform tracheotomy, which he did at 1 P.M.; and the operation was not attended by much hemorrhage. The child was a good deal exhausted, but at 2 P.M., after coughing up a considerable quantity of mucus, no false membrane, through the wound, he was greatly relieved and fell asleep. Beef-tea, and port wine in half-ounce doses, and cinchona were ordered. Throughout the remainder of the day and the following night he seemed comfortable in every respect; he continued at intervals to cough up through the tube a considerable quantity of mucus, and each time he did so he manifestly obtained relief; during the intervals the breathing, though quicker than natural, was performed without difficulty.

Early on the morning of the next day his face became flushed, his skin hot, and by degrees some difficulty of breathing ensued. From this time the dyspnœa gradually increased, and at half-past two in the afternoon became urgent: no mucus or discharge of any kind came through the tube, which was removed without effect, and death from suffocation speedily took place. Dissection showed the subcutaneous tissue round the tracheal opening infiltrated here and there with purulent fluid; the pharynx exceedingly congested; the tonsils enlarged and hardened, and presenting old cicatrices, and one or two small specks of recent ulceration on their surface; the epiglottis natural, but the larynx and trachea almost down to the bifurcation lined with concrete albuminous exudation, which at the upper part of the windpipe was exceedingly firm, forming a cast of the tube; the bronchial lining membrane congested, and covered with thick mucus, and the right lung in one part passing into the early stage of red hepatization. The other viscera were healthy.

Whether Dr. Winters and those who side with him would accept this as an instance of the extension of the exudative process down the trachea *after* the performance of tracheotomy, it is not easy to say. Except the chronological test, Dr. Winters does not furnish us with any clinical test which might convince him of the existence of such recorded cases as he has doubts about. In commenting on this case Fuller calls attention to "the immense relief obtained by the operation, and the presumption thereby afforded that at the time of its performance the tracheal and pulmonary obstruction was far less extensive than that found after death, and the length of time during which the patient continued free from

[1] Trans. Med. Chir. Society, vol. xl.
[2] Du Croup, par Jules Louis Chanantais. Paris, 1844.
[3] Thèses de la Faculté de Paris, No. 63, p. 73, 1883.
[4] Langenbeck's Arch., B. xx., p. 295.

urgent dyspnœa . . ." It is difficult, before operating, to ascertain how much, or if any, of the trachea is involved in the diphtheritic process, when the laryngeal stenosis has become such as to demand an operation.

In a number of cases of diphtheritic croup analyzed by Krönlein, inspection failed to discover any exudation on the palate, fauces, or visible pharynx, although swelling and redness of these parts were present; and in not a few of these cases diphtheritic exudation appeared on these parts later on, where none had been before.

Mr. Marsh, in his paper quoted from by Dr. Winters, narrates the following case: "A girl, four and a half years of age was attacked with laryngeal diphtheria on January 26th. On the morning of the 27th the difficulty of breathing had become so great that Mr. Paget recommended and performed tracheotomy. She had immediate relief from her dyspnœa, and except that she had some albumen in her urine, she progressed favorably. On plugging the orifice of the tube on January 30th, it was found that she could speak, though indistinctly, and breathe imperfectly through the larynx. On the 31st the tube was corked, but she could not then breathe sufficiently, and the cork was removed. Next day the canula was corked again, but the larynx still remained almost completely obstructed. On the ninth day after the operation, false membrane was seen upon the fauces, and the child coughed out shreds of exudation through the canula. So it seemed evident that diphtheria, accompanied with exudation, had continued after the operation, and that the larynx had been, and still was, occupied by the deposit. There were no means of ascertaining before that this was the state of things—the throat had been examined but nothing had been detected, no membrane had been coughed up, and the child's general condition was not such as to suggest still active disease. The albumen had disappeared from the urine, and she had very little fever." [1]

In THE MEDICAL RECORD for July 17, 1880, Dr. Ripley narrates an interesting case, which clinically may be taken as an instance of the progression of the diphtheritic process after operation. The case was a boy, two and a half years of age, who was taken sick on January 4th. On January 5th and 6th he had suffocative attacks, each lasting several minutes, and in the evening of the latter day dyspnœa slowly developed, and the breathing had become noisy and the voice hoarse. At 8 A.M. on the 7th of January, Dr. Ripley saw the child for the first time and found "the patient in an extreme condition; the dyspnœa was painful to witness; the face was pallid and covered with a cold sweat; the eyes partly closed, and the sclerotic of a bluish color; the extremities cold, and the senses blunted. Both nares plugged with mucus. The respiration, carried on through the open mouth, 40 per minute; temperature 97.1°. The lungs generally tympanitic on percussion, while on auscultation little could be heard except the sounds conveyed from the larynx. No membrane was seen in the throat or nose. The tonsils were large and congested, and the neck appeared a little swollen. The operation of tracheotomy was simple and bloodless. Although the trachea contained a large amount of puriform matter, no membrane could be found. The operation gave complete relief, the respiration falling from 40 to 28 per minute. At 10 P.M. the respirations were 26, the breathing noiseless. Secretion from the tube moderate.

"January 8th, 10 A.M.—A fair night was passed, and child looking well. Free purulent discharge from the nostrils, and membrane seen lining the left; but still none in the throat. By pouring a teaspoonful of warm water into the trachea coughing was excited, and large shreds of false membrane were expelled. The breathing had been harsh, now the breathing was easy. Pulse, 140; respiration, 38; temperature, 100°.8. At 7 P.M. breathing harsh. The condition now became worse in all respects. On January 11th—the fifth day after the operation—signs of exhaustion appeared; respiration had become labored and sawing. Temperature, 105°; respiration, 44; pulse, 160; and on January 12th the boy died, the sixth day after operation. The post-mortem examination was made eight hours after death, in the presence of competent witnesses. On removing the sternum the lungs were found hyperinflated and bloodless, and they did not collapse. Patches and streaks of collapse were found, particularly in the right upper lobes, but in the left also, and posteriorly. A shred of membrane was hanging into the tube from the left vocal cord; lining membrane of the trachea congested. In the right lung the false membrane extended into the sixth division; in the left into the fourth bronchial division. Wherever membrane was found it was for the most part loosely attached and the mucous membrane underneath congested. There was very little purulent matter in the smaller bronchial ramifications" (pp. 58, 59). Now, Passavant admits that when tracheotomy is performed early the diphtheritic exudative process continues and progresses, and he pleads that the blame ought not to be cast on the early performance of the operation. Of course not.

The membrane may persist in remaining in the larynx for more than several days. Mr. Marsh, in his paper already quoted from, reports the following case: "A patient in the Hospital for Sick Children, who had suffered tracheotomy for diphtheria, died of pneumonia fourteen days after the operation. When the larynx was examined it was found completely blocked by thick, false membrane, which extended downward nearly to the bifurcation of the trachea."

Bearing these facts and cases in mind, comment on the above-quoted statements of Dr. Winters becomes unnecessary.

Although the assertions as to tracheotomy possibly or probably checking the progression of the diphtheritic process have scarcely any better foundation than the mere saying so, the operation is none the less a needed and beneficent therapeutic resource in cases of continued and progressive laryngeal stenosis, even so badly conditioned as are these of diphtheria. However, it is not wise, nor is it just, to claim too much, even for tracheotomy, in diphtheritic croup. It has often been said that simplicity is the index of truth. Nothing could be simpler than Dr. Winters' summary of the pulmonary changes resulting from laryngeal stenosis in diphtheria in cases not operated, in cases operated "late," and in cases operated "early." In cases of diphtheritic croup where tracheotomy has not been done, says Dr. Winters, post-mortem examination reveals the lungs and bronchi congested, and "always an excessive quantity of mucus on the bronchial mucous membrane. In a smaller number of cases, œdema of the lungs and pneumonic changes." When cases of "late tracheotomy die soon after" (how soon not stated) "the post-mortem changes are much the same as in cases not operated on." And lastly, "when death has taken place from several days to two or three weeks after the operation, the mucous membrane of the bronchi and pulmonary vessels is quite normal." [1]

These formulas, we are told, are based on an examination "of a large number of autopsies" which had been carefully recorded; and that his "own records" invariably give the same showing. In organizing his facts into these three formulas the perfection of that art has been attained which Lord Bacon says has for its object the perfecting of nature. No one will object to the union of facts into generalizations, for doing that is organizing knowledge, making facts the easier to comprehend, and knowledge all the more useful. But in organizing knowledge the facts must not be hidden from us, nor the

[1] St. Barth. Hosp. Reports, vol. iii., p. 327.

[1] THE MEDICAL RECORD, December 13, 1884, p. 650.

sources whence they are derived. A theory may be correct enough, but the facts may be false, or wrongly applied. Bretonneau, whom Dr. Winters praises so highly as an observer, in which praise all who have read any of Bretonneau's works will join him, describes the post-mortem appearances of a non-tracheotomized case of croup thus: "Lungs crepitant, of a rosy white, the tint of which became more deep toward the posterior and dependent parts. The mucous membrane of the bronchial tubes was pale, and the first traces of the disease were observed only in the trachea. Toward the middle part we began to discover some violet-colored spots, not very distinct, but which were found more confluent and of a more decidedly red color on tracing this tube upward. The diphtheritic membrane almost entirely obliterated the glottis." This child was five years old, and had frequently suffered during the last two years of life from coryza and bronchial catarrhs. The croup had been treated by applying twenty-two leeches at two intervals, and the blood had flowed abundantly for twelve hours. Two pounds of the syrup of ipecac with tartar emetic had been given within three days' time. There had been repeated vomiting.

On the sixth day calomel and mercurial inunctions had been resorted to. Oxygen gas had also been given, and "the livid tint of the lips and face, for an instant, changed to red, the stupor was sensibly diminished, and perhaps under more favorable circumstances the treatment might not have been unavailing." Just so; that's what is so often needed to make the treatment successful, but is often wanting—these "more favorable circumstances." Bretonneau reports this case as an instance of the failure of blood-letting in the treatment of croup. The therapeutics no doubt influenced post mortem appearances. General anæmia had been produced. But the lungs showed active hyperæmia, passive congestion, also anæmia, and emphysema.[1] In the autopsy of Case VII.—also detailed in this Second Memoir—the pulmonary changes were "two rather circumscribed and partial spots of hepatization, which were observed toward the centre of the right lung, made us suspect that the inhalation of hydrochloric vapor might have caused inflammation of the pulmonary parenchyma;" and further on Bretonneau says, "the mucous membrane of the bronchi was in a healthy state, or not much different from it."

Dr. Barker (London), in the thirty-eighth vol. of the Med.-Chirurg. Soc. Trans., relates the history of a case which will not accommodate itself to the three formulas of pulmonary changes induced by laryngeal stenosis as fashioned by Dr. Winters. It was that of a child, seven and a half years of age, in whom post-mortem was found an intralaryngeal growth almost occluding the glottis. When the child was brought into the hospital, its mother stated that he had always been croupy. The laryngeal growth had been developing a long while, no doubt. Dr. Barker writes, that it is "difficult to convey by means of words the symptoms that were present," when he first saw the child, so distressing were they. The child died asphyxiated, presenting the symptoms of croup. Post-mortem examination revealed: "The bronchial tubes and trachea contained a good deal of frothy mucus, but in other respects they and the lungs were healthy." This case had not been tracheotomized. Though not a case of diphtheritic croup, it is quoted as illustrating the influence of laryngeal stenosis on pulmonary conditions as judged of by post-mortem appearances.

Dr. Fuller, says: "Not only is it not uncommon to find pulmonary engorgement in croup unconnected with any material obstruction of the upper air-passages, but in many instances, even when the larynx and trachea have been plugged with false membrane, the amount of pulmonary engorgement observed after death has not been greater than that which occurs in the course of three minutes in cases of ordinary asphyxia." The principal pulmonary changes found by Passavant, in his examinations of children that died in consequence of diphtheritic croup, were pulmonary emphysema and anæmia in front, and especially above, and congestion of the lungs, especially posteriorly, inferiorly. Passavant opines that this congestion of the posterior inferior portions of the lungs should not be attributed to hypostasis, because, he avers, if the corpse be placed on the belly soon after death, instead of being allowed to lie on the back as is usual, it will be found that though the anterior portions of the lungs are now somewhat more vascular, the vascularity of the posterior portions is still greatly in excess. This manœuvre, however, does not do away with the difficulty encountered in not believing the posterior congestion to be due to hypostasis. Could the child lie on its belly as long as it must on its back before it dies, would not this "passive" congestion be as common anteriorly as he found it posteriorly? I think so.

Mr. Thomas Bryant's case of foreign body in the larynx, though "showing how quickly obstruction to the respiration may induce changes in the bronchi," does not, in my opinion, go to prove what Dr. Winters seems to assume it does. Post-mortem examination, we are emphatically told, showed that where the bronchi were completely obstructed the portions of lungs to which they led were *airless*.

Laryngeal obstruction from the diphtheritic process, and when due to a foreign body, very often differ in kind as well as in degree. From all that has been passed in review, concerning the pulmonary changes incident to laryngeal stenosis peculiar to diphtheritic croup, it will have been seen, rather corroborates what Dr. Ripley has been teaching us that his post-mortem examinations reveal.[1]

(To be continued.)

[1] Case IX., pp. 49-54, Bretonneau's Mem., Second Mem., New Syd. Soc. Ed.

[1] In this section I have made mention of only or mainly the principal pulmonary changes induced by laryngeal stenosis to the degree inconsistent with life. Passavant, Ripley, and others mention other changes too, but they are minor to these. I have not attempted an explanation of pulmonary changes due to diphtheria, etc.

THE CURE OF HERNIA IN THE INFANT.

By W. B. De GARMO, M.D.,

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In reference to hernia as we find it in the adult, it is impossible to speak with any degree of certainty respecting its cure. This fact has long been established, and is very generally understood, so well understood as to lead in many instances to the neglect of suitable treatment for its relief, the patient being assured that nothing can be done, and that he must get along as best he can.

That very many practitioners do not discriminate between hernia as seen in the adult and that occurring in infancy, I have had frequent evidence of, and that such an error is productive of great harm there can be no question in the minds of those who have had any amount of experience in the treatment of cases of this class.

It is an error to assume that nothing can be done to relieve the adult sufferer from hernia, and it is a still greater error to assume that hernia in the infant cannot be cured. Careful, early, and persistent treatment will be rewarded in almost every instance by the cure of the case, and the child saved much subsequent trouble and suffering.

This result cannot be attained by recommending the use of an appliance, no matter how perfect it may be, and leaving the case without further attention, for while we have, as I believe, nature on the side of cure, she requires the intelligent aid of the physician, and that aid should extend over a sufficient period of time to insure the cure of the case.

It is not necessary to enumerate all of the causes of infantile hernia in this brief paper, but I wish to make special mention of two or three, as unless these are

recognized and removed, success will not be likely to attend its treatment.

Phimosis is not only a more frequent cause of hernia than is generally supposed, but its presence is an almost insurmountable obstacle to the cure of the case. When it is discovered that the infant has an abnormally long prepuce, with a contracted orifice (the inner surface of which becomes so agglutinated between each urination that this act is only accomplished by straining), then it is highly important that this difficulty should be removed at the outset. This done, an existing hernia will yield readily to treatment, and a cure result in due time.

Not infrequently constipation is the cause of hernia in infancy, and inquiry should always be made on this point.

Another cause, which I have found in several cases, is the customary habit of tight bandaging; some nurses being accustomed to tightly bandaging the child as well as the mother. This forces the viscera into the lower part of the abdominal cavity, and produces undue pressure upon this region. In many instances I have found it necessary to insist upon the loosening of these belly-bands in order to secure favorable conditions for the retention and ultimate cure of the hernia.

In view of the fact that these and many others are avoidable causes, or causes that may be readily removed, it is not best to look upon any case of hernia as having its origin in a so-called inherent defect in the physical organization of the individual. To make a diagnosis of hernia, with no attempt to go farther, is, I regret to say, a practise as common as it is superficial, and the importance of a change in this respect will be quickly demonstrated to any physician who will adopt the more thorough method of examination.

It has been asserted by some writers that congenital hernia is by its very nature incurable; this, in the light of repeated experience, should be looked upon as wholly incorrect. Individual experience leads me to consider this class of cases nearly, if not quite, as curable as non-congenital hernia. It is simply the result of delay in the division of the tunica vaginalis from the peritoneum; that this division can take place after as well as before birth is reasonable, provided proper aid is rendered to prevent a mechanical obstruction to that occurrence.

Nature unaided, however, cannot complete this change so readily, as from the altered conditions and position of the child there is a more or less constant protrusion through this opening. If this protruding mass is returned within the abdomen, and its complete and constant retention accomplished by the judicious application of pressure over the canal, the cure can be obtained nearly if not quite as quickly as in any other form of hernia.

In congenital hernia there is one complication occasionally met with, with which it is best to be familiar, as if not understood it makes treatment difficult and perplexing. I refer to the presence of fluid within the abdominal cavity, which descends into the scrotum with the hernial contents. In quantity it may amount to one, two, or three ounces; it usually returns when the hernia is reduced, but cannot be retained within the abdominal cavity by any appliance that can be tolerated by the infant, and within a short period of time after the truss has been applied it will be found again in the scrotum.

So far as my observation goes it has not been necessary to adopt any special treatment in these cases; usually a properly fitted truss with a small convex pad will retain the intestine, and the fluid will, ordinarily, disappear within the first month or two. Such cases are quite likely to be neglected, or treatment abandoned under the supposition that nothing is being accomplished, that the hernia is not retained, if their true condition is not recognized by the physician and made known by him to the parents.

Hydrocele is a frequent complication of hernia in infancy, and several cases have come under the writer's observation wherein it seemed to have been produced by neglecting the hernia; usually, tapping has been sufficient to produce a cure, but in some it may be necessary to resort to one of the well-known operations for its radical cure; if of any size it certainly should not be allowed to remain, as its presence materially interferes with the treatment of the hernia.

While strangulated hernia is, in the infant, exceedingly rare, and very few reported cases are on record, I have seen several cases wherein the reduction of the hernia was attended with great difficulty—in fact, in one instance, impossible until an anæsthetic had been administered.

"At how early an age is it proper to begin the treatment of hernia?" is a question that has been repeatedly asked the writer by physicians. There appears to be almost universal doubt in the professional mind on this point, and many practitioners feel that they are giving the patient the "benefit of the doubt," by advising delay of treatment until the child reaches an age of one, two, or three years. Experience proves conclusively that advice of this character is erroneous, resulting only in diminished chances of cure, increased difficulty in treatment, and adding to the discomfort of the child.

The writer has frequently begun treatment on infants two weeks old, and in one instance on a child one week old who was the unfortunate possessor of two inguinal and an umbilical hernia. One month should certainly be the limit as to the length of time that should be allowed to elapse before treatment is commenced.

Intestinal irritation appears very commonly in infants afflicted with hernia, and as commonly disappears when the hernia is properly retained; in children previously restless and troublesome, immediate improvement may frequently be noticed. I wish to call especial attention to this fact, as I have seen the treatment of hernia postponed on account of intestinal disturbance being present. A carefully adjusted truss does not seem to inconvenience the most delicate child; on the contrary, it seems in almost every instance to afford some relief in the class of cases just mentioned.

As to the best truss for use on infants, I believe that the experience of any impartial observer will lead him to confirm my own conclusion, that the only one perfectly adapted for such use is the hard-rubber truss; I can hardly conceive of any substance which would be so well tolerated by the infant skin. Springs protected by this substance retain their elasticity, do not corrode by their necessarily frequent wettings, and the entire truss can be washed daily. With no other appliance known to me can such strict cleanliness be observed.

The best style of spring for single hernia is that which crosses the front of the abdomen and passes around the hip opposite to the affected side. In very young children in whom double hernia exists, I am in the habit of using this same style of truss, with another pad arranged to slip on the spring, *i.e.*, having one pad on the end of the spring and the other about two and a half inches from the end. This will be found better for use on children where the pelvic measure is less than twenty inches, than the double truss as ordinarily manufactured. In those measuring more, and in adults, this method of fixing both hernial pads to the one spring is not advisable.

It will rarely be found necessary to use anything but the small oval pad, which should always be located as nearly over the internal ring as possible; much harm may result from the application of a small prominent pad over the external ring, into which it wedges itself and thereby increases the difficulty instead of aiding in a cure.

The spring should be long enough to extend well around the back, and the pressure very carefully regulated to meet the requirements of the case in hand. The use of the diagram method recommended in THE MEDICAL RECORD of June 21st[1] will be found a great aid in securing an accurate fit.

[1] The Practical Treatment of Abdominal Hernia: MEDICAL RECORD, June 21st, 1884.

In using truss springs covered with hard rubber it must be borne in mind that they should be thoroughly warmed by passing through a gas or lamp flame before attempting to shape them, when well warmed, however, they may be bent to any desired form, and the pressure increased or diminished at will.

As the child grows and changes in shape, a corresponding change must be made in the shape of the truss, and the pressure of the spring must be decreased as the hernia improves; for these reasons the case should be seen every week at first, and should be kept under observation for at least six months. Under the most favorable circumstances the truss should be worn day and night for one year. It should be removed and washed every time the child is bathed, care being taken to prevent the descent of the hernia at such times. Absolute cleanliness must be insisted upon to guard against excoriation of the surface.

Those forms of truss which are applied from the affected side, with the pad attached to a curved descending arm commonly known as the "French," "German," "Chase" truss, etc., are entirely unfit for use upon infants.

Respecting cure by surgical procedure it is perhaps sufficient to say that operations upon infants and in early childhood for so-called radical cures are entirely unjustifiable. Fully ninety-nine per cent. of such cases can be cured by milder means, and it is questionable whether the remaining one per cent. would secure a like result by surgical aid.

THE DETECTION OF ONE-SIDED DEAFNESS.

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THE first consideration in the detection of one-sided deafness is to determine the exact amount of hearing of the better ear when tightly closed with the finger or a piece of charpie. This hearing distance should be determined for both sides of the head. The principal difficulty in the problem will be in determining whether a given sound is heard by the ear under examination, or by its fellow. If one ear is possessed of normal hearing this difficulty becomes almost insurmountable. A case observed by the writer, where there was absolute deafness in the right ear, with perfect hearing in the left, furnishes important data on which to base certain propositions; it was that of a woman, I. A——, twenty-six years of age, who, at four years of age, was knocked down by a runaway team of horses. She was rendered insensible for a time, had convulsions, and her "face was turned" (facial paralysis), which exists at the present time. In a day or two it was noticed that she was deaf on the side of the paralysis; never any tinnitus; no signs of ear disease by inspection. The left ear has perfect hearing. With this tightly stopped by the finger, she hears the snapping of the finger-nails at four feet on the left side and two feet on the right side. The voice in ordinary tones is heard at a distance of 30″ on the left side and 15″ on the right. The whisper is heard 10″ on the left and 5″ on the right side, the hearing distance being about half as far on the opposite side as on the side of perfect hearing. Any sound produced on the right side and being heard, is unaffected in its intensity by opening or closing the right ear. It follows then, that in a given case, with the better ear stopped, and its hearing on either side being known, any increase in this amount on the affected side must be placed to the credit of the latter. In a given case, where a sound is apparently heard by the defective ear, and this being stopped still hears the sound as well as before, the better ear evidently is the source of the hearing. This latter test is mentioned in C. H. Burnett's "Treatise on the Ear."

Many cases will arise where the suspected ear has some hearing, but an insufficient amount to be detected by the methods already mentioned. To obviate this difficulty, a hearing-trumpet with a flexible tube susceptible of being compressed between the fingers may be used. My experience in the following case may illustrate the point: E. B. D——, aged fifty-five, had perfect hearing until July, 1883, when he fell from a ladder a distance of thirteen feet, striking his head upon the hard ground. He remained unconscious, as a result of the fall, for four weeks; he bled from one ear, and subsequently had a serous discharge from it which became ill-smelling. This discharge continued for several weeks. Tinnitus and vertigo have been constant symptoms. A firm step on the heel jars his ear very unpleasantly; has had several falls in consequence of the vertigo. No signs of middle-ear disease. The hearing for the right or good ear is nearly 10″; voice and whisper nearly normal. He had a "gathering" in this ear when a child. A great variety of tests were instituted to find whether there was hearing for even loud noises in the left ear. With a speaking-tube twelve feet in length, and passing into the adjoining room, the door being closed upon it, a loud shout through the tube was heard by the better ear, whereas a lower tone was not heard at all. Evidence of its being the better ear which heard was adduced from the fact that compressing the flexible tube made no difference in the power of hearing. To meet this difficulty I increased the length of the tube to forty-five feet, allowing it to pass into an adjoining room, with the door gently closed upon it to shut out sounds not passing through the tube. I may here remark that the rubber tube must not be of too narrow calibre (not less than 6 mm. in diameter), as in such a length the sound may pass with insufficient resonance to adequately impress the hearing if the tube be of small calibre.

Even with this length of tubing a very loud shout could be heard by the good ear while tightly stopped. The same was true with a sound produced by the striking of a metallic tongue-spatula against a large tuning-fork (producing a loud, harsh, discordant over-tone). In this case the patient failed to hear a loud sound which was inaudible to the good ear. If the sound could have been sufficiently increased in intensity without the fellow ear perceiving it, it is possible that the patient might have heard it, as, for instance, a pistol shot at the mouth of a hearing-trumpet of such length that the excluded ear could not have heard it. It will thus be seen, that tests for absolute deafness are extremely hard to find.

The tuning-fork is sometimes very serviceable in detecting one-sided deafness. In a given case, if it be placed on the teeth or on any portion of the head, it may not be heard in the affected ear, but on closing the latter there may be a certain amount of hearing, on the well-recognized principle that closing the ear augments bone-conduction. This point is developed in the *Arch. Otol.*, vol. ix., pp. 509, 510, by Dr. Knapp. Again, the tuning-fork placed upon the mastoid of the affected ear, or on the molar teeth of the same side, or over the temporal region, may be heard, apparently, in the affected ear, but in reality by its fellow. If it *is* heard by the worse ear, closure of the meatus will augment the sound, as previously stated, but if by the better ear, closure of *this* ear will cause it to be heard stronger. I at one time had a patient who was very hard of hearing in his right ear, who insisted that he heard the ticking of a watch pressed upon the auricle. On closing the fellow ear the watch was heard more distinctly, which made me suspect that the left ear heard it by bone-conduction. This, however, is an observation the exactness of which I somewhat doubt. Sometimes, by placing the base of a powerful tuning-fork against the mouth of a hearing-trumpet, especially if it be a metallic instrument, something may be gained by combining aërial with bone conduction. Another test, spoken of by Knapp in the *Arch. Otol.*, vol. ix., pp. 509, 510, is this: Pass a vibrating tuning-fork to and fro before the meatus, and in the regions of the "deaf points" there will be an interruption to the hear-

ing, which, when moved quickly, will cause a noticeable break in the continuity of the audible vibrations, provided the hearing in the affected ear is moderately good. If this is decidedly lowered the phenomenon will not be observed, but at the same time the fellow-ear is likely to hear the tuning-fork, and, for obvious reasons, without this peculiar interruption.

By this test it is not possible to differentiate between entire absence of hearing and a considerable degree of deafness. If the hearing is only moderately lowered this interference phenomenon is not likely to be observed, especially if the patient has not a well-trained ear; indeed, some of the less intelligent patients fail to recognize this phenomenon altogether, even in a normal ear.

On the whole I do not regard this test as of great practical value, but it is interesting from a scientific point of view. Another test by Knapp, mentioned in the article before referred to, is that with the pneumatic speculum. By exhausting the air in the meatus the membrane makes a certain excursion, accompanied by a click-like or rustling sound which the patient hears. The objection to this test is that it is, as far as I can observe, of little practical value. The sound made by the movement of the membrane is at best not a loud one, and of necessity it is accompanied by a *sensation* of movement of the membrane, not always so distinct from the sound produced as to enable the patient to state whether the phenomenon of rarefaction of air in the meatus is accompanied by general sensation or the production of that of sound. I have never been able to make a satisfactory diagnosis of one-sided deafness by this method. Many other tests for one-sided deafness have been used, but it is believed that those already mentioned will enable one to determine the state of hearing as perfectly as any known methods. The subject of simulated deafness by malingerers may be easily mastered by the application of the principles already laid down, provided a little ingenuity be practised.

A CASE OF GONORRHŒAL OPHTHALMIA, WITH RUPTURE OF THE CORNEA AND LOSS OF THE LENS.

By WALTER L. CARR, M.D.,

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HUGH GILMORE, thirty-eight years of age, a native of Ireland, unmarried, and a baker by trade, was admitted August 28, 1882, to Charity Hospital, Ophthalmic Division, Dr. E. T. Ely, Visiting Surgeon. The record from the ward history book is as follows:

Previous history.—Alcoholic. "Cold in eyes" two years ago. Contracted a gonorrhœa five weeks before admission.

History of present condition.—Patient thinks that he "took a cold" in his left eye a few (4?) weeks ago. The lid became very much swollen and the eyeball reddened. Then he had very great ciliary and supraorbital neuralgia, with a profuse discharge of pus from the eye. He used domestic remedies of various kinds, poultices, tea leaves, etc. Photophobia, lachrymation and discharge became so severe that he had to stop work.

Examination.—Left eye: lids very much swollen and inflamed; great deal of dirty pus constantly flowing from the eye. Chemosis to such a degree that it is impossible to see but a small portion of the cornea, which is quite clear. There is a bulging forward of the iris; right eye congested; patient still has some gonorrhœa and has been drinking.

Treatment.—Ordered iced cloths and solution of boracic acid. Patient put in bed. Two hours afterward I went to the ward and learned that the man had gotten out of bed during the absence of the orderly, and that there had been a rupture of the cornea at its lower circumference, with loss of the crystalline lens; some of the aqueous and vitreous humors escaping at the same time. Lens was found on the floor. Patient put back in bed. Solution of atropia (gr. iv.–℥ j.) used and compress bandage applied. Supraorbital and ciliary neuralgia so great that patient can scarcely bear the bandage. . . .

September 13th. — Left eye: vision, perception of light; cannot count fingers. Tension minus.

36 WEST THIRTY-SECOND STREET.

SUBMUCOUS LARYNGEAL HEMORRHAGE.

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FELLOW OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION,

WASHINGTON, D. C.

A HEALTHY, robust singer, thirty-six years of age, came hurriedly from the "Opera House" to my office, in January, 1884, stating that during the performance of a part of his rôle requiring great vocal strain and bodily exertion, his voice, which was in excellent condition, became suddenly extinct. On reaching the dressing-room at the theatre he was seized with a spasmodic cough, followed by the expectoration of a quantity of blood. The hemorrhage though not copious was continuous, having commenced about an hour before my assistance was sought. He was able to relate the above history in a voice disturbed at intervals by slight cough, a clearing of the throat, and the spitting of blood.

From the above incidents I was led to suspicion the rupture of a laryngeal blood-vessel, which subsequent laryngoscopic examination confirmed.

The laryngoscope showed that the entire left ventricular and vocal bands were bathed in blood; but after spraying the larynx with a solution of alum. grs. x. to f. ℥ j. of water, I detected that the hemorrhage proceeded from a point on the left ventricular band near its central portion. The streaks of blood could be wiped from the mucous membrane, which appeared normal, by employing a laryngeal sound armed with absorbent cotton. An insufflation of equal parts of gallic and tannic acids was made to the larynx, and a powder containing gr. ss. of opium and gr. iv. of lead acetate was administered, per orem, every three hours until the hemorrhage was checked.

Rest of voice, cold diet, and the free use of cracked ice were ordered. I visited my patient the next morning in his room; he spoke with difficulty, the bleeding had ceased, and a firm coagulum occupied the seat of previous hemorrhage. There was partial immobility of the larynx on the left, a want of approximation of the vocal bands, odynphagia, and some dyspnœa. The coagulum remained *in situ* until the third day, when complete disintegration occurred and a laryngoscopic examination revealed the fact that an extravasation of blood into the submucous tissues of the ventricular band had taken place.

After carefully cleansing the parts by means of a compressed air-spray of Dobell's solution the hemorrhage did not recur, but a large portion of the ventricular band was visibly ecchymotic and swollen. The color of the tissues underlying the mucous membrane and corresponding to the hemorrhage infiltration was reddish brown, while the left vocal band was of natural color.

This condition of ecchymosis (if it may be so called) continued for several weeks, and had not entirely disappeared when I last examined my patient, fourteen days after the accident. At this date, however, he had regained his natural-speaking voice, and the mobility of the vocal bands was apparently normal. I have since heard that it was fully three months before he could again fill his place on the programme.

I was able to discover no tubercular history in the patient, and at the time of this, his first hemorrhage, there were no signs of pulmonary disease. The solution of continuity and resultant hemorrhage were, in my opinion, attributable to the increased tension to which the laryngeal muscles were subjected.

The literature of laryngeal hemorrhage has been well

presented in recent papers; Dr. J. H. Hartman, of Baltimore, Md., having contributed a concise and practical article containing references to the more important examples.

The peculiar features of this case were the extensive extravasation of blood, the sudden aphonia, and the time required for absorption of the extravasation and restoration of the singing voice.

Cases in some respects similar to my own have been recorded by Sommerbrodt,[1] Schnitzler,[2] Fraenkel,[3] Hartman,[4] and others.

Clinical Department.

OXIDE OF ZINC IN THE TREATMENT OF WOUNDS.

Dr. Emil Steiger, of Prairie du Chien, Wis., writes: "As in none of our medical journals at my disposition, principal among them The Medical Record, have I seen mentioned the method of dressing wounds with oxide of zinc, I send to you this communication:

"About eight months ago I received, through the kindness of Professor Dr. A. Socin, surgeon in charge of the surgical department of the hospital in Basel, the annual report of said institution for 1883, and I can best benefit your readers by translating those parts of Professor Socin's preface, which refer to the use of oxide of zinc in surgery.

"After speaking of Listerism and its modifications, the powder dressings, and especially iodoform, with its great advantages and concomitant dangers, Dr. Socin continues:

"'Frequently I talked over the subject of antiseptics with my friend, Dr. Piccard, professor of chemistry, who drew my attention to the oxide of zinc. After several theoretical experiments, and after a short time of practical application, this drug proved itself in no way inferior to iodoform and bismuth as an antiseptic. At the same time oxide of zinc possesses merits, which should be fully appreciated, in the fact that it is absolutely harmless, positively odorless, and very cheap.

"'Already at the convention of the Aerztlicher Centralverein in Basel (May, 1883), I was enabled to report some surprisingly beautiful results, which we had obtained from the use of oxide of zinc. Soon thereafter I read (*Deutsche medizinische Wochenschrift*, No. 25, June, 1883) that Professor Petersen, of Kiel, had very successfully used the same remedy. But as the manner in which we make use of the oxide of zinc differs in various points from that of Professor Petersen, it will not come amiss for me to describe our method. The prominent and guiding idea is that no other antiseptic shall come in direct contact with the wound. Carbolic acid solutions, therefore, serve only for disinfection of the operating-room, the washing of hands and instruments, and the general field of operation. Sponges, after being used, are thoroughly cleansed in water, then for four weeks (the time of their being used again) soaked in a five per cent. solution of carbolic acid, and directly before using them again, well rinsed in clear water and immersed in "this zincmilk," of which more anon.

"'We use the oxide of zinc in four different forms:

"'1. A mixture of one part of ZnO. to one hundred parts of distilled water (thin zincmilk) we use for irrigating all fresh wounds, for moistening the sponges which come into contact with the wound surface, and for syringing out opened cavities of the tissues and joints, etc.

"'2. With a mixture of ten parts of zinc to one hundred parts of aq. dest. (thick zincmilk) we irrigate all wounds intended to be kept open, before their being dressed, long enough to secure a white covering or lining of the whole surface.

"'3. As dry powder the oxide of zinc is applied with a powder box to ulcers, burns, abrasions of the skin, etc., and possesses in such cases great merits.

"'4. To cover sutured wounds we use the so-called zinc-paste, consisting of fifty parts of zinc-oxide, fifty parts of water, and five-sixths part of chloride of zinc. This paste exposed to the air dries quickly up to form a hard crust, as both substances are chemically united into an oxychlorure of zinc, such as often used in dentistry. Supported by a thin layer of cotton this paste forms a hermetically closing and sufficiently adhesive cover of the wound. . . .

"'The cicatrices formed under this zinc cover are generally more beautiful and finer than those obtained from any other kind of wound-dressing. . . .

"'Quite troublesome is the so-to-say permanently necessary shaking of the zinc mixture as used for irrigating wounds, wherefore for such purpose we have lately substituted the solutions of corrosive sublimate, although these, when abundantly applied, cause sometimes stomatitis. For the treatment of wounds already septic the oxide of zinc is no more sufficient than any other antiseptics which are insoluble in water.'

"My absolute confidence in the scientific reliability of Professor Socin's statements and teachings, and the grateful remembrance of the professional advantages gained through the doctor's kind instructions in the 'auld lang syne,' induced me to use oxide of zinc in all suitable cases that came in my hands since I have read the report.

"The results justified all my expectations. When, a few days ago, one of the most prominent surgeons of the Northwest, to whom I mentioned the subject, declared that it was new to him and that he also had not seen it mentioned in any of our journals, I concluded to send you this communication."

CARBONATE OF AMMONIA IN SCARLET FEVER.

Dr. A. W. Jackson, of Brooklyn, writes calling attention to the treatment of scarlatina first brought prominently into notice by Dr. Peart, of England. This consists in the administration of from three to seven grains of carbonate of ammonia every hour for the first day, and then at longer intervals. Purgatives are to be avoided during the early stages of the disease. The writer states that he has had occasion to test this mode of treatment, and can endorse it heartily. In addition he employs the fluid extract of eucalyptus internally and as a gargle. When there is much exudation a mixture of carbolic acid and iodine in glycerine is painted over the parts. In too rapid recession of the rash, Dr. Jackson applies cloths dipped in thick mustard water, or wraps the child in blankets wrung out in hot water.

URETHRAL SPASM IN THE FEMALE RELIEVED BY COCAINE.

Dr. George Newell Hall writes that he was called to see a married lady, twenty-five years of age, who was suffering from retention of urine and considerable pain. She stated that she had been subject to these attacks from childhood, and had taken opium for their relief from the time she was thirteen years old. The spasms lasted, as a rule, for forty-eight hours, and were accompanied with considerable pain and a constant desire to urinate. An attempt to pass a catheter was unsuccessful. A grain and a half of cocaine was then dissolved in an ounce of water, and the catheter being introduced as far as the obstruction, about half of the solution was injected into the urethra. In about five minutes the catheter was again introduced and passed with ease into the bladder.

[1] Berl. klin. Wochenschr., No. 13, 1878, p. 175.
[2] Wien. med. Presse, Nr., 38–31, 1880.
[3] Berl. klin. Wochenschr., No. 2, 1874, p. 18
[4] St. Louis Medical and Surgical Journal, No. 6, 1879.

COCAINE IN STRONG SOLUTION.

Dr. C. H. Reed, of Bradford, Pa., writes in advocacy of stronger solutions of cocaine than those ordinarily employed. He uses generally a six per cent. solution, never injecting it into the tissues of the eye, and has never seen any unpleasant systemic effects. He finds that it does not materially lessen the pain of an iridectomy, and lessens but does not abolish the pain in operations upon the lachrymal sac. After the instillation of four drops of a six per cent. solution, applications of sulphate of copper or nitrate of silver are made without sensation. In operating for squint he makes four instillations of one drop each, at intervals of two minutes, and after cutting the conjunctiva drops one minim more upon the exposed tendon. In remarking upon the case reported by Dr. Peck in The Medical Record of January 17th, he states his belief that the patient was hysterical, and that the convulsions were of this nature and not due to the toxic effects of the drug.

LARYNGO-THYOTOMY FOR THE REMOVAL OF A BONE IMPACTED IN THE LARYNX.

Dr. Egbert A. Hall, of Red Cloud, Neb., reports a case of successful laryngotomy and secondary thyotomy in a child two years of age.

On September 18, 1884, the patient, while eating, suddenly began to choke and showed signs of laryngeal obstruction. These progressively increased, the patient suffering almost continuously from difficult inspiration and very frequently from attacks of coughing and strangulation. On November 12th, she was brought to Dr. Hall. No laryngoscopic examination could be made, but the diagnosis of an obstructing body in the larynx was easily made. Next day laryngotomy was performed through the crico-thyroid membrane and upper ring of the trachea. There was considerable hemorrhage, and the foreign body could not be found. A week later another unsuccessful examination was made.

"A severe inflammatory action," writes Dr. Hall, "followed, with œdema of the tissues of the neck and enlargement of the cervical glands, the edges of the wound were greatly swollen, and covered with a dirty, grayish deposit. The odor was decidedly unpleasant. The temperature rose to 103½° and remained high that week. The situation of affairs at this time was decidedly unpleasant. However, at the end of about one week the fever and swelling began to subside, and by December 12th, three weeks after our last attempt, the little patient had so far recovered as to warrant another effort to remove the foreign body.[1] I then decided to make thyrotomy, this being, as I believed, the only means of saving our patient, or removing the foreign body.

That morning the child was again placed on the table and under the influence of chloroform. Thyrotomy was made by cutting directly in the median line from the crico thyroid membrane up through the cartilage, from within out, keeping in the median line as near as possible. The incision was continued nearly to the thyroid bone. The tissues then were considerably swollen, and it was with some difficulty that we could locate the cartilages through them. Upon separating the cartilages, the obstruction was seen dislodged from its long resting-place (twelve weeks), and was floated to the surface by the free hemorrhage that followed.

The obstruction was a flat, triangular piece of chicken bone covered with a granular deposit, and with sharp points measuring five-eighths by three-eighths of an inch. Two of the angles acted as the pivotal points, causing the bone to act like a valve at each inspiration. The wound was left to close of itself without any special treatment. The child rallied nicely, without any unpleasant results from the operation. It is now only thirty-one days since the bone was removed. The wound has completely closed, and the child is rapidly recovering the use of his voice. Although he is not able to speak in a loud tone, yet he can be distinctly heard from one room into another.

During the time this case was under my care, I derived considerable satisfaction from a somewhat similar case, reported in the *Archives of Laryngology*, vol. iv., No. 1, January, 1883, reported by Ramon de la Sota, M.D., of Seville, Spain. But his case was a boy twelve years of age, mine two years and a few days. He made tracheotomy only, while I was compelled to make thyrotomy."

[1] I afterward learned that one of the physicians who assisted me November 20th, visited a patient suffering from diphtheria on the morning of the operation, and came direct from his patient's bedside to assist me; whether my patient contracted a diphtheria from him at this time, or not, I am undecided, but would not wish to submit another patient to such risks.

A SIMPLE EXPEDIENT IN THE MANAGEMENT OF STRANGULATED HERNIA.

Dr. S. H. Hurd, of Long Branch, N. J., writes: "Under the above caption Dr. C. A. Stewart, of Chicago, calls attention in The Record to a simple expedient he has resorted to successfully in five cases of strangulated hernia after taxis had failed. It consisted in dilatation of the constriction which produces the strangulation at the abdominal ring, by passing the finger along the inguinal canal, carrying the integument before it, until the constricting ring is felt. The finger is then gently insinuated into the opening, and, if the band of opposing fibres does not yield readily, gentle pressure is made against the upper border of the ring until it is felt to give way, when a resort to taxis again will ordinarily result successfully. Last year I called the attention of the members of our County Society to this plan and its happy results in several cases.

"One of my patients referred to was sixty-eight years of age, and several unsuccessful attempts had been made to reduce the hernia. I had made every preparation for surgical interference, and the patient was anæsthetized, when Dr. Green, of this city, attempted it by the above method and succeeded. The effort, though, was prolonged, and much patient and persistent pressure was made upon the fibres of the constricted ring before they yielded. This they ultimately did, but not by the 'gentle pressure' Dr. Stewart speaks of. An attack of peritonitis followed the reduction, but the patient made a speedy and happy recovery. Two similar cases treated by the same simple method, with no untoward symptoms following, warrant me in underscoring this 'simple expedient.' The first case occurred five years ago, and I do not report it with a view of establishing any priority of claim, but rather as a confirmation of the practice or plan recommended."

REDUCTION OF POSTERIOR LUXATION OF THE FOREARM OF FOUR WEEKS' STANDING.

Dr. William B. Bradner, of Warwick, N. Y., relates the case of a boy, fourteen years of age, who was thrown violently upon the ground by a playmate. Upon rising, he found that his left elbow was distorted, painful, and disabled. A physician was summoned and treated the child for twenty-nine days without relief. The patient then came under Dr. Bradner's care. Examination at this time showed slight flexion of the elbow and semi-pronation of the forearm. The olecranon was prominent posteriorly, while both condyles of the humerus presented boldly in front. The measurement of the forearm in front to the elbow, showed a shortening of an inch and a half as compared with its fellow, while to the extremity of the olecranon the measurements of the two forearms were alike. It was possible to flex the elbow by employing force, but when released it returned at once to its abnormal position. The lad was anæsthetized and attempts were made by Dr. Bradner, assisted by Drs.

Cooper and Holby, to reduce the dislocation by forcible flexion, and then by forcible extension, but without success. It was then determined to attempt the reduction of one bone at a time, and the radius was first selected. The elbow was placed over the knee of the operator at the same time that the joint was bent laterally, so as to widen the distance between the external condyle and the head of the radius. Then by vigorously crowding the latter forward, extending the forearm and rotating it inward, the radius came slowly into place. The lateral pressure was then reversed, and using the head of the radius as a fulcrum, the olecranon was pressed downward and forward, the forearm being rotated outward, and finally the ulna also came into place. The after-treatment consisted in cold affusions for a few days and then passive motion for a month, and the result was a good joint.

Progress of Medical Science.

Irritable Spine and Spinal Myalgia.—Dr. Gee defines "irritable spine" as meaning "painful spine," just as "irritable uterus" means "painful uterus." Pain constitutes the whole of the disease. Neither during life nor after death are any gross morbid changes to be detected. He takes exception to the view ordinarily put forward, that to an irritable spine may be traced a host of other aches and troubles, such as lumps in the throat, palpitation, dyspnœa, spasmodic cough, gastralgia, nausea, vomiting, irritability of the bladder, or suppression of urine. He believes all this to be a mistake, as he believes it also to be a mistake that the pain of an "irritable spine" is due to a "subacute inflammatory state of the posterior roots of the spinal nerves, or even of the spinal marrow itself." The symptoms mentioned may concur with an attack of irritable spine, but he maintains they are not the effect of it. Indeed, the idea of cause and effect must be reversed in the case of some of these supposed symptoms, such as menorrhagia. He points out the necessity for forming a correct diagnosis between two very different forms of irritable or painful spine; first, that in connection with co-existent painful affection of the spinal nerves emerging from the sensitive spot in the spine, and that in which the pain is confined to the spine, and which is usually due to myalgia; this Dr. Gee believes to be closely allied to fatigue, which may depend upon actual overwork in a fairly healthy body, or overstrain upon a muscle which is unfitted for a normal amount of work, in the case of general depression of bodily health in the sufferer. Spinal myalgia is increased by movement and diminished by rest. He illustrates this form of irritable spine, *i.e.*, that due to myalgia, by the notes of a very interesting case, in which all the features of such an affection were well marked. In conclusion, he touches upon the treatment, especially upon the necessity for careful dieting and frequent feeding. While commending rest to the muscles, he utters a warning note against the danger of condemning a patient to enforced rest in bed, or on the sofa, as likely to make the patient a confirmed hypochondriac and invalid. This portion of the treatment must be approached very tentatively, the inclination to give way to slothful indulgence upon the sofa being carefully watched and counteracted. Local applications, such as hot douches, belladonna liniment, etc., are useful in fighting this complaint.—*Medical Press.*

Inoculation of Intermittent Fever.—Professor Gerhardt recently abstracted some blood from a patient while the latter was suffering from a seizure of intermittent fever, and inoculated with this blood two healthy persons. He observed and insists upon the following precautions: 1. The locality in which the inoculation is to be made must be totally free from malaria. 2. The persons whose blood was employed for this purpose must not suffer from syphilis or any other inoculable disease. 3. The persons to be inoculated must agree to the experiment and voluntarily subject themselves to it. 4. The temperature record of the individuals to be experimented upon must have been carefully kept for some time preceding the experiment, and evince not the least increase of temperature. They must have been at the time of the operation, and for a long time preceding the same, utterly free from all febrile symptoms. The experiments themselves gave the following result: 1. The intermittent fever caused in this manner, by inoculation, is distinguished from the natural malarial fever by greater irregularity of the attacks of the former. 2. After a number of single or group-wise attacks, a regular quotidian, analogous to the form present in the original source, developed itself in the one person on the twelfth day, in the other on the twenty-fifth. 3. The fever thus artificially produced reached in both cases such a high degree (temperature as high as 106° F., and duration of fever fully twenty-four hours), that the experiment had to be interrupted by the administration of quinine. 4. There is no doubt that the pathogenic element of malaria is present in the blood of a patient suffering from intermittent fever at the time of a seizure, and that it is then, together with the blood, inoculable. 5. With very few exceptions, all the seizures by which the inoculated persons were attacked set in at the hour at which the inoculation had been made, or if they had not done so (as was the case a few times), they reached their acme at that time. The period of incubation was difficult to determine; the first febrile movement made its appearance in the one case on the seventh, in the other on the twelfth day, and the graver series of seizures began in the one on the seventeenth, in the other on the twenty-fifth day.—*Zeitschrift für Klinische Medizin.*

The Treatment of Phthisis.—Dr. J. Burney Yeo, in the London *Medical Times*, December 6, 1884, gives his ideas on the treatment of phthisis as follows: 1. In the first place, to prevent or amend those faults of constitution, organization, and development which predispose to the acquirement of this disease. 2. To prevent or cure those local pulmonary affections which may induce a tendency to this disease, even where no constitutional predisposition is found to exist. 3. To prevent the possible spread of the disease by the conveyance of its germs from the sick to those who are necessarily brought into close contact with them. 4. To endeavor, so far as possible, to antagonize the influence of the infective organism *in situ*, and in its action on the constitution. To attempt to hinder the progress of its development and reproduction, and its extension to the sound parts of the affected lung, and also to the sound unaffected lung, and to prevent the infection of other organs. This is what is understood by antiseptic treatment. 5. To lessen and remove the *fever* and other constitutional disturbances dependent on the infection of the constitution, as well as on the local inflammation. 6. To lessen and arrest the local irritation and inflammatory and catarrhal changes when evidences of such make their appearance. 7. To improve the disturbed and defective nutrition by all the means in their power, medicinal, regimenal, climatic, etc. 8. To relieve the various distressing symptoms that occur during the course of the malady. 9. To diminish as far as possible the evil consequences of the several grave complications incident to its course.

Phlegmasia Dolens.—It appears that notwithstanding the numerous works and discussions on phlegmasia alba dolens the subject has not yet been exhausted. Dr. Brun, of Paris, has just written a work on the subject which throws some new light on its symptomatology. He considers the disease under two forms. The first occurring as a malignant affection from its onset, and causing speedy death; the second appearing as incidental in the course of a general pathological condition. The first, or infectious form, has been well known since the time of Velpeau. The second form the author subdivides into latent, com-

mon, and lymphangitic. The latent form comprises those cases of sudden death from dyspnœa in severe diseases and after childbirth, in which the autopsy shows venous thrombosis of the limb, from which detached particles have been carried into the circulation and obstructed the pulmonary artery. The common form is passed over, as it has been so often described. The lymphangitic form is described as presenting a bright rosy color, diffused pains, which disappear slowly, great increase in the temperature of the limb and long-persisting œdema. The complications are: periphlebitis, consecutive arteritis, gangrene, and especially pulmonary emboli. The author regards a pre-existing lesion of the vein as the pathogenic cause. It may be due to vitiated nutrition, cachexia, or some severe febrile condition. A part of his observations, however, show that the nervous system deserves a share of attention. The views advanced by other recent writers on this disease are also of interest. Dr. Esler reports in the *British Medical Journal*, September, 1884, two cases of phlegmasia dolens occurring on the right side in patients who had, during and after labor, lain continuously upon the right side. Dr. Dill, of Belfast, believes that one position long maintained may have something to do with the affection, but holds that the wearing down of the system from hemorrhage and irritation of the womb often induces it. Dr. Macartney relates in the *Indian Medical Gazette*, of November, 1884, the case of a young soldier, who, after suffering pain in the left iliac fossa with obstinate constipation for ten days, during which time his temperature rose regularly each evening, suddenly experienced a severe pain in the left groin and the limb began to swell, reaching nearly twice the size of the normal leg. The pain was excruciating and not relieved by hypodermics of morphia. The swelling was uniform, elastic, but not pitting on pressure, there was œdema about the ankle. After four days improvement began, but was very slow, the limb being powerless, and attempts to move it causing dull aching pain. The author regards the case as one of phlegmasia dolens differing in no essential point from the disease as it occurs in lying-in women. The obstinate constipation, with pain in the left iliac fossa appears to have been the exciting cause, just as pressure of the fœtal head in this region, followed by pain and malaise, is believed to produce the disease in the puerperal woman. Another case is mentioned as having occurred in the same hospital, a short time before, in a man recovering from enteric fever.

Cocaine in Alcoholism.—Dr. Fleischl, of Vienna, is recently reported to have found in cocaine a rapid and satisfactory cure for alcoholism, morphinism, and allied habits. The nervous symptoms which arise upon either withdrawing the drug abruptly or by degrees are treated by the hypodermic administration of the muriate of cocaine. It is claimed that in ten days a cure may be effected. The dose is from a quarter to half a grain dissolved in water.

Causes of Death in New-born Children.—Dr. Nobiling, of Munich, whose labors in forensic medical research have earned him the reputation of a high authority in Bavaria, has recently published a series of contributions on the pathological appearances observed in the bodies of children that have died from asphyxia shortly after birth. He has examined a large series of bodies, and has arrived at the conclusion that the asphyxia often attributed to overlaying, and even to obscure pulmonary disease, is too often due to foul play. He is particularly suspicious of extravasations of blood, and presents some conclusions on that subject. Extensive subcutaneous extravasations could always be traced by Dr. Nobiling to external violence, including such as might be received in protracted and instrumental labor, and attempts to restore animation. Effusions of blood in the muscles of the neck and along the course of the great vessels are always caused by forcible strangulation. Hemorrhages under the capsule of the liver or in its substance are invariably the result of external pressure, and so are lacerations of the peritoneum, liver, spleen, and kidneys. These injuries are by no means rare results of violent attempts to promote respiration, and Dr. Nobiling has traced them also to rough and clumsy handling of a new-born infant by male relatives or incompetent nurses. Hemorrhage in the tissues of the umbilical cord are very rarely caused by the mechanical forces of labor, or even by artificial replacement of the prolapsed cord; they generally result from firm manual pressure on the cord, or from intentional laceration. Circumscribed collections of blood under the scalp or integuments may be either due to mechanical labor, or to many other kinds of external violence; the same applies to hemorrhages in the substance of the lips, tongue, palate, and pharynx, which are always traumatic. Bleeding from the external auditory meatus and extravasations behind the ear are also the results of violence, not disease. Dr. Nobiling has often found a portion of the fluid or solid material which caused the infant's death in the nasal fossæ, mouth, larynx, trachea, bronchi, pulmonary vesicles, œsophagus, stomach, tympanum, or Eustachian tube, sometimes in only one of these anatomical structures and regions. When blood is found lying free in the same parts, it may have proceeded from the infant's nose, or have entered its mouth during parturition, being of maternal origin. The principal lesson to be learnt from the researches of Dr. Nobiling is that all internal and intestinal extravasations of blood in the body of an infant are to be regarded with suspicion, and to be considered as traumatic, being due to violence causing visceral injury, or complete and sudden asphyxia.—*The British Medical Journal*, December 6, 1884.

Peptonization.—An observation communicated by M. Marcano to the Academy of Sciences is suggestive of what may prove a valuable process for the conversion of albuminoids into peptones. If a small quantity of the fresh sap of certain plants—the agave, for example—be added to chopped meat first covered with water, and the mixture be kept at a temperature of 102.2°–104° F., an active fermentation is immediately set up, with evolution of inodorous gases. At the end of thirty-six hours the fibrin has disappeared and a liquid is left containing peptone equal in weight, when dried in a stove, to one-fifth of the fresh meat used. This fermentation appears to M. Marcano to be due to the vital action of micro-organisms, and to resemble the peptonization of the gluten of flour by a bacterium which is said to take place in bread-making. In confirmation of this view it is stated that if the juice of the plant be saturated with chloroform the fermentation is not set up. Moreover, a "mucorinée" may be cultivated by sowing a few drops of agave sap in sugared water. This mucorinée is capable of completely dissolving fibrin in the presence of water. A large number of other fruits and juices are stated to be endowed with properties similar to those possessed by the sap of the agave. Papaw juice is said to be relatively weak compared with the peptonizing activity of other juices which contain no digestive principle like "pepsin." M. Marcano is of opinion that the new method of peptonization will afford a simple and economic means of preparing pure peptone quickly and at a low price, and suggests that it might be applied upon a large scale, so as to allow of the export of meat from South America in a form more nutritious and economical than the extracts.—*London Lancet.*

Laparotomy for Perforation of the Stomach and Intestine.—According to Mikulicz, laparotomy is indicated in all cases of perforation of the stomach or intestine due either to direct or indirect violence, or to some pathological process. Existing peritonitis should not contra-indicate the operation, as it may be thus effectually treated. The main contra-indication of laparotomy in such cases is extreme exhaustion. In the first of his reported cases, the author of this paper had to

deal with perityphlitis, which after a time became complicated by constipation, vomiting, and other symptoms of intestinal obstruction. Laparotomy was performed, and an incision, six inches in length, made in the linea alba. The abdominal cavity contained about two pints of very fetid fluid. The intestine, though bound down by numerous adhesions, showed no signs of any disturbance in the circulation. The patient died five days after the operation, and on post-mortem examination the seat of perforation in the intestine was first discovered. The second case was one of a young man who, after having suffered from diarrhœa during six weeks, became constipated during the seventh week, and presented symptoms of ileus. The case was diagnosed as one of volvulus. On the performance of laparotomy, one pint of turbid serous fluid was found in the abdominal cavity. A volvulus was found, and the obstruction removed. The patient recovered from the more direct effects of the operation, but after an interval of a few weeks succumbed to intercurrent pneumonia. The patient in the third case was a young man who, having been disturbed during sleep, and having suddenly sprung out of bed, was seized with intense pains in the umbilical region, and presented symptoms of obstruction. Sixty hours after the onset of these symptoms the patient came under the care of Professor Mikulicz, who diagnosed intestinal incarceration, and at once performed laparotomy. In the abdominal cavity he found about a pint of thin badly smelling pus, and some undigested pieces of potato. On the left side, just above the brim of the pelvis, a perforation, six millimetres in length and four millimetres in breadth, was observed in a knuckle of the ileum. The mesenteric glands were much swollen, and as no other cause of the lesion could be determined, Professor Mikulicz came to the conclusion that this case was one of perforating ulcer from typhoid fever. The edges were refreshed, and brought together in the long axis of the opening by a dozen sutures of silk. The subsequent course of the case was satisfactory, although the abdominal wound opened up and gave exit to a considerable quantity of pus. In the fourth case, laparotomy was performed for rupture of the stomach. The opening existed near the diaphragm, in the smaller curvature. The patient, whose stomach had been much distended, and whose abdominal cavity was filled with portions of food, died three hours after the operation.—*Centralbl. für Chirurgie*, No. 45, 1884.

The After-treatment of Vaccine Vesicles.—Dr. F. P. Atkinson suggests the following directions to be given after vaccination. 1. If the arm become red and inflamed, apply powdered oxide of zinc, starch, or flour. 2. Never apply moisture of any kind, whether in the shape of a poultice or cold compress, as it tends to convert the vesicles into open sores. 3. Never apply oil to prevent the clothes from sticking to the arm, as it will do nothing of the kind. If the scabs be rubbed off and the marks be deep and not inclined to heal, it is best to apply some small pieces of lint (of just the size of the sore) soaked in dilute nitric acid lotion (seven minims to the ounce), and keep them covered with oiled silk.—*British Medical Journal.*

Some of the Early Signs of Ataxy.—Dr. Jacquemart, in the *Journal de Médecine de Bruxelles*, describes certain urinary symptoms which may occur in a very early stage of locomotor ataxy. It has already been pointed out by Fournier, and also by Guyon, that locomotor ataxy may commence insidiously with certain vesical disturbances; and that the subjects of this disease are often at its commencement affected with symptoms that might impose on the medical attendant, and lead him to suspect some decided and severe lesion of the urinary passages—as, for instance, cystitis, calculus, or stricture. The symptoms of morbid condition of the urinary organs vary much in form. The most frequent symptom, according to Fournier, is sluggishness of the bladder without retention. The urine cannot be passed save with considerable effort, and the patient has often to wait long for the appearance of the stream. This symptom is observed most frequently in the early morning. In some cases the patient complains of the micturition being prolonged and frequently excited, and sometimes of the stream being suddenly arrested. Incontinence is also a frequent symptom. This differs in character from the incontinence due to organic disease of the bladder, as it is essentially intermittent, takes place usually at night, and is always partial and incomplete. A third class of disturbances consist in frequent desire to micturate, and painful spasm of the bladder or vesical colic. Another morbid condition, though much less frequent than the others, is vesical anæsthesia. It is held by Dr. Jacquemart that, when the medical attendant observes such vesical disturbances, the etiology of which cannot be made out, he ought to suspect tabes, even in the absence of any marked symptom of this nervous affection. Again, where the vesical disturbances coexist with any of the ordinary symptoms of ataxy (abolition of patellar reflex, visceral crises, ocular disturbances), tabes should be diagnosed, even in the absence of any decided disorder in the coördination of movements. Dr. A. Pitres (*Le Progrès Méd.*, No. 28, 1884) relates three cases in which weariness and sudden fatigue, and pain in the muscles of the limbs and loins, preceded the development of the characteristic symptoms of locomotor ataxy. He thinks these symptoms differ from those of ordinary physiological fatigue by their abrupt onset, the absence of any previous exertion, and their rapid disappearance after a relatively short time, and the complete integrity of the muscular sensibility during the intervals. He regards them as the clinical equivalents of the other crises affecting the stomach, intestine, kidney, bladder, etc., which supervene frequently at the beginning or during the course of locomotor ataxy, and which often permit a diagnosis to be made before any incoördination of movements or lightning pains in the legs have appeared.

The Forced Feeding of Phthisical Patients.—Dr. Störk, of Vienna, describes (*Wiener Med. Blätter*, December 25, 1884) a method for the enforced feeding of phthisical patients, which he has introduced lately, in place of the meat-powder given by the stomach-pump, to which some patients greatly object. He prepares a mixture of finely triturated ham, mixed with milk, and introduces it, by means of a syringe, through a catheter, which is passed down only as far as about the level of the larynx. This is much better borne by the patients than the other method; and, when pain was present, interfering with the introduction of the catheter, he found that it was entirely prevented by brushing the fauces with a twenty per cent. solution of hydrochlorate of cocaine.

Notes on the Use of Antipyrin and Kairin.—Dr. Metropolsky (*Meditz. Obozr.*, No. 21, 1884) believes that antipyrin outrivals all other means at present known for reducing the temperature of febrile patients. He believes it is indicated in cases of enteric fever and croupous pneumonia where the temperature rises above 104° F. Being here administered, antipyrin surely, safely, and considerably lowers the temperature for ten to eighteen hours. As the drug is prone to give rise to heartburn and sickness, it is better to use it in enemata (sixty grains in three twenty grain doses, at intervals of an hour). In the same journal, Dr. B. Kostyleff, of Tver, writes that he has administered antipyrin in relapsing fever, enteric fever, and pulmonary phthisis. From his observations he draws the following conclusions: 1. Antipyrin is a powerful antipyretic, but it must be administered in large doses (thirty grains for the first dose, followed by several fifteen-grain doses at intervals of one hour, to an adult. However, it is not an absolutely reliable agent, since even drachm doses sometimes bring about but a slight antipyretic effect, or even no effect whatever. 2. Cardiac weakness

does not contra-indicate the administration of antipyrin. 3. The drug is not so well borne by the patient as some observers assert. It often produces nausea, vomiting, and abdominal pain. 4. Its antipyretic action develops itself very rapidly—the fall of temperature beginning within less than an hour after the administration of a dose. The fall is accompanied by profuse perspiration. When antipyrin is introduced through the rectum, the temperature falls more slowly than when the drug is given internally. 5. The general state of the patient improves proportionately to the degree of decrease of temperature. 6. The re-elevation of the temperature begins usually in less than twelve hours, and sometimes is accompanied by rigor. 7. Children bear antipyrin better than adults. Dr. Pushkareff, of St. Petersburg, having studied the action of kairin in eight strong patients with petechial typhus, arrived at the following conclusions: 1. Kairin markedly lowers the temperature in all cases of typhus fever. 2. In some cases the temperature may be kept at a low level by the contiued administration of kairin, but in other cases it again reaches high figures in spite of the repeated use of large doses of the drug. 3. Besides the changes in the temperature, the drug does not produce any other influence on the course of typhus fever. 4. The high price of the drug, the difficulty of dosage, and the injurious action of kairin on the red blood-corpuscles, prevent any practical use of kairin in the treatment of typhus fever. He also saw collapse from the use of the drug in a case of typhoid. In the *Gazzet. degli Ospitali*, No. 104, 1884, Dr. Mingazzini gives details of several cases where antipyrin and kairin drugs were used together. The mixed drugs produced a much more marked fall of temperature than an equal quantity of either drug given separately. The lowering of temperature also lasts longer. Kairin, administered with antipyrin, does not give rise to the inconveniences that are apt to follow it when given by itself.

Paralytic Obstruction of the Intestine.—Dr. G. Thibierge has described some cases of intestinal obstruction caused by paralysis of the muscular coats of the gut and consecutive retention of the fæces. This paralysis may occur after the reduction of a strangulated hernia, or after an attack of peritonitis, but it is more often due to some nervous lesion. It is generally observed in old people suffering from habitual constipation. Vomiting is frequent when the obstruction has lasted some time, and often recurs every time the patient takes nourishment. The abdomen is much distended, and there may be a good deal of pain. When death occurs at that period, it is caused either by inanition or by asphyxia. In some cases there is a temporary improvement, followed by fatal collapse. Generally, however, recovery takes place after the obstruction has been relieved. The best treatment consists in galvanization of the intestine. —*London Medical Record*, February 16, 1885.

Scrofulous Neck.—Dr. Clifford Allbutt thinks that the chronic enlargement of the glands of the neck, known as scrofulous neck, is secondary to irritation in the associated mucous membranes, and absorption therefrom; the chief of these being the mouth and throat, and the next in order the nasal, aural, and ocular surfaces; and sometimes from irritation upon the skin of the face and head. Speaking of the treatment of these cases, the author says that a residence at Margate, together with careful dieting and nursing, is the best means of cure in cases which are not far advanced. The cautious use of mercury, such as the solution of the bichloride with tincture of iron, is very good, unless the inborn frailty be very marked; and iodides with iron are likewise valuable. External applications should be used with caution. So soon, however, as the glands become adherent, either to each other or to the surrounding tissues, then it is most desirable to call in the surgeon, and to extirpate every caseous gland or portion of a gland. Mr. Teale has devoted much time, and has had great experience in operating on these cases, and it is due to the combined exertions of Dr. Allbutt and Mr. Teale that numerous cases have been restored from a state of misery to enjoy a life of comparatively good health. The scar remaining after the operation is small, and after a year or two not very noticeable, provided the drainage be not kept up too long; it is better to risk a second operation than to keep the drainage-tube in for too long a period.—*London Medical Record*, February 16, 1885.

Erysipelas Inoculation.—The results of an inoculation of erysipelatous virus in a case of carcinoma mammæ, in which an operation was impossible, are related by Professors Janicke and Neisser in the *Centralblatt für Chirurgie*, No. 25, 1884. A particle of erysipelatous virus about the size of a pin's head from a pure culture was rubbed into a freshly scarified spot on the surface of the morbid growth. The same evening the temperature was 104.2° F., and the next morning 104.6° F. Almost the whole of the left pectoral region was now erysipelatous, and by evening the right side was also involved. The temperature had risen to 105° F. On the three following days the morbid process spread over the entire breast and abdomen, the right arm and part of the neck. The patient died on the fourth day in collapse. A cancerous gland under the clavicle softened on the second day and had entirely disappeared on the fourth as a result of the inoculation. The whole cancerous mass was softened and diminished in size. Masses of the cocci of erysipelas infiltrated the whole tumor, causing in many places a dissolution of the cancer nests and completely filling all the lymphatic spaces. The cancer cells and nests were perishing before the advance of the erysipelas cocci.

Prepuce Grafting.—Dr. Lucas writes in *The London Lancet*, "I have found grafts from the surplus skin of the prepuce to adhere when those from other parts have failed." Skin from this source, owing to its suppleness, thinness, and vascularity, appears to be peculiarly adapted for transplantation. The writer had a case of acute cellulitis under his care some three years ago, which resulted in extensive loss of skin, both in the thigh and leg. In this case when the granulations had assumed a healthy appearance grafts from various sources were placed upon the wound. The superiority of the prepuce skin over that of the coarse skin of an amputated finger with the dry cuticle upon it was marked. It adhered more certainly and grew more rapidly. The time which may be allowed to elapse between the removal of the skin and its application in the form of small grafts to a wound is not accurately determined. Dr. Lucas has allowed at times from half an hour to an hour to elapse before using the skin removed, without attempting to maintain it at the temperature of the body. He believes that if necessary it may be carried in a bottle or wrapped in guttapercha paper for some hours without loss of vitality.

The Treatment of Asthma.—According to Dr. Rodet, the best means of overcoming a paroxysm of asthma consists in subcutaneous injections of morphia and inhalations of iodide of ethyl. Twelve drops of the latter, poured on a handkerchief and inhaled, procure almost immediate relief. The different papers and cigarettes which have been recommended are worthy of a trial, but soon lose their efficiency. Between the attacks, a change of air and of occupation is often essential. In catarrhal asthma, the treatment must be directed against the bronchitis and laryngitis, which are often benefited by a stay in a warm climate. According to M. Hardy, very good results are sometimes obtained by means of a blister applied to the thigh or arm. In nervous asthma, bromide and iodide of potassium are the most useful remedies, especially the latter. Gymnastics and baths of compressed air can also be recommended. —*Journal de Médecine de Paris*, No. 25, 1884.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, March 21, 1885.

RECENT PROGRESS IN MEDICAL EDUCATION.

WE have had occasion several times to refer to the question of medical education, and we are sorry to say we have not been able always to do so in very flattering terms. It is natural that the facilities for higher education, and especially for professional education, in new countries, should not be equal to those of old and long settled lands. The first work in a new country must be preparatory, and the workers have a task before them which allows them little leisure for intellectual progress. Doctors and lawyers and clergymen are needed indeed, and must be had, but neither time nor money can be spared to provide those intending to follow these pursuits with more than the minimum knowledge that will enable them to perform the duties of their respective vocations. And the character of the professional schools must conform to those requirements. But, as time goes on, the first difficulties are overcome, the country becomes settled, men have the leisure and the means to devote themselves to intellectual pursuits, and they seek for the opportunities, at home if possible, abroad if must be, to follow their desires. Thus a demand for a higher professional education is created, and the schools must satisfy this demand. We are speaking now more particularly of medical schools, what they have done and are doing. It can no longer be said that a young man who is in earnest cannot get a thorough and scientific medical education in this country. But something more than this is needed. It should be impossible for any incompetent or half-educated man to obtain a degree. Although we have not yet reached this standard, there are hopeful signs that we are approaching it. The colleges themselves, either from self-interest or for some other reason, cannot be always relied upon to take the initiative in this direction, and outside pressure is needed to force many of them upward, whether they will or no.

The Illinois State Board of Health is showing a commendable regard for the welfare of the citizens of that State, by insisting that their medical advisers shall be competent physicians. The Board adopted, in 1880, a schedule of minimum requirements, as a standard with which the medical schools were required to comply before their diplomas could be accepted. The diplomas of colleges which give evidence of an actual and *bona fide* compliance with this schedule, are accepted as sufficient warrant for the certificate of the Board required by law before any one can practise medicine in the State. The diplomas of colleges which do not give such evidence are supplemented by an examination before the Board on the subjects of the schedule omitted. From a small volume entitled "The Conspectus of the Medical Colleges of America," compiled by this body, we learn that there are now in the United States and Canada 128 institutions of medical education of all classes which are empowered to grant degrees. Of this number there are 102 which exact an educational requirement as a condition of matriculation; a gratifying increase from 45, the number at the time the first "Conspectus" was issued. Attendance on three or more courses of lectures before graduation is now required by 35 colleges as against 22 heretofore. Hygiene is now taught in 80 colleges, and medical jurisprudence in 92, as against 42 and 61 respectively heretofore. The average duration of the lecture term has increased from 23.5 weeks to 24.5 weeks, and 4 more colleges have lecture terms of five months or over, and 11 more have terms of six months or over, as compared with the preceding session. These figures are in a measure satisfactory, as showing a slight improvement, but they show also that there is still need of much greater improvement before we can regard our system of medical education with much complacency. The Illinois State Board of Health has found a way to force the colleges up to their duty, and if all the State Boards would follow their example in obtaining laws through which a definite standard could be set up, the colleges would soon find it to their interest to conform to this standard. It is gratifying to learn from this "Conspectus" that there is now but one bogus college in the country, but it is at the same time disgraceful that even one should be permitted to exist with the power to grant medical degrees.

THE TOXICITY OF URINE AND ITS CAUSE.

IN 1880 M. Pouchet discovered in normal urine a chemical body which comported itself like an alkaloid, and which, when combined with hydrochloric acid, gave double salts with platinum, gold, and mercury (Pouchet, "Thèse de Paris, 1880," *Progrès Medical*, December 20, 1884). The investigations of Selmi, Gauthier, Brouardel, Boutmy and others, by which a knowledge of the cadaveric alkaloids has been obtained, led also to the hypothesis that the urinary alkaloid was to be classed with these ptomaines. Quite recently Professor Bouchard (Soc. de Biologie, December 6, 1884) has announced the results of his investigations into the toxicity of normal urine. These throw additional light upon the cause of this toxicity, and are pregnant with suggestions for further practical and scientific investigation.

M. Bouchard believes that he has demonstrated the three following propositions:

1. There exist alkaloids in the body of healthy living individuals.

2. These alkaloids are manufactured in the digestive tube, and are apparently elaborated by the micro-organisms of intestinal putrefaction.

3. There are alkaloids in normal urine which represent a part of the intestinal alkaloids, absorbed by the intestinal mucous membrane and eliminated by the kidneys.

The method by which Bouchard reached the conclu-

sion that toxic alkaloids exist in the urine is instructive. It consisted in injecting urine and solutions of known amounts of the different constituents of the urine into the veins of living animals of known weight. First, pure water was injected, and it was found that 90 c.c. of water per kilogramme of body-weight could be injected without inconvenience, and that 120 c.c. per kilogramme had to be introduced into the circulatory system before death was produced. Smaller amounts of liquid than this were always employed in his experiments.

Normal urine was then injected into the veins of frogs and rabbits. From fifteen to twenty drops were sufficient to kill a frog. Toxic doses injected into rabbits produced symptoms of muscular weakness, contracted pupils, diminished respiration, lowered temperature, torpor, and finally death from arrest of respiration.

The toxicity of urine being established, Bouchard undertook a series of experiments in order to determine which of its constituents were the active agents. As regards urea, the results of the investigations of Grehant and Quinquand (*Journ. de l'Anatomie et de la Phys.*, September, 1884) were substantially confirmed, viz., that urea is poisonous, but only in very large doses. It is necessary, according to Bouchard, to inject 6.66 grammes (over one and a half drachm) per kilogramme of animal in order to cause death.

Uric acid, which is generally stated to be innocuous, could be injected with impunity up to a dose of 34 ctgr. per kilogramme of animal.

Creatin and creatinine were found to be inoffensive. The inorganic salts, though toxic in very large doses, produce altogether different symptoms from those of urinary poisoning.

When the urine was filtered through charcoal and deprived of its coloring matter, it lost one-half of its toxic properties. Hence this coloring matter is slightly poisonous.

The toxicity does not depend upon its volatile constituents, because the urine is still poisonous after ebullition, and in aqueous and alcoholic extracts.

If a person have a slight catarrh or indisposition, the toxic properties are at once augmented.

The poisonous alkaloids seem to reside in alcoholic as well as aqueous extracts. But the alcoholic extract does not produce contraction of the pupil and does cause salivation. On the other hand, the aqueous extract causes toxic symptoms similar to those produced by urine itself, symptoms which are not very unlike those of uræmia.

RECENT CONTRIBUTIONS TO THE STUDY OF CANCER.

Dr. C. Partsch has made a careful analysis of the records of the cases of cancer treated at the Royal Surgical Clinic at Breslau since the introduction of antisepsis in 1875. His statistics cover only cancers of the lips and external genital organs. There were 98 cases of cancer of the lips, 88 in males and 10 in females. The average age of the patients was 57.3 years. As to etiology, 73 per cent. of the men had been greatly exposed to wind and weather, while tobacco-smoking seems to have had a very slight influence. In 12.2 per cent. an injury was the exciting cause. Of those operated upon 4 died soon after the operation, 8.3 per cent. died later of intercurrent affections, and 32.2 per cent. died from a recurrence of the disease. Metastases to internal organs were not observed.

The entire limit of life from the inception of the disease in those with a relapse and a secondary operation was on the average 3.22 years, or about 17.1 months after the first operation. Partsch reports 35.4 per cent. who had had no relapse for a space of from 1 to 9 years.

Cancer of the penis was observed twenty-one times, most frequently at the age of forty to sixty years. Of the patients operated upon 17.6 per cent. remained healthy. Of the rest, in some it was from 2½ to 3 years before the tumor recurred. After a second operation, death followed in the course of 13.2 months.

Cancer of the vulva was observed nine times. Of six patients operated upon, one had remained healthy for 3 years. The rest died of relapse or intercurrent troubles. Hofmeier, of Berlin, has made an interesting contribution to our knowledge of uterine cancer (*Zeitschr. f. Geburtshilfe u. Gynakol.*, 1884, Bd. x., Hft. 2). The material upon which he based his studies consisted of 603 cases of cancer of the uterus, among 16,800 patients at the Poliklinik, and 209 cases among 9,400 patients in Schroeder's private practice, the duration of time being ten years.

To begin with, it will be seen that the proportion of cancer cases in presumably sick women is 3.6 per cent. for charity cases and the poorer classes, 2.18 per cent. for the better classes. This is in opposition to the general view that cancer attacks the poor less frequently than the rich. Of those affected, 21 per cent., or over one-fifth, were nullipara. This again is in marked contrast with the experience of Emmet and others.

The disease was situated 238 times in the portio, 181 times in the cervix, and 28 times in the body, only 3.4 per cent. being in the last situation. The average age of those suffering from cancer of the portio, cervix, and body was 42.47 and 54½ years repectively. One hundred and sixty cases were operated upon with a view to permanent cure. Nineteen per cent. of these died in consequence of the operation; of 105 operations for disease of the vagina 13 died (12.3 per cent.); of 8 Freund's operation 5 died (62 per cent.); of 34 vaginal total extirpations of the uterus 9 died (26 per cent.); of 13 laparotomy operations 4 died (30 per cent.). These statistics are in favor of vaginal total extirpation. Later experiences confirm the value of this method still more strongly. Thus Staude, of Hamburg, reports 16 vaginal extirpations of the uterus without a death in consequence of the operation. The results of these operations as to recurrence of the disease is best shown in the following table:

There remained healthy after two years: 1, after extirpation of uterus by laparotomy, 80 per cent.; 2, after Freund's operation, 32 per cent.; 3, after vaginal total extirpation, 33 per cent.; 4, after supravaginal and vaginal amputation, 32 per cent.; 5, after amputation with *ferrum candens*, 42 per cent.

A survey of the foregoing leads one to the reflection, how ineffective still is modern surgery and therapeutics! Out of the 812 cases of cancer there were 652 who were only treated with palliative remedies. Out of the remaining 160, for whom radical relief was attempted, 30 died in consequence of the operation. Of the 130

left, about two-thirds died within a year or two, leaving some forty-four lives saved, for two years at least, out of the 812. The mortality from cancer is, therefore, at the very best, about 95 per cent.

THE QUESTION OF SURGICAL OPERATION ON GENERAL GRANT.

During the past week the local disease of General Grant has shown no marked tendency toward progressive ulceration. At the recent weekly consultation, Dr. Fordyce Barker was unavoidably absent. Drs. J. H. Douglas, Henry B. Sands, and George F. Shrady, who were present, made a thorough examination of the General's throat, with a view of discussing the expediency of a radical surgical operation for the removal of the growth. Such a measure would involve the division of the lower jaw in the median line, the extirpation of the entire tongue, and the greater part of the soft palate, together with the removal of the ulcerated and infiltrated fauces, and the indurated glandular structures under the right angle of the lower jaw. This was considered mechanically possible, despite the close proximity and probable involvement of the tissues adjoining the large arteries and veins in the neighborhood of the ulcerations; but in the best interests of the distinguished patient the surgeons did not feel inclined to recommend the procedure. Even by such means there could be no guarantee, in view of extensive surrounding infiltration, that the limits of the disease could be reached without immediate risk to life by the severe shock to a constitution already much enfeebled. The low vital power is such a strong element in the decision that, for the present at least, no kind of operation will be undertaken. The ulceration on the side of the tongue has not progressed far enough to produce the usual intolerable pain associated with that condition, but should the latter symptom appear, it may be deemed advisable to divide the gustatory nerve.

The general tone of the patient's system remains about the same as at last report, notwithstanding he has suffered much from insomnia. The latter, within the last day or two, has been kept under control by a suitable anodyne. There is no pain in swallowing, and sufficient food is taken with a reasonable relish.

THE NEEDLESSNESS OF THE FEAR OF CHOLERA.

It will be found during the coming spring that the prospect even of an epidemic of cholera works considerable harm. The agitation over the subject has aroused the people, and has not only stimulated health officials but has infused among the people a very widespread fear of the expected disease. Indeed, there is in many nervous persons an almost panicky condition of mind, while even the most intelligent have an exaggerated view of the direful possibilities which the coming season holds out. The result is that nearly all the families which usually leave the city in the summer are now planning to leave it much earlier than is customary. Medical men will be among the first to feel this, in the earlier decrease of work and income which the summer season brings.

We have felt it to be the wisest plan, and, indeed, our bounden duty, to urge as strongly as possible the need of setting on foot the most thorough preventive measures against cholera. To spend money to keep out the disease is by far the cheapest and most humane plan. If, now, the disease does not come, at least duty will have been done, and the people will have received some useful lessons in sanitation.

It should be understood, however, that the probability of there being any extensive outbreaks of cholera in this country, during the coming year, is small, while the probability of any but sporadic cases appearing in this city is very remote indeed. The cholera is now in the third year of its travels from India, and its virulence is waning. This was shown by the small extent of its ravages in Paris last fall.

There is absolutely no need for alarm or of early decampments into cold and unsalubrious summer hotels. It is necessary to repeat, also, the statement that cholera is not a contagious disease like scarlet fever and measles. Its presence in cities of India, where it is endemic, creates no more alarm or comment than does the presence of diphtheria with us.

DENTAL MALPRACTICE.

Dentists are likely soon to realize the responsibilities of treating diseased teeth and leaving them in the patient's jaws. Dr. Osmun, of Newark, N. J., reports a case in the *Dental Cosmos* of a lady who had a wisdom tooth "treated" and filled, and seven months afterward it was discovered that an extensive alveolar abscess had developed at the root; this was followed by great rigidity of the jaw, necrosis, absorption of pus, and pyæmia. The woman had previously been in excellent health. Dr. Osmun said: "I had the hardest work in the world to keep that woman from bringing a suit for malpractice against the dentist who had filled the tooth." It would be well for dentists to remember that the treatment of diseased tissues requires a medical education.

SYPHILIS AND THE DEPOPULATION OF FRANCE.

The members of the Académie de Médecine have recently held several long debates upon the subject of the depopulation of France. Like most of the Académie's prolonged discussions the result has been rather empty. At the last meeting, however, something definite was brought forward by M. Fournier. The depopulation of France, he said, was due to two causes: a low birth-rate and a high death-rate among infants. Physicians could do little to affect the former, but in lessening infant mortality there was an opportunity for work. M. Fournier thought that there was a large and increasing amount of syphilis in France, particularly in Paris. The result of this was sterility or high infant mortality. Among one hundred children born of syphilitic parents sixty-eight died. M. Fournier urges renewed efforts in the prevention of syphilis, and the adoption of some measures to prevent the marriage of syphilitics.

VIVISECTION AGAIN.

Mr. Bergh has again delighted the public with one of his characteristically calm, temperate, and truthful statements regarding vivisection, the occasion being an experimental surgical operation upon the thigh of a sheep. Mr.

Bergh's expressions of opinion are always interesting because he so uniformly succeeds in clothing manifest untruths in a garb of lurid and picturesque rhetoric. Aside from professional artists no one can make statements with so much intense sincerity and feeling. Mr. Bergh now reiterates the view that vivisection is inhumane and useless. There is in this State a liberal and healthful sentiment regarding the utility of vivisection. The medical profession in its view of this matter is strongly supported by public opinion, and we are not obliged at present to take any serious notice of the frenzied and foolish talk of the anti-vivisectionists. Meantime every month strengthens the force of the arguments in favor of experimental medicine.

News of the Week.

THE VALUE OF STATISTICS.—Dr. A. Jacobi, of this city, writes: "I beg to refer at this late date to a notice which appeared on p. 241 of THE MEDICAL RECORD, three weeks ago, but escaped my attention at the time. The writer has not appreciated the courtesy with which the discussion to which he refers was carried on between Dr. Ripley and myself, but informs me that 'it is better to see fewer cases and study them well. In this we are (he is) supported by the fact that the gentleman who saw the fewer cases of croup has drawn the correcter conclusion regarding the effect of the disease upon the respiration.' The writer does not appear to be aware of 'the fact' that an assertion is no fact, that the happy state of mind which induces a gentleman to take his beliefs or convictions for absolute truths, is very enviable indeed, but does not impress others as it does him; and that an apodictic sentence is no proof. I am not aware that, while I still hold that physical law and the observation of *uncomplicated* laryngeal stenosis speak for diminished frequency of respiratory movements in that affection, any new facts or observations have been made public in the few weeks elapsed since the discussion in the Academy of Medicine took place."

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.—The next Stated Meeting will be held at the New York Academy of Medicine, Monday evening, March 23, 1885, at eight o'clock.

STARLING MEDICAL COLLEGE, Columbus, O., held its annual Commencement March 4th, graduating thirty.

STATE MEDICAL SOCIETY OF ARKANSAS.—The Tenth Annual Session of the State Medical Society of Arkansas will be held at Little Rock, on Wednesday, Thursday, and Friday, April 22d, 23d, and 24th, commencing on Wednesday, at 10 A.M.

THE COLLEGE OF PHYSICIANS AND SURGEONS OF BALTIMORE held its thirteenth annual Commencement on March 13th, graduating one hundred and fifty-five students. The Medical College of Ohio held its sixty-sixth annual Commencement on March 5th, graduating a class of fifty-eight. The Miami Medical College held its twenty-fifth annual Commencement at Cincinnati on March 10th, graduating twenty-seven students. The Baltimore University of Medicine graduated a class of six out of thirteen applicants on March 3d.

THE MEDICO-CHIRURGICAL FACULTY OF MARYLAND holds its annual meeting on March 28th.

THE FOURTH GERMAN CONGRESS FOR INTERNAL MEDICINE will take place at Wiesbaden from April 8th to 11th next. Among the papers and subjects for discussion announced are: "The Treatment of Corpulency," introduced by Drs. Ebstein and Henneberg; "Bronchial Asthma," introduced by Curschmann and Riegel; "Antipyresis," introduced by Filehne and Liebermeister; "Hypnotics," by Liebreich; "New Drugs," by Binz (Bonn); "Surgical Treatment of Asthma," by Hack; "The Movements of the Stomach, Pylorus, and Duodenum," by Rossbach and others. We regret to learn of the recent death of the President, Dr. Frerichs.

THE LATE MR. CHARLES TRACY.—At a special meeting of the medical staff of the Demilt Dispensary, held March 17, 1885, the following resolutions were unanimously adopted:

Whereas, The medical staff of this Dispensary has heard with sincere sorrow of the death of the honored President of the Board of Managers, Mr. Charles Tracy; therefore, be it

Resolved, That, while recognizing in this sudden and unexpected dispensation the hand of an all-wise Providence, we nevertheless fully appreciate the importance to the institution of the loss of its oldest and most distinguished member, its wisest and most experienced counsellor, and its most influential and loyal friend.

Resolved, That we desire to bear the highest tribute to the sterling qualities and the kindly and genial disposition by which the deceased established and endeared himself with all with whom he came in contact.

Resolved, That the distinguished success which attended his labors in this and in the many other charitable enterprises to which, as an officer, his services were so liberally bestowed, was the legitimate outcome of a clear and highly intelligent conception of the duties attending such offices, to which was added a strong sense of the moral obligations which they imposed, and great energy and patience in the execution of their practical details. The finished record of his life, in this relation, is full of valuable suggestion, and will endure as a brilliant example of well-directed usefulness eminently worthy of study and emulation.

Resolved, That the earnest sympathy of the staff be extended to the bereaved family of our late President, and to his fellow-members of the Board of Managers.

Resolved, That copies of these resolutions be presented to the family of the deceased and to the Board of Managers of the Dispensary.

(Signed) JOS. E. WINTERS, M.D.
D. BRYSON DELAVAN, M.D.

THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE holds its fifty-second annual meeting in Nashville, beginning April 14th.

THE MISSOURI STATE MEDICAL SOCIETY meets at St. Joseph on May 12th. Since its last meeting it has become a delegate society.

A STRONG ARGUMENT FOR CONTINENCE.—Extensive and serious adulterations in cubebs are reported.

Charity Hospital, New Orleans.—The New Orleans *Medical and Surgical Journal* gives an interesting account of the work of, and improvements made in, this well-known hospital, which treats nearly 8,000 cases annually. There has been added an annex to the Female Department with a capacity of 83 beds. The Pathological Department, organized under Dr. H. D. Schmidt, had a new dead-house built for it last fall. Of the different diseases treated in the hospital, forty-five per cent. are malarial, or 3,626 cases, with a mortality of twenty-three per cent. Eleven per cent. of all deaths are due to phthisis.

A Prevailing Winter Fever.—There is an endemic fever, with a tendency to an adynamic form, prevailing just at this time over the Western country, says the Kansas City *Medical Index*. It has been variously designated by different observers as "Malarial Fever," "Typho-Malarial Fever," "Typhoid Fever," "Catarrhal Fever," and "Winter Typhoid Fever." The history, symptoms, and course of these cases have in many instances been marked by a distinctly typhoid character, but they have been rather more sudden in their invasion, active in their early febrile symptoms, and more amenable to abortive or modifying treatment.

Typhus Fever appeared in this city this week, being brought by immigrants from Hamburg, where the disease is endemic. Hamburg has been the source of infection before.

Medical Commencements.—The medical department University of Tennessee, graduated fifty-nine students on February 24th; the University of Nashville medical department graduated one hundred students on February 26th; Memphis Hospital medical college graduated thirty-three students at its fifth annual Commencement on February 25th. The Arkansas Industrial University, medical department, conferred diplomas upon eight graduates on March 4th. The McNarry Medical College held its ninth annual Commencement at Nashville on February 27th, graduating a class of nine. The Michigan College of Medicine held its annual Commencement at Detroit on March 2d, graduating a class of twenty-one.

The Bichloride of Mercury in Obstetrics.—Dr. Hulbert, of St. Louis, stated at a meeting of the St. Louis Medical Society, that he had salivated five patients with a bichloride solution (1 to 3,000), given as a vaginal douche twice a day.

Discontent over the Arrangements for the Next International Medical Congress.—It is never possible to please everyone, but in the arrangements for the International Congress of 1887 complete harmony is most desirable. The South and West make a complaint which is voiced by the *Texas Courier-Record* as follows: "The Executive Committee chosen by the Committee on Organization for the Ninth International Medical Congress, is composed entirely of men from the North and East. The entire South and West, and the whole of the continent west of the Mississippi River from Canada to the Gulf, have been utterly ignored in its organization, and not a physician from Chicago, Cincinnati, St. Louis, Denver, Richmond, Kansas City, Atlanta, New Orleans, Austin, nor Detroit, nor Charleston, has been thought of sufficient importance to be named. This is a one-sided arrangement against which we protest, and which the whole medical press should condemn."

A Case Illustrating the Importance of Reading Medical Journals, particularly The Medical Record, is cited by our valued and practical contemporary, the *College and Clinical Record*. A physician in York, Pa., was called to see a child, aged eight, who had swallowed a large shawl-pin. The doctor had been taught to give a brisk cathartic in these cases, but having recently seen an article in The Medical Record on "Pin-swallowing," advising the giving plenty of bulky food, he adopted the suggestion. In forty-eight hours the pin was evacuated in the centre of a mass of fæces.

At the Annual Session of the Académie des Sciences, February 23, 1885, the following prizes were awarded: 1. Prix Montyon, 2,500 francs, to M. Testut, of Nancy, for his "Treatise on Muscular Anomalies in Man Explained by Comparative Anatomy." 2. Prix Montyon, 2,500 francs, to Dr. Cadet de Gassicourt, for his "Clinical Treatise on the Diseases of Infancy." 3. Prix Montyon, 2,500 francs, to Dr. Henry Leloir, for his "Contributions to Tropho-neuroses of the Skin." 4. Prix Godard, to Professor Tourneux, for three embryological and anatomical contributions, viz., upon the "Development of the Uterus and Vagina," upon the "Wolffian Bodies," upon the "Interstitial Cells of the Testicles." 5. Prix Serres, divided between M. Cadiat, for his "Treatise on General Anatomy Applied to Medicine," and M. Kowalewsky, for a "Series of Embryological Studies."

Regulation of Medicine in Texas.—The bill to create a Board of Medical Examiners and to regulate the Practice of Medicine has been reported on favorably by the Senate. The bill to create a Board of Health has been laid on the table.

The Annual Report of the Harvard Medical School for 1883–84 has been presented. Among two hundred and fifty-nine students, ninety-six per cent. spent six terms in attendance at the lectures and other courses. Out of sixty-four applicants for a degree, fourteen were rejected. The record of the school work is in striking, and, to us, painful contrast with that in this city, where some three or four hundred students are yearly turned into doctors after two short terms of lectures.

Dr. C. Flügge has been appointed Ordinary Professor of Hygiene at Göttingen.

What is Truth—in Rhinology, for Example.—A New York laryngologist recommends the use of medicated vapors, powders, and sprays. He uses the spray at a pressure of forty pounds, regards hooking the palate forward as absolutely essential, and holds the tongue depressor himself. Whereupon a St. Louis specialist says that eight to ten pounds pressure is enough, vapors and powders are of no use, and concludes: "If he (the New York laryngologist) used a spray less bunglesome than that of Sass, and knew how to use it properly and would let the patient hold the tongue depressor, he would find no difficulty in getting a strong spray behind the palate without the use of such an instrument."

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 25, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. A. JACOBI presented, in behalf of a candidate, a specimen of *round-celled sarcoma of the kidney.*

DR. R. C. M. PAGE presented a patient who had received

A GUNSHOT WOUND OF THE THORAX.

Robert H. Y——, aged thirty eight, born in Ireland, married, came to this country in 1848 when a child. While lieutenant of infantry in Sherman's army during the late war, he was wounded by a sharpshooter at the battle of Peach Tree Creek, before Atlanta, Ga., July 20, 1864. He was struck near the left shoulder posteriorly, while in the act of turning his head one side to speak to his colonel. A number of military surgeons probed for the bullet, which was fired from an elevated position, but which was never found. He had no hemorrhage from the mouth. He went through various hospitals, but returned to his company the following autumn in time for the famous march to the sea. On this march he was allowed to ride horseback. Since the war he has been a steel letter cutter. He comes of long-lived parents on both sides. Was in good condition with exception of pains occasionally in left breast, near clavicle, up to about one year ago. First had a pain about the middle of his chest one year ago. Suddenly upon a fit of coughing he spit up some blood last July for the first time. In middle of November last he had a return of this, only much worse. Went to Roosevelt Hospital, where he remained about three weeks.

I saw him for the first time this morning at the Northwestern Dispensary (February 25, 1885). Not emaciated, but has coughed steadily now for the past two months. Expectoration has always been white and scant, except during the past three weeks, when it has increased. Still has pain in left breast.

Upon examination I found that the patient had a spot of what I took to be caverno-bronchial breathing, due to dilated bronchus and local consolidation. During the examination my attention was called to the bullet-mark by Dr. Berry, of Japan, who is now in this city. It is probably due to the presence of the bullet.

According to "Holmes' Surgery," and others, we are to regard penetrating wounds of the chest, complicated with the presence of foreign bodies, as always dangerous. The rate of mortality in 484 cases, stated in "The Medical and Surgical History of the War of the Rebellion," was 50.6 per cent. "The foreign body, especially if it be small, such as a bullet, may become encysted and remain quiescent for years. Sooner or later, however, it is liable to become a centre of mischief; the neighboring parts become inflamed; the encysting material breaks down; suppuration takes place; and various symptoms and physical signs more or less resembling those of phthisis pulmonalis present themselves" (Holmes). Arnot reports a case where a piece of hoop-iron was removed from a cyst in the left lung, opposite the third rib, where it had remained fourteen years. The patient was a sailor who was wounded in 1812, and died from inflammation of the lung in 1826. Leash reports the case of a soldier, wounded at the battle of Waterloo, June 15, 1815, in the left breast. He lived forty-two years and four months. The ball was found in a pulmonary abscess, containing about a pint of pus. Velpeau cites a case, mentioned by Guillon, where part of a fencing foil was found in the chest fifteen years after the infliction of the wound. One end of the piece of foil was implanted in the rib, while the other end was fixed in the spine: the middle part was in the centre of the lung, surrounded by calcareous deposit. There was no suspicion of the presence of this foreign body during life. Sometimes, as in case of bullets, the foreign bodies ulcerate into the bronchi and are coughed up. Two such cases are related in "Gross' Surgery," and numerous examples of this are given in "The Medical and Surgical History of the War of the Rebellion." "Bronchitis, pneumonia, pleurisy, and phthisis," according to Holmes, "may all arise in consequence of, or in association with, the retention of foreign bodies in the lungs and air-passages during prolonged periods. It is uncertain at what period danger may become imminent, and in what way it may arise.

THE PRESIDENT asked Dr. George F. Shrady concerning his experience in the treatment of gunshot wounds of the chest in army hospital practice.

DR. SHRADY said that in the majority of cases the patients recovered. A great deal depended upon the fact whether or not clothing or other foreign substance had been carried in.

THE PRESIDENT remarked that when a rib was shattered at the entrance of the ball there was no case on record of recovery; but that when a rib was shattered by the ball on making its exit the prognosis was not so unfavorable.

CARCINOMA OF THE BLADDER, WITH SECONDARY GROWTHS IN THE URETER, KIDNEY, RETRO-PERITONEAL GLANDS, INTESTINE, PANCREAS, SPLEEN, LIVER, AND LUNGS.

DR. WILLIAM HENRY PORTER presented specimens with the following brief history. They were removed from a male, fifty-two years of age, who first came under observation during the fall of 1884, when he complained of pain in the left lumbar region radiating down the line of the ureter to the bladder. There was some difficulty in micturition with evidence of urethral stricture. The patient was admitted to the Presbyterian Hospital under the care of Dr. A. C. Post. The urethral stricture was relieved by an operation, following which the pain and difficulty in voiding the urine disappeared and the patient's general condition improved.

After a few weeks the symptoms were reversed; the pain returned, the patient progressively emaciated and grew weaker. A week or two prior to his death Dr. Edward S. Garner, the house surgeon, was able to make out a distinct tumor in the abdomen, located upon the left side between the umbilicus and free border of the chest-wall. It appeared to extend under the free border of the ribs. From which organ the neoplasm sprang could not be made out during life. The urine was examined and nothing abnormal detected. The patient progressively declined. Four days before his death he suddenly developed suppression of urine. Diuretics were given, also hydrogogue cathartics; dry cups were applied to the lumbar region. The bowels moved freely, but suppression continued. No active symptoms of uræmia were developed. The patient's mind was clear. At the end of the fourth day of the suppression he attempted to sit up in bed and dropped back dead.

Necropsy, by Dr. Garner, forty-eight hours after death. —Heart small and flabby, weight ten ounces (283.495 grammes). Both lungs were firmly bound to the chest-wall and diaphragm. The superior lobes, especially at the apex, were the seat of syphilitic interstitial thickening. The inferior lobes were less involved and almost gangrenous. Throughout this indurated and partially necrotic mass there was a number of small white nodules. The bronchial glands were enlarged and indurated. The nodules in the lungs and glands were the seat of carcinomatous deposits. Abdominal cavity: In the left lumbar region there was a large retroperitoneal neoplasm, which was found to be principally a growth involving the glands, and secondarily the kidney, spleen, pancreas, and intestines. The spleen was small and soft, except at the point where the new growth had invaded its tissue. Weight six ounces (150.372 grammes). Genito-urinary tract: The left kidney lay against the retroperitoneal neoplasm. The new growth had invaded

the renal pelvis and all that portion of the kidney adjacent to the sinus renalis. More than one-half the kidney had been destroyed and replaced by the carcinomatous tissue. The ureter from kidney to bladder on the left side was also indurated. To the inner side of the ureter and close behind the bladder there was a large neoplasm about the size of a horse-chestnut; this was composed largely of fibrous tissue. The bladder was contracted and congested, its interior was covered by villous projections; this was probably the primary origin of the carcinoma. The right ureter and kidney were not invaded by the new growth. The right kidney was hypertrophied, and twice its normal size. The epithelial cells had undergone the parenchymatous infiltration common in wasting diseases. The liver was also the seat of numerous secondary deposits, encephaloid in character. The organ was a little fatty, weight eighty ounces (2,271.632 grammes).

The case was interesting, in that carcinoma of the bladder is not common, from the number of organs secondarily involved, on account of the long continuance of the suppression, and the sudden death from cardiac paralysis without any premonitory uræmic symptoms.

PYELONEPHRITIS.

Dr. Porter also presented a specimen from a patient in the service of Dr. A. H. Smith, at the Presbyterian Hospital, with the following history: The patient was a female, thirty-five years old. About the middle of the month of November, 1884, she had an attack of acute cystitis; under treatment she gradually improved until the middle of December. From that time she was up and around, apparently as well as ever. About the middle of January, 1885, she commenced to have repeated chills and an irregular fever. A diagnosis of intermittent fever was made, and for that she was treated with quinine. She, however, grew steadily worse and developed pain and tympanites in the abdomen.

When admitted to the Presbyterian Hospital she gave the above history and said that her bowels had been constipated. This statement was contradicted by her husband after her death, who said that she had suffered from diarrhœa. The previous history at least was very incomplete. While in the hospital the temperature continued irregular, and she had several rigors and a peculiar sweet and pyæmic breath; there was also nausea and vomiting. The abdomen was quite painful and tender, especially upon the right side and near the free border of the ribs just internal to the axillary line. There was marked tympanites with constipation. The urine was examined and found to contain albumen and casts. The diagnosis of peritonitis and Bright's disease was made and internal suppuration strongly suspected. She was only in the hospital about twenty-four hours before her death.

The *necropsy* was made twelve hours after death by Dr. Henry Rolando, house physician.—Body not emaciated. Thoracic cavity: Heart normal; lungs normal, œdema and congestion excepted. Abdominal cavity: No evidence of a diffuse general peritonitis; the left side was normal and free from pus and lymph; the right side was the seat of a rapidly extending peritonitis. There was a large tumefaction in the region of the right kidney, and on lifting up the right lobe of the liver pus was found free in the peritoneal cavity. The small intestines on the right side and the cæcum were covered with fibro-plastic exudation. The small intestine lodged in the pelvic cavity was congested and covered with inflammatory exudate. The pouch of Douglas contained a little pus. The inflammation would have soon invaded the whole abdomen. The chief lesion was in the genito-urinary tract; the right kidney was surrounded by a fibro-plastic inflammatory capsule and by it bound firmly to the inferior surface of the liver. This mass was removed and then bisected in the usual manner for opening the kidney. The interior which should have contained a kidney was one mass of purulent pockets and necrotic renal tissue. Nothing that could be recognized as a renal pelvis could be found, a few strips of nephritic tissue still remained, which was all that remained to represent a kidney. A small pocket of pus in this capsule had ruptured into the peritoneal cavity and was the cause of the peritonitis. The opening of the right ureter into the bladder was apparently closed. A bronchotome, however, was easily introduced into the site of the opening and passed into a dilated ureter. The ureter was dilated throughout its whole extent, the diameter of which ranged from one-third to one-half of an inch; its wall was extensively ulcerated and the seat of numerous pockets of pus. The opposite kidney was the seat of a chronic parenchymatous metamorphosis of the epithelial cells. There was no evidence of a pyelitis or pyelo-nephritis on this side. The bladder was a little congested. There was a striated appearance radiating from the opening of the right ureter. The opening of the opposite ureter was normal. There was no urine or pus in the bladder, but it was empty at the time of the necropsy. The liver was fatty.

This specimen was of interest in that it showed a typical sample of pyelo-nephritis, the rapidity with which the disease may progress, and the difficulty of diagnosticating the disease when the urine does not contain a macroscopic quantity of pus. Also in contrast with the next specimen, or true surgical kidney.

ENLARGED PROSTATE, CYSTITIS, SUPPURATIVE EPIDIDYMITIS, SUPPURATIVE AND SLOUGHING ORCHITIS, AND MULTIPLE NEPHRITIC ABSCESSES, OR TRUE SURGICAL KIDNEY.

Dr. Porter also presented the above specimens from a patient in the service of Dr. George F. Shrady at the Presbyterian Hospital, with the following history: The patient was a male, aged sixty-three, who had been suffering for some time past with an enlarged prostate and concomitant cystitis. About two weeks before admission to the hospital he had an attack of retention of urine. The bladder was entered with difficulty. A considerable time was occupied, and a good deal of irritation produced by the introduction of the catheter. The damage done excited a suppurating epididymitis and orchitis, with sloughing of the latter. On account of this he was admitted to the hospital. Non-irritating diuretics and hydrogogue cathartics were given. As a result his bowels moved freely, and he voided his urine in small quantities and at short intervals, and passed about twenty ounces (620 c.c.) per day. Physical examination gave every evidence that the bladder completely emptied itself. For this reason and the fact that the previous introduction of the catheter had caused so much irritation and inflammation, it was not re-introduced while in the hospital. He was apparently improving until the third night after admission, when he suddenly developed œdema of the lungs and died.

The *necropsy* was made twelve hours after death by Dr. Hunter Pope Cooper, the Assistant Surgeon.—Body very thin. Thoracic cavity: Heart normal; weight, 12 ounces (240.194 grammes). The lungs were firmly bound to the chest-wall by old pleuritic adhesions; both organs were congested and œdematous; the dependent portions gave marked evidence of hypostatic congestion Weight of left, 24 ounces (680.388 grammes), of right lung, 26 ounces (737.078 grammes). Abdominal cavity. Upon opening the abdominal cavity, the bladder was found to contain fluid, and extended about four inches (9 centimetres) above the symphysis pubis. At the summit of the bladder there was a tit-like projection or vesical sacculus. The gall-bladder was enormously distended, and at the time of the necropsy the two bladders were in contact. Had this condition existed during life it would have been impossible to have determined positively by physical examination whether the urinary bladder was over-distended or not. The spleen was enlarged and firm, and at one side of it there was a supernumerary

spleen. Weight of both, 12 ounces (340.194 grammes). Kidneys: Both organs were enlarged and the seat of chronic parenchymatous metamorphosis. In both numerous small abscesses were commencing to form, which were multiple and about the size of a large pin head. This condition was the early stage of a suppurative nephritis or true surgical kidney. The pelvis and ureters were slightly dilated, and contained some urine which was a little purulent. Weight of the right kidney, 7 ounces (198.446 grammes); of the left, 6 ounces (170.097 grammes). The urethra was apparently normal at the posterior inferior wall. Just in front of the prostate gland there was quite a pocket, into which the catheter went instead of into the bladder. The prostate was somewhat enlarged, and the middle lobe was crowded upward and forward into the cavity of the bladder. This pushed the mucous membrane forward, so that together with the middle lobe it formed a "bar" at the neck of the bladder and occluded the outlet, in this way it acted like a ball-valve, and decidedly interfered with the escape of the urine. As a result, the wall of the bladder had become hypertrophied, and the superior two-thirds was decidedly fasciculated; at the summit near the attachment of the urachus, or suspensory ligament, there was one large vesical sacculus, or appendix vesicæ. There were several places where a similar condition was commencing to form. The bladder contained sixteen ounces of urine containing pus and blood. The epididymis of the left side was the seat of a diffuse suppuration; the left testicle was in a similar condition and had commenced to slough. The liver was slightly fatty. No gall-stone could be found to account for the enlarged gall-bladder.

This case was of interest in showing how a slight enlargement of the prostate might cause a protrusion forward of the mucous membrane, and decidedly dam back the urine; how the forced introduction of the catheter may excite extensive suppurative inflammation of the whole or any portion of the genito-urinary tract, and also in comparison with the other two specimens, illustrating three different and distinct lesions of the urinary tract.

The three cases evidently died from the same cause, uræmic poisoning, but all were free from the active convulsive or comatose symptoms. They are, therefore, interesting in showing that uræmia or a form of blood-poisoning from retained effete material may be the cause of death by cardiac paralysis alone, or in conjunction with œdema of the lungs, without any marked premonitory warning.

Dr. T. Mitchell Prudden presented a specimen of

PRIMARY HYDROCEPHALUS IN AN ADULT.

The case occurred in Dr. A. B. Ball's service, in Bellevue Hospital, and for the clinical history he was indebted to the house physician, Dr. A. Brothers:

Carlo B——, about forty years of age; occupation, stand-keeper; nativity, Italy; married man; powerful build; admitted February 12, 1885.

History.—Patient was never sick before in his life. No family history to be obtained. Has two children alive and well. Denies a specific history. Well-marked alcoholic history. Has been a hard-working man, being out of bed each day by 4 A.M., and never retiring before 12 at night. Five weeks before admission began to suffer from an intense headache, referred to frontal region. Took a mustard foot-bath, and from that time has been unable to stand or walk. About the same time his memory began to fail him, and he became somewhat deaf. During the past five weeks he has been confined to bed. His mind has been clear. Loss of memory and deafness have become steadily worse. Headache has been more marked at certain times, and entirely absent at others. Rigidity of the body and condition of apathy persisted up to admission (history obtained from friends). No injury.

On admission.—Temperature, pulse, and respiration normal. Patient complains of nothing. Lies in stupid condition. Hearing seems to be affected (blunted). Pupils are unequally dilated. Some conjunctivitis. Swallows easily. Slight cough and evidences of bronchitis. Patient unable to sit up or stand. If stood up out of bed there is extreme backward rigidity of the entire body from head to foot. No tenderness over spinal column. No paralysis. Sphincters normal. Faradic contractility normal. No disturbances of sensation. Tendon reflex exaggerated. Mind occasionally wanders.

Diagnosis.—The different spinal troubles were excluded. Symptoms seemed to point to pressure on brain, due probably to tumor situated in region of cerebellum.

Treatment.—Iodide of potash pushed to one-drachm doses t. i. d.

Progress of case.—Patient continued in condition of stupor alternating with periods of slight delirium, and finally passed into complete coma, in which he died. On February 16th his temperature suddenly rose to 103°, and consolidation of lower lobes of both lungs was made out. He developed paralysis of muscles of palate and pharynx, but this was only temporary. Rigidity of body gradually disappeared. Urine was passed involuntarily. Bowels only moved after enemata. During last four days he lay in comatose condition, with temperature ranging between 100½° and 103¾°. He died on February 22, 1885.

Autopsy.—Man large, well built, and fairly nourished. Dura and pia mater appear normal. Convolutions not flattened. On the removal of the brain from the skull the corpus callosum was burst through and there was an escape from the lateral ventricles of about from four to five ounces of clear serum. The cerebral arteries were normal; corpus callosum somewhat thin; lateral ventricles widely dilated; ependyma not thickened and not roughened, but the blood-vessels were somewhat dilated. The other ventricles appeared normal. Brain tissue not dry and contained about the usual amount of blood. Cerebellum normal. I could find no evidence of lesion in the veins of Galen, nor did the communications between the fourth and other ventricles present any abnormalities.

In the absence of any evidence of inflammatory processes either of the meninges or ependyma, or interference with the veins or interventricular passages, this would seem to belong among those rather rare cases of primary hydrocephalus in the adult whose cause is not evident.

A considerable number of cases similar to this have been described; several by Abercrombie, some by Gintrac. They are not usually distinguished. Delafield, in his lectures, makes a separate class of them, some being with and others without evidences of ependymitis. According to his description of the clinical history, they are very apt to go on for a time with no, or obscure, cerebral symptoms. These symptoms may more or less suddenly become pronounced, and the death of the patient follow within varying periods, but sometimes within a short time. The symptoms in the later stages of the disease are apt to be in general either those of cerebral apoplexy or of meningitis, and may be more or less well pronounced. At the autopsy, however, lesions similar to those in our specimen are alone found.

The heart and large vessels were normal. In both lungs there was acute purulent bronchitis, and in both lower lobes well-marked general broncho-pneumonia with a moderate amount of consolidation about the bronchi. These lobes were also deeply congested. Kidneys showed a moderate amount of chronic diffuse nephritis. Other viscera normal.

(To be continued.)

Thallin, the new Antipyretic, is found by Dr. C. Alexander to be better than kairin, but not so active as antipyrin, over which latter it has only the advantage of smaller dosage and more agreeable taste.

Correspondence.

OUR LIVERPOOL LETTER.

(From our Special Correspondent.)

PRACTICAL POINTS ON AMPUTATIONS—ETHER AS AN ANÆSTHETIC—THE USE OF ANTISEPTICS—THE QUESTION OF EXCISION—TREATMENT OF NON-UNION IN FRACTURES, OF HERNIA, STRICTURE OF THE URETHRA, AND JOINT DISEASES.

LIVERPOOL, March 4, 1885.

Most American physicians who visit Europe land at Liverpool, and of these a large proportion take the opportunity of visiting the medical institutions of that city. Many of your readers have, therefore, doubtless visited the largest of the hospitals, viz., the Liverpool Royal Infirmary. As a school of medicine Liverpool is decidedly a rising one, and has lately improved its position by becoming affiliated to the Victoria University, Manchester. It numbers among its teaching staff many who have attained more than a mere local fame. Among these the following names at least are not unknown in America: A. T. H. Waters, Reginald Harrison, Mitchell Banks, Bickersteth, and Rushton Parker. These are all surgeons, with the exception of Dr. Waters, who is Senior Physician to the Royal Infirmary and Past President (1883–84) of the British Medical Association.

It is of Liverpool surgery that I now propose to speak. This article has been suggested by a recent perusal of a small work in pamphlet form recently issued for private circulation by Mr. Mitchell Banks, Surgeon to the Royal Infirmary. It is headed "Clinical Notes," and is virtually a statement of two years' surgical work in Mr. Banks' wards. It is, however, very different to the ordinary cut-and-dried hospital records, and contains a good deal of really interesting and informing material. Mr. Banks expresses his opinions on most of the subjects to which he adverts, although he modestly says the remarks he has printed "are only intended for the amusement of my friends and such as feel an interest in the work done at the Liverpool Royal Infirmary." I found myself so much interested in Mr. Banks' epitome of Liverpool practice that I began to make a few notes on the same in hopes that they might interest your readers. I have added a few remarks here and there as to the practice of other British surgeons, more particularly with reference to surgical practice in the metropolis.

Speaking of amputations, Mr. Banks naïvely remarks that for his part he only knows and only teaches two things about them, viz., to make one flap longer than the other and to saw the bone as low down as possible. I may remark that the size of the flaps is a question on which surgeons differ greatly. Many British surgeons are now in favor of having two flaps of nearly equal size. The "circular" method has also many advocates.

In amputating through the femur for disease of the knee-joint it is difficult, says Mr. Banks, to see any use in keeping the patella. Sawing off its cartilaginous surface and then trying to make it stick on to the cut end of the femur may afford an operator of a mechanical turn of mind some amusement, but nothing more. It is not the patella we want, but the hard skin over it.

Boneing the great toe is suggested as an improvement on amputation or excision of the metatarso-phalangeal joint when the latter is diseased.

In describing a case of double amputation for railway injury, Mr. Banks alludes to rapidity of operating as an element in prognosis. In this case the patient, a boy of ten years of age, had fallen from a train and lay in a tunnel all night in severe wintry weather. He was apparently dead when brought to the hospital, but some signs of life appeared after a time. Subcutaneous injections of ether were given him (two of thirty minims each) and "he was placed on a mattress opposite a large fire and literally cooked into life again." Reaction had fairly set in by the evening. He was then taken into the theatre, "the smallest whiff of ether" given him, while the two injured limbs were removed "with all the rapidity possible." Rough dressings of lint soaked in carbolized oil were applied, and the patient "was again in the ward on the mattress before the fire in less than fifteen minutes from the time of his removal." Space fails me to give the full history of this most interesting case, but I may say that the patient was attacked with "surgical scarlet fever," the urine became albuminous, the flaps opened up and refused to heal, and the bones protruded. The patient eventually recovered, a result largely due, Mr. Banks believes, to the speed with which the operations on him were performed. He remarks that in these days of anæsthetics the surgeon is apt to proceed too deliberately, forgetting that the patient, though not suffering pain is suffering shock—that "every minute of anæsthesia, every fresh incision, every lost teaspoonful of blood," lessens his chance of recovery. Mr. Banks goes so far as to say that in a thigh amputation for smash, the fact of the patient being on the table twenty minutes in one case, or forty-five in another, makes all the difference "between his crossing the bar and sticking on it." In the case just alluded to, the warm fire, subcutaneous injections of ether, the selection of ether as an anæsthetic, and the careful use of antiseptics, all no doubt aided in procuring the favorable result.

Mr. Banks is a warm advocate of ether as an anæsthetic, and even goes so far as to say, "To-day it has elbowed chloroform out of the field." This may be so in Liverpool; it certainly is not so in London. Chloroform is still largely used both in hospital and private practice. The A. C. E. mixture is becoming more generally used also. Local anæsthesia is becoming more largely employed. Ether-spray, or ice and salt, is much more often made use of for minor operations than formerly. The introduction of cocaine has stimulated investigators to try and discover some other local anæsthetizing agent. Mr. Banks recognizes two objections to ether. One, the danger of excessive secretion of mucus in bronchitic patients; the other, its failure to thoroughly control muscular action even after feeling is abolished.

Listerism finds an earnest advocate in Mr. Banks. He narrates a case of amputation for injury in which the right foot (from which some toes had to be removed) began to slough, and a condition closely resembling hospital gangrene set in. The leg amputation close beside it healed (under its antiseptic cover) without a trace of suppuration. If, in the face of natural experiments such as these, says Mr. Banks, people still sneer at Listerism as a fad, further argument with them is futile. I may remark, in passing, that Mr. Banks' surgical colleagues are at one with him on the antiseptic question.

Mr. Banks has some very thoughtful remarks to make on the subject of excisions. At the International Medical Congress in London (1881) Mr. Howard Marsh ignored statistics and pointed out that excision belongs to the same class of treatment as amputation. It is giving up the attempt to cure the disease. To this view Mr. Banks cordially assents. Far better than advocating early excision is it, he says, to devote ourselves to teaching the early recognition of hip and joint disease. "The children of rich people," he says, "don't have their hips and knees excised. Why not? Because the articular mischief is promptly found out, and skilfully and patiently treated." Joint diseases are so prevalent in the cold and damp climate of Liverpool, that Mr. Banks' opinion is worth hearing at any rate. I may remark that the Clinical Society's report (1881) on excision of the hip-joint, showed a mortality of thirty-five per cent. in cases of excision as against thirty in cases of suppuration treated by rest and extension.

Mr. Banks says the following is his teaching to students: "In children up to fifteen years of age, if you get a case of knee or hip disease from its commencement, make up

your mind to save the limb. You ought to save it. Between fifteen and twenty-five, failure is to be looked for very often, and then you may excise. Don't operate until your art is exhausted—only don't wait until your patient is exhausted. Fortunately after twenty-five or thirty, joint mischief is not common; but at that age whatever you may do with the hip, do not excise the knee, if your patient will let you amputate."

Mr. Banks says that his impression of excision of the knee-joint after thirty years of age is that it is, as a rule, disastrous, and that many a life has been lost to save a leg. On this question many surgeons will be disposed to join issue with Mr. Banks, but one remark that he makes is certainly worth remembering. It is that a workingman does not usually do a stroke of work on an excised knee-joint under eighteen months or two years; after amputation he is at work in from four to six months on a sound stump.

Thomas' knee splint is *the* method of treatment for fractured femur at the Liverpool Royal Infirmary. Mr. Banks says he now uses it for all fractures in the middle and lower thirds till close upon the condyles; for fractures in the upper third he prefers the "MacIntyre." For fractured patella, opening the knee-joint and wiring the bony fragments together finds no acceptance in Mr. Banks' eyes as a method of treatment. He remarks that such a proposition savors of surgery run mad. I can testify that Mr. Banks is not alone in this opinion. Many metropolitan surgeons are of much the same opinion, though the adverse criticisms which were expressed on Lister's first case are now somewhat modified in tone. Mr. Banks says that if he should be unfortunate enough to break his patella, "nothing in the world" shall induce him to have his knee-joint laid open so long as he can "get hold of a Thomas knee splint and a yard of sticking-plaster." Where a limb has become useless, says Mr. Banks, then Sir Joseph Lister's proceeding is not only justifiable but necessary. But useless limbs ought not to occur. We so frequently see such bad results because the surgeon, after having kept his patient in bed six weeks or two months, proceeds deliberately to bend the joint. The joint should be kept from bending for eight months, says Mr. Banks, viz., two months in bed and then six months out of bed with a splint on. "Let him get up and be fitted with a Thomas calliper splint, clipping into the sole of his boot, and he can go about his business as well as ever, unless he be in the acrobatic line. It will be far cheaper for the hospital to fit him up with this splint and give it to him, than to have to take him in six months afterward for the purpose of having his joint opened and his patella wired." As for the joint getting stiff, that is a fallacy, unless there has been inflammation in it or the surrounding structures.

In some cases of non-union of fractures Mr. Banks has found good results from taking all splints off and allowing movement to occur. The orthodox treatment of maintaining absolute immobility sometimes fails, he believes, through not causing sufficient irritation for callus to be thrown out.

A large section is devoted to tumors, simple and malignant. In removing malignant tumors he lays great stress on the importance of removing the nearest glands in all cases, *whether enlarged or not*, though even then he regards recurrence as almost certain unless the disease be attacked early. As to the danger incurred from extensive operations Mr. Banks regards that as imaginary. He has performed most formidable and extensive operations with success (so far as the operation was concerned) in cases of malignant tumors. But where the disease is already very extensive, he regards recurrence as certain. He says: "As for extensive removals for extensive diseases, I find, on looking over my hospital records for eight years, that I have only succeeded in saving one solitary patient."

Distinctly malignant sarcomata he regards as hopeless, a melancholy opinion shared by many other British surgeons.

Several cases of resection and union of divided nerves are narrated; also two remarkable cases of locomotor ataxy in which improvement—in one case considerable in extent—followed stretching of the sciatic nerve.

Several interesting cases of hernia occurred. When, on the sac of a hernia being opened, the bowel is found gangrenous and obviously unfit to be returned, Mr. Banks says his opinion is that the bowel should be slit open and stitched to the lips of the wound, and *that the ring and surrounding parts should be left absolutely untouched.* "The intestine," he says, "should be cut into as if it were an abscess. By the time matters have come to such a pass that the gut is dead, the ring will almost certainly be glued around its neck by adhesive lymph, and the abdominal cavity quite shut off from the hernial sac and its contents." The resulting artificial anus can be easily cured afterward. One case was very successfully treated by introducing a thick piece of india-rubber tubing into the opening, and pushing one end up the ascending bowel, and the other down the descending. The fæces were liquid and passed through the tube. The pressure of the elastic tube gradually wore away the "spur."

Mr. Banks does not defend his plan as a scientific procedure, but he says: "In private or in country practice, where hernias are often cut at night, and with but scant help, I suspect that the plan of cutting open the bowel and letting everything alone will hold good for many a day to come." He is rather doubtful of the advantages of abdominal section in cases of intestinal obstruction. Many apparently hopeless cases have recovered without operation; in many cases in which the abdomen has been opened some condition has been found which it was impossible to relieve. Mr. Banks believes that "the operation of the future will be ileo-laparotomy, where a small abdominal incision is made, and the first piece of distended intestine brought to the surface and opened. This is not a dangerous proceeding; it gives time for nature to act, if she can; and the resulting artificial anus is readily curable if the patient recovers."

Mr. Banks is no friend to gastrostomy when performed for malignant œsophageal disease. "So long as a man can swallow milk and strong beef-tea through his stricture, he is as well off as if he were getting it through a hole in his stomach. When he can no longer do this his time has come. It is far more merciful to give him plenty of morphia, and let him die in peace, than to torment him with a surgical operation which can only preserve life for a brief period under the most distressing circumstances to himself and all around him."

An interesting section is devoted to stricture and urethral fistulæ. Mr. Banks believes firmly in gradual dilatation, and with the metallic bougie. He is not alone in his preference for "metal," but the preponderance of opinion at the present day in England is certainly largely in favor of "rubber." Hospital teachers in London mostly recommend the use of the soft bougies. Since they have been more commonly used, patients with whole series of false passages are less commonly met with; in fact, they are now a rarity. Holt's operation is favorably mentioned. Otis' views on the calibre of the urethra receive due recognition.

Mr. Banks has very clear views on joint and bone diseases. He says, and justly: "My recollection of the treatment of joint diseases in the Edinburgh Royal Infirmary, when I was a student there more than twenty years ago, is that the whole thing was a farce. There really was no treatment, as we understand it nowadays, and the result was that the surgeon groaned aloud at the mere sight of a hip or knee case. The principle of rest was just beginning to lay hold of men's minds, but they did not completely grasp it." Complete immobility is the grand desideratum for a diseased joint, and the teaching of the Liverpool school is that the only means of obtaining this perfectly is by means of the "Thomas" splint.

One grand advantage of applying it is, that the patient can walk (from his pelvis), and is thus not confined to bed and debarred from fresh air and sunshine. Mr. Banks has seen benefit from the actual cautery. The actual cautery also finds favor in some of our London hospitals. I have seen remarkable benefit accrue from it in cases of chronic disease of the spinal column, also in affections of the cord.

Sayre receives no scanty praise from Mr. Banks. As Thomas' splint is to knee-joint, so is Sayre's jacket to Pott's curvature. "They have," says he, "raised these maladies from the pit of almost utter hopelessness to within a measurable distance of cure." Many British surgeons will endorse this. In many cases where it does no good it is because it is not properly applied. Either the surgeon does not do it himself, and leaves it to the instrument-maker (I have known this to be frequently done), or else he does apply it himself, but does not take the trouble to do it properly. The same remark may be made of Sayre's jacket as of the use of antiseptics, viz., that large numbers of practitioners who use them do not take sufficient pains to carry out the system efficiently.

Many other incidents of Liverpool practice are worth recording, but I have already exceeded my space. I must just mention, in concluding, "bursal" affections, which seem tolerably common in Liverpool. Mr. Mitchell Banks emphasizes the importance of the early recognition of suppuration in the olecranon bursa, its danger when it does occur, and the importance of treating it at once by incision (under anæsthesia) from end to end.

OUR PARIS LETTER.

(From our Special Correspondent.)

TRANSMISSIBILITY OF TUBERCULOSIS BY VACCINE LYMPH—INFLUENCE OF THE ANTISEPTIC METHOD ON ERYSIPELAS—THE DEPOPULATION OF FRANCE—THE PREVALENCE OF ABORTIONS AND INFANTICIDE.

PARIS, March 6, 1885.

THE question of the transmissibility or non-transmissibility of tuberculosis by vaccine lymph was lately brought before the Medical Society of Hospitals, when Dr. Strauss gave an account of the researches made by him during the last two years, in view of deciding the above point. It will be recollected that, in 1881, M. Toussaint, in a note communicated to the Academy of Sciences, stated that he vaccinated a phthisical cow from a healthy child; he afterward inoculated a pig and a rabbit from the vaccine pimples of the phthisical cow, and both animals were attacked with tuberculosis, but Koch's bacillus was not found in the lymph. Dr. Strauss repeated these experiments, and he stated that in the space of eighteen months five phthisical patients were successfully revaccinated in his hospital wards, but no bacilli were found in the vaccine pimples. Inoculations from the vaccine lymph of phthisical patients were practised in the anterior chamber of the eyes of rabbits, but they also afforded absolutely negative results. These five negative cases are confirmative of the four cases related by M. Lothar Meyer, of Berlin; and M. Chauveau, of Lyons, following in the same line of researches, arrived at the same negative result in twenty-two cases that he had observed. Dr. Vaillard stated that he had inoculated the vaccine lymph of certain tuberculous patients into animals, but with the same negative results as those obtained by Dr. Strauss. There would, therefore, be twenty-six negative cases opposed to the only positive one of M. Toussaint, and Dr. Strauss considers himself justified in concluding that tuberculosis is not transmissible by vaccination. Moreover, the age of the vaccine subjects would be sufficient guarantee. As for heifers or calves, these are still more rarely tuberculous than children.

Professor Verneuil read a paper last week at the Academy of Medicine on the influence of the anstiseptic method on the genesis of erysipelas so common in surgical wards, and he thinks that if Listerism be rigorously carried out this dreadful complication will completely disappear after operations. M. Verneuil considers that the antiseptic method exercises its beneficial influence not only on the patient himself, but on the atmosphere of the ward, on that of the entire hospital, and even on the neighborhood outside the hospital.[1] M. Verneuil bases his thesis on the small number of cases of erysipelas that have occurred during the last few years at La Pitié Hospital, of which he is surgeon, and on the small number of admissions into the medical wards from spontaneous erysipelas, which is evidently due to the improved sanitary condition of the quarter in which the hospital is situated. But, it may be asked, whether the diminished number of cases of erysipelas in the hospitals may also not be attributed to the improved sanitary condition of the quarter. M. Verneuil's faith in the antiseptic method is such that he considers, if properly carried out, erysipelas, like pyæmia and hospital gangrene, will become more and more rare until they disappear altogether. M. Gosselin, and other members present, were of the same opinion, but, by a strange aberration of temper, M. Le Fort thinks that, contrary to the opinions expressed in favor of the use of carbolic acid, a great number of cases of traumatic erysipelas may be attributed to the introduction of that substance into hospital practice. The debate on the subject has not been closed but will be resumed at the next, and perhaps one or more of the subsequent meetings of the Academy.

By way of variety subjects of minor importance are brought on the tapis, but these are eclipsed by the great debate which has been going on for some time, on the depopulation of France, and which is justly occupying the attention of the ruling powers. I shall not here enter particularly into the causes that have been assigned for the diminishing population, as they have been published in the bulletins of the Academy of Medicine and other medical journals. I may, however, refer to them in a general way. These are: A voluntary abatement of fecundity, abortions criminal or otherwise, still-births, Malthusianism, infanticides, infant mortality from "natural causes," etc. Various causes have been advanced to account for the great diminution in the vitality of infants and the great increase of mortality among them, but according to Professor Fournier, the well-known syphilographer, the most potent cause is syphilis, which he says is much more prevalent in all ranks of society than is generally supposed. In taking the most favorable cases, that is from private practice, where syphilis causes less ravage than among the poorer classes, because among the upper classes better care is taken:

In 403 cases in which the father alone was syphilitic, the mother being unaffected, there were 115 deaths or a little more than 1 death to every 4 births. If the father and mother are syphilitic, the mortality becomes frightful. A syphilitic woman, cited by M. Fournier, had 11 miscarriages in 10 years; after this she gave birth to a child at full term but syphilitic. Another woman, observed by Dr. Ribemont, had 19 pregnancies, and 19 deaths. Syphilis then can soon destroy whole families, and this case is frequent.

Of 208 pregnancies observed in his private practice, and in taking women at different stages of syphilis, M. Fournier found only 60 children born alive, and the other 148 were either premature or still births. At the Lourcine (hospital for syphilitic females), to which he was attached for more than seven years, M. Fournier found 56 deaths out of 100 pregnancies. At the St. Louis hospital, of which he is at present physician, he found the difference in the proportion very slight: 225 deaths out of 248 pregnancies. To avoid being accused of pessimism, M. Fournier quoted the statistics published by other authors. These statistics give 77 deaths to 100 cases,

[1] This is surely a great deal more than Lister himself would expect.

which figures are very nearly the same as those obtained by M. Fournier.

Thus it will be seen that the evil is great and telling on the population, a fact easily established, but it is much more difficult to find a remedy. M. Fournier, however, suggests that to reduce the mortality from this cause to a minimum we should: 1, better defend ourselves against syphilis; 2, we should treat it better; and 3, we should be more severe than is generally the case as regards marriages among syphilitic subjects, and he concludes with the following salutary advice that no syphilitic patient should be allowed to marry before having undergone three or four years of proper treatment.

OUR VIENNA LETTER.

(From our Special Correspondent.)

NOTHNAGEL ON THE USE OF DIGITALIS IN VALVULAR DISEASES OF THE HEART—THERAPEUTICS OF ACUTE ARTICULAR RHEUMATISM.

VIENNA, February 28, 1885.

THE following are the points made by Professor Nothnagel, in a late lecture, concerning the use of digitalis in heart lesions: In the first place, said the professor, it is necessary for the proper consideration of the treatment of the disease to keep steadily in view the fact that valvular lesions, as such, after they are once present, are irreparable, and the treatment is to be directed to the result arising from the failure of the valves, and not particularly to the lesion itself. As is well known, up to a certain stage of the disease, these lesions are compensated for in various pathological ways. No active treatment is necessary until symptoms of a disturbance of this compensation present themselves. During this stage absolutely no remedies are of use, and, in fact, often do harm if given. When, however, the weakening of the hypertrophied heart-muscle, from overwork or other causes, sets in, and symptoms of compensation disturbance occur, certain means are at our disposal to avert the threatening result: 1, By the rest of the organ, patient in bed, etc.; 2, by special remedies to strengthen the weakened muscle.

First and most prominent of these medicines is digitalis. In England and America, at the present day, it is given in a multitude of different heart affections and different diseases, expecting many results, according to its many separate physiological actions as given in the English books. In the Vienna school such universal and illogical use of the drug is not made. As an antipyretic digitalis should *never* be employed. Its action as such, when used simply to obtain a reduction of temperature, is too slow, and this result comes too late to be of service. It might be permissible, perhaps, to give it where the temperature was due to the heart. Digitalis, however, is especially to be given with regard to its action on the heart. This drug, as proven by the experiments which Professor Nothnagel made on animals several years ago, in Jena, acts upon the vagus, as well upon its centre in the medulla as upon the peripheral ends in the heart-muscle itself. It slows and strengthens the heart's action, and increases the arterial tension. In too large or too long continued dose exactly the opposite effect is obtained. Digitalis belongs to the cumulative poisons, hence caution is required in using it for any length of time. It owes its properties to four alkaloids, no one of which alone, and no combination of them, except as found in the plant, will replace it.

Digitalis is only to be given when the heart-muscle becomes weakened and flags. It is the greatest mistake to give the drug, simply because there is a lesion of the valves, without disturbance in the circulation; also, it is to be given in *all* cases of circulatory disturbance due to lessened action of the heart-muscle, whether the original cause of the trouble was an affection of the valves or sclerosis of the arteries, contracted kidney, chronic bronchitis, emphysema, etc.

The English say that a certain valve-failure, insufficience of the aorta, contra-indicates digitalis. Nothnagel believes that this is a mistake; he has always seen good results from its use in this as in the others. As to the preparations, he prefers the powder or the infusion. The powder he has found to be the best working form. In valvular disease always begin with small doses, frequently repeated; three grammes (.03) of the powder every three hours, continued for five or six days, then stop the medicine entirely for five or six days, and repeat as before. If necessary, five grammes (.05) every two hours may be given. If this is not enough the condition is very bad. Professor Nothnagel has given as high as ten grammes at a dose in extreme cases If, with a dose of five grammes, the desired result is not obtained, it is best not to give any more; the case is very bad and the prognosis fatal. It is best in this case to try the few other remedies that are available. During the administration of digitalis the physician must observe the patient closely and continually; the poisonous symptoms come on very suddenly, the first symptoms are very frequent, pulse with small tension and vomiting.

When given properly digitalis is a powerful and exceedingly valuable remedy. A combination of quinine with digitalis is sometimes of service, from three to fifteen grammes per day. Scylla, which is recommended by some authors, will not replace digitalis, as it only works in exactly the same cases where digitalis does, and only feebly and when given in very large doses. Adonis vernalis has been tried very thoroughly in this clinic, with negative results. It can be tried, but must be given in large doses, three to seven grammes of the powder per diem. Convallaria the professor thinks of little value. Caffein, in doses of one to three grammes of the simple salt, is a very good complimentary means. It is more of a diuretic than a heart-stimulant. It may be used where digitalis fails entirely, and has been found in some cases to be of value.

Professor Nothnagel usually begins treatment with digitalis, or more rarely with digitalis and quinine, if no result is obtained from this he uses caffein.

The first occurrence of the rupture of the compensation is usually immediately relieved by digitalis, and apparently, excepting that valve lesions still remain, the patient entirely recovers. The hydrops and œdema of the organs, and secondarily the emphysema of the lungs, has been driven away; has been removed by the digitalis. But a second attack occurs, which is more slowly relieved, and a third attack, and the patient ultimately dies, water-logged, of the original disease.

In a following lecture, Professor Nothnagel, after describing several of the older remedies and methods used in treating acute articular rheumatism, and condemning most of them, said that the simplest, most certain, and satisfactory therapeutics for this disease was salicylate of soda. He laid particular emphasis on the statement that the disease was a general disease, in which several organs of the body were involved: the heart in its separate structures, the endocardium, the myocardium, and pericardium, the sweat-glands, the joints, and the pleura, bronchi, and meninges, to a greater or less extent. The disease was evidently the result of a general poison, and as quinine was a specific to the poison of malaria, or mercury a specific to the poison of syphilis, so was salicylate of soda a specific to the poison of acute articular rheumatism. This disease is self-limited, however, and by the old methods of treatment, or if left alone, it usually ran its course in four weeks, doing considerable damage or causing death. With proper treatment there should be marked improvement in the joints in twenty-four hours. Salicylic acid has a similar action, but can not always be given, because of its effect on the stomach. When the pain in the joints and the fever is very severe, Nothnagel gives sodii salicylate in one gramme doses every hour, when less intense he gives twelve to sixteen grammes every twenty-four hours. In giving this drug, watch

must be kept upon the heart and stomach. It produces also, in many cases, a roseola. After the acute inflammatory condition disappears, which is commonly in from twenty-four to fourty-eight hours, the medicine is kept up in much smaller doses, from four to six grammes per diem for two or three weeks. This remedy does not stop the endocarditis, but it renders it much less severe, and this process disappears more quickly. In some cases, as quinine in malaria, sodii salicylate fails; in these cases it is found that benzoate of sodii is of great service. It must be given in doses of considerable size, sometimes as high as thirty to forty grammes a day. Vesication may be used about the joint, never on it, and iodide may be tried after failure of the above means.

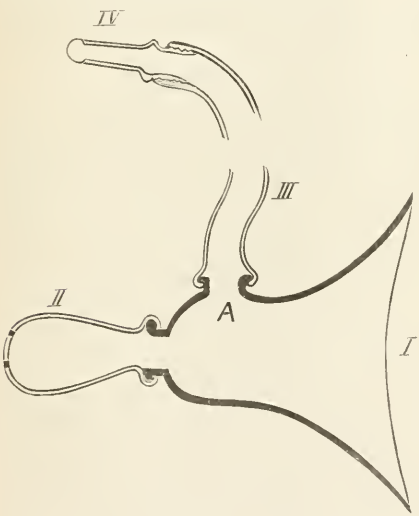
New Instruments.

NIPPLE-SHIELD.

By CHARLES WARE, M.D.,

NEW YORK.

The accompanying nipple-shield was first used by me in a case of depressed nipples which came under my care about a year ago. It gave such good satisfaction in that case, and the mother seemed so much pleased with the way it worked, that I applied to my friend, Dr. F. H. Markoe, to have one tried at the Nursery and Child's Hospital. The nipple-shield which I sent there last May has been in almost constant use since that time; and I learn from the House Physician, Dr. I. H. Hance, that it has done more than was expected of it.



As shown in the drawing, I have taken the ordinary No. 2 shield and opened it at A for the attachment of a rubber tube six to eight inches long, with a hard-rubber (iv.) mouth-piece at the end. After the shield is applied to the breast, the rubber tube is carried to the mother's mouth. By compressing with her fingers the nipple (ii.) the mother can exhaust the air from the nipple-shield and fill it with milk before the child is put to the breast. When the child begins to nurse, the mother must close the tube leading to the mouth, either by bending the tube or by placing her thumb on the opening at A. The child is thus less likely to bite the nipple, and is saved the annoyance of sucking air and of pulling at the nipple-shield for some time before being rewarded for its efforts. The new nipple-shield has already been tried in a great many cases, and I feel warranted in suggesting its use in cases of depressed or sore nipples when any nipple-shield is indicated.

153 East Seventy-second Street.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 8, 1885, to March 14, 1885.

Brown, H. E., Major and Surgeon. Granted leave of absence for one month, with permission to apply for two months' extension. S. O. 48, Department of the East, March 6, 1885.

Taylor, Blair D., Captain and Assistant Surgeon. Leave of absence extended two months. S. O. 54, A. G. O., March 9, 1885.

Brown, Joseph B., Lieutenant-Colonel and Surgeon. Detailed for Army Medical Board, to meet in New York City, April 6, 1885. S. O. 56, A. G. O., March 11, 1885.

Heger, Anthony, Major and Surgeon. To be relieved from duty in the Department of the East and detailed to Army Medical Board, to meet in New York City, April 6, 1885. S. O. 56, A. G. O., March 11, 1885.

Janeway, John H., Major and Surgeon. To perform duties on the Army Medical Board in New York City, April 6, 1885, in addition to his present duties. S. O. 56, A. G. O., March 11, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 14, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 7, 1885	0	6	95	1	174	47	0	0
March 14, 1885	0	5	84	9	177	73	0	0
Deaths.								
March 7, 1885	0	2	12	0	25	23	0	0
March 14, 1885	0	1	21	8	25	39	0	0

The Removal of the Cæcum for epithelioma is the subject of a report by Mr. W. Whitehead, of Manchester, Eng.; it is reported in the *British Medical Journal* of January 24, 1885. The patient died, however, on the thirteenth day.

The Number of Bacteria per cubic metre in city air is about 2,500; in the air of a city hospital, it is about 11,000 per cubic metre, reaching the minimum in summer.

A New Remedy for Migraine proposed by the French, is a decoction of the leaves of ményanthe, a plant of the family of gentians.

A Case of Obstinate Hiccough Cured by Jaborandi is reported by Dr. Pagenstecker, of San Louis Potosi. One dose producing physiological effects was sufficient.—*Bullet. de Thér.*

That Albuminuria is not a Contra-indication to Ovariotomy is the conclusion reached by Dr. R. W. Wilcox, after a careful study of the subject.—*St. Louis Medical and Surgical Journal.*

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 13 NEW YORK, MARCH 28, 1885 Whole No. 751

Original Articles.

REMARKS ON DIPHTHERITIC CROUP, AND THE QUESTION, "IS THE OPERATION OF TRACHEOTOMY IN DIPHTHERITIC CROUP DANGEROUS?"

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(Continued from page 314.)

IV.

DR. WINTERS, who advocates "early" tracheotomy, says: "But while the symptoms of suffocation and of pneumonic changes may be relieved by the late performance of tracheotomy, they may often be *prevented* by the early introduction of air into the lungs" (THE MEDICAL RECORD, December 13, 1884). He also teaches: "The great reason why bronchial and pulmonary complications follow tracheotomy where it is performed for croup is, that where obstruction has continued a long time the lungs are in a state of congestion, and in this condition any slight irritating cause, such as would act harmlessly on healthy lungs, will hasten on to dangerous inflammation. When it has been decided that a positive mechanical obstruction to the entrance of air into the lungs exists, do not wait until lividity sets in before making a way for easy respiration. Let the operation be done before secondary complications have arisen, or the accession of those symptoms, which are in themselves extremely dangerous to life, which often render all treatment unavailing, and make the removal of the mechanical obstruction of less importance."

About thirty years ago Dr. H. W. Fuller answered arguments like these as follows: "It is asserted by those who advocate an early performance of tracheotomy that much engorgement and inflammatory mischief in the lungs is prevented by admitting a free supply of air at an early stage of the disease, and that the patient being stronger than at a later period, is better able to undergo the fatigue of operation and to cough up false membrane, or the thick tenacious mucus by which the bronchi are obstructed and the breathing is oppressed. But however plausible these suggestions may be, they must not be allowed to influence our practice, unless it can be shown, first, that pulmonary engorgement so commonly presumed to exist during life is not attributable to the irritative influence of the disease; secondly, that if referable to obstructed breathing it occurs as soon as the second stage has commenced; and thirdly, that when suffocation is approaching the patient is unable to bear the operation, or has not sufficient strength to cough up and get rid of accumulations in his air-passages. And experience seems to negative these suppositions. The operation," he goes on to say, "is usually well borne, and expectoration takes place freely and easily as soon as the trachea is opened. In four out of five cases recorded in this communication, in which the operation was not had recourse to until collapse had set in, and death was, so to speak, commencing, none of these theoretical difficulties were observed, nor were they in more than one or two of the cases, whether successful or unsuccessful, of which I can find records in English literature. On the contrary, it is almost invariably remarked that in a space of time varying from a few minutes to half an hour after the operation, the patient coughed up some mucus or false membrane through the artificial opening, appeared much relieved by so doing, and fell asleep, breathing easily, . . . facts quite inconsistent with the existence of any great degree of persistent pulmonary engorgement" ("Med.-Chir. Trans.," vol. xl.).

From the cases above quoted it becomes clear that the statements of Dr. Winters, just quoted, are not clear. We know that the diphtheritic exudative progress may extend in spite of even an early operation. And Dr. Jacobi and others assure us that this process may extend into the larynx from below. Dr. Winters himself has found in his examinations of recorded autopsies that "secondary changes"—"œdema of the lungs and pneumonic changes"—belong to "a smaller number of cases" in non-tracheotomized cases of diphtheritic croup and presumably so in cases "where tracheotomy had been performed in the third stage of croup and death followed soon after." Knowing all this, and what other reputable men have taught and do teach, it becomes difficult to see why a so-called "late" operation may only relieve, while an "early" operation will emphatically *prevent* pneumonic changes.

Dr. Passavant (of Frankfort-on-the-Main) also advocates early operations, but in a manner that does not offend one's modesty. This surgeon even goes so far as to hint at prophylactic tracheotomies for the possibilities of croup and diphtheria that have not yet announced themselves. In the field of tracheotomy Dr. Passavant has done good work. He speaks from a thirty years' experience. He does not think that the pulmonary condition found before and after death warrants a prophylactic operation in diphtheritic croup, but he does think an early tracheotomy is called for. He does not claim that an early operation is without danger, but he holds that the advantages offered by an early operation outweigh the attendant possible dangers. An early operation may encounter less swelling and engorgement of the veins of the neck, an advantage to the patient and surgeon, and thus an early operation may be less bungling than a late one. The advantages of an early operation may be formulated thus (Passavant):

Firstly.—It prevents or lessens the chances of death by suffocation.

Secondly.—It facilitates the expectoration of mucous and pseudo-membrane.

Thirdly.—It allows time for the disease to exhaust itself.

Fourthly.—It facilitates local treatment.

Fifthly.—It in a measure spares the strength of the child.

Sixthly.—It adds to the chances of due pulmonary circulation.

Seventhly.—Possibly the progress of the diphtheritic exudation is prevented.

Dr. Ripley, as a rule, does not favor early operations, because *not unfrequently* they are unnecessary—because tracheotomy in diphtheritic croup is in itself dangerous, and may secondarily jeopardize life by erysipelas, abscess, etc., and finally because of the permanent injury that may result to the larynx and trachea.

Passavant says of the operation, though as a rule not dangerous when due care is exercised, and though it often turns out to have been easily consummated, it is not, in his opinion, an easy one, as has been asserted by some. Every operator, he says, who has operated often,

will have had cases which gave him cause to fear that the child would die under his hands.

We know now *why* some would operate "early," *why* some would operate "late;" but it is not so easy always to determine what is meant by an "early" or by a "late" operation.

One writer, a proclaimed early operator, tells us that "it is the duty of the attendant to operate early in the first indication of abiding stenosis," and that "it must be left to the attendant to decide whether the stenosis is abiding or paroxysmal." He says nothing as to the degree or amount of abiding laryngeal stenosis, but he is bold to say that it is criminal to wait until cyanosis hangs out the danger signal. All this is vague. I am sure a certain amount of laryngeal stenosis may exist, and still an operation will not be called for. As to cyanosis in diphtheria, that is a matter to be considered, and may be due to causes other than laryngeal stenosis, and even when laryngeal stenosis also complicates, these other causes may be at work too. It is not a wise thing to do to judge others harshly by anticipation, and more especially so in cases where it is not only admitted but affirmed that the attending physician must judge as to the case and all concerning it. This same writer instances the following interesting experience. He says he has himself "watched a case of laryngeal stenosis an entire night, while instruments and table were in readiness for tracheotomy, which was found unnecessary when the morning dawned."[1] I wonder how many times during this night did Dr. Baruch convict himself of criminality? Another advocate of early tracheotomy in diphtheritic croup teaches: "When there is suppression of voice, and *expiration is labored* [italics mine], *prolonged, and audible*, there is no longer doubt about the presence of membrane" in the larynx; and immediately this state of affairs has become established we ought to tracheotomize, for now there will be "no longer remissions between the croupal paroxysms, but the dyspnœa continuous;" nor are these the only indications marked by Dr. Winters for our guidance in doing early tracheotomies, for he continues: "If insufflations of alum and sulphur, with ipecacuanha, cease to afford relief, or emesis can no longer be produced, and ipecacuanha only purges, and poultices and steam have been fairly tried, it may be said that all remedial measures have failed to control the disease, and the operation should at once be performed."

I should say so! But if we allowed ourselves to be guided by these indications in all cases we would not in all cases needing operation tracheotomize early enough. Recession of the soft parts of the chest-walls Dr. Winters looks upon as "a valuable test of the amount of interference with that act," but he holds it to be a not reliable guide "if the expiration is free and easy, for these symptoms may be due in great part to spasm."

Long ago Porter[2] said: "There is something exceedingly acute about the sensibility of the larynx, it soon feels the presence of even a slight impediment, and its action and efforts are redoubled to preserve respiration. Thus its muscles are thrown into violent and often irregular actions, there is spasm and cough, and the windpipe is moved rapidly and violently upward and downward in the neck; the patient then becomes anxious and agitated under the horror of suffocation, and all the muscles of inspiration are made to assist in expanding the chest and filling the lungs with air. Yet these symptoms may be produced while the larynx is only partially diminished in size, for I have seen a patient breathe through a tube the calibre of which did not approach near the dimensions of the rima glottidis."

All organs having active functions are possessed of what may be termed a reserve of functional power or capacity, and the lungs are not exceptional in this respect. That is, the lungs possess compensatory powers, and the same may be said of systemic respiration. Cases like that of Barker's demonstrate this. I have seen children breathe through a very much obstructed glottis, and live quite comfortably. We may say, given sufficient time the lungs and the system generally habituate themselves to a less volume of tidal and residual air. And the same may be said of the compensatory power of the circulation. That is to say, when obstructed respiration has become balanced, the circulation becomes so too, and the newly imposed conditions—the laryngeal condition ceases to offend, or in great measure so. This being true of chronic abiding laryngeal obstruction or stenosis, it may also be held to be so for the more or less acute stenosis of diphtheritic croup, but, of course, to a much less extent than is the case with chronic abiding stenosis. I treated a man for true non-diphtheritic croup, in whom the diagnosis had been made laryngoscopically as well as by other means, several years ago. Here the false membrane was thick and hard, and remained several days longer on one side of the larynx[1] than on the other. There was a good deal of œdema of the ary-epiglottic folds and of the false vocal cords. When I was first called to this man he was in a most distressing condition. He was livid, could not lie down, and covered with cold sweat. His eyes were protruded and had a wild stare. The lower portion of his chest seemed contracted, and his attempts at inspiration though intense, seemed fruitless. He was voiceless; but he would not be tracheotomized. After about ten minutes the intense orthopnœa gave place to a comparatively bearable amount of dyspnœa. I attributed this relief in great measure to chloroform which I had administered unstintedly. I had used about four ounces within about ten minutes. The œdema of the larynx and the false membrane continued, and within the next three days he had several attacks of severe dyspnœa, which chloroform relieved. The œdema, and the false membrane very much less so, diminished the calibre of the glottis; but the man could breathe comfortably when quiet. The difficulty was more with inspiration than expiration.

I have already said the presence of a foreign body in the larynx is a question of kind as well as degree, in so far as either in- or expiration is concerned, or both at the same time. Bryant's case of foreign body in the larynx shows this much, that there was greater obstruction to the incoming than the outgoing current of air. How else could the *airless* condition of the lungs have occurred? Grown-up people bear membranous formations in the larynx better than small children do, and paroxysmal dyspnœa is more apt to occur in children than in older people. And considering that early operations are advocated, when membranes are forming in the larynx, or œdema of an inflammatory type, and that the younger the child usually the less tolerant is its larynx, the smaller the glottis lumen, and the greater the predisposition to suffocative paroxysms, etc., are probably the reasons why Passavant would call a tracheotomy in diphtheritic croup justifiable if performed after the first paroxysm of dyspnœa. He would operate when respiration ceases to supply the needed quantity of oxygen, and duly carry off the generated carbonic acid, etc. He also states that the operation should not be deferred until grave pulmo-circulatory disturbance has become established, but I do not recollect that he teaches us to recognize it before it has become established. Dr. Passavant, and so, too, Dr. Winters and Dr. Baruch, as well as so-called late operators, are all intent on doing the best that can be done for these unfortunate diphtheritic croup patients. All of us watch and work with this end in view. Passavant justly says: "In determining the time for operating, not only the danger of suffocation demands due consideration, but also the damage sustained by the pulmonary circulation in consequence of the dyspnœa." Difficult inspiration is harmful to the circulation, and so is difficult expiration, and more

[1] The Medical Record, December 20, 1884. Baruch to Editor.
[2] Observations on the Surgical Pathology of the Larynx, etc., p. 46.

[1] In the larynx above the false vocal cords the epiglottis was free, but red and œdematous.

harmful than either alone is impeded in- and expiration.

How long can "free and easy expiration" be carried on when with each inspiration there is retrocession of the soft parts? That is a difficulty that Dr. Winters did not make definitely and unmistakably clear.

Professor Friedrich thought tracheotomy in diphtheritic croup indicated when the patient could no longer expectorate mucus and false membrane because of weakness; when the signs of asphyxia began to show themselves, cyanosis and sopor; when the patient continued getting worse in spite of other remedies, in conjunction with the stridulous piping breathing, dyspnœa, and suffocative paroxysms.[1]

Professor Schüller, following Hueter, would tracheotomize when the infrasternal region sinks markedly with every inspiration in connection with the oncoming of labial cyanosis. He draws attention to what most of us must have noticed, that much stridulous breathing and little dyspnœa may be associated, and a good deal of dyspnœa with very little stridor.[2] A country practitioner, to whom I had put the question, whether in his fatal cases of diphtheritic croup he had observed difficulty of *expiration* or *inspiration* oftenest, was at first a little puzzled, and then answered the difficulty had been with both inspiration and expiration. This physician had done tracheotomy in such cases, and said he had been guided by the general condition of the patient, and the influence that the impeded respiration had on the general circulation. He believed that the profession generally would side with him as to the correctness of his views. I think so, too.

R. W. Parker says: "It is not easy to specify the exact moment that an operation ought to be done. If the dyspnœa is very intense—other remedies having failed—there is no choice but to operate."[3] Nearly five years ago Dr. Ripley, in a very good essay on diphtheritic croup, said: "But, after all, I have been able to find but a single pathognomonic symptom of true croup, *continuous and progressive laryngeal stenosis.*"[4] And, speaking of the use of emetics in the treatment of laryngeal stenosis in diphtheria, he said, "Of these I consider either the sulphate of copper or the yellow sulphate of mercury as the most prompt and sure. But I cannot too strongly deprecate the custom of repeatedly exhibiting these depressing and exhausting agents in the vain hope that they may ultimately succeed. They only jeopardize the last chance to be given the patient by the operation of tracheotomy."[5]

However, as a rule, Dr. Ripley is not in favor of early operations. He would have all cases of diphtheritic croup closely watched; and he does not deny that cases occur which justify, perhaps demand, an early operation. He teaches, ordinarily we ought to wait until respiration becomes continuously labored, with marked symptoms of cyanosis, and beginning failure of the vital powers.[6]

The choice of time for tracheotomizing is not always left with us. We very often must operate when we may. And when laryngeal stenosis is the great cause of the dyspnœa and progressive cyanosis, no other complication should influence us against urging the necessity of tracheotomy. Not pneumonia; not an accompanying exanthem; not albumen in the urine; not even a state of almost lifelessness and all but completed death, if parents can be persuaded, should be allowed to withhold from the patient a chance for life. The operation promotes euthanasia, but should be undertaken for the more serious purpose of saving the life of a patient threatened by death from asphyxia due to the complication of grave laryngeal stenosis.

Excepting the prevention of the progress of the diphtheritic exudation, all the advantages claimed by Passavant for "early" operations may be claimed for "late" operations. And it is clear that early operations do not prevent the advance of the diphtheritic exudation. Passavant teaches that no pulmonary change induced by diphtheritic croup warrants a "too early" prophylactic operation.

J. Solis Cohen speaks of "timely" operations. I do not believe that men who have learned to practically appreciate the value of tracheotomy as a life-saving operation in diphtheritic croup would advocate operations that might be called "too late." We have seen that Dr. Winters advocates "early" operation, yet speaks of ipecac until it ceases to produce emesis but purgation; and that Dr. Ripley cautions against the persistent use of emetics, but does not as a rule advise "early," but a "late" operation; and by no means one that would be too late.

The system, as an organism, has more or less talent for adapting itself to abnormal conditions; to a certain extent, even for conditions suddenly imposed. Respiration, as a function, to a greater or less extent, adapts itself to "abiding" laryngeal stenosis, but if this stenosis "progresses," the respiratory adaptability soon ceases, and the peculiar symptoms with which we are all familiar manifest themselves.

"Early" and "late," as terms giving significance to the operation of tracheotomy in croup, are rather indefinite unless accompanied by those clinical signs believed to tell the arrival of the moment for an "early" or for a "late" operation. Cohen's term is the preferable one; the operation ought to be timely. This the attending physician must settle. But no child should be allowed to die from the effects of a persistent progressive laryngeal stenosis, incidental to diphtheritic croup, if the physician can help it.

V.

"The most important of all questions, the danger of the operation itself." So says Dr. Winters, and he goes on to say, "The quotations from so many eminent authorities of vast experience in the performance of tracheotomy prove beyond all peradventure that the opinion that it is a dangerous operation is erroneous, and it is not only erroneous but dangerous." The quotation of the *opinions* of authorities of vast or of little experience is not sufficient to settle this question. J. Cheyne was an able physician in his day, and he was of the opinion that the operation of tracheotomy was a formidable one. Dessault, a reputable surgeon in his time, had a very sad experience while performing tracheotomy in a child, his first incision bringing on hemorrhage, causing the death of the patient. He called tracheotomy an ever grievous wound. Passavant's opinion of the operation we are already acquainted with, and I shall quote him again. Passavant says, "The prevention of hemorrhage is the point which has been attended to specially in recent times, and it is owing to efforts in this direction that the operation is done with greater safety and more despatch than used to be the case."

Mr. Pye, in his recent work on "Surgical Handicraft," styles tracheotomy a serious operation. In the preliminary discourse to Robert Boyle's collected works, may be read the following words, which will be appreciated by every medical student: "When an author acquaints me only with his own thoughts and conjectures, if he mistakes in his reasoning I am in some danger of erring with him; at least I may lose all the time and pains I bestow upon him; but if a writer endeavors, by enriching his discourse with new and real observations or experiments, to credit his doctrine, let his private opinion be ever so erroneous, yet his experiments being true, I may make my own use of them, and even plead them against his opinion; so that such a writer will certainly teach me useful truths, and cannot easily lead me into error."

I find that Dr. Winters is rather rhetorical than matter-of-

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[1] Die Krankh. der Nase, Kehlk., etc. Virchow's Handbuch d. Spec. Path. u. Therapie, B. v., I. Abtheil., 3 Lief., p. 454.
[2] Max Schüller: Die Tracheotomie, etc., p. 32.
[3] Tracheotomy in Laryngeal Diphtheria, pp. 5, 6.
[4] THE MEDICAL RECORD, July 24, 1880, pp. 85, 86.
[5] Ibid., p. 87.
[6] Ibid., April 5, 1884.

fact in the advocacy of his "proper conception" of tracheotomy. He has not only not duly noticed the dangers and difficulties which most ingenious and practised surgeons have met with while doing tracheotomy; he has not enriched his essay "with new and real observations or experiments;" nor has he given proofs to show that tracheotomy is harmless, as he avers it is, and that by misrepresentations of its true character "its abandonment has several times in history" been caused. He says "there is a universal impression that the operation is extremely dangerous to life," whereas, according to his conception, it is only the mere making of a hole into the windpipe. For such statements as these, and for others similar to them, nothing is offered except their statement as a warranty of the truth of them. I do not intend to offer instances of every danger and difficulty that may be encountered in the course of a tracheotomy, nor shall I offer instances of very exceptional occurrence.

Dr. Ripley, who has been represented as being extreme in his expressions regarding the dangerousness of tracheotomy, has himself recorded a number of such operations which presented no difficulties from beginning to end, and little hemorrhage besides. Dr. Ripley has his reasons for holding that it is a dangerous operation, and he having published them,[1] I need not repeat them here. For a full discussion of the difficulties and dangers that the operation may and does offer, I refer the reader to Professor Gross' work on "Foreign Bodies in the Air-Passages," especially to sections ix. and x., pp. 257 to 281. Gross did not believe tracheotomy to be an easy operation, though he himself had been told that "tracheotomy is the most simple thing in the world."

For a description of the technique of the operation the reader is referred to the text-books. My object is to show that the operation cannot fairly be looked upon as either easy or harmless.

Fergusson[2] said: "Laryngotomy and tracheotomy may be performed on the dead subject, and thus some idea may be formed of these operations on the living body." An idea is no doubt formed, but as far as doing it in the living body is concerned, only a very inadequate idea can thus be formed. Describing the operation he says: "It may happen that these proceedings, when required on the living body, will be accomplished with as little trouble almost as on the dead. But it will often be otherwise, and many circumstances may be connected with them which will call forth much of the skill and coolness of the operator." Fergusson further says: "In some instances it would be highly improper to wait until all hemorrhage had ceased before penetrating the trachea;" and he continues: "Without wishing to detract from the danger of bleeding, I nevertheless doubt if any one ever died from internal hemorrhage on these occasions. I have myself seen blood flow freely into the trachea from such wounds, but it has been speedily and as freely ejected again, and, for my own part, the bleeding which I should most dread would be from a copious flow externally."[3]

Sir Benjamin Brodie says in this connection: "If you open the trachea when bleeding is going on, the patient may be suffocated by the surgeon opening the trachea too hastily, and allowing it to become filled with blood. I know a case in which a surgeon performed tracheotomy and the patient died almost directly. On examining the body, as I am informed, the trachea and bronchi were full of blood."[4]

On this point Erichsen writes judiciously as follows: "Many surgeons of authority in these matters advise that the windpipe should not be opened until all, or nearly all, the bleeding has ceased. . . . But in this way valuable time may be consumed and the patient may be fatally exhausted by a tedious and prolonged operation, and by the loss of an unnecessarily large quantity of blood. . . . Hence, except in those instances in which an arterial twig, or large venous trunk, has been wounded, and which must, of course, be secured, the occurrence of bleeding, though tolerably smart, need not deter the surgeon from opening the windpipe, as the relief afforded to respiration will induce a corresponding and rapid diminution in the venous turgescence of the neck, and in the consequent flow of blood from the wound."[1]

Billroth, Roser, and others were not in love with tracheotomy, in so far as their experience with the operation is concerned in Switzerland. Necks in that country are frequently short and vascular, and the thyroid glands excessively developed. These facts explain the opinions of Billroth and Roser as to the formidable character of tracheotomy. Roser, it is said, preferred a difficult jaw resection to doing tracheotomy. This extravagant hemorrhage, peculiar to Billroth's Zürich tracheotomies, is very rarely, if ever, encountered in this country. But a surgeon may meet with severe hemorrhage even in this country in the performance of tracheotomy. Our population is mixed, Swiss live among us, others besides Swiss have large thyroid glands, and large and full veins over the trachea, and asphyxia aggravates peculiarities of this kind.

Hamilton[2] tells us that "veins lie close upon the trachea, and I have myself in one case had a profuse hemorrhage, caused by the accidental section of one of them at the very moment that I was cutting the rings of the trachea." Would it be fair to say that this accident was due to carelessness on the part of Professor Hamilton? I think not. Professor Hamilton teaches that to avoid wounding the veins and arteries use should be made of blunt instruments.

Mackenzie says the use of an anæsthetic increases the danger of the operation, "for if any blood passes down the trachea the chance of suffocation is much greater when the patient is unconscious. I have myself seen two cases in which this accident occurred under chloroform with a fatal result."[3]

Heath in his "Minor Surgery" describes tracheotomy, and says (p. 103): "This is frequently one of the most trying operations the house-surgeon will be called upon to perform." He also states that "it would take much more blood than is ordinarily shed to choke the lungs as has been suggested." This may be an encouraging way of stating a possible accident, but it is not an exact way. This kind of choking has not been suggested, but demonstrated. And this accident has occurred in the best of hands. Fuller, in his essay already quoted from, relates the following case: A girl, sixteen years of age, had been treated for croup by Dr. Bence Jones. She was tracheotomized by Mr. Howett. At the time of operation the pulse was imperceptible, the lips were no longer blue but pale, and she was bedewed with a cold perspiration. Soon after the opening had been made into the trachea she coughed up a considerable quantity of blood that had trickled into the trachea, and almost instantly expired. After death the trachea was found to contain about ʒ ij of blood, partly fluid.

The following case, from the same source as the above one, is very instructive, and illustrates an additional danger. A boy, aged five years, under the care of Dr. Naime for diphtheritic croup, was tracheotomized by Mr. Pollock. "As soon as the trachea was opened the child became more tranquil, and appeared to breathe without much difficulty. Soon afterward he fell into a doze. The breathing continued tranquil throughout the day; the pulse improved; the countenance assumed its natural color; and the cough, which recurred at intervals, led to the ejection of a considerable quantity of shreddy mucus and false membrane through the tube. He passed a tolerably tranquil night, and next morning was much

[1] On Diphtheria, etc., etc., The Medical Record for July, 1880. An able and practical essay, especially so because of the careful report of his cases, etc.
[2] Syst. of Practical Surgery, p. 475. American edition. Philadelphia.
[3] Op. cit., p. 477.
[4] Clinical Lect. on Surgery, p. 183. Philadelphia, 1846.

[1] Science and Art of Surgery, vol. ii., p. 507. American edition, 1873.
[2] Principles and Practice of Surgery, p. 875.
[3] Diseases of the Throat and Nose, vol. i., p. 547. English edition.

more comfortable; but in the afternoon the tube became obstructed, and great dyspnœa ensued. With a view to the introduction of a new tube, it was thought necessary to enlarge the opening into the trachea, and during this operation a good deal of blood escaped, some of which trickled down into the air-passages and caused excessive dyspnœa, which never ceased until the child died suffocated shortly afterward."

Post-mortem examination revealed "the lining membrane of the trachea covered with a thin layer of albuminous deposit mixed with stringy, tenacious mucus and blood; and the membrane was tinged of a red color. The larger bronchi presented a similar appearance, but to a much less extent. The lungs were congested, and the smaller bronchi contained a good deal of thick mucus mixed with blood."[1] And Fuller comments on this case thus: "There was nothing in the condition of the parts at the time of the operation to preclude the chance of recovery."

Concerning the sources of hemorrhage Porter, in his book, says, "Some of these are irregular vascular distributions, seldom to be met with, and others, however constantly present, may always be avoided by an operator who is aware of their existence" (p. 259), and "the veins, the large ones, may easily be drawn aside by a curved probe or director, and may in every instance be avoided if the operator proceeds with caution." This is mainly opinion, and though often true, certainly is not always the case. His Case XII. bears me out in my criticism. This case was operated on because medicine held out but little hope—and without expectation of success. "At the first incision some superficial veins were wounded, which poured out blood in fearful abundance. The child could not cry but it struggled violently, and these struggles increased the hemorrhage to an apparently alarming extent. The operation was continued with considerable difficulty, the parts being obscured by the blood—eventually the trachea was opened—bloody mucus was expelled by the wound with force, respiration became easy, and the boy fell asleep half an hour later. Mucus accumulated in the trachea, which aspirating with a syringe failed to remove. The child became weaker every minute, stupid, almost comatose, and died twelve hours after the operation. A branch of the thyroid vein had been slit up its entire length, and the connecting slip between the lobes of the thyroid gland had been divided."

I think from the foregoing, we may conclude that tracheotomy even in the hands of the most experienced surgeons, presents dangers of no insignificant character, and extremely mortifying results, may take place. For these results the surgeons are certainly not to blame. I have not presented all the known, all the published facts, which go to prove that tracheotomy may turn out to be, even in localities outside of Switzerland, a most distressing if not very dangerous operation, in so far as hemorrhage is concerned. Accidents such as we have passed in review have occurred in an unforeseen way. They may occur again, however hard we may try to get rid of any "misconceptions" concerning the operation, however willingly one might choose to believe it ought to be bloodless; but in spite of all so-called proper conceptions of what an operation ought to be, tracheotomy will remain objective in all its usual and other possible eventualities. "Proper operative conceptions" evolved out of the "inner consciousness" may affect practitioners with a delirium of delight, from which they may be awakened to sober views only by some real sad experience. Experience, as we have seen, does not give support to much that Dr. Winters has asserted regarding hemorrhage to be met with in performing tracheotomy. Indeed, his "proper conception" becomes absurd.

The difficulties and dangers of tracheotomy go together very much. The use of blunt instruments is not without danger, for too great violence in their use, says Mackenzie, may give rise to cervical cellulitis.

[1] Medico-Chirurg. Trans., vol. xl., pp. 44, 45.

Dr. F. H. Hamilton says, "The depth at which the trachea lies below the surface of the integument is seldom less than an inch, generally it is much deeper, and I have operated once when it was full two inches and a half."[1]

At Langenbeck's clinic it was found impossible to do inferior tracheotomy three times: once because of the very wide isthmus of the thyroid gland; at another time because of an enormous convolution of intensely engorged veins; and then again because of "a very short and fat neck" of a girl three years old. In these cases superior tracheotomy was done.

Of course instances of this kind are rare, but sufficiently often to nullify any sweeping statement.

Placing the canula into the trachea is not always an easy thing to do. If it were, Mr. Mackenzie could not say that he has *often* seen young surgeons fail in doing so. Sometimes, he says, it is due to the tracheal rings not having been sufficiently divided—and sometimes to the canula having been pushed into the tissues in front of the trachea. Others besides Mackenzie have known this error to have been committed. In this connection the following is an interesting case, besides showing the possibility of another grave misfortune; it is Case XI., spoken of by Marsh. The canula had been placed in front of the trachea instead of into it. This false position was not suspected "until a sudden and large hemorrhage from the wound proved fatal. On dissection it was found that the end of the canula had projected against the innominate vein, in the coats of which a small ulcerated opening could be seen."

It may be said that such cases as this can take place only when gross carelessness or stupidity directs an operation. Perhaps such a judgment would be the correct one in such cases. But on the other hand, does not the promiscuous and unconditional recommendation of tracheotomy in diphtheritic croup, as has been done, make itself responsible for mistakes of this kind, at least in a measure? At any rate the difficulties and dangers of this operation are sufficiently grave and numerous, as may be learned from the experience of the best surgeons of all countries, to make it well advised to be sober and temperate in the expression of *opinion* as to its being *simple and easy*, and dangerous only when carelessly done. Sir Arthur Helps puts in a plea for charity toward those who may not be as deft and expert in those things so easy for ourselves. This humane plea is as appropriate in the practical concerns of medicine as it is in all other practical concerns of life. The learned are often impatient when the ignorant appeal to them for light; but never so the cultured, for they have learned, as Goethe has it, that all the learning in the world is still no judgment. Learning, to be of use to those whom it ought to benefit, must be tempered by the good sense which experience and charity make possible.

"Décollement" of the tracheal mucous membrane is an accident that happens rarely, but it happened to Professor Pitha, and in the experience of other lesser surgeons. The accident consists in the canula being pushed between the tracheal wall and its lining mucous membrane. In cases of diphtheritic croup this accident might happen, and the patient die under the operator's hands, as did Pitha's case;[2] choked, must we say, because the operator was *wilfully* careless? In putting in the canula the false membrane may be pushed before it and thus be imbedded in a cavity formed by the tracheal wall and false membrane. No current of air is established, because no channel for it has been made.

After the operation has been done, and the canula fixed as it should be, accidents of a grave character may present themselves, and jeopardize the life of the patient, all of which are more or less consequent to tracheotomy. Such are the dangers arising from changing the canula, as witness Pollock's case; cervical cellulitis, abscesses, necrosis of the cartilage, emphysema of the neck, etc., the formation of granulations about the

[1] Op. cit., p. 675. [2] Schuller: Die Laryngotomie, etc., p. 65.

wound and extending into the trachea, ulcerations, tracheal fistulæ, erysipelas, diphtheria of the wound, and secondary hemorrhages.

Of 210 tracheotomies, Krönlein[1] states 50 were affected by diphtheria of the wound, ranging from a mild to a most virulent type, spreading about and deep into the tissues, simulating a gangrenous process. In one of the cases secondary hemorrhage resulted in consequence of the secondary diphtheritic ulcerative process, causing the patient's death.

Zimmerlin reports from Professor Hagenbach's Clinic, that of 141 tracheotomies, 20 were complicated by secondary hemorrhage, and 5 died in consequence thereof. Secondary hemorrhage was rarely observed before the second day.[2]

On this accident of secondary hemorrhage, Marsh writes:[3]

"Hemorrhage occurring some days after tracheotomy is an accident of which very little mention is made in books. This may be because the descriptions written of tracheotomy generally end with the operation itself, while the after-course of cases is very slightly touched upon; or perhaps the accident is very rare, and it may be only by a coincidence that I have met with examples of it. However this may be, it occurred in two of the thirteen cases where I have operated; and without making by any means wide inquiries, I have heard of three besides. The bleeding may be derived from one of the large trunks of the neck, whose coats ulcerate and give way under the pressure of the canula which has come in contact with them (Cases IX. and X.); or it may come, as it probably did in Case VIII., from the surface of the wound; or it may proceed from some of the vessels of the mucous membrane of the trachea."

Case VIII. illustrates this difficulty and danger in cases of this kind so well, even when help is near, that I copy it here: "B. F——, aged five and a half years, was admitted into the Children's Hospital with diphtheria, with which he had been ill eleven days. The disease, at first seated wholly in the fauces, had in the last two days reached the larynx, and produced such urgent dyspnœa that tracheotomy was performed as soon as he was brought into the ward. He did well after the operation, except that there was very profuse muco purulent discharge from the wound, and on the fourth day, as he breathed freely through his larynx, the tube was removed. Six hours afterward, as he was sitting up in bed, about three ounces of blood were poured from the wound, and he fell back and fainted. Before I reached him, although I was in a ward on the next story, hemorrhage had ceased. He was very much exhausted, but he soon rallied, and for a day or two it seemed not hopeless that he might still do well, but he flagged again; albumen, already present in the urine in small quantity, now became much more copious; he wasted quickly, and two days later he died. At the post-mortem the edges of the wound into the trachea were slightly ulcerated. About one-fourth of an inch below the lower extremity of the cut, and on the inner surface of the trachea, were two ulcers, each about half an inch in length and a fourth in breadth; they were parallel to each other, and had partly coalesced. The ulcers had quite eaten through the anterior part of the cartilages. There was a good deal of injection of the trachea generally; but immediately below the cut the redness was extreme, and extended into the bronchi. No ulceration or rupture of any vessel about the seat of the wound could be found to account for the hemorrhage before death."

Henoch[4] relates the following case, which is not without interest: "I shall never forget the case of a four-year-old boy, who had been tracheotomized in the city four weeks previous to his being brought into the hospital. The canula had not, according to the father's statement, been removed since its first insertion. The canula, which was apparently of too large a calibre for this case, was removed only with considerable difficulty. Its removal was followed by a mass of bloody pus coming from the trachea and the surrounding cellular tissue. After two hours, orthopnœa, which had developed, obliged the introduction of a smaller canula, which could be removed the next day, altogether." This last case is a sample of careless treatment, but this cannot be said of the one preceding it. Does not the care and ingenuity that has been devoted to the realization of an ideal tracheal canula prove that medical men are anxious to avoid actual as well as possible dangers incidental to the after-treatment of tracheotomized cases? From this and the facts already mentioned, it becomes clear that the statement that tracheotomy adds not one element of danger to the original disease, is without foundation in fact.[1]

VI.

From my experience I have not been led into believing that tracheotomy is universally believed to be an extremely dangerous operation, nor have my readings led me to believe that tracheotomy has been abandoned because it was thought to be a formidable operation. From the experience of surgeons of Billroth's stamp, we know that it is, at certain times and places, formidable. We also know that it may turn out to have been a comparatively simple undertaking, but this no one could foresee. I have tracheotomized once, the patient died thirty-six hours after the operation, and the parents blamed themselves for having allowed me to operate and me for doing so. The child succumbed to the extension of the diphtheritic exudative process, for which the operation is not to be blamed. I felt happy when the operation was over with, and the tube properly inserted. I had used the knife as little as possible, and then on a director. I had been ably assisted by Dr. Stubenbord, of this city; the father of the child offered to assist and we allowed him to do so, but he proved rather an obstacle than a help. The child was scrofulous and had had extensive bronchitis before we operated. I did not then, any more than now, look upon tracheotomy as curative in any other respect than that it is a remedy against laryngeal stenosis of a persistent and continuous character. I think more than two ounces of blood was lost. Chloroform had been used as an anæsthetic, and its use eased the breathing.

The case was afterward well watched by Dr. Stubenbord and myself, and constantly and carefully watched by Mr. Becker, then a medical student, during the following night. The parents could not be depended upon as nurses, and the other tenants of the house were extremely wise and meddlesome. I have seen some of the best surgeons in the world do tracheotomy, but in no instance did I see them undertake the operation in the spirit common to the doing of "things the easiest in the world."

Not long ago I was speaking on this subject with one of our most deft and careful throat surgeons, who had often done tracheotomy, and he assured me that he always felt much relieved when he had the canula properly fixed into the tracheal lumen. All his other answers were as direct as my questions. His opinion is that it is well to look upon the operation as difficult and dangerous, although it will not always prove to have been so. Before operating it is difficult, almost impossible, to know whether or no the operation will be difficult and dangerous, or easy and bloodless.

In a "special"[2] from Buffalo, dated January 22d of this year, "a charge of fatal malpractice" against a well-known physician is narrated. From the description it seems that the physician believed in "early" tracheotomies, and that he had a so-called "proper conception"

[1] Langenbeck's Arch., vol. xx., 309.
[2] Jahrbuch f. Kinderh., Neue folge., B. xix.
[3] St. Barth. Hosp. Reports, vol. iii., pp. 365, 366.
[4] Vorles. ü. Kinderk., p. 646.

[1] My quotations from Passavant are taken from that portion of his essay on Tracheotomy, etc., published in the Deutsche Zeitschrift für Chirurgie, for December 20, 1883.
[2] To the New York Tribune.

of the operation, for it seems that after consuming "half an hour before reaching the windpipe" he drew the windpipe up with a hook, "so that he could reach it with a pair of shears" . . . "one sharp cut and the blood spurted out upon the carpet" . . . and soon after the child, a seven-year-old boy, died.

I quote this case, not for the purpose of criticising the physician who has been charged with malpractice in this case of membranous croup (that cannot be done, because all the facts of the case are not given by the *Tribune* special), I quote it to show to what the operation may lead; a consequence of no small importance to any practitioner. My sympathies are with the doctor.[1]

Popular opinion is generally against tracheotomy, but not universally so. Many physicians are sceptical as to the benefits to be derived from it;[1] some physicians are apparently over-hopeful as to what it can do. But all or nearly all physicians acknowledge that we must be settled as to *why* we ought to do the operation, and that this is of more importance than making "the hole" into the trachea. We have seen that the "older writers," who it is said always expressed themselves in definite and unmistakable terms, made a study of the indications of tracheotomy; and that it took *hundreds and hundreds of years* for the operation to attain its present state of perfection. We also know that medical men, the most eminent in ancient and modern days, have argued against its utility in certain affections; not because they were ignorant of the operation, not because they lacked the courage of philanthropists; but because it seemed to them to be, when performed in certain instances, a not insignificant evil added to other evils which it could not relieve. These men, it seems to me—and they were such as Aretæus and Cheyne—I say it with diffidence and yet with pleasure, had the true conception of an ideal physician, whose object is to lessen suffering and not to increase it, and to be cruel only to be kind, when cruel he *appears* to be.

Men, it has been said, are but the children of the age they live in. Children are of all sizes and dispositions; precocious and backward, but always children. And it seems to me, from my readings, that the misconception regarding the utility of tracheotomy has been due rather to misconception of the troubles for the relief of which it had been and is proposed, than any misconception as to the danger and difficulties of this operation.

Conclusions: 1. "Tracheotomy of itself, performed with care, involves little if any danger to life" in many cases, but has turned out, in the best of hands, to be immediately dangerous to the patient's life.

2. Accidents during operation, even when care is exercised, may occur, and to say that these accidents are generally due to want of care is to not only overstate circumstances, but to misstate them.

3. It prevents asphyxia when threatened asphyxia is due to laryngeal stenosis, and if the diphtheritic exudative process halts, and does not implicate the bronchi, etc.

4. It prevents laborious and rapid breathing and lessens exhaustion to the extent that these symptoms had been caused by the laryngeal stenosis, now relieved by the tracheotomy, but no more than this.

5. It is the supreme resource for relieving the suffocation due to laryngeal stenosis, but in other respects does not influence the disease. It is not wise to give the operation too much credit, for, if we do so, it may suck us into quarters for which we have no liking.

6. When the operation has been found to relieve the laryngeal stenosis it has answered all it is capable of doing. Of course, persistence of the original disease, *too* long delay in its performance and neglect after, may render the operation futile, but are not to be looked upon as *the* causes of the failure of the operation.

7. The operation should be done in time, *if possible*, that is, when the laryngeal stenosis has become *abiding* and *progressive* and interferes with the due function of respiration. It should not be done unnecessarily early, nor too late, but it may never be too late to operate, for cases in an insensible and asphyxiated state have been brought back to life by the operation.

8. Operate knowingly and with care, and not unnecessarily hurriedly, so that when unavoidable dangers do present they may be properly overcome, and no blame be cast upon you, or your conscientiousness and ability questioned.

9. Statistics prove nothing unless the character of the epidemic is taken into account, and many other peculiarities. Statistics taken collectively show that about one patient in four or five of those complicated by laryngeal stenosis in the course of diphtheria is probably saved from death. All death is "certain" and needs no qualifying epithet.

10. Patients dying after the operation would in all probability have died anyhow, and the best consolation in such an event is that, though life was not saved, suffering to some extent at least was mitigated, and the best known possible good had not been neglected in endeavoring to save the patient's life.

406 West Thirty-fourth Street.

[1] In diphtheritic croup.

A SUMMARY OF TWO HUNDRED AND FIFTY-TWO CASES OF LOBAR PNEUMONIA.

Being the Cases Treated in the New York Hospital from April, 1877, to January, 1885.

Compiled by EDWIN T. DOUBLEDAY, M.D.,

medical clinical registrar to the new york hospital.

The hospital (new building) was opened in 1877; the service was very light, and the system of case-taking not perfected for some months. This will account for the small number of cases recorded in the first two years. During this time some cases were treated of which a complete history has not been preserved. In 1884 eleven hundred and sixty-nine cases of all kinds were admitted on the medical side. Of these fifty-three were cases of pneumonia.

The ages of the patients and the occurrence of the cases will be found to closely agree with the results of other statistics. It is noticeable that a history of infection was not obtained in any of the cases. The death-rate is considerably higher than that given by most observers.

Sex.—Males, 201; females, 51.

Age.	M.	F.	Age.	M.	F.
5 to 10 years	..	2	40 to 50 years	36	5
10 to 20 years	17	4	50 to 60 years	13	5
20 to 30 years	70	18	60 to 70 years	12	4
30 to 40 years	47	13	70 to 80 years	1	1

Occurrence, Dating from Initial Chill.

(R = Recovered; D = Died.)

	1877.		1878.		1879.		1880.		1881.		1882.		1883.		1884.		Total.	
	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.
January	..	..	..	..	..	..	2	2	2	3	1	1	5	3	3	1	5	10	18
February	..	..	1	..	2	1	3	..	2	1	3	4	3	3	..	2	14	11
March	..	..	..	1	3	4	1	..	2	1	5	2	7	7	6	2	24	17
April	2	1	3	..	3	..	4	..	1	3	3	..	4	6	1	1	20	11
May	..	..	..	..	3	2	1	..	3	..	2	1	1	2	4	3	14	8
June	..	1	..	..	..	2	..	2	..	1	2	1	..	1	4	1	6	9
July	..	..	..	..	1	..	..	1	..	1	..	..	..	..	1	1	3	2
August	..	..	..	1	..	..	..	..	1	..	..	..	1	2	..	..	2	3
September	..	1	..	..	1	..	..	..	2	..	..	..	2	3	2	4	7
October	..	..	..	..	1	2	1	..	1	..	..	..	..	3	5	5	8
November	..	..	..	..	1	..	1	2	2	3	..	1	..	5	3	..	7	11
December	3	..	..	..	3	1	4	2	3	1	4	5	3	4	1	4	21	17

Exciting Cause.—No assignable cause in 199 cases; exposure to wet and cold in 47 cases; immersion in 3

cases; prolonged mental labor and loss of sleep in 3 cases.

Alcoholic History.—Some of the patients were undoubtedly alcoholics where that fact is not noted in the history, as the lesions produced by the habitual abuse of alcohol were found on autopsy.

Alcoholic history.	Recovered.	Died.
Not stated	53	47
Absent	21	7
Slight	32	16
Marked	12	27
Very marked	12	25

There was an acknowledged alcoholic history in almost fifty per cent. of all cases, and where the history was marked the death-rate was sixty-eight per cent. The results of the alcoholic habit are one of the prime factors in the mortality of pneumonia.

Chill.—Not stated in 15 cases; absent in 58 cases; present in 179 cases.

Pain.—Not stated in 18 cases; absent in 19 cases; present in 215 cases. In about twenty-five per cent. of the cases, pain came on eighteen to thirty-six hours after the chill. In four cases pain preceded the chill. In seven cases both chill and pain were absent. In the nineteen cases where pain was absent eleven were under thirty-five years of age, and uncomplicated; of these only one died. The remaining eight cases were all over thirty-five years of age and complicated; of these only one recovered.

Crisis.—A distinct and well-marked crisis occurred in 38 cases. Average time of crisis, 8.5 days. Crisis occurred most frequently on the following days: Sixth day, 6 cases; seventh day, 6 cases; eighth day, 6 cases; eleventh day, 5 cases; twelfth day, 5 cases; ninth day, 3 cases. Per cent. in which crisis occurred: Of all cases, 11.1 per cent.; of uncomplicated cases, 27.1 per cent.; of cases complicated with pleurisy, 13.7 per cent.; of cases with other complications, 2.6 per cent. Complications where crisis occurred were as follows: Chronic diffuse nephritis, one case; mitral cardiac disease, one case; empyema, one case.

Temperature.—The temperature of those who recovered was 100° to 104.5°. Few recovered where the temperature ran up over 105°; though one recovered after the temperature had staid at 106.1° for two hours. Ante-mortem rises of temperature generally occurred, commencing one to eighteen hours before death. In ten cases it rose to +106°, in three cases to +107°, in three cases to +108°, and in one case to 110.6°. Depressed temperature occurred in three cases, all alcoholics with chronic diffuse nephritis. They were as follows: Male, aged [illegible] sixty-seven, 98.4°; male, aged sixty-six, 95.6°; male, aged forty, 92.4°.

Duration of Fever.

	Recoveries.	Deaths.
In all cases	12.5 days.	9.2 days.
In uncomplicated cases	10.3 "	7.5 "
In cases complicated with pleurisy	8.6 "	7.3 "

Part Involved.—Right lung: Lower and middle lobes, 28; lower lobe, 24; whole lung, 24; upper lobe, 22; middle and upper lobes, 22; middle lobe, 11; anterior portion of lung, 1; middle lobe and lower two-thirds of lower lobe, 1; whole of lung (except base), 1; middle and upper and part of lower lobe, 1—135 cases.

Left lung: Lower lobe, 38; whole lung, 20; upper lobe, 17; lower lobe and half of upper lobe, 1—76 cases.

Both lungs: Middle and lower lobes of right, lower of left, 10; lower lobes both lungs, 9; whole of right, lower lobe of left, 7; whole of left, lower lobe of right, 2; thirteen other combinations, one each, 13—41.

Of the double pneumonias: All cases, 14, or 33.6 per cent. recovered; 37, or 66.3 per cent. died; uncomplicated cases, 8, or 40 per cent. recovered; 12, or 60 per cent. died; complicated cases, 6, or 28.5 per cent. recovered; 15, or 71.4 per cent. died.

Complications.—Some of these complications (so-called) ante-dated the pneumonia. Pleurisy is only classed as a complication where there was effusion or where the exudation was out of all proportion to the amount of lung involved.

	Recovered.	Died.
Pleurisy	18	11
Chronic diffuse nephritis	4	36
Empyema	5	10
Valvular cardiac disease	6	8
Cirrhosis hepatis	1	8
Syphilis (acute)	4	5
Pericarditis	2	4
Enteritis	4	2
Phthisis	3	3
Parenchymatous nephritis	3	3
Cerebro-spinal meningitis	..	4
Morphine habit	..	3
Acute peritonitis	..	3
Epistaxis	5	..
Delirium tremens	1	2
Lobular pneumonia	..	2
Fatty degeneration of heart	..	2
Herpes labialis	6	1
Delayed resolution	8	1

—and purpura hemorrhagica, pulmonary embolism, abortion (six months), laryngitis, hiccough (six days), gangrene of lung, purulent softening of lung, duodenitis, cerebral softening, chronic cystitis, emphysema, salpingitis, each one case, all fatal; also pregnancy (six and one-half months), molar pregnancy, malarial fever, each one case, abscess three cases, otitis media two cases, all recovered; typhoid and uræmia, two cases each, two recovered and two died.

Treatment.—Aconite has been used in a few cases. Quinine has been used extensively. When given early it was apparently of marked benefit in giving a mild form to the pneumonia and in a very few cases cutting short the disease. When given late, in large doses (gr. xv. to gr. xxx.), for reducing temperature, it has had, in some cases, a marked depressant action on the heart. When the case came in before consolidation had taken place, a dose of calomel (gr. v. to gr. x.) was frequently given. I have seen typical physical signs of the stage of congestion (crepitant râle, etc.) in two cases disappear under this treatment. For the delirium, the bromides, chloral, and morphia, very sparingly, have been used. For pain, opium, generally in the form of liquid Dover's powder. For dyspnœa, small doses of atropia, quebracho, dry cups, and when the consolidation is extensive (double pneumonias), inhalations of oxygen (ciii. to cv. p. r. n.). For stimulants and heart-failure, ammonium carbonate (gr. v. q. 3 h.), fresh tr. digitalis (gtt. v. to gtt. xx. q. 3 h.), and alcohol. Patients are generally put on stimulant treatment as soon as admitted, and the alcohol is rapidly increased as long as the pulse remains poor and the tongue dry, or until the breath becomes alcoholic. Whiskey is the form of alcohol used. The amount of alcohol needed varies much. Some cases required twelve to eighteen ounces in the twenty-four hours. Lately antipyrin has been used for high temperature. It was given in powder gr. xxx.; and, at the end of an hour, gr. xv.; if required, gr. xv. were given at the end of the third hour. It sometimes caused slight sweating and slight cardiac depression. It gave rise to no gastric disturbances. Temperature fell one to three degrees and staid down one to eight hours. The antipyrin was used in twelve cases.

Previous Attacks of Pneumonia.—In eleven cases there was a well-marked history of a previous pneumonia. In one case there was a history of two previous attacks.

Death.—The days on which patients died most frequently were as follows; eighth day, 17 cases; sixth day, 13 cases; fifth day, 12 cases; ninth day, 10 cases; fourth, seventh, and tenth days, 9 cases each.

In one case the patient, while convalescing, suddenly cried out, complained of great pain in the chest and dyspnœa, and rapidly became cyanosed. Oxygen caused the cyanosis to disappear. The heart was stimulated, but the patient died in two and a half hours of heart-failure.

Autopsy showed a clot in the pulmonary artery to be the cause of death. One patient died of purpura hemorrhagica, which came on the seventh day of the pneumonia. He died of hemorrhage, losing twenty ounces of blood by uncontrollable epistaxis in a week.

TIME OF ADMITTANCE TO THE HOSPITAL.—Average time of all cases, 5.4 day of disease; average time in uncomplicated cases, 4 day of disease; average time in complicated cases, 6.2 day of disease.

GENERAL RESULTS.—According to age:

	Complicated.		Uncomplicated.	
	R.	D.	R.	D.
1–10 years	....	....	2	....
10–20 years	3	2	13	3
20–30 years	23	15	35	15
30–40 years	13	27	15	5
40–50 years	6	25	6	4
50–60 years	1	8	5	4
60–70 years	2	8	5	1
70–80 years	1	....	....	1

According to the class of case: Uncomplicated cases, 78, or 68.4 per cent. recovered; 36, or 31.5 per cent. died; complicated with pleurisy, 18, or 62 per cent. recovered; 11, or +37 per cent. died; cases with other complications, 34, or 31 per cent. recovered; 75, or 68.8 per cent. died; of all cases, +51 per cent. recovered: 48 per cent. died; per cent., excluding those moribund on admission, 62.31 recovered; 37.69 died.

I attribute the high death-rate to the following causes: the large number of complicated cases, the large number of those past treatment and moribund on admission, the patients being alcoholics as a rule, and finally the late day of admission to the hospital.

A SIMPLE AND EFFICIENT SURGICAL OPERATION FOR INCOMPLETE LACERATED PERINEUM.[1]

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I WILL not attempt to give a complete essay upon this subject, but will endeavor to bring out certain points, a knowledge of which is essential to a clear understanding of the operation which I will describe. It is meant for the secondary operation on the perineum, not the immediate. The names of Dieffenbach, Langenbeck, Baker Brown, Sims, Simon, and Emmet are all connected with improvements in this method of operating, and the works of Savage and Hart on the anatomy of the female pelvis have made clear doubtful points about the structure of the perineum.

While an interne at the Woman's Hospital, twelve years ago, I saw several cases that had been operated on for laceration of the perineum, admitted for a second operation on account of the skin and mucous membrane stretching to such an extent as to form merely a thin covering over the rectocele and prolapsed organs behind it. I made drawings of several of these cases, one of which I still happen to have. For years I thought that failure in these cases had been due to the fact that the operator had not cut away enough tissue and put in his sutures deep enough. I did not recognize the fact that the old crescent-shaped denuded surface, which was made to include a large part of the labia and skin, only reunited the superficial and everted part of the perineum. Simon improved upon this by denuding a triangular strip upon the rectocele; and Dr. Emmet improved on this when he introduced the clover-leaf denuded surface; but both of these leave undenuded the retracted edges of the pubo-coccygeus muscle and pelvic fascia in the angles depressed on either side of the rectocele.

Five years ago I adopted a plan of operating, which I think is an improvement on either Simon's or Dr. Emmet's operation, and I have been teaching this operation at the Polyclinic and at Bellevue for the past three years. It is simpler, and, I think, secures better results than Dr. Emmet's last new operation.

I accept with slight modification Hart's views as to the manner in which the uterus is sustained in the pelvis, and also that the perineum does not directly sustain the uterus in position, but under great intra-abdominal pressure it is a support to the pubic segment, and thus limits prolapse of the pelvic contents. The best proof that it only indirectly affects the position of the uterus is, that when the perineum is completely divided so that fecal matter escapes voluntarily, the uterus, as a rule, will be found in about its normal position. In seven cases of complete laceration operated upon by myself in the past two years, in five the uterus was in good position, and in only one was there retroversion and prolapsus. In the remaining case the uterus was somewhat prolapsed, but not retroverted. The escape of fecal matter was the only complaint. I know of one woman who has borne five children with the rectum and the vagina torn through within an inch of the cervix uteri.

My observations and study long ago led me to think that one of the chief functions of the perineum is not, as Dr. Emmet expresses it, to sustain the rectum—for when the perineum is completely destroyed the rectum remains in place—but to enable the rectum and anus to perform their functions, and not allow the intra-abdominal force necessarily exerted to empty the rectum, to disturb the equilibrium of the pelvic organs and overstretch the pelvic fascia and ligaments. Excepting during expulsion of the child, the greatest force (intra-abdominal) that disturbs and displaces the pelvic organs is straining at stool. It is this force which stretches the ligaments, and when, as it so frequently is in women, greatly increased by constipation, causes relaxation of the perineum even when it has not been lacerated. And it is this force that causes rectocele, cystocele, and hernia of the organs of generation. Standing and walking may cause pelvic congestion, and when prolapse is well advanced, may add to it; but the intra-abdominal force caused by the erect posture is insignificant compared with straining at stool, for the pelvic and abdominal organs are all suspended independently of the perineum, and downward pressure from the diaphragm falls mainly on and in front of the pelvic bone.

Just after the birth of the child the pelvic ligaments and perineum are relaxed and yielding, but the abdominal walls are also relaxed and intra-abdominal pressure is for some weeks very slight.

To make plain the reasons for doing the operation as I propose, I usually describe the perineum as the movable point of attachment for the transversus perinæi, the bulbo cavernosus, the sphincter ani, levator ani, and some of the pelvic fascia, and also as the movable point of attachment for the anus and lower end of the rectum, and the lower end of the posterior wall of the vagina. It is composed chiefly of firm connective tissue, such as forms the ligaments of muscles in other parts of the body; and as consisting of two parts, the outer or superficial, and the deeper or inner part. Externally we have the transversus perinæi, the bulbo-cavernosus and external sphincter ani and perineal fascia; internally we have the levator ani, some of its fibres forming the internal sphincter ani, and the pelvic fascia which sweep down from the sides of the pelvis and help to form and strengthen the pelvic floor, and make with the fibres of the levator ani a firm ligamentous band at and in front of the lower end of the rectum, just where it joins the anus. It is this band which, being pulled up by the action of the levator ani, deflects the fecal matter backward and outward through the anus, as it is forced down the curve of the sacrum by the contraction of the gut and the compression of the intra-abdominal force exerted by the diaphragm and abdominal muscles. This ligamentous band not only prevents the fecal matter from being forced for-

[1] Read before the Medical Society of the County of New York, March 23, 1885.

ward out through the vaginal outlet, carrying with it the posterior wall of the vagina, thus forming a rectocele, and, by dragging on the posterior vaginal wall, tending to retrovert the uterus by pulling the cervix downward and forward, but it sustains the anterior wall of the vagina and bladder when forcibly pushed downward by severe intra-abdominal pressure, such as is exerted in straining at stool. The external perineum may be torn and cause little or no trouble, but when the inner part of the perineum, where the rectum merges into the anus, is torn or much relaxed, while the sphincter ani remains intact, then we have perversion of the immense intra-abdominal force needed to expel the fecal matter.

The muscular fibres of the pubo-coccygeus muscle that should encircle the vagina, united in front of the rectum and into the anus, are separated and the pelvic fascia are torn loose; thus the rectum is forced forward and downward, and we have rectocele; and the anterior wall is gradually overstretched and forced out through the open vagina, forming in time a rectocele and true hernia. When the perineum and sphincter ani are completely severed, then the fecal matter passively escapes, and we have no rectocele and very little prolapse.

When both the external and internal parts of the perineum are partially torn, there will be in time eversion of the lower end of the vagina, the ostium being everted and rolled out, while the inner part of the perineum is retracted laterally, forming the deep angles on either side of the rectocele.

In restoring the perineum, we must denude these depressed angles and insert our sutures so as to bring the retracted edges of the pubo-coccygeus and pelvic fascia into apposition up over the rectocele, otherwise we merely partially reunite this band that directs the action of the rectum; and where there is a real necessity for an operation to restore the perineum, we make a failure. The screen of mucous membrane and skin will look well for a while, but only lasts a short time.

I do not agree with Dr. Emmet when he says that the tearing is transverse, and not from before backward. I think that the usual tear starts by the tissues in front of the muscular wall of the anus separating, and then, instead of tearing through into the anus and rectum, the tissues tear laterally around the end of the vagina and anus, thus separating the attachment of the levator ani and pelvic fascia which holds in place the end of the vagina and anus; this explains why the deep scars are usually to one side or other of the rectocele. The anus and lower end of the vagina are thus partly torn loose from the levator ani, which, when torn, retracts laterally and inward, while the vagina and anus are prolapsed and the vagina everted.

My operation consists in denuding, not the skin or tissues covering the labia, but the mucous membrane that once formed the ostium vaginæ only as high as the old caruncles, laterally and gradually extending the denudation upward for an inch to an inch and a half in the vagina, going laterally so as to include the depressed angles on either side of the rectocele in these angles, removing the mucous membrane and connective tissue until firm white tissue is reached, and up over the rectocele to the opposite side, but only taking off the mucous membrane over the elevated part of the rectocele, so as not to injure the muscular structure of the vagina. The denuded surface, when completed and spread out, instead of being crescent-shaped or triangular, or like a clover leaf, is nearly square, with its longer axis extended up the vagina, except where the rectocele is large, then it may have its long axis running from side to side. Now the sutures are put into the superficial perineum in the same way as in the old operation, as was done by Dr. Sims thirty years ago; the third or fourth suture usually being inserted within the ostium vaginæ, but the three or four last ones are entered within the vagina and passed from the right side, dipping deep laterally, completely under the denuded angle and under the denuded surface of the rectocele to its centre; then the needle is re-entered at the same place in the centre of the rectocele and carried completely under the depressed denuded angle of the left side, and brought out in the side of the vagina opposite its point of entrance. The last one is passed in the same way and made to include the edge of the undenuded vagina, so that, when it is tightened, no undenuded surface is left in the vagina.

After all the sutures are inserted, usually numbering six or eight, I then thoroughly stretch the sphincter ani; this relieves tension in that direction, lessens the risk of troublesome hemorrhoids and fissures, and when the sutures are tightened the external perineum is drawn upward and inward, the most prominent part being that next to the rectum.

Before the sutures are introduced, the rectocele presents a convex surface, but when silver wire is used, after being inserted and the ends pulled upon, as the depressed angles are more fixed than the movable displaced rectocele, it will be depressed to the level of the angles and present a concave surface in place of the convex surface, and usually the sutures can be tightened and closed with very little tension at any one point.

In old cases of long standing, where the tissues are infiltrated and more or less atrophied, the tension is considerable, but dilatation of the sphincter relieves this tension and enables you to close the edges and bring the angles well together over the top of the depressed rectocele.

Of course, before operating the patient is carefully prepared by curing up any uterine disease existing, and the general circulation of the parts improved by the use of glycerine and alum pledgets. The vagina is always well washed with a solution 1 to 5,000 mercuric bichloride, and antiseptics used for sponges, hands, and instruments. After the operation is finished about twenty grains of iodoform are powdered over the sutures. Each time that the patient passes water the parts are washed with a weak solution, 1 to 1,000, mercuric bichloride, and fresh iodoform put on.

No catheter is used exceptwhen the patient is unable to pass her urine. The bowels in all cases are made to move by mild laxatives once a day. No bandage is put about the knees, and the patient is allowed food as she wishes it. In cases of pain, morphine is given. I sometimes have twenty successive cases without having an accident of any kind, or without seeing any pus or even swelling to any extent. I attribute this largely to cleanliness, the use of iodoform, and to the dilatation of the rectum.

This operation is efficient in restoring the perineum when it is relaxed or when the tear is submucous, and when carefully done it will successfully close the perineum when the sphincters are completely severed. Except where the vagina is lacerated very extensively, I rarely use any other than silver sutures passed from side to side and twisted together in the vagina. In old women with complete procidentia, after restoring the cervix, which in such cases is often lacerated, and where the anterior wall is excessively relaxed and stretched, I may carefully denude it and sew in a fold with catgut sutures; at the same time I restore the perineum as I would for laceration, but as the vagina is no longer to be used, I extend the denudation higher on the sides and further up on the posterior wall, so as to almost entirely occlude it. In some of these cases the tissues have so completely atrophied and degenerated, that they may give way unless the patient is kept recumbent for several weeks after the operation. In young women who may bear children I am careful in denuding the tissues, and do not extend the raw surface but very slightly above the retracted angles on the sides of the vagina, for if we destroy much tissue the next child will be sure to tear the perineum. I prefer silver wire, and always take interrupted sutures. Since we understand the importance of cleanliness and the proper use of antiseptics, either silk, gut of silkworm, or even good catgut will give good results.

I prefer a straight, round, pointed sewing-needle about an inch and a half long, which with Sims' needle-forceps can be readily passed. I enter the needle close to the undenuded surface and carry it well into the tissues, and take pains to see that it passes beneath the depressed angles and gets a hold in the retracted muscles or fascia; with the index-finger in the rectum the point of the needle is easily guided, and the fascia when caught up can be plainly felt on the stretch.

For dissecting the mucous membrane, I use a good pair of dissecting-forceps in place of the orthodox tenaculum, and I take pains to see that all loose cellular tissue is removed, so that union of firm tissue is secured where the ligaments and muscles have been torn.

The stitches are removed on the tenth day, and the patient allowed to sit up four or five days later, but is instructed to take care for at least six weeks. Intercourse too soon after the operation may tear or overstretch the perineum.

Regarding the perineum as the movable point of attachment for the transversus perinæi, the bulbo-cavernosus, the sphincter ani, levator ani, and some of the pelvic fascia, and also as the movable point of attachment for the anus and lower end of the rectum, and the lower end of the posterior wall of the vagina, the conclusions are:

First.—As a rule, when the perineum is completely severed so that the fecal matter escapes passively, the position of the uterus is not affected.

Second.—The external or lower part of the perineum may be torn to a considerable extent and the position of the uterus will not be affected.

Third.—When the inner and upper part of the perineum is torn or overstretched and relaxed, prolapse of the posterior and anterior vaginal walls will take place, and in time the uterus is retroverted, prolapsed, and may be forced out of the pelvis.

Fourth.—The explanation is that when that part of the perineum formed by the fibres of the levator ani and pelvic fascia, where they encircle and are attached to the lower end of the vagina and anus, are torn apart, and the lower end of the vagina and the upper part of the anus are loosened so that they are not held up and elevated when intra-abdominal force is exerted, as in straining at stool, both are forced out through the vaginal outlet, and they pull and drag down the uterus, and in time result in hernia of the pelvic organs.

Fifth.—In operating to restore the parts, we should aim to reunite the separated edges of the levator ani and pelvic fascia, and fix them to and in front of the lower end of the vagina and the anus, and lower end of the rectum.

Sixth.—This can be done efficiently only by denuding the retracted tissues on either side of the rectocele and uniting them over the rectocele. As the most important laceration is within the ostium vaginæ, to reach these tissues the operation must be within the vagina; and to secure good apposition and to avoid dragging down and adding to the tension, most of the sutures should be passed within the vagina from side to side.

Anecdote of Malgaigne.—Professor Malgaigne was one day examining a candidate upon his doctorate thesis, and was annoyed at the very bad replies and ignorance of the student. "Well," he cried at last, impatiently, "make me one good answer; can you tell me what it is to create?" "To create," said the young man, readily, "it is to make something out of nothing." "Correct, monsieur, and in proof of it we are now going to create you a doctor." The application of this will be seen during the present commencement months.

A New Initial Sign of Tabes. — Hyperæsthesia, complete or insular, of the cutaneous distribution of the plexus pudendo-hæmorrhoidalis, and frequently of the plexus coccygeus is a never-failing initial sign of tabes dorsalis, according to Dr. Wm. Th. von Renz.

Reports of Hospitals.

ALBANY HOSPITAL, ALBANY, N. Y.

Ovariotomy, Performed by Mr. Lawson Tait.

Reported by ALBERT VAN DER VEER, M.D, and JAMES P. BOYD, M.D.

The patient was thirty-three years of age, and had been subject to fits for upward of nineteen years. Up to the time of puberty she was a healthy girl, but during the past twelve years her general health had been very bad. The fits in this case, Mr. Tait thought, were clearly hysterical in character, and not epileptic, for the patient had not injured herself in any way during an attack, and an epileptic usually does. Neither did she become drowsy after an attack, as is inevitably the case in epilepsy. The history showed that the fits always came on before a menstrual period, and that the periods were fairly regular, the flow being rather under than above the usual quantity.

The chief symptom in the case was the intense pain which the patient experienced previous to the period, and which was relieved when the flow was established. Pelvic examination showed that the uterus was infantile and anteflexed, as is usual in such cases. The left ovary could not be felt, while the right was enlarged and apparently cystic. Mr. Tait said that the case was, without doubt, one such as is frequently met in England, where the patient's life from the beginning to the end of menstruation is one long agony. This woman consented readily to an operation when its nature had been explained to her, and nothing, the operator said, should prevent a surgeon from giving relief by the knife in such a case. In her present condition she was fully as sterile as she would be when the ovaries were removed, so that this objection could have no force.

September 11, 1884.—The patient was etherized and the operation begun. An incision, two and one-half inches in length, was made in the abdomen, just above the symphysis pubis in the median line, and the ovaries and tubes removed. The right ovary was found to have undergone cystic degeneration, while the left was small and contracted. To the left ovary Mr. Tait attributed the patient's trouble. The Fallopian tubes were not diseased. The operation lasted ten minutes; wound united with silk sutures and dressed with Gamgee pads and adhesive plaster. After the operation the patient's condition continued favorable until the end of the second day, when the abdomen was so greatly distended as to cause suffering. Enemata of spirit of turpentine were ordered, and in the course of a few hours the bowels moved freely, and great relief was experienced. On the sixth day all the stitches but one were removed. The last stitch was removed on the seventh day, and as it was removed a small quantity of pus followed. A large abscess was found in the line of the incision, and retarded the patient's recovery considerably. The abscess was treated with the "red wash" recommended by Mr. Tait, and also with zinc ointment. The temperature was 101° F. on the fifth day; on the other days during the first week it varied from 99° to 100° F. The pulse was variable. At the end of a month the patient was able to walk around, and the wound soon after was completely healed. During the time that the patient was confined to the bed there were no attacks resembling those of epilepsy. She was hysterical however. About six weeks after the operation, and a short time previous to her departure from the hospital, the patient had a convulsion, followed by complete loss of consciousness. This was the only one of the kind observed during the time that she was in the hospital.

Two Cases of Epileptiform Tic have recently been reported cured by nitro-glycerine.

ST. PETER'S HOSPITAL, ALBANY, N. Y.

Solid Tumor of the Ovary—Uterine Myoma—Abdominal Section Performed by Mr. Lawson Tait—Recovery.

Reported by ALBERT VAN DER VEER, M.D., and JAMES P. BOYD, M.D.

The patient was thirty-one years of age, unmarried, and had enjoyed good health until she reached her seventeenth year, when she was sent to Bellevue Hospital, New York, on account of an attack of pneumonia. She remained in the hospital three months. After leaving the hospital the menstruation was irregular and profuse. She was able to do housework, and did not seek medical advice until about eight years afterward, when she was again admitted to Bellevue Hospital. At this time frequent hemorrhages from the vagina had prostrated her. In the winter of 1881 the patient was in the Albany Hospital, and the principal symptoms at the time of admission were severe abdominal pain and hemorrhage.

Examination upon the day of the operation, September 10, 1884, showed that she had a large bilobed tumor, the parts of which were of unequal size. The larger mass was thought to be a cystic ovary, and the smaller mass on the left a myoma of the uterus—possibly two large myomata. Mr. Tait said that he had no hesitation in operating upon this case, although he had some doubts as to the propriety of conducting such operations in a crowded room. He had never before operated in the presence of more than a dozen persons, and should this patient do poorly he would be inclined to lay it to the atmosphere in which the operation was performed.

Mr. Tait here began the operation at 4.42 P.M., assisted by Drs. Van der Veer and Boyd. After opening the abdominal cavity, he announced that the case was one of solid ovarian tumor and of uterine myoma, and proceeded to remove both, with the uterus. The operation was finished at 5.24 P.M., making the time from the first incision to the conclusion of stitching up the wound, forty-two minutes. The pedicle was treated by Tait's circular wire-clamp. The wound was dressed with simple Gamgee pads made of absorbent cotton covered with carbolized gauze. Two of these were placed over the wound, and held in place by a cotton bandage passed around the patient's waist.

After the operation the patient's condition was favorable until about 10 P.M., when there was a severe hemorrhage, from the vagina apparently. About this time a catheter was introduced, and the urine drawn from the bladder was found to be mixed with blood. Through the prompt and efficient measures adopted by the house physicians, Drs. Flynn and Melick, the patient rallied, although when they began the use of the hypodermic injections of whiskey her pulse was imperceptible, and the respirations about forty-two. At 4.30 A.M., September 11, 1884, the patient desired to empty the bladder; a catheter was introduced, but no urine was found. At 10 A.M., September 11, 1884, the patient was seen by Mr. Tait and Dr. Boyd. After reading the house physician's report, Mr. Tait concluded that a portion of the bladder had been constricted by the clamp. A careful examination of the pedicle and abdominal wound revealed a satisfactory condition of affairs. Examination of the vulva revealed the fact that blood was slowly flowing from the urethra, and a catheter passed into the bladder came in contact with clots.

Mr. Tait remarked that the patient's recovery would be retarded by the accident, as a fistula of the bladder would result, but that even with this complication she would get well. He said that the accident had occurred in two of his operations in England. The bladder was washed out twice a day with a weak solution of carbolic acid, and a soft catheter was allowed to remain in the urethra.

After a few days a solution of boracic acid was substituted for the carbolic acid.

On the fourth day after the operation a bloody fluid of a decided ammoniacal odor was noticed oozing near the pedicle. There was no tympanites at any time. The stitches were removed on the sixth and seventh days after the operation, and the wound was found to be perfectly healed as far as the clamp. The only dressing used was that of absorbent cotton and carbolized gauze. The clamp was removed on the eleventh day. Long before this time the urine flowed freely through the opening in the abdominal wall. As the remnants of the pedicle were removed a large funnel-shaped cavity came into view, at the bottom of which was the fistula.

The temperature reached 102° F. on the day after the operation; also on the third, fourth, and fifth days. On the fourteenth day 103° F. was recorded. The pulse was above 100 for the seven days succeeding the operation. On November 30, 1884, the fistula was entirely healed, and the patient had perfect control of the bladder. Examination of the abdomen revealed a firm cicatrix extending from near the umbilicus to the symphysis pubis, and no trace of the fistula could be discovered.

Clinical Department.

POTASSIUM IODIDE RASH SIMULATING VARIOLA.

In a report made to the Health Office of the District of Columbia, for the year ending June 30, 1882, Dr. Llewellyn Eliot, of Washington, made a statement to the effect that many subjects are unable to take even the smallest quantity of potassium iodide without experiencing symptoms of an identical character to those of small-pox. This assertion was called in question at the time by many physicians of experience, and Dr. Eliot now reports the following case in its support: "On March 2, 1884, he was called to attend a recently married woman, nineteen years of age, suffering from hemoptysis. This was controlled by gallic and aromatic sulphuric acids, and two days later, there being some pleuritic pains on the left side, a mixture was ordered containing sixteen grains of iodide of potassium in an ounce of mucilage of gum acacia, of which a teaspoonful was to be taken every two hours. This was at one o'clock in the afternoon. At six she complained of pains in the lower jaw, and by midnight had the coryza, injected conjunctivæ, puffiness of the face, severe headache, aching of the body, especially in the back, soreness of the throat, and the appearance of red spots over the face. The red spots increased in prominence in a few hours, just as occurs in small-pox. Careful inquiries made the following morning failed to show exposure to variola, and the iodide was accordingly discontinued, and one-fourth grain sulphate of morphine given, together with hot whiskey. At nine o'clock that evening the pains had ceased, and the eruption was fading, and two days later had entirely disappeared. The symptoms of iodism followed the second dose, when but four grains had been taken."

ABSCESS OF THE LIVER.

Dr. Frank Cary, of Chicago, sends the following report of a case occurring in the service of Dr. J. N. Danforth, at St. Luke's Free Hospital, in that city: "The case is somewhat similar to one presented by Dr. Peabody, at a recent meeting of the New York Pathological Society, and reported in The Medical Record, January 3, 1885. A stone-cutter, fifty-five years of age, of temperate habits, was admitted to hospital on September 1, 1884, said to be suffering from typhoid fever. He had been in apparently perfect health up to within three

weeks, when he began to suffer from headache, loss of appetite, and profuse diarrhœa, but he had had no chills. On admission there was no tenderness over the abdomen; the temperature was normal, but the patient was greatly exhausted. On the second day the temperature rose to 103°, at 6 P.M., falling to the normal on the following morning. It then rose again gradually until six o'clock in the evening, when the patient died, apparently from exhaustion. At the autopsy, made some twelve hours after death, the liver was found to be completely riddled with abscesses, there being no less than twenty-four, varying in size from a pigeon's to a goose's egg. The organ was about normal in size, and was firmly adherent to the diaphragm, anterior abdominal wall, and colon, different abscesses pointing in these several directions. The colon from the ileo-cæcal valve to the sigmoid flexure was a mass of confluent ulcerations, so that the mucous membrane was almost entirely destroyed. The rest of the intestinal tract was normal. The spleen was neither enlarged nor softened. The gall-bladder was apparently normal. Dr. Cary is inclined to agree with Dr. Peabody in regarding the relation between the intestinal ulcers and the abscesses of the liver as one of cause and effect, although he states that Coats, in his "Pathology," does not regard the manner as one beyond question. The patient had never lived in the tropics, and had for years been a resident of Chicago."

SYMMETRICAL DRY GANGRENE.

Dr. J. W. Flynn, of this city, writes: "About six years ago I was treating a man, seventy-five years of age, who was suffering from capillary bronchitis, and was doing nicely when gangrenous changes of the distal phalanges of both hands and feet made their appearance, and the lines of demarcation showed in about ten days. After this the patient rapidly failed, and died in comatose condition."

Progress of Medical Science.

Sleeplessness.—Sleep is a perfectly natural function. It is not a negative act, but a positive process. Herein lies the difference between real sleep and the poison-induced torpor which mimics the state of physiological rest. We ought to be able to sleep at will. Napoleon and many busy men developed the power of self-induced sleep to such an extent as to be able to rest whenever and wherever they pleased, for longer or shorter periods, as the conditions admitted. We have been led to believe that Mr. Gladstone at one time possessed this faculty. If that be so, his recent insomnia must be assumed to have been the result of such intense brain-worry as inhibited the control of the will; or there may, of course, be physical causes which render the apparatus of the cerebral blood-supply less manageable by the nerve-centres. In any case, it is much to be deplored that, in the study and treatment of insomnia, the profession generally does not more clearly and constantly keep in memory that what we call sleeplessness is really wakefulness, and that before it is justifiable to resort to the use of stupefying drugs the precise cause of disturbance should be clearly made out. This, of course, takes time, and involves a scientific testing of the relative excitabilities of the sense-organs, central or radial and peripheral. The discovery of the cause, however, affords ample recompense for the trouble of searching for it. With the sphygmograph and a few test appliances, such as Galton's whistle, an optometer, and other instruments, the recognition of the form and cause of sleeplessness can be made in a brief space, and then, and then *only* we protest, it can be scientifically —*i.e.*, physiologically— treated.— *Lancet*, January 10, 1885.

Artificial Anus Cured by Enterotomy.—Dr. Cannizzaro has reported the following case: S. P——, aged sixty-seven, for some years had had a reducible right inguinal hernia. Symptoms of strangulation supervened, and a surgeon, after ineffectually applying taxis, advised operation. The patient objecting, the hernial coverings sloughed, and an artificial anus was established in the right groin. When Dr. Cannizzaro operated on the 1st of last October he found the septum or spur very well marked. Having grasped it in its whole depth within the blades of the enterotome, he tightened the screw until the patient complained of pain in the part and at the epigastrium. The instrument was immobilized with a spica bandage and compress. During the first day the patient was much depressed, and inclined to vomit. The dressing, changed each day, contained fecal matter; each day also the screw was tightened until the patient complained of pain. Chicken-broth, eggs, and wine were taken freely. During the fifth night the bowels acted abundantly twice and naturally. On the sixth and seventh days very little fecal matter was found around the dressing, and on the eighth day the enterotome was observed to be very movable. It could not then be detached, but it came away with the dressing on the ninth day after operation. The wound was then washed with carbolized water, its surroundings brushed with collodion, and a compressing bandage applied. From this date the patient continued to evacuate per anum; in reapplying the bandage daily, care was taken to approximate the edges of the wound, which gradually healed, the patient leaving the hospital cured, in excellent health, on the 15th of November, just forty-five days after the operation.—*Rivista Internazionale di Medicina e Chirurgia.*

The Pathology of Cheyne-Stokes Breathing.—Some histological alterations in the bulb and pneumogastric nerves, to which changes he attributes the phenomena of Cheyne-Stokes respiration, have been recently discovered by Tizzoni (*Lancet*, January 31, 1885). This mode of respiratory rhythm consists in the presence of a prolonged pause followed by respiratory movements, at first slow and superficial, but gradually rising in frequency and increasing in depth, again slowly to decrease. So much misunderstanding has arisen on the subject of what is and what is not meant by this-named mode of respiratory rhythm that Tizzoni has done well to state precisely what it is that he meant. In one of his cases there was organic heart disease, and the respiratory phenomena lasted forty days. At the autopsy chronic inflammatory changes were found ascending the vagi, with blood, extravasation into the lymphatic spaces of the perineurium and endoneurium. On the left side only the peripheral portion of the nerve was affected, while the right nerve was altered along the whole of its course, even to its origin. In the bulb the changes existed in the form of small foci, and were also more marked on the right side. The point where the alterations were most prominent was beneath the ependyma over the longitudinal furrow of the calamus scriptorius. In a second case, which was one of uræmia, the phenomena were observed for several days. The vagi were normal, but the superior half of the medulla oblongata presented lesions similar to those just described, though less pronounced and symmetrical.

Deaths from Lightning in France.—Lightning has killed 4,609 persons in France alone since 1835. An equal number have been seriously, though not fatally, wounded, and five times as many struck. The hot years were the most fatal, and these are remarkable as having been the best wine seasons. There has not been a single death from lightning in Paris or the Department of the Seine since 1864, though there have been many violent storms there during that time.—*Bulletin de l'Association Scientifique de France.*

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, March 28, 1885.

CORROSIVE SUBLIMATE IN SURGERY AND OBSTETRICS.

A CONSIDERABLE amount of conflicting evidence now exists as to the advantages of corrosive sublimate in surgery and obstetrics. An important contribution to the subject has been made by Dr. Max Schede, in *Volkmann's Klinische Vorträge*, No. 251.

After an experience at Halle and Berlin, in which Schede had been thoroughly converted to the principles of antiseptic surgery, he was called about four years ago to take charge of the general hospital at Hamburg. The hospital building here is about fifty years old, many of the rooms are low and dark, the wards are overcrowded, so that often patients can be allowed only six hundred to eight hundred cubic feet of air, when they ought to have one thousand eight hundred. Near by is a dead-house in which a very large number of bodies are dissected. Some two or three hundred cases of phlegmonous erysipelas are admitted to the wards yearly. There is in the building a department for skin diseases, cancer, and syphilis. The hospital itself is a very large one, admitting over a thousand cases into the surgical department annually, while the number of operations is consequently proportionately great.

Previous to the introduction of Listerism by Schede's predecessor, the number of septic accidents and cases of erysipelas was very large. Under Listerism a marked improvement took place, but it did not accomplish enough to satisfy the new director.

He first began a systematic attempt to organize the surgical service, and to teach all the attendants the need of absolute cleanliness and asepis. Coming to Hamburg at the time of the iodoform era in surgery, Schede at once introduced the iodoform treatment in all its details. But he was much disappointed in its results. Although he had some brilliant successes, the iodoform treatment often failed to prevent septic complications, while erysipelas increased in the wards very rapidly. Schede does not say that iodoform causes erysipelas, but he is decidedly of the opinion that it does not prevent it. The iodoform treatment was, therefore, abandoned as a failure, and corrosive sublimate was introduced. This he has now used for two years and a half. The results obtained have been most brilliant and satisfactory, and Schede now comes forward as an enthusiastic advocate of the sublimate treatment of wounds.

A careful description of the technique of his method is given in the monograph to which we have referred. We cannot attempt here to follow him in all the details. He has for use two sublimate solutions, the stronger consisting of corrosive sublimate and water, 1 to 1,000, and the weaker, 1 to 5,000. The first is used to disinfect the hands, the skin of the patients, sponges, drainage-tubes, and all wounds which are to be closed. The second is used for irrigating wounds and contiguous healthy tissues. During operations, the parts are generally irrigated with the 1 to 1,000 solution. When large surfaces are to be irrigated, however, he uses the weaker solution, for fear of toxic effects. The materials employed for dressing are peat (turf moss—*sphagnum*), occasionally sand, glass wool, sublimate gauze, sublimate wadding, and sublimate catgut. The peat is cleansed and then soaked for some hours in 1 to 500 solution of sublimate. After this it is squeezed out with the hands and placed between layers of sublimate gauze. The edges of the gauze are stitched together so as to make pads of various sizes. A number of these pads are made up every day and stored away and kept moist. Sublimate wadding and gauze are prepared by soaking the substances in a solution of sublimate 1 part, water 190 parts, and glycerine 10 parts. They are then wrung out in a machine and allowed to dry. The glass wool, of which Schede speaks in the highest terms, is prepared by soaking it in a one per cent. solution of sublimate. The sublimate catgut, which is also very highly praised, is made according to the method described by Kümmell. After the wound has been carefully cleansed and dried with a large sponge, it is covered with a layer of glass wool moistened with the strong sublimate solution, then with the peat pads, and firmly compressed with the gauze bandages. Open wounds are generally covered with three or four layers of gauze and then with the pads. For drainage, rubber tubes are exclusively used. Other forms have been tried and abandoned.

Concerning some of the special advantages of his method of treatment, Schede makes the following points:

1. The sublimate solutions are more efficacious and less dangerous than 5 per cent. carbolic acid solutions.

2. In severe wound infections, wound diphtheria, and gangrene, which call for very strong disinfecting agents, the sublimate solutions can be safely used. Even one per cent. solutions have been successfully and harmlessly applied to gangrenous wounds.

3. Sponges and wadding, soaked in 1 to 1,000 solutions, can be safely applied to ulcers, unhealthy, dirty, and granulating wounds, the applications being changed once or twice daily. For fungous and tuberculous processes, Schede considers the sublimate almost a specific, and better far than iodoform.

Appended to his article is a tabular statement showing the results of the sublimate treatment. There were in all 1,286 operations. In these, the wounds healed without suppuration in 935 cases; with suppuration in 278 cases; making a total of 1,222. In 9 cases there was incomplete healing, and in 64 cases, death.

Among special operations there were 25 ovariotomies, all healing without suppuration; 229 amputations, with 12 deaths; 30 resections of the knee, with 4 deaths, all from tuberculosis; 13 total extirpations of the uterus, with 1 death. The record is a remarkably good one in

many respects, and especially when it is considered that the work was done in an old and crowded hospital.

In conclusion, Schede discusses the dangers from absorption of the sublimate. He particularly refers to the report of the prosector, Herr Fränkel, who found diphtheritic entero-colitis, post mortem, in a number of cases, and attributed it to the mercury. To offset this, Schede reports four cases in which the same lesions were found after death, but in which the sublimate had not been used at all. He concludes that the diarrhœa and enteritis may be caused by sepsis. His cases certainly take away some of the force of Fränkel's observations. Schede believes that with proper precautions the sublimate wound treatment is safer than any other.

As evidence of the occasional danger from sublimate dressings, we may call attention to the facts collected in this city by Dr. Peabody, and published in THE RECORD of March 14th.

In this connection, also, we would refer to the alleged dangers of sublimate in the treatment of obstetrical cases. Auvard, in *L'Union Médicale*, refers to two fatal cases of sublimate poisoning as the result of intra uterine injections of sublimate solutions. Hofmeier also reports two cases of poisoning, of which one was fatal, and similar cases have been reported by Stadfeldt and Winter (THE MEDICAL RECORD, March 14, 1885, p. 291–2). One of the conclusions drawn by Auvard is, that the condition of the kidneys is a most important one to bear in mind, as a nephritis renders the patient more susceptible to the toxic effects of mercury.

Dr. W. Thorn has given an interesting review of this question in *Volkmann's Klin. Vorträge*, No. 250. He reports two fatal cases from the use of sublimate in obstetrics. He also gives the records of the Policlinic and Maternity service at Halle, during the periods of the use of carbolic acid and of sublimate, and believes that the records indicate the inferiority and danger of the latter substance.

He concludes that sublimate solutions should not be used to irrigate the vagina or uterus, either *inter partum* or *post partum*. In their place he would substitute the old carbolic injections. For disinfection of the external genitals, instruments, and operator, sublimate may be used. Dr. Thorn, in this, follows the views of Mikulicz, who claims to have shown that corrosive sublimate, when applied to exposed tissues, forms an albuminate of mercury, which has a feebler antiseptic power.

In opposition to Thorn's conclusions, it should be stated that, in Tarnier's clinic at the Paris Maternité, the sublimate has been found to be the most efficient disinfectant.

THE ELIMINATION OF TUBERCLE BACILLI BY THE SKIN.

SOME investigations recently undertaken by Dr. A. Severi, into one of the possible modes of contagion of tuberculosis (*Siomale Internazionale delle Scienze Mediche*, No. 1, 1885), are worthy of more than passing mention, by reason of their importance from a prophylactic point of view. The subjects of the investigations were three women, suffering in an advanced stage of phthisis, and whose sputa contained numbers of bacilli. The author's labors were first directed to a differentiation of tubercle bacilli from the micro-organisms found by Bizzozero in the epidermis of healthy individuals. The method employed was that used by the latter in his researches. The epidermis is delicately scraped off from various parts of the body, especially of the arms and the anterior part of the chest, and the scrapings are then heated on a glass slide, all fat particles are dissolved away by chloroform, and the residue is strained in the ordinary manner. To assure himself that no bacilli were deposited on the skin from the air, the author had the arm washed with hot water and soap, then with ether, and finally with a one per thousand sublimate solution. It was then dried with carbolized gauze, covered with rubber tissue washed in the sublimate solution, and over all a carbolized cotton dressing was applied. At the end of two or three days this dressing was removed, and the arm scraped in the manner above described with a knife washed in a five per cent. carbolic solution. In each instance Dr. Severi obtained the tubercle bacilli, and often in considerable numbers, especially after the patient had perspired much during the night. This fact that the bacilli were most numerous after profuse sweating led the author to the belief that they were probably eliminated through the sweat-glands. It is to be hoped that these investigations will be repeated, and, if the results announced by Severi are verified, it would seem to be the duty of the medical attendant to see that the night-clothes and the undergarments of phthisical patients are so heated as to effectually destroy the micro-organisms contained in them.

THE RELATIVE MERITS OF OPERATIONS FOR THE REMOVAL OF EPITHELIOMA OF THE TONGUE, TONSILS, AND PALATE.

THE discussion of the relative merits of the different operative procedures for the removal of the tongue, tonsils, and soft palate, has, in view of recent experience, more interest as applied to similar cases than to that of General Grant. Each operator makes his own plan, and is necessarily governed by the various conditions of disease in the particular case. It is fair to suppose, however, that in the present instance any plan of operation, whether involving section of the jaw in front of the masseter muscle, resection of the ramus, double or single, or division of the bone in any other part of its course might fail to secure the complete extirpation of the morbid growth.

In selecting a method to be adopted in General Grant's case, in the event of an operation being considered advisable, one of the consulting surgeons, Dr. Sands, expressed a preference for that proposed by Langenbeck, in which the jaw is divided on the side; and his opinion would doubtless have been endorsed by the other gentlemen in attendance.

ACCOMMODATIONS FOR THE CHRONIC INSANE.

IN the Eighteenth Annual Report of the Managers of the Hudson River State Hospital to the Legislature, is made a timely plea for an increase, in the eastern part of the State, of accommodations for the chronic insane. The suggestions made are, in brief, that the present buildings at Poughkeepsie should be wholly given up to female patients, and that new buildings, capable of accom-

modating at least fifteen hundred, should be erected for males on the eastern part of the same State property. Statistics show that there are at large throughout the State over forty-five hundred insane persons, outside of custodial institutions of any sort. The claim of the eastern counties to this special allotment of State bounty is based upon their excess of population over the western part of the State, their larger tax lists, and especially their present poverty of accommodations.

We regard this plea worthy of immediate attention at the hands of our law-makers. The establishment of such institutions as are proposed would relieve the pressure upon our present asylums. The latter are so overcrowded that proper distinction cannot be made in treatment between the acute and chronic cases. In this way the former speedily degenerate into the latter, and thus become a lasting burden to the community. If they could be properly cared for in the early stages of their malady, its progress might be greatly retarded, if not entirely checked. In the event of this latter happy result, they would be spared to us as useful members of the community, and the burden of public charity would be perceptibly lightened. For those beyond aid the new institutions would provide a more humane life. We hope that our Senators and Representatives at Albany will give the matter early consideration, and that thereon may follow prompt and decisive action.

UPTURNING THE STREETS.

It was hardly necessary to get the testimony of eminent physicians in order to establish the fact that an extensive upturning of the streets in summer would be injurious to the health of the city. This, however, is what the organ of one of our city's millionaires has, with painful elaboration, attempted to do, and with a very apparent purpose. Under the guise of opposing a cable railroad, medical testimony was obtained, of which the inference is that it would be dangerous to compel the telegraph companies to put their wires underground, as directed by law. The fact is that, while the extensive digging up of streets would be harmful, the making of narrow, shallow ditches for the reception of wires would probably be a perfectly safe procedure, especially if the city Board of Health were allowed some supervision.

Public opinion, public comfort, and public safety, to say nothing of æsthetics, demand that the linear incubus of electric wires which now hangs over us be removed. We trust that the medical profession will not be misled into expressions of opinion which will assist in unnecessarily postponing the execution of the law that provides for this removal.

FOREIGN PAUPERS AND LUNATICS.

The Report of the State Board of Charities for 1884 contains much of interest on the subject of foreign paupers and lunatics. The asylums are becoming crowded with these troublesome visitors, notwithstanding the law which directs that persons likely to become a public charge shall be returned at once to the countries from which they came. It is much easier, however, to slip through the lines at Castle Garden than to detect on the instant such probable public beneficiaries, and after immigrants once get out of sight of the officials there is little chance of sending them abroad again. Out of the thousands arriving last year at this port, quite a number would, no doubt, have come under the ban of the law, but only one hundred and fourteen in all were returned. Of these, sixty-four were lunatics, imbeciles, or feeble-minded, and the remainder blind, deaf and dumb, or otherwise infirm. Over half of this number came from England and Ireland, the rest coming mainly from the continent.

In addition to the large number of poor and insane persons arriving by the emigrant ships, a large number are yearly pushed across the Canadian line, where the facilities for exclusion are very meagre. When once on our soil they gravitate immediately to the asylums, poorhouses, and public institutions, crowding them to overflowing. The report states that the commitments last year were very numerous, and show a large increase from the preceding year. The expense in each case for the taxpayers averages $100 a year. It is stated that the laws governing the admission of this class of immigrants should be made much more rigorous, and, in order to help the matter, the Secretary of State intends to send circulars to all our consular representatives, directing them to make public the laws of this country providing for the immediate return of paupers and lunatics.

The proportion of foreign-born persons on the registers of public institutions is much larger than that of native-born, and will tend to become even larger unless stricter measures are soon adopted.

THE CONDITION OF GENERAL GRANT.

During the past week General Grant has been in a comparatively comfortable condition. The insomnia with which he has been affected has been controlled, so that he obtains, by the aid of anodynes, the normal amount of sleep. He has not lost flesh, and his powers of assimilation are not impaired.

At the weekly consultation, attended by Drs. J. H. Douglas, H. B. Sands, and George F. Shrady, it was decided that the local disease was still in abeyance, and that the area of ulceration had not perceptibly increased. Virtually the same stationary tendency was noted by Dr. Fordyce Barker, who has visited the distinguished patient at intervals during that period. The swelling under the right angle of the lower jaw is somewhat greater, but the gland in that situation is not more indurated, nor has it become more firmly fixed. The ulcerated surfaces in the throat and on the tongue are covered with a yellowish exudation, to which alternate applications of lime-water and a weak solution of permanganate of potash have been effectively made by Dr. Douglas.

The topical remedies employed have had their desired effect in reducing local irritation, and in perceptibly checking the progress of infiltration. There is no pain in swallowing. No fear at present is entertained of any sudden failure of the vital powers, nor of any encroachment of the ulcerative process upon the neighboring blood-vessels.

The General is able, with no other assistance than that of his cane, to walk about his rooms, ascending and descending the stairs, and was strong enough to enjoy an airing in his carriage during the fine afternoon of Wednesday.

News of the Week.

Is Scarlet Fever Communicated by a Third Healthy Person.—Dr. Simon Baruch of this city, writes: "In the valuable report of the proceedings of the Practitioners' Society, published in The Medical Record of March 14th, I am reported as saying that I 'did not think scarlet fever could be conveyed by a third healthy person, and quoted Henoch's statements of such a view.' This is an error, due doubtless to the necessary condensing of the remarks made, which I beg you to correct. I said that the question of the transmissibility of scarlatina through a third person is not by any means settled, as was demonstrated in a discussion of Henoch's paper on the subject in 1883 (*Berliner klin. Wochenschrift*, Nos. 24 and 25, 1883). Personally I have never experienced such a method of transmission. Acting upon the safe view, that it is possible, I have always adopted precautionary measures, which would lessen this possibility as much as lay in my power. The discussion above referred to was earnestly entered into by the Berlin Medical Society, in which Professor Henoch had offered a motion to appoint a committee of three or five members, to investigate the subject and to consider the propriety of asking the Government to adopt strict regulations with reference to the exclusion from school of children coming from infected houses. In the course of his argument in support of this motion, Professor Henoch said that the question of transmissibility of scarlatina by third healthy individuals is not decided, that most physicians have an instinctive feeling of its possibility, but that it cannot with certainty be proved or disproved. He also said that he was impelled to advocate stringent measures of exclusion from school, not because of this possibility, but because children from infected houses may visit school while in the incubation period, and thus spread the disease. Professor Henoch's motion failed to be adopted. The largest statistical information of which I am cognizant justifies the action of the Berlin Medical Society, which was prompted entirely by the doubtful aspect of the question. Dr. Kerschensteiner, a high medical official in Bavaria, said in an address before the Hygiene Ausstellung in Berlin, in 1883, that in an official practice of twenty years he has rarely known transmission through a healthy person, which fact induced him to bring the question before the Medical Society in Munich for discussion, with the result that most physicians, especially the busiest, can remember no case in which they or their assistants had conveyed the disease. And this view was confirmed by replies from a large number of Medical Societies in Bavaria. On the other hand, Dr. Axel Johannessen, in his prize essay on "Scarlet Fever of Norway," arranges the information obtained from a review of the records of all epidemics in Norway, from 1817–25 to 1878, and among other deductions claims that there is strongest proof that direct contagion is the most frequent; transmission through congregations of people, especially burial societies has occurred. But most important are the frequently produced evidences of transmission through healthy persons, and he mentions especially cases in which physicians transmitted the disease (*Journal für Kinderkrankheiten*, 1884). These recorded facts sustain me in the opinion expressed before the Practitioners' Society, that the questions of transmissibility of scarlet fever by healthy persons is still far from being settled. It is a serious hardship to a household when a number of children are prevented from attending school for many weeks because one child is ill with scarlatina. There are other questions connected with this subject of importance, especially to the practitioner himself, which I propose to discuss at some future time.

An Insane Asylum Investigated.—The State Insane Asylum at Lincoln, Neb., has recently been investigated by a committee appointed by the Legislature. It was found that the institution was overcrowded and badly managed in many ways. The present superintendent is retained in office, and a number of reforms in organization are enjoined.

The Cholera has reappeared at Toulon.

The Bovine Virus Question.—Our two correspondents present the subject of the dangers of bovine virus and their prevention from two different standpoints. They cover the whole question, and undoubtedly solve its difficulties theoretically; but the physician will ask, How am I to know who sells good virus, and how am I to make my patients keep their wounds clean and aseptic?

The "Index Medicus."—We take pleasure in announcing that Mr. George S. Davis, of Detroit, has undertaken to continue the publication of the *Index Medicus*, on the same general plan, and with the same regard to typographical accuracy and finish as heretofore.

Charity Hospital.—Dr. Richard G. Wiener has been appointed visiting physician to the above institution.

Cholera and Whitewash.—During the great cholera at Zanzibar, low down on the eastern African coast, in 1869, the first and most severely attacked were the negro slaves and slave-dealers, most of whom were also black. Next followed the Arabs and Hindoos, while the more careful whites were spared; so that the negroes came to the sage conclusion that the demon of cholera hated all the colored races and loved the whites. Hence they whitewashed themselves all over, and put on an unusually large quantity on their woolly heads, so that in looking down he might mistake them for whites. As this did no good, they took to wearing white instead of colored loin-cloths, and finally arrayed themselves completely in white cotton cloths, and slept in them. But the demon was not to be so easily deceived, and still went for the negroes.

Professor Ambrose L. Ranney has been appointed to the chair of nervous diseases in the medical department of the University of Vermont, made vacant by the resignation of Professor W. J. Morton. Professor Ranney will deliver a course of lectures each year in this field, in addition to his course upon anatomy.

The Cartwright Prize.—Essays in competition for the Cartwright Prize must be handed in to some member of the committee, on or before April 1, 1885. The members of the committee are Robert Abbe, M.D., 32 East Twentieth Street; Walter Mendelson, M.D., 209 West Forty-sixth Street; and R. W. Amidon, M.D., chairman, 18 West Twenty-first Street.

Dr. Spitzka's Article on the Lemniscus.—Dr. E. C. Spitzka writes: "Will you kindly permit me to offer the following correction of a foot-note published in connection with my article on the lemniscus in The Medical Record, November 1, 1884, p. 480. It is there stated that the excess of the ventral fissure of the myelon over the dorsal fissure, alone among mammals, is found with the porpoise. The same excess is noted in the cervical cord of the sea-lion (*Zalophus Gillespiei*), so that the statement would have to extend possibly to all the marine and littoral mammals. That this modification of fact only serves to strengthen the surmise expressed in the foot-note referred to is evident, as the seals present in a lesser degree the preponderance of axial over extremity muscles noted in the porpoise."

The Disposal of the Bodies of Convicts.—A convict, named Marcus Stone, committed suicide at the Connecticut State Prison, in Wethersfield, a short time since, and, according to the usual custom, word was sent to his relatives at Putnam that the body was at their disposal. They replied on a postal card, saying: "If you want to send the body on and pay all the expenses we will bury it. Otherwise let him be buried at Wethersfield." It is not stated what the prison authorities did under these circumstances, but they very probably turned the body over to the Yale College Medical School, as an old law of the State authorizes them to make such disposal of the bodies of convicts.

A Warning to Polo-Players and Roller-Skaters.—The death of a polo-player at Binghamton, not long since, from injuries received while playing a game, is a warning against one of the most dangerous pastimes now popular among the young men. It is not likely, however, that it will be heeded any more than the example of Joseph Cohen, one of the contestants in the recent roller-skating contest at Gilmore's Garden. The latter died a few days after the close of the race, from the exhaustion caused by the unusual strain upon a naturally weak constitution.

Convicted for Selling Prescriptions.—Howard Kenny, who has an office under the name of "Dr. Powell," at 66 Court Street, Brooklyn, was brought before the police court in that city a few days since, charged with selling prescriptions wrongfully. He advertised largely a specific which he sold for two dollars. He claimed to get the prescriptions from a Dr. Powell, of New York Mills, N. Y., and a Dr. Church, of New York City. He was unable to present a diploma, and the justice fined him ten dollars for violation of the Sanitary Code.

Cholera and Water Supply.—The City Board of Health has made an investigation of the sanitary condition of the tract of country drained by the Croton River and its tributaries. The result of the investigation shows no very alarming state of affairs. The Croton watershed embraces a district of not less than 339 square miles, traversed by a number of creeks and smaller streams beside the Croton River itself. The total population of the district is 22,000, or 59 to the square mile. The excreta from this population and its domestic animals finds its way more or less into the natural drains of the region and the running water-courses. Probably all of it is now destroyed before it reaches New York. Some possible sources of danger, however, exist. At two points on the Croton there are extensive condensed milk factories, one employing a hundred and the other over seventy-five hands, located on the very bank of the stream, that had privies for the use of the employees opening directly on the water. There is also a slaughter-house, where cattle were constantly killed, located on the bank, and all the offal and sewage went into the river. All along the stream and its tributaries are houses with sewerage arranged on the plan of the condensed milk factories above mentioned.

Ziemssen's Cyclopædia is being translated into Spanish and published at Madrid.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 19, 1885.

A. Jacobi, M.D., President, in the Chair.

THE TREATMENT OF PATIENTS IN THE TEMPLES OF ÆSCULAPIUS.

Professor Augustus C. Merriam, of Columbia College, New York, delivered an interesting lecture on the above subject, in which he gave a historical sketch of the methods of healing practised in those temples, especially at Athens and Epidoris, and revealed by Grecian excavations begun March 16, 1881. The speaker pictured the deep and abiding belief which the ancients had in the anger or malice of the gods, as a *cause* of disease, and also in the marvellous and miraculous *cure* of disease by some divinity.

The beginning of the art of medicine, in all times and among all peoples, was empiricism, based on the belief that all severe sicknesses were caused by the anger of some god or demon.

The faith of the people in the power of the gods of Æsculapius to cure disease was unlimited, and was represented by the saying of Plato, who declared that "we must not suppose that Æsculapius failed through ignorance, but that he deliberately withheld his power at times for the benefit of the race."

The writings of Solon, who mentions "the laying-on-of-hands," etc., of Pythagoras, who was a physician as well as philosopher, of Plato, of Aristophanes, and of other ancient Greeks, are all flavored with the belief in the influence and power of divinities.

Galen, it seems, was nearly free from superstition, yet he refers to the patrial god Æsculapius. Three hundred and twenty temples of Æsculapius were known to have existed in antiquity; those of Athens and Epidoris having been built about the end of the fifth century before Christ.

The speaker sprinkled his discourse with translations of inscriptions found upon slabs removed in recent excavations, some of which were highly amusing.

Dr. Alfred C. Post moved that a vote of thanks be tendered to Professor Merriam for his learned, interesting, and instructive discourse, and that a copy be requested for publication. Unanimously carried.

Dr. John C. Peters said that the subject of the lecture was one in which he had been greatly interested, and it was one which had also attracted the attention of other physicians, particularly the late Dr. John Watson, who wrote a remarkable paper on it. From the information which he had obtained, he had reached a conclusion not quite in accord with the impression given by Professor Merriam's remarks concerning the character of Hippocrates, who was the eighteenth in descent from Æsculapius, and who, as Dr. Peters believed could be established,

did not resort to any tricks or invoke the aid of divinities in the cure of diseases.

Hippocrates laid down the rule, first, that the remedy which cures a case will cure all other cases absolutely like it. As the cases which were absolutely alike were almost unknown, this was a principle which could have only an exceedingly limited application.

The next proposition given by Hippocrates was, that remedies which acted exactly opposite to a disease would cure it. It was not very remote when it was determined that this proposition had a limited application.

The next proposition was, that remedies which acted *nearly* opposite to the disease would cure it, and this extended the list of remedial agents. Finally, Hippocrates announced that some diseases were cured by remedies which acted in a way similar to the disease, and with all these classes of remedies he expected to be able to meet successfully the ills of mankind. Dr. Peters regarded Hippocrates as a man of remarkable erudition, and one who was equal with the philosophers and teachers with whom he was contemporaneous.

PROPOSED AMENDMENT TO THE CONSTITUTION.

Dr. V. P. Gibney offered a proposed amendment to the Constitution providing for a change in Article 6, Section 2, which will, if adopted, establish *eight* sections in the Academy.

The object is to gather the work of the profession around a common centre. The proposition will be acted upon at the next stated meeting.

The Academy then adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, March 23, 1885.

Daniel Lewis, M.D., President, in the Chair.

Dr. W. Gill Wylie read a paper (see p. 345) entitled,

A SIMPLE AND EFFECTIVE SURGICAL OPERATION FOR INCOMPLETE LACERATION OF THE PERINEUM.

The discussion was opened by Dr. James B. Hunter, who said he had but little to criticise in Dr. Wylie's paper, as the operation was essentially the same as that which he had been performing for several years. Numerous as the operations were which had been devised for lacerated perineum, a perfect one had not been discovered, yet it was evident that equally good results could be obtained by several different methods of operating. The Baker Brown operation, that by the horseshoe line of denudation, and the use of quill-suture gave only superficial union, and therefore the results were worthless. The quill-suture, also, was like the old method of using boiling pitch to arrest hemorrhage after amputation, and was not entitled to any consideration at the present time. This operation, however, was still described in most text-books.

Dr. Hunter thought that there was a misconception on the part of many as to what the perineum really was, and that there was a tendency to ignore the perineal body, which was a most important part. Dr. Emmet, in his recent operation, had spoken of restoring the perineal support by narrowing the lower portion of the vagina, but Dr. Hunter thought that Dr. Emmet's operation really restored the perineal body, a part which had depth as well as length, and that in contracting or narrowing the lower portion of the vagina the perineal body was included in the operation. The ruptured perineal body could not be restored except by including within the operation the entire torn surface, which many times was extensive before rupture of the skin took place.

For many years Dr. Hunter had avoided denuding any tissue beyond the mucous membrane, and one special and great advantage of Dr. Emmet's operation was that it taught us what not to do. It mattered but little whether we called it vagina or perineum so long as the good results were obtained, and that was what Dr. Emmet's operation yielded.

With reference to material for sutures Dr. Hunter had used all kinds, and had obtained as good results with one as with another. Lately he had used catgut alone, and had never had better results.

One objection to Dr. Emmet's operation was that it removed rather more tissue than was necessary. Dr. Hunter's method of introducing the catgut sutures was to begin above and work forward and draw all the tissue up; with its use there had been no pain subsequently and no necessity for the use of the catheter.

Rupture through the sphincter ani had not been alluded to by the author of the paper, yet he would like to ask Dr. Wylie whether he had noticed cases of permanent cure of retroversion of the uterus by restoring the perineum. He had seen a good many cases, it did not always occur, in which the uterus, previously retroverted, remained in its normal position without the use of pessaries, after restoration of the perineum for complete laceration.

Dr. Wylie said that where the uterus was movable he had seen several such successes.

Dr. Hunter thought that if all the stitches in Dr. Wylie's operation were introduced from within outward, there would perhaps be a gain.

Dr. P. F. Mundé had listened with pleasure to Dr. Wylie's description of his new method of operating for incomplete laceration of the perineum. The first operation which he saw performed was for complete laceration, and by Simon. The operation for incomplete laceration was practically not performed at all upon the continent of Europe at that time, so far as he was aware. When he returned to this country he was surprised to see how successfully the operation for incomplete laceration of the perineum was being practised by Dr. Emmet and others at the Woman's Hospital. Dr. Mundé was familiar with the operations performed by Baker Brown, Dieffenbach, Langenbeck, and others, and was surprised to see how slight a modification of them resulted in restoring what seemed at least to be an almost perfect perineum.

Dr. Mundé adopted the new operation, and had been exceedingly well pleased with it. So far as he could ascertain with the finger, the groove on either side of the vagina which would have existed had not all the muscular fibres been included within the sutures, had been obliterated, thus showing that the muscles had been united. Out of sixty-five cases in private practice he had not had a failure, and the perineal body had been restored.

When rectocele was present the operation was more or less complicated and difficult. In the first case of that kind he encountered he found that when the sutures were passed as Emmet taught, the last suture to draw all the denuded portion up to the denuded mucous membrane in the centre, drew down the posterior vaginal wall; the result, however, was exceedingly satisfactory.

Subsequently he found that if the upper sutures, as one approaches the upper margin of the denudation, were introduced by inserting the straight needle directly backward down to the bottom of the pocket and then turning it abruptly—frequently breaking one or more needles—and bringing it out in the centre, and then passing it into the opposite side, deep, straight backward, and then directly outward, the deep muscles were included and satisfactory results were obtained.

Dr. Emmet in his new operation had spoken specially of taking up the fibres of the muscles, a point which Dr. Mundé had always believed in, and that without so much reference to the leaving of pockets.

Still further on in gynecological work, Dr. Mundé found that in certain cases there was a redundancy of tissue, and then he followed a method which he had seen Professor Simon employ, that of making a denudation of the posterior vaginal wall and passing the sutures directly

across and tying them in the vagina as the operation proceeded, to be followed by denudation of the perineum and insertion of the ordinary perineal sutures.

Concerning Emmet's new operation he had performed it, and it had been followed by gaping of the vulva, a criticism which he entered the first time he saw Dr. Emmet perform it. It was a good operation for rectocele, but, practically speaking, it did not restore the external portion of the perineum and left the vulva gaping.

Dr. Mundé thought that when Dr. Wylie spoke of making a square—

Dr. Wylie: A square when it is flattened out.

Dr. Mundé: That is the point exactly, for the old clover-leaf denudation when flattened out is nearly a square, and practically, therefore, it struck him that Dr. Wylie was following exactly the same plan, except that he was performing a rather easier operation than the clover-leaf, but by making a transverse denudation he did not go down into the pockets on either side. Dr. Mundé then referred to the difference in results obtained in private and hospital practice, and believed that the influence of good air, cleanliness, and disinfection were as important as in the larger operations, such as laparotomy. He had always used silver wire, but at the same time thought it did not make very much difference what material was employed for sutures, unless it was catgut, which he had not used much for fear that it would separate before union of the parts was sufficiently strong.

He would not say that he had seen retroversion cured by restoring the perineum, but he had seen patients who were able to get along without a pessary afterward. When, therefore, he found a combination of retroversion with complete laceration of the perineum, he had felt hopeful that, if he could keep the uterus in position for two or three months before the operation, the patient would be able to get along without a pessary when the perineum was restored.

Dr. Hunter thought that if there was one merit greater than another in Emmet's operation, it was that it restored the posterior vaginal commissure to its normal position almost exactly.

Dr. B. F. Dawson thought he might be excused for offering his views on the subject from the fact that he had simplified the operation for lacerated perineum to an extent that would permit many to be gynecologists, who would like to be, if they would listen for a few moments. The principle was to simply put things in the condition in which they were before the rupture took place. The duty of the operator was to *restore* the perineum and not to make a new artificial one.

When the œdematous swelling had subsided, the parts had restored themselves nearly to a natural condition. Even in the most fleshy women, and with the greatest amount of rupture *down to* the sphincter, there remained but a small bar of tissue deficient, and it was the duty of the operator simply to restore that deficiency. Why therefore denude to the distance of three inches when the laceration was only two inches in extent? After denudation, simple coaptation of the denuded surfaces was all that was required, and he wished to remonstrate against the multiplicity of sutures commonly employed. When he first began to operate he used, as he had been taught, six, eight, perhaps a dozen sutures, and he had skin and perineal abscesses, etc. During the last three years he had used only two sutures and had not seen a failure. He had kept his patients in bed not more than eight days, allowed them to walk about the room within ten days, and he had attributed his success to the simplicity of his operation. As Dr. Emmet had said, the denudation should be confined to that portion of the ostium vaginæ which will restore the normal perineum, and then passing only a sufficient number of sutures to hold the parts in position. Dr. Wylie, also, had shown the importance of bringing up the lateral tissues of the perineum, in order to secure the most satisfactory results.

The principle was to make the denudation only upon mucous membrane where the tear had taken place, and make it so as to be sure to reach the angles completely, and also as to enable the operator to take up the lateral tissue. Dr. Dawson introduces the sutures at some distance from the edge, not in the true skin at all, carrying the needle straight back until it reaches the angle of denudation, then rotating it and bringing it out through healthy tissue; then carrying it across, and carrying it through at a corresponding point on the opposite side.

Silver wire had served him well, and he had not seen any reason for changing what had done him good service. He regarded Dr. Emmet's operation as a nearly perfect operation. The only objection to it was that it was exceedingly difficult to perform; but, probably, if he was to go over his gynecological work again, Dr. Dawson would adopt it in preference to his own.

Dr. F. A. Castle referred to the influence exerted, by excessive abdominal tension, upon the lacerated perineum, and thought that if a little more attention was paid to this element of the trouble and the patient's intestines kept free from flatus, it would frequently make but little difference whether the woman had a perineum or not.

Dr. A. S. Hunter said that one of the important points in any method of treatment for restoration of a ruptured perineum was to secure the least amount of suffering possible during the time the wound was being healed, and in order to effect this the sutures should be inserted near to the line of union. He had performed Dr. Emmet's old operation in nineteen cases with nineteen successes, and most of the sutures measured from three-fourths to seven-eighths of an inch in diameter. The patients were all in private practice, and in good condition before the operation, but in every instance the patient suffered extreme pain. The sutures were inserted from one-fourth to one-third of an inch from the line of union, and opium was necessary to control the pain. In the twentieth case he had a very bad failure. He had seen Dr. Wylie perform his operation several times, and had been struck with the absence of any necessity for giving the patient opium to relieve pain, and the reason was because, probably, the sutures were not introduced through the skin. In his own cases also abscesses occurred along the line of some one of the sutures in about twenty-five per cent.

Dr. Cranmer would be pleased to learn something concerning the cause of laceration of perineum, as he had never had a case in his own practice of thirty years.

Dr. Boldt thought that the principal cause of abscesses along the line of the sutures was the fact that too many sutures were used, and also that they were twisted too tightly.

Dr. Castle thought that on account of the multiplicity of names which had been given to operations for lacerated perineum—"horseshoe denudation," "clover-leaf," etc.—Dr. Wylie's method might be called "Wylie's fig-leaf" operation.

Dr. Wylie closed the discussion and reviewed several points in the remarks which had been made by the gentlemen who had participated in the discussion.

BOARD OF STATE MEDICAL EXAMINERS.

Under the head of new business the Society unanimously adopted a resolution endorsing the bill recommended by the Medical Society of the State of New York in February last, making provisions for a Board of State Medical Examiners, and also recommended that the Committee on Legislation of the State Medical Society insist that the New York State Medical Association has no legal representation, and therefore is not entitled to any consideration in the bill.

Drs. William Oliver Moore and F. R. S. Drake were elected delegates to the Medical Society of the State of New York to fill vacancies.

The Society then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 25, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

(Continued from page 331.)

CONGENITAL CRANIO-TABES AND CHRONIC HYDROCEPHALUS.

DR. PRUDDEN also presented two specimens for which he was indebted to Dr. W. P. Northrup.

CASE I.—A feeble, ill-nourished child, twenty-eight days old, died with no head symptoms; nothing abnormal about the pupils. The thoracic and abdominal viscera were normal. There was spina bifida in a moderate degree. The forehead is moderately large and overhanging. The fontanelles and sutures were widely open and in the parietal bones are several small areas at which the bone is softened and perforated, the openings being covered by soft parts only—cranio-tabes. The brain-substance of the cerebrum is crowded against the skull by accumulated fluid, so as to form a shell of brain tissue on the average about one centimetre in thickness. The centre of the brain is occupied by a large bilobed cavity—the communicating dilated lateral ventricles. The basal ganglia are flattened and pressed downward against the base of the skull. In this case the space occupied by the dilated ventricles is about one-half that of the entire cerebral cavity. This, then, is an example of the class of cases of congenital hydrocephalus in which the child is born with the lesion in an advanced stage and terminating in an early death.

CASE II.—A female child, nine months old. Mother was healthy. The head of the child was rather large at birth. Since birth the child has vegetated well but has given no sign of intelligence except to exhibit signs of hunger. It cried as other children do, but most of the time lay in a stupid conditon. The head grew gradually larger from its birth and it seemed to grow more and more stupid, and for three or four days before death could not be made to take food, and so died.

At the autopsy the child was well nourished. The head was large, forehead overhanging, skull about eight inches in longest antero-posterior diameter. The thoracic and abdominal viscera were normal. The convolutions were flattened and there was but little fluid in or beneath the meninges. The lateral ventricles were widely dilated, measuring about three centimetres in lateral diameter and about the same vertically. The posterior cornua were widely but unequally dilated. The basal ganglia were considerably flattened. The third ventricle was cylindrically dilated and about one centimetre in transverse diameters. In this case the dilated ventricles occupy about one-fourth the entire cavity of the skull, the brain substance about the cavities being fairly well formed and its anatomical elements distinct.

This, then, is an example of that important class of cases in which the lesion exists at birth to a moderate degree and steadily progresses until the occurrence of death at an earlier or later period.

The specimens were good illustrations of three classes of cases: 1, Congenital hydrocephalus, in which the lesion is marked at birth and the child does not survive but a short time; 2, chronic hydrocephalus, in which the lesion is progressive after birth, the child living for some time; 3, hydrocephalus, in which the lesion is primary, in an adult; in this class of cases the primary cause is not known.

With reference to hardening the brain when in this condition, Dr. Prudden remarked that it was important to remove it under water, and to carry it in water to the place where the ventricles could be filled with the hardening fluid by means of a syringe as the fluid within the brain ran out, the brain always being kept in a fluid.

DR. JACOBI remarked that cranio-tabes occurred early, sometimes as early as the fourth or fifth month of life, but cases of congenital cranio-tabes were exceedingly rare. He had seen but a single case, and did not remember to have read of another.

DR. PRUDDEN remarked that the specimen he presented was the only one which he had seen.

DR. NORTHRUP said he had seen but this single specimen occurring in a child so young.

EPITHELIOMA THE RESULT OF CONTINUED IRRITATION OF A SIMPLE ULCER.

DR. GEO. F. SHRADY presented a specimen which might serve to illustrate the results of long-continued irritation of a simple ulcer. It was removed from a man forty-five years of age, who, one year ago last October, was burned upon the right side of the face and neck and chest. The wounds healed in about two or three months, with the exception of two small ones on the right side of the chest, which remained open up to the time of the operation. They were the source of more or less irritation until within the last four or five months, when they took on a new action. The small ulcers coalesced and formed one large one, granulations became proliferous in character, and when the patient presented himself a week ago at the St. Francis Hospital, Dr. Shrady found a large ulcerating surface, which he removed by simple operation. It was situated just below and to the right of the right nipple. The mass was apparently divided into two distinct portions, one a fungoid growth, and another which presented the appearance of epithelioma, and it had been proven to be such by a microscopic examination.

MULTIPLE FIBROID, HYDRO-SALPINX, AND MUCO-FIBROUS POLYPUS.

DR. H. J. BOLDT presented a specimen removed from the body of Mrs. B. S——; aged forty-one; born in Germany; married sixteen years; no children; no miscarriage; menstruation appeared at fourteen years. The duration of the present illness is about sixteen years, but its symptoms have increased much in severity during the past two years, the symptoms consisting of backache, cephalalgia, vertigo, metrorrhagia, extreme exhaustion, and pains in both inguinal regions. The amount of blood lost is exceedingly large, and occurs at irregular intervals. During the absence of the metrorrhagia there is a continual copious sero-bloody discharge; for the past two years the patient noticed a lump protruding into the vagina. She presented herself at my clinic on February 9, 1885, with the above history.

On digital examination, I find the protruding mass in the vagina to be a polypus with a spongy feeling to touch. The cul-de-sac of Douglas is filled out by a large mass which feels rather firm to the touch; the uterus itself does not seem to be enlarged upward, but to either side a hard mass is felt, which seems to be in connection with the uterus; the latter is slightly anteverted, due to the mass posteriorly. Inspection shows the polypus to be engorged with blood, the color being quite dark, and by the use of the uterine sound it is shown to be attached to the anterior surface in the body of the uterus. It was drawn down by a strong tenaculum and cut off as near as possible to its base with scissors, very little hemorrhage following.

The polypus consists of mucous and fibrous tissue. Her metrorrhagia ceased for a few days, but then began again. I sent her to the hospital for treatment and probable operation. On February 19th she was anæsthetized for the purpose of making a careful examination, it being a question as to the nature of the mass posteriorly. Unfortunately I ordered chloroform to start the anæsthesia, and then changed off to ether. She was not yet fully under the influence of the anæsthetic when lividity of the face was noticed, and the patient died of cardiac paralysis, although no pains were spared to resuscitate. Previous examination of the heart had not shown any pathological condition.

The cause of the cardiac paralysis I found by the au-

topsy to be due to a fatty degeneration of the muscular structure on the left side of the heart; the right side did not yet show such change.

The points to which I desire to call particular attention are, first, the danger of chloroform.

Second, when the diagnosis of hydrosalpinx has been made, and the sac is as large as in the present case, we should not hesitate to remove the disease by operation, as any slight cause, usually traumatic, may cause inflammation of the sac-walls; thus a "pyosalpinx" result, the sac is then very apt to burst at some point and cause fatal peritonitis.

Third, that the increase in the intensity of the patient's condition for the last two years was in all probability due to the polypus.

DR. AMIDON asked if the heart was examined before the administration of the anæsthetic.

DR. BOLDT replied that it was, but that there was no evidence of cardiac disease.

DR. AMIDON asked if it was not a rule commonly observed among obstetricians and gynecologists to use chloroform only in cases of labor when pain was actually present.

DR. NORTHRUP remarked that it was a common practice, even among those who were familiar with the dangerous effects of chloroform, to begin with the administration of chloroform and continue the anæsthesia with ether; and he would like to ask if that was not as dangerous as it was to use chloroform throughout; death occurring most frequently, in the use of chloroform, at the beginning of, or early in its inhalation.

THE PRESIDENT thought that the method mentioned by Dr. Northrup was even more dangerous than it would be to carry on the anæsthesia with chloroform alone. He thought also that the use of chloroform as a general anæsthetic should be condemned most fully in all cases, except possibly in children under twelve years of age.

DR. W. H. PORTER mentioned that Dr. W. T. Lusk had written a paper calling attention to the danger of using chloroform as an anæsthetic even in cases of labor, submitting the following propositions for argument and indorsement:

1. Deep anæsthesia, carried to the point of complete abolition of consciousness, in some cases weakens uterine action, and sometimes suspends it altogether.

2. Chloroform, even when given in the usual obstetric fashion, namely, in small doses, during the pains only, and after the commencement of the second stage, may in exceptional cases so far weaken uterine action as to create the necessity for resorting to ergot or forceps.

3. Patients in labor do not enjoy any absolute immunity from the pernicious effects of chloroform.

4. Chloroform should not be given in the third stage of labor. The relative safety of chloroform in parturition ceases with the birth of the child.

5. The more remote influence of large doses of chloroform during labor upon the puerperal state is a subject that calls for further investigation and inquiry.

He also cites a number of cases in which alarming symptoms occurred as the result of the chloroform, and several deaths directly attributable to the chloroform.

THE PRESIDENT remarked that he had heard of one fatal case from chloroform inhalation in obstetric practice.

DR. JACOBI asked what the condition of the heart was at the autopsy.

DR. BOLDT replied that it was the seat of a moderate amount of fatty degeneration, more particularly upon the left side, although the amount of degeneration was not very great. He further remarked that he had been accustomed to use chloroform as an anæsthetic for diagnostic purposes.

THE PRESIDENT thought it lamentable that physicians could not be convinced of the danger of using chloroform as an anæsthetic until they had been taught the lesson by the loss of a patient. He thought Dr. Boldt deserved credit for reporting his unfavorable experience, as in very many instances where such results had followed the use of chloroform nothing further was ever heard of the case, and doubtless death from chloroform had occurred in many instances which had never been reported.

HYDRO-SALPYNX—OPERATION—CURE.

DR. H. MARION SIMS presented a specimen with the following history: Mrs. S——, twenty-three years of age. Married two years. Never pregnant. Menses regular. Flow normal. Never had any pain with period until a year ago, when she got her feet wet and had "inflammation of the womb." Her menstruation thereafter was extremely painful, the pain preceding the flow by several days. Had a great deal of pain in small of back, which was almost constant, especially of late months. Had always been previously in most perfect health. Intercourse became more and more painful, until finally she could not submit to it at all. On examination I found the uterus in normal position, and directly back of it, in Douglas' cul-de-sac, I detected a growth which was so exquisitely sensitive to the touch that I could not make a thorough examination, so decided to give the patient some nitrous oxide gas in order to make a thorough examination. This was done on the following day, and the cyst easily mapped out and traced to its origin, the right tube. An operation was decided on, and was performed a few days afterward. The patient made a rapid recovery, and is now perfectly healthy. Menstruation normal and unaccompanied by any pain or discomfort.

Dr. Sims also presented

A SMALL OVARIAN TUMOR.

Mrs. B——, forty-one years of age. Married twenty years and mother of two children. Menstruation always regular, but had become more and more painful for two or three years past. She is a big, strong, healthy-looking woman, and had always enjoyed very good health. Two years ago she began to have severe pain over the left iliac region, with dragging pains across the back and down the limbs. She became very peevish and nervous, and her usual good health broke down considerably. I saw her first a year ago, and found her so sensitive to the touch about the uterus and ovaries, that I had to administer an anæsthetic in order to make a thorough examination. High up on the left side a small, round cyst was found, which I took to be either an ovarian cyst or one of hydro-salpynx. Operation was advised and performed shortly afterward. The right ovary being found in a cystic state was also removed. Patient made a good recovery, and is now enjoying excellent health.

DR. FRANK FERGUSON presented a specimen of

HYDRO-SALPYNX

removed from the body of a woman who died of pneumonia. There were old pelvic adhesions. There were three cysts which contained a clear fluid, in which cylindrical epithelium had been found in fairly large numbers.

CARCINOMA OF THE RIGHT OVARY.

DR. W. P. NORTHRUP presented a specimen with the following history: Patient was an unmarried female, aged sixty. She performed the various duties of cook, dressmaker, and child's nurse. Nothing was known of a tumor until two years before death, when, after overexciting herself she developed symptoms of peritonitis, and was attended by Dr. Walker, of this city, who made a diagnosis of tumor, and suspected its cancerous nature. A few months before death she became unable to work, and was admitted to an old ladies' home, where she died. She had become emaciated. Her weight in health had been over two hundred. On her face were two or three dark brown patches, which she designated "liver patches." Her conjunctivæ were somewhat jaundiced, her skin dirty yellow. In the hypogastrium and extending into both iliac regions was a large, symmetrical, smooth, tense, fluctuating tumor.

Uterus could be moved within moderate limits without moving the tumor. Patient died of exhaustion.

On autopsy a tumor weighing eight and a half pounds was found, apparently developed from the right ovary and adherent to the right broad ligament. It was attached by tender adhesions in several places, but these were easily stripped up with the thumb and finger, and it was necessary to cut only the broad ligament. The surface of the tumor was smooth and contained dilated veins. Its general shape was oval, and fitted closely down into the pelvis. On opening this fluctuating body dirty brown fluid escaped and allowed the bulk of the tumor to diminish fully one-half. On turning this sac wrong side out irregular-shaped nodules of a light color and rather yielding consistence, varying in size from an orange to a walnut, were found. These, on examination under the microscope, present the characteristics of carcinoma.

The tumor he thought to be of interest on account of its peculiar gross appearance.

Dr. Ferguson presented a specimen of

SPINDLE-CELLED SARCOMA OF THE BRAIN.

It was evident that the tumor began in the dura mater, and by pressure had displaced a considerable amount of the left hemisphere; it had also destroyed to a considerable extent the ganglia at the base of that side of the brain.

Dr. Ferguson also presented

A SARCOMATOUS TUMOR OF THE SPINAL CORD.

The cord itself had not as yet been examined microscopically. The condition of the other organs was that found in connection with crushing of the spinal cord, when the patient lives for six or eight months, namely, emaciation, contracture of muscles, cystitis, pyelitis, abscess of the kidneys, etc.

Dr. Amidon asked Dr. Ferguson whether his examination of the tumor of the cord had led him to infer the point of origin.

Dr. Ferguson replied that it seemed to arise from either the pia mater or immediately beneath the pia mater, because it apparently involved the cord from pressure rather than by originally taking origin in the structure of the cord. He was certain that it did not originate in the dura mater, as it was entirely unattached to the dura mater, although it was in contact with it.

Dr. Amidon remarked that the clinical history would point to the origin of the disease of the cord as pressure myelitis, as there were, first, symptoms of irritation; second, of compression; third, of destruction. The case seemed to be one of pure myelitis with ascending and descending degeneration.

Dr. Prudden asked if Dr. Ferguson regarded the tumor as sarcoma with secondary cystic formation.

Dr. Ferguson thought it might have been cystic from the first.

Dr. Jacobi asked Dr. Ferguson concerning the origin of the tumor of the brain.

Dr. Ferguson replied that it probably originated in the dura mater.

The Society then went into executive session.

Qualifications for Practice.—The conviction of Dr. Buchanan on a charge of conspiracy to issue bogus diplomas, suggests the inquiry as to whether it is more reprehensible to issue bogus diplomas to men who are not qualified to practice medicine than it is to issue genuine diplomas to men equally unqualified. There is reason to believe that a large percentage of the doctors sent out by colleges are no better qualified to practice medicine than Buchanan's bogus fellows. Buchanan, doubtless, deserves all the punishment he receives, if not more; but one cannot help thinking that there are a great many gold-rimmed college professors in different parts of the country who are just as bad.—*The Philadelphia Evening Item*, March 12, 1885.

PRACTITIONERS' SOCIETY OF THE CITY OF NEW YORK.

Stated Meeting, March 6, 1885.

A. B. Ball, M.D., President, in the Chair.

ABSCESS OF THE LIVER (?).

Dr. Beverley Robinson related the incomplete history of a case in which there had been a difference of opinion respecting diagnosis, with a view to calling out an expression of opinion of the members of the society. The patient was a man about thirty years of age, a clerk, who, three months ago, while in perfect health, went on a shooting trip, and while absent from the city was taken with symptoms of fever, and after a few weeks developed what his physician called typho-malarial fever. After a period of apparent convalescence, symptoms appeared which pointed apparently to suppuration of one of the internal viscera, and two prominent physicians expressed the opinion that there was abscess of the liver. Some days later the patient expectorated large quantities of pus, and this his physicians believed to come from an abscess of the liver, through the perforated diaphragm, or from an abscess of the lung due to embolism carried from an ulcer of the intestine. Dr. Robinson saw the patient about three weeks ago, when he made a very careful physical examination, and was unable to come to the belief that there was abscess of the liver. He found signs which to him were indicative of an old pleurisy, the inflammation having involved the lung and given rise to dilatation of the bronchial tubes, from which the profuse expectoration arose. He saw the patient again yesterday, and was informed that his physician had found a varying temperature, a part of the time it being nearly normal, again rising to 102° or to 103° F. The physical signs had not much changed, but within a week or ten days an abscess had developed in the left temporal region. The pus from this and the sputa had not been examined microscopically. There was now a point of tenderness over the inner aspect of the right thigh near the popliteal region, which it was feared would prove to be a commencing abscess. The question in Dr. Robinson's mind was, whether the pus which had been expectorated, and the abscess of the temporal region, had their origin in a pyæmic process starting from an old typhoid ulcer of the intestine, or whether the starting-point of sepsis was in a tubercular process in the lungs.

Dr. Peabody said, with reference to the possibility of typhoid ulcers giving rise to multiple abscess, that he had had two such cases, the patients, after becoming apparently convalescent, having a succession of chills and symptoms of pyæmia, dying with multiple abscess of the kidney.

Dr. Robinson asked whether the pus of a metastatic abscess showed characteristic appearances under the microscope.

Dr. Peabody replied, not necessarily. He further said, in reply to a question by Dr. Robinson, that secondary tubercular deposits might occur in any of the tissues of the body, but in some the occurrence was unusual.

OVARIAN TUMOR TWISTED FIVE TIMES UPON ITS PEDICLE.

Dr. J. B. Hunter said that, about six weeks ago, a woman came to him giving a history which made the diagnosis somewhat doubtful. According to the history, it was possible that she might be pregnant, but there was a very small enlargement which seemed not to be connected with the uterus. When she returned, at the end of a month, he was surprised to find a large ovarian tumor. She was not suffering much discomfort, but was advised to enter the hospital as soon as her circumstances would permit. Shortly after the patient entered the hospital her temperature rose, and, for two or three days, varied between 100° and 102°. Dr. Hunter supposed this to be due to inflammation in the ovarian tumor, and accordingly hastened with the proposed operation of laparotomy.

On Friday afternoon, when the operation was performed, the temperature in the axilla was 101.5°, the pulse 140. Her expression was anxious, and there was apparent commencing peritonitis. Cutting down upon the tumor, it was of a blue and congested appearance, and was found to be twisted five times upon its pedicle. The inner lining of the sac was separated from the outer, and the walls contained coagulated blood. There was a papillomatous growth attached to the larger tumor. There was no hemorrhage into the peritoneal cavity, nor evident signs of peritonitis. After removal of the tumor, the temperature fell, and all the unfavorable symptoms disappeared.

PLEURITIC FLUID RESEMBLING PUS, BUT CONTAINING NO PUS-CORPUSCLES.

DR. KINNICUTT related the case of a patient who entered his service at St. Luke's Hospital two weeks ago, with signs of pleuritic effusion. Two months ago the woman began to suffer from increasing dyspnœa and probable elevation of temperature. She gradually lost strength and flesh, and when she appeared for admission to the hospital the signs of distention of the pleural cavity with fluid were found, and verified by puncture with the hypodermic needle. The fluid was of a rich cream color, and of the consistency of diluted milk. Dr. Kinnicutt expected to find, on microscopic examination, serous fluid, with a moderate amount of pus, and was surprised to learn that no pus-corpuscles were present—only granular matter and cholesterin crystals. Paracentesis was performed, and fourteen or fifteen ounces of a like fluid was withdrawn, which also, under the microscope, was free of pus-corpuscles. Dyspnœa was relieved by the operation; the patient was rendered comfortable, and had no fever. The question arose as to what was the nature of the fluid withdrawn from the chest. It resembled very much the fluid of a cold abscess, but he had never before seen such an effusion into the pleural cavity. The patient was not suffering from any bone disease.

DR. PEABODY thought that, whatever name might be given to the collection of fluid, it was pus which had become broken down and was ready for absorption. After a while it probably would have become absorbed, leaving a caseous mass. But it was unusual to have so large a quantity of pus in the pleural cavity undergoing such a process. The reason why we failed to find pus in abscess of the liver, was that the pus had become broken down.

DR. V. P. GIBNEY was reminded by the case of Dr. Kinnicutt of that of a girl of eight or ten years of age, who came to him some years ago with supposed abscess of the liver, the enlargement extending from the region of the liver transversely across the abdomen to the left iliac region. The patient was also seen by Drs. Thomas, Walker, and Ripley, the latter two gentlemen aspirating and drawing off a large quantity of fluid, which had the appearance of milk and contained cholesterin crystals with a few pus-cells. If he remembered correctly, Dr. Thomas said the fluid was not uncommonly seen in ovarian tumors; at all events it was not regarded as a very anomalous kind of fluid.

DR. WARD said it was not unusual for dermoid cysts to contain fluid like that described by Dr. Kinnicutt, and that such a cyst might develop in that locality, although it seldom did so.

DR. PEABODY then read a paper on

UNUSUAL CASES OF APOPLEXY, WITH ANATOMICAL DEMONSTRATIONS.

DR. MCBRIDE had been very much interested in the histories of the cases reported by Dr. Peabody, as he had recently had occasion to look up the literature of the subject of cerebral hemorrhage in the young. He had been somewhat surprised to find that in the majority of cases of supposed cerebral hemorrhage in the young subject, aside from meningeal hemorrhage, there was heart disease, and with the heart disease was almost invariably associated aneurisms in the cerebral vessels. A number of the cases were reported in the transactions of the Pathological Society of London. In one case the patient was but thirteen years old, in another nine, and the ages ranged all the way up to twenty-five years.

In one of the cases reported by Dr. Peabody, the young man's rapid growth must have been accompanied by anæmia, and in connection with malnutrition of the vascular system we were likely to have dilatation of the left ventricle. The writer on diseases of the circulatory system in "Ziemssen's Encyclopedia," spoke of the frequency of the presence of anæmia and endarteritis obliterans in cases of hemorrhage. Dr. McBride inquired of Dr. Peabody whether a thickening of the walls of the blood-vessels was recognized during the life of the patient.

DR. PEABODY replied that the patient was in apparent good health, and his blood-vessels were not examined before death. Recklinghausen, in his recent work on "General Diseases of the Circulatory Apparatus," stated that he had never seen a case of apoplexy in the young subject unaccompanied by Bright's disease of the kidney. In the second of the two cases reported by Dr. Peabody there was no disease of the kidneys. In the other case there was Bright's disease of one organ, with compensatory hypertrophy of the other. Why the disease should have been limited to one kidney Dr. Peabody was unable to explain. There was no local cause for it.

DR. KINNICUTT inquired as to the nature of the varicosity of the cerebral vessels spoken of in the history.

DR. PEABODY said there was simply a bulging or enlargement of the calibre of the vessels without any change in their walls. He had examined the brain very carefully for several hours after maceration, but was unable to detect any aneurism.

DR. KINNICUTT inquired whether recent investigations went to show that simple arterial tension, without disease of the blood-vessels, was sufficient to cause rupture of the vessels. In an article which he had read some years ago, the author stated that it was considered that arterial tension alone, without disease of the blood-vessels, could not cause rupture.

DR. PEABODY replied that as good authority as Recklinghausen claimed that rupture of the vessels might occur without disease, basing his opinion upon cases in which he was unable to find any pathological change at the seat of rupture.

THE PRESIDENT remarked that the statement of Stroud (?), with regard to the death of Christ being due to rupture of the heart, had been rejected by some, because it was claimed that the heart could not be ruptured except in disease. In the light of Recklinghausen's observations, however, Stroud's view could be accepted without regarding Christ as imperfect physically.

DR. DANA doubted whether it was so rare to meet with cases of cerebral hemorrhage in children, not of meningeal origin. He had met with two or three cases, apparently of the kind referred to by Dr. Peabody. Within the last year a man, twenty years of age, had come under his observation for supposed post-hemiplegic chorea, following cerebral hemorrhage, which occurred several years ago. His symptoms had been those of cerebral hemorrhage, not of meningeal origin. He now had under treatment a boy with epilepsy, who, when sixteen years of age, had presumable cerebral hemorrhage, with temporary loss of power of the right side. He also had notes of two or three other similar cases, none of the patients dying. According to his experience, young people were not so likely as old people to have a recurrence of the hemorrhage.

DR. MCBRIDE thought it impossible to make a positive diagnosis of cerebral hemorrhage without knowing the early temperature.

DR. DANA did not think the temperature record would

settle the question of diagnosis. It was extremely varying in different cases. He had seen it in one case rise only on the paralyzed side; in another it steadily rose to 105° F., and the patient died; in another it rose one or two degrees, and entirely ceased to rise in the course of ten days.

Dr. Gibney inquired whether Dr. Dana referred to what was known as infantile hemiplegia.

Dr. Dana replied that he did not; in such cases he supposed the hemiplegia due probably to meningeal hemorrhage, and not to apoplexy; but in older children, from eight to sixteen years of age, he thought he could fairly say whether or not there was cerebral hemorrhage.

Dr. Peabody then read a paper on poisoning from bichloride of mercury dressings.

Dr. Peabody said that since writing the histories of the foregoing cases, he recalled two or three others in which symptoms of poisoning by the use of bichloride of mercury as a dressing developed. The cases which he had reported were obtained from the records of a single hospital, and probably did not include all which occurred there. They consisted of six deaths after the use of the bichloride, and a number of cases with peculiar symptoms in which death did not take place. The symptoms were characteristic, and consisted of tenesmus, pain, frequent bloody stools, and obstinacy to all ordinary treatment. The writer in "Virchow's Archives," referred to, described the symptoms very minutely, and they tallied exactly with those observed by Dr. Peabody. At the post-mortem he found a great many ulcers affecting the large intestine, and very frequently also the small intestine, with or without membranous deposits.

Dr. McBride asked whether the urine gave any indications of the amount of the bichloride being absorbed by the system.

Dr. Peabody replied that he did not know that any examination of the urine had been made with a view to determining this question in the cases reported by him. Fränkel stated that the symptoms mentioned were present without any evidences to be found in the urine, so that the appearance of the urine could not be taken as a warning that there was mercurial poisoning any more than could be salivation.

Dr. Kinnicutt asked Dr. Bull if it was necessary to employ the bichloride in so strong solution as mentioned in the histories of the cases, in order to have complete antisepsis.

Dr. Bull replied that it was not always necessary to employ a solution of the strength of 1 to 1,000. It had been found that 1 to 2,000 or 1 to 5,000 would do. There was one point in the paper which he could not but criticise, inasmuch as the evidence was drawn from post-mortem observations. In a number of the cases the patients were suffering from old sinuses due to diseased bones, and consequently some of the symptoms attributed to mercurial poisoning might perhaps be interpreted in a different way. We all knew that in many cases of suppurating joints and bones, there were also tubercular deposits in the intestine, and these may have had something to do with causing diarrhœa and dysenteric discharges. Of course this would not explain the presence of diphtheritic deposits. He certainly had not seen any case of death in which these intestinal symptoms were present, and in which bichloride of mercury had been used, but he must say that he had been a little more conservative in the use of the disinfectant than some other surgeons. He had employed carbolic acid a good deal where continued irrigation was required. Then he dressed wounds mostly with iodoform, and rather encouraged the house staff to abstain from much washing of wounds with the bichloride solution unless they were the seat of mal-odor, etc. He could not help thinking that a solution of 1 to 5,000 would often answer just as good a purpose as one of 1 to 1,000.

Dr. Sexton said he had been informed that some physicians employed a twentieth of a grain of corrosive sublimate two or three times a day for the cure of dysentery. He thought that this was a larger amount of the salt than would be absorbed from a wound washed with a solution of 1 to 1,000, which it was claimed gave rise to dysentery. This might be evidence in favor of one of the claims of homœopathy, of the difference in result from the administration of a large and a small dose of the same medicine.

Dr. Dana remarked that one recent writer in Volkmann's *Sammlungen*, reached the conclusion that bichloride of mercury was an excellent surgical dressing if properly used; while another, in considering its use in obstetrics, reached the conclusion that it should not be employed at all; that it was a very pernicious agent.

Dr. Robinson had seen the bichloride used in syphilitic cases very extensively, and had not known of any cases of dysentery arise from it.

The President thought it was not very unusual for a patient to have a diarrhœa due to the administration of bichloride of mercury by the mouth. Moreover, might not the symptoms differ according to the way in which the poison found its way into the system? He had known, for instance, an infinitesimal quantity of carbolic acid to produce well marked carbolic acid poisoning. In one case it arose from a dressing with the faintest odor of carbolic acid, applied over a drainage-tube introduced into the chest in a case of empyema. The amount of carbolic acid absorbed, however, was sufficient to produce perfectly black urine. Again, we could not be sure that all the bichloride of mercury taken into the stomach was absorbed.

Dr. Peabody thought that the albumen of the food, coming in contact with the drug, might prevent its absorption.

Dr. Gibney said in support of this theory, that it was a common practice at the Hospital for the Ruptured and Crippled, to give children, year in and year out, a mixture containing bichloride of mercury and cinchona bark, known as the brown mixture, each dose, of which two or three were taken daily, containing one twenty-fourth of a grain of corrosive sublimate.

Dr. Dana estimated that there were about fifteen grains of the bichloride in a quart of a solution of one to one thousand, which offered a fair chance for the absorption of an excessive amount.

The Spelling of Medical Men.—Dr. N. O. D. Parks, writes with much feeling, and unexceptional orthography, upon this subject. He says: "Commenting on the execrable spelling which too frequently disgraces the profession in the preparation of physicians' certificates when brought under public notice in courts of justice, you wisely remark that, 'attention to the small matter of spelling . . . will frequently save the profession from public humiliation.' It is plain to the most unobservant that it is impossible for a man to pay attention to spelling if he does not know how to spell. The true and only remedy is to apply the pruning-knife with relentless hand to the countless diploma mills which spread their noxious miasm throughout the length and breadth of the land, and to make it a *sine qua non* that every student, before entering on his purely professional studies, shall give evidence of his having received such a liberal education as will qualify him to associate with gentlemen of other learned professions."

Cocaine in the Cure of the Opium Habit.—Dr. A. P. Meylert, of this city, writes that cocaine in the treatment of the opium habit has quite disappointed him. "I have found it of comparatively little value during the period antecedent to discontinuance of morphia. I have had no reason to change the opinion expressed to the County Medical Society, and published in their proceedings December 27, 1884, in The Medical Record." Dr. William Oliver Moore writes that an article bearing on this subject will be found in *Centralblatt für Therap.* August, 1884.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE ANNUAL COURSES OF LECTURES AT THE COLLEGE OF PHYSICIANS—DR. OSLER'S GULSTONIAN LECTURES—PROPOSED AMALGAMATION OF THE BRITISH AND INDIAN MEDICAL SERVICES—THE INDIAN MEDICAL SERVICE—THE SOUDAN EXPEDITION.

LONDON, March 7, 1885.

THE annual courses of lectures at the College of Physicians are now in progress. These are three in number, viz., Gulstonian, Croonian, and Lumleian, so named after their respective founders, who severally bequeathed to the college a sum of money to endow the lectureships. The President has the privilege of appointing the lecturers.

The Gulstonian Lectures for the present year have just concluded. The course consists of three lectures, and a condition of the endowment is that one of the junior fellows be appointed as Lecturer. A special interest attaches to the course just given from the fact of a Philadelphia physician, Dr. William Osler, being the lecturer. Dr. Osler took for his subject that rare affection known as ulcerative, or, as he preferred to call it, malignant endocarditis. Although cases of this disease are from time to time reported in the medical journals, no very complete account of it has yet got into our text-books on medicine. Even "Quain's Dictionary" contains but a very brief account of the affection. Its importance would lead us to expect a detailed account in such a work as "Quain," and, considering that no fewer than seven columns of small type are devoted to so specialized a subject as the Morbid Histology of Insanity, the omission is the more remarkable.

Dr. Osler gave in his lectures a very full and complete account of our present knowledge of the subject, and one, too, which his hearers could scarcely fail to notice was quite up to date. He justified his selection of the term "malignant" to describe this form of endocarditis by remarking that there were cases in which "ulceration" does not occur. It is, of course, impossible for me to epitomize within a few sentences the lengthy account of the disease given by Dr. Osler, bristling as it did with innumerable references to authorities, American and European. Those who heard his three lectures could scarcely fail to form from them a very clear idea of the disease, whatever they might have had before. I need hardly reproduce Dr. Osler's own views for your readers. As an American authority, his opinions are doubtless already familiar to them.

The proposal to amalgamate the British and Indian medical services is again on the carpet. Strange as it may seem, we have in India two distinct medical services working side by side. One of these consists of those officers of the British Army who are for the time being serving with British regiments in India, and who are under the control of the Director-General of the British Medical Service—he being stationed in London. The other is the "Indian Medical Service," which comprises two sections, viz.: "military" and "civil." The "military" includes all medical officers of the Indian Army: the "civil" those who hold dispensary and other government appointments in India. Both of these branches are under the control of the Indian Government; but, anomalous as it may seem, the competitive examinations for admission to the Indian Medical Service are held only in London. The natives of India are not debarred from competing, but, of course, this arrangement practically excludes a large number of them. To complete the anomaly, if they compete at all, they have to face an examination conducted wholly in English. It is, therefore, not surprising that they should, as a rule, be in a minority in the pass-lists.

As we are at war, such telegrams as the following occasionally come to hand: "Surgeon Turner died to-day." Then, again, correspondents from Egypt tell us how the doctors "shared with a courage and zeal beyond all praise in all the dangers of the day." Nevertheless, carpet officers at home still pretend to look down upon "non-combatants" and even officials still draw a red-tape line between combatant and non-combatant officers. Those who have been wounded know how to value the services of the surgeons, often rendered under fire.

Already several deaths are reported from enteric fever and from dysentery, and as our army is to remain in Egypt through the summer, not a few of us are fearing that disease will destroy more than the sword. All reasonable precautions seem to be taken, and never was an expedition better supplied with medical comforts. A telegraph ship has been chartered and fitted up with the largest condensing apparatus ever constructed. The enormous cable-tanks are to be utilized to contain the water as it is condensed, and are said to have a capacity of 750 tons of water. The sea-water will be collected off Suakim and condensed at the rate of 64,000 gallons a day, and from the tanks it will be conveyed to the shore in boats.

THE UNIVERSITY OF VERMONT AND MEDICAL DEGREES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In your issue of February 14th you quote from *The Hospital Gazette and Students' Journal*, that "the authorities of the University of Vermont, U. S., have announced that they will grant the M.D. degree to British registered medical practitioners of good standing, who pass a satisfactory examination in medicine, surgery and midwifery. No residence is required, and the examination can be passed in three days."

I would respectfully call your attention to what the University of Vermont *does* announce, and thus correct an impression which might be formed by your readers by the perusal of the above statement.

We have, for many years, offered to graduates of other regular colleges the privilege of being examined in practice, surgery and obstetrics, and, if found qualified, of having the degree of M.D. conferred upon them by our institution. So far as I know, this is the practice of all university medical colleges in this country; some require an examination in all the branches, but none refusing to grant a diploma to graduates of other accredited colleges, who apply for the honor and satisfactorily fulfil the requirements of the case. The University of Vermont has included registered practitioners of England in the exercise of this privilege, and thus a physician in good standing, who has the title of F.R.C.S. or M.R.C.S., can proceed to the degree of M.D. at this institution in the same manner as other regular graduates residing in this country. We require the candidate to appear in person, present a genuine diploma, prove his identity, present a certificate of character and of professional standing, and undergo a thorough examination in practice, surgery, and obstetrics. We announce that the examination can be passed in three days. In like manner a physician in good standing in this country can pass the examination for the degree of F.R.C.S. Eng. in twelve hours.

The fee which we exact is a nominal one, and designed simply to cover expenses.

We consider it rather an honor than otherwise to have this class of medical gentlemen added to our alumni, and we observe every possible precaution to prevent any who could affect the reputation or good name of the institution from obtaining the degree.

I am yours respectfully,

A. P. GRINNELL, M.D.,

Dean of the Medical Department, University of Vermont.

BURLINGTON, VT., February, 23, 1885.

ANTISEPSIS AND THE DANGERS OF BOVINE VACCINATION.

To the Editor of The Medical Record.

Sir: While the experience of Dr. Doughty with bovine virus (Record, February 21st) is probably not very rare, I believe it is entirely avoidable. Septic poisoning is impossible without the introduction into the circulation of micro-organisms or the products of their growth. With our present knowledge of these organisms, and the efficient means at our command for their destruction, the danger of this accident can be reduced to the vanishing-point.

The following queries suggest themselves: Was the surgical cleanliness of the skin at the point of inoculation made reasonably certain? Was the instrument with which scarification was practised cleansed *immediately* before using? Were the hands of the operator surgically clean? Was the resulting wound properly protected against the entrance of septic matter?

If these precautions were taken the responsibility for sepsis must rest with the party who furnished the virus. If not, it is impossible to locate it. It is no sufficient answer to say that these details are commonly ignored, that the operation is daily performed with impunity in utter disregard of the principles of aseptic surgery. If security against septic infection is desired, its price must be paid. The trouble involved will not, let us hope, be seriously weighed against the welfare of our patients. It is not possible in practice always to say whether septic matter is present or not. The only safe plan is to assume its presence whenever it is probable that, *if present*, it will enter the circulation and work fatal mischief. The suggestions of experimental biology already carried out with such brilliant results in clinical surgery render its complete destruction an easy matter. So easy and certain are these methods that Mr. Lawson Tait, the gospel of whose daring surgical practice is CLEANLINESS, has been led to declare "that any man who deliberately performs an operation under circumstances from which his patient acquires fatal blood-poisoning ought to be the subject of a criminal indictment." However this may be, the time is certainly not far distant when a case of septic infection will be just as properly a subject of judicial inquiry as a deformity from a fracture or dislocation.

It happened to me once, a few years ago, to witness a comparatively large number of cases in private practice where disastrous results had followed vaccination. They were, for the most part, phlegmonous inflammations, some of which threatened both life and limb. Some physicians seemed much more unfortunate than others. One gentleman, *whose practice was largely surgical*, had the most appalling consequences. Others, although performing numerous vaccinations, saw no unpleasant effects. Yet all, so far as I know, received their virus from the same vaccine farm. Of course, it was bovine. But if this fact had any relation whatever to the "unexpected which happened," it is at least strange that the cases were not somewhat more evenly distributed.

In the cases reported by Dr. D. it would be interesting to know which of the two children was vaccinated first. If a contaminated lancet had been used, it is entirely possible that the septic matter had been in whole, or in part, removed from the point by the first scarification, thus rendering the escape of the second child more probable.

Modern science, and especially practical biology, has rendered it possible for the physician, who is not "too busy," to be conscientious and careful to so perform a vaccination as absolutely to secure the patient against septic infection, unless the poison is contained in the virus. For this the practising physician cannot be rightly held responsible. The task of securing medical expert service, and furnishing a pure lymph, presents no difficulties which are insurmountable, and rests with the proprietor of the vaccine farm.

G. W. McCaskey, A.M., M.D.

Fort Wayne, Ind., February 25, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 21, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 14, 1885.....	0	5	84	9	177	73	0	0
March 21, 1885.....	5	10	93	7	1 6	57	0	0
Deaths.								
March 14, 1885.....	0	1	21	8	25	39	0	0
March 21, 1885.....	0	3	9	7	18	27	0	0

History of Previous Epidemics of Cholera in the United States.—Dr. Rauch, in an address delivered before the American Public Health Association, gives the following account of previous cholera epidemics in this country: "The epidemic of 1832 is attributed to the ship Carrick, which arrived at the Grosse Isle quarantine station in the St. Lawrence River on June 3, 1832. But six days before that, the ship Elizabeth had arrived with 200 immigrants on board, having had 20 cholera deaths during the voyage. Fourteen days before the Elizabeth the Robert had arrived, with 10 cholera deaths; and sixteen days before the Robert—that is, on April 28th, thirty-six days before the arrival of the Carrick — the ship Constantia arrived, having had 29 cholera deaths during the voyage. These are all known to have been cholera-infected vessels, and their hundreds of passengers were known to be cholera-carriers; but these passengers are only a small fraction of the 30,000 immigrants who arrived in the St. Lawrence during the spring and early summer of 1832, from the same infected localities, and sailing from the same infected ports as the passengers of the Constantia, the Robert, the Elizabeth, and the Carrick. And yet they failed to develop a single case in Canada or elsewhere until June 8th. The introduction of the disease into New York is attributed to Canada; but the same class of immigrants from the same localities in Europe, were arriving in New York during the spring of 1832, as those in the St. Lawrence. And yet no case of disease occurred in the city or vicinity until June 13th.

"In 1848, the noted cases of the New York and the Swanton occurred—the former carrying cholera into New York, the latter into New Orleans; and to them is attributed the epidemic which, in the two succeeding years, spread from the Atlantic to the Pacific and from Canada to the Gulf. But the importation by the New York, though causing 50 deaths at quarantine, resulted in only 2 cases in New York city, and it was not for months afterward—not until May 11, 1849, and after the arrival of several other ships with cholera on board, that the first case appeared in the city, and the disease began to spread from that point. On the other hand, immigration from cholera-infected districts of Europe into New Orleans had been continuous for months before the arrival of the Swanton—the two vessels immediately preceding her, viz., the Gutenburg and the Callao, having lost 25 passengers from cholera.

"From this time until the close of what is generally known as the epidemic of 1854, but which was really only a continuation of the epidemic of 1848–49, there were continual importations of cholera carriers either in the persons of those who had been exposed, or in cholera-infected articles; in November, 1853, for example, no less than 28 vessels, on which 1,141 persons had died of cholera, arrived at the port of New York alone.

"The case of the Atalanta, in 1865, has already been

noted; but it should be further observed that there were three other arrivals from Havre soon after, and on the last two of these there were deaths from cholera during the voyage; but the disease got no nearer the city than Ward's Island, and by December 20th, had entirely ceased. In 1866, cholera was carried into Halifax by the steamer England, which vessel afterward proceeded to New York, where, on April 20th, she landed 891 passengers and 116 officers and men, having lost 316 by cholera. There were eight cases and five deaths among those who had to do with the vessel at Halifax, but no other extension of the disease, and none in New York. Two days prior to the arrival of the England, the Virginia had arrived at New York quarantine, having had 116 deaths on the voyage; and before the first death of the epidemic of 1866 had occurred, namely, May 2d, there had been nearly three thousand arrivals in New York of individuals 'who had been directly exposed to the infection of cholera at Liverpool, on shipboard, and at quarantine.' Notwithstanding this, so slowly does cholera spread, except under favorable conditions, that there had been only 21 deaths from the disease up to July 8th; and it was not until the first week in July that the disease appeared in Brooklyn, although there were frequent arrivals of cholera vessels during all this time.

"The epidemic of 1873 was preceded—*fourteen months before the first case of the epidemic occurred*—by the arrival of the Franklyn at Halifax, November 6, 1871, in distress, having lost 28 of her steerage passengers by cholera. Five cases, with three deaths, resulted from her on shore, but the disease did not spread, either in Halifax or vicinity. The vessel proceeded to New York, where she arrived November 12, 1871, having lost 11 more of her passengers, and having 72 cases then on board. But no epidemic followed. During 1872 there were numerous arrivals from cholera-infected ports, and the disease appeared on the island of Cuba and in Jamaica in the autumn of that year. During December, 1872, and January, 1873, there arrived at New Orleans a total of nearly two thousand immigrants from cholera-infected districts of Europe. And yet it was not until February 9, 1873, that the initial case of this epidemic occurred in the city of New Orleans."

Chloride of Ammonia is regarded by some as the most efficient remedy in sclerosis of the connective tissue, even of the neuralgias, and they claim, if it is used as freely as the iodide and bromide of potash have been in other disorders, its good effects will become manifest. Some enthusiasts say it is not only useful in cirrhosis of the liver and fibroid phthisis, but in all cirrhotic affections of the connective tissue of all the viscera, including those of the brain and spinal cord, to say nothing about strictures of the urethra and other parts. In chronic bronchitis it has obtained a reputation, not only when the sputa is thick and tough, but also when the connective tissue is swollen, thickened, and hardened. It relieves jaundice from occlusion of the biliary ducts by thickened mucus, and the neuralgias which arise from congestion, inflammation, and thickening of the nerve-sheaths. However all this may be, when rubbed on warts three or four times a day it removes them rapidly. Missisquoi water was once recommended for cancer, and lastly for mosquito bites. It is to be hoped that the muriate of ammonia will maintain its almost well-earned reputation against cirrhotic and sclerotic affections.

Spiræa Ulmaria (?) in Enlargement of the Prostate.—Dr. C. G. Brooks, of East Boston, writes: "The Record of July 5th contained an item on the use of 'Spiræa Ulmaria in Enlarged Prostate.' This item has been going the rounds of the medical press for nearly two and a half years; it is an abstract from an article by Dr. J. Baugh, of Hamilton, Ontario, published in *The Canada Lancet*, August, 1882. Dr. Baugh writes, after detailing the symptoms of a patient suffering from retention of urine, caused by an enlarged prostate: 'I tried my former method of treatment, but it failed. I also failed to use the catheter. Matters were becoming alarming, and I was about to send for professional assistance, when it came from another source, viz., an old woman. She volunteered the information that the patient wanted a dose of Queen of the Meadow (the common name for Spiræa ulmaria), and that if he got it, it would cure him in quick time. She said some could be procured in a few minutes. I asked her to get it. It was brought, an infusion was made, and a half pint given to the patient, and in fifteen minutes he desired to micturate, and emptied his bladder without difficulty. Since that, the patient has needed no medical or surgical aid to rid him of his old enemy. If he gets on a spree and his old trouble threatens him, he takes Queen of the Meadow tea and rejoices in being saved.' My object in sending to you this long extract is the desire to learn, if possible, what is the proper botanical name of the plant which proved so signally beneficial in Dr. Baugh's case. I have strong reasons for thinking that Eupatorium purpureum was used, instead of Spiræa ulmaria. I wrote to Dr. Baugh, a year ago, asking him whether he used the plant which bears a pinkish white flower (Spiræa ulmaria), or a purple blossom (Eupatorium purpureum), but received no reply. If you agree with me that the question is worth settling, I should be pleased to have the assistance of The Record in so doing."

Aconite Poisoning.—Dr. H. Speier, of Jordan, Minn., writes us that "the case of poisoning by aconite, with its miraculous escape, referred to on page 195 of The Medical Record, and which was widely circulated by the daily papers of St. Paul and Minneapolis, is generally considered to have been a clever advertising dodge by a 'specialist,' who is now under bonds for practising without a State license. A case of poisoning by aconite occurred in my practice about a year ago. A woman, waiting in a drug store for her physician, helped herself to a draught out of the aconite bottle standing on the counter, thinking it to be whiskey. She took about half an ounce. By an emetic, recumbent position, and stimulation I saved her."

Conservative Surgery.—Dr. J. M. Perkins, of Grove Spring, Mo., sends us an interesting report of a case illustrating the possibilities of conservative minor surgery. A boy, aged seven, was riding on a wheat-driller when the second phalanx of his index-finger caught in the cogs and was completely extirpated. Dr. Perkins removed the lacerated tissue, adjusted the first and third phalanges together, dressed the finger with tobacco leaves, and it healed rapidly, giving him a good finger.

The Spray in Ovariotomy.—Dr. John Homans, of Boston, writes: "The following is an extract from a recent work by Dr. Emmet ('Emmet's Principles and Practice of Gynecology,' page 715): 'In this country I do not know of any prominent operator who now employs the carbolic-acid spray.' This statement implies that the writer is not persuaded of the value of spray in ovariotomy. My own experience has led me to an opposite opinion. Indeed, I should not like to do a laparotomy for any purpose without antiseptic spray. I have been led to this conclusion by the results of one hundred and eighty-three cases of removal of cystic ovaries, of which I have lost only twenty-one—but more especially by the result of the last one hundred of these cases only ten of which were fatal, while thirty-eight were consecutively successful. I feel that to omit the antiseptic spray would be to deprive the patient of one of the ready and efficient elements of success."

Acidum Sulphurosum.—Most of its uses are based upon its power of killing germs and arresting fermentation and putrefaction. In pyrosis with yeasty vomiting and development of sarcini; in parasitic skin diseases, such as tinea, ringworm, etc., it should be applied locally, diluted with water and a little glycerine.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 14 NEW YORK, APRIL 4, 1885 Whole No. 752

Original Articles.

A CONTRIBUTION TO THE STUDY OF SEVERAL UNUSUAL FORMS OF SENSORY EPILEPSY WHICH ARE PROBABLY DEPENDENT UPON LESIONS OF THE OCCIPITAL CORTEX.

By ALLAN McLANE HAMILTON, M.D.,

NEW YORK.

I.

Epilepsies in which hemianopsia, hemicrania, and speech disturbances were associated with ill-defined fits.—Several years ago I directed attention to a form of epilepsy in which sensory disorders predominated, and referred to the examples collected by Sommers and others. These examples were characterized by predominant hallucinations or protracted special sense auræ, and might be included under the head of Lyner's third group of *Gesichtshallucinationen*.[1] Since the publication of this article,[2] I have met with other cases which convince me beyond doubt that there is a true sensory epilepsy which is as important, in its way, as the well-known variety described by Hughlings-Jackson, in which definite motor disturbances mark the disturbance of the para-Rolandic cortex; and such examples are of more than usual interest just now in connection with the late researches of Münk, Wernicke, Krause, Starr, and D. J. Hamilton.

Clinically, I see no reason why they should be looked upon as instances of classical epilepsy with unusual sense auræ, for there is a well-marked and defined grouping of the associated symptoms; and the motor expressions are secondary in importance. There are two cases in particular that bear so close a resemblance to each other that I shall detail them and afterward refer to one or two others reported by continental observers.

CASE. I. *Sudden hemiopia; supra-orbital neuralgia; unilateral anæsthesia of extremities, tongue, and gums; temporary speech disturbance; loss of consciousness.*—J. B——, a bright boy, aged sixteen, was sent to me by Dr. J. H. Browne in April, 1883. He comes of nervous stock, his mother being subject to epilepsy, and his father is an eccentric man who manifests his mental peculiarities chiefly in a morbid restlessness and irascibility. There is a brother who is healthy. The attention of the parents was first called to the boy's condition by his recital of a sudden attack which occurred during the summer of 1882. While rowing upon a river he suddenly and completely lost the visual use of the right eye, so that in looking at a number of ducks swimming near his boat, he failed to perceive those upon one side of the flock. This condition lasted for twenty minutes, and after a brief and severe pain over the right eye, he became unconscious, the unconsciousness being preceded by a tingling and numbness of the hand, forearm, arm, and left side of the tongue. He has subsequently had eight or ten of these attacks, of which the following is an example:

Usually without any bad feelings, physical or mental, he, while engaged in any duty, or at any time, suffers a sudden unilateral blindness. This is never gradual, and not like the form of amblyopia in which the visual field is gradually reduced. There is some hemichromatopsia. It would seem as if the retinal anæsthesia was unequal, for while usually the loss is complete and universal, it sometimes happens that there is only a limited loss. Upon one occasion, while reading, he suddenly lost the printed matter of the right lower half of the page below a diagonal line extending from the right upper corner to the left lower corner. There is never diplopia. This deprivation lasts anywhere from ten to twenty minutes; meanwhile a distal anæsthesia, coming very gradually, involves, at first, the fingers of the opposite hand and successively extends to the forearm, arm, and other parts, as I have already mentioned. There seems to be analgesia, as well as anæsthesia, for a pin may be run into the muscles without producing pain, and upon one occasion the gum was freely pricked without any discomfort to the patient. It invariably happened that the cutaneous sensory trouble occurred upon the side opposite to the hemianopsia and neuralgia, and in the greater number of instances, the left side was that affected. The third stage of the attack consists in migrainous headache of a very severe kind, and which sometimes lasts for an hour or more. There is a subjective feeling as if the eye was pushed forward. This disappears with nausea and relaxation. More often he loses consciousness when the anæsthesia reaches its limit, which seems to be the extension of the anæsthesia to the gums. Occasionally there are slight convulsive movements upon the anæsthetic side. While the attacks involve the left side of the body as a rule, it happens that when there is primary left hemianopsia and right-sided anæsthesia, the boy becomes very much confused in speech, and sometimes is paraphasic, the trouble being but transitory. He is sometimes *unable to speak at all*, though *perfectly conscious and in possession of his faculties*. No pupillary disturbance has been noticed at any time. Upon two occasions there was a swelling of gums and tongue, which was not only subjective, but perceived by the mother.

Occasionally he sees prismatic colors and rays before the blindness, but this has been only once or twice. During his early life he had attacks of slight numbness of the hands and feet which were not thought much of, and he had headache as well. He has been a somnambulist.

A second case came under observation a few weeks ago, which in many respects resembles the last.

CASE II. *Hemianopsia; frontal headache; hemianæsthesia; temporary mutism; loss of consciousness.*—Miss J. D——, aged twenty-nine, comes of a neurotic stock; a brother and sister both suffering from incomplete epilepsy, and her mother has had headache and incident hystero-epilepsy. The maternal grandfather was extremely eccentric, and possibly insane, and there is a history of other neurotic disease.

Since her early childhood she has suffered from vertigo and headache, and with the commencement of menstruation she became hysterical. She is at present a healthy-looking woman, somewhat nervous and excitable in manner, but clever, intelligent, and possessing an unusual memory. Her present attacks became quite marked three or four years ago, and during the past eighteen months they have occurred every three or four weeks—without relation to menstruation, and at any time. They are not influenced in any way, except by occupation and excitement, which seem to prevent the frequency of their recurrence.

[1] Untersuchungen über die Lokalisation der Functionen in der Grosshirnrinde des Menschen, p. 63.

[2] New York Medical Journal, June, 1882. Also consult: Phantasieen in einem epileptischen Aufalle, Zeitschrift f. d. Antrop. 1825, iii., i. Hft. 170; Epilepsy with Spectral Illusions, London Lancet, ii., 57, 1850, Rees; Brain, 1880–81, iii., 192–206, Jackson.

She first noticed a unilateral dimness of sight, and afterward a blindness which was sudden and absolute, and she invariably "lost half of the object at which she was looking." Her first attack of this kind was in a railway station, and while looking at the clock, the figures from "XII" to "VI" disappeared. This abolition lasted for a period of ten or fifteen minutes, and shortly after its event she noticed a numbness of the tongue, and pain on the left side. This numbness next appeared in the fingers of the left hand and slowly extended up to the elbow, when it stopped. The right hand next became involved, and after a "furry feeling" of the tips of the thumb and forefinger her hand became "dead and without feeling" as far as the wrist. After continuance of this state for a period which I estimate varied from five to ten or even fifteen minutes, she lost consciousness, and while in this state, made quasi-convulsive movements which were undoubtedly psychical, as she rubbed the hands over each other, and made attempts to remove her rings. She stated that her fingers were swollen, and her sister corroborated this, and an attempt by the latter to remove the patient's rings was attended by considerable difficulty. Two or three minutes after the development of the anæsthesia there is often exquisite pain over the right eye, which augments in severity and extends over the entire head. This lasts sometimes for an hour or so after the attack, and is not relieved by any application.

During the unconsciousness, which is complete, she neither breathes stertorously, bites her tongue, nor shows any epileptic appearance, except it may perhaps be a slight pallor and dilatation of the pupils. It is impossible to arouse her for several minutes. The attacks are often aborted by strong mental effort, or by diffusible stimulants. Upon several occasions she has been suddenly deprived of the power of speech, and could not express herself, but this is exceptional. Such mutism was coincident with the hemiopic stage, and not subsequent to the loss of consciousness.

She has neither menstrual or other disturbance of the pelvic organs. She has slept soundly, and has had dreams nearly every night, but is not a somnambulist. After the attacks she passes large quantities of clear urine. There is no color-blindness.

Physical examination reveals almost nothing except it may perhaps be a suspicious bulging of the left optic disk, and a tortuous and enlarged condition of the veins. The tongue points slightly to the right. There is no erotogenetic sensitiveness.

These two cases present certain symptoms in common which remove them from association with the familiar form of epilepsy; and there is a pathological signification which should lead us to explain their origin by lesions of the occipital convolutions. As I have before said, they cannot be classed with those cases of pronounced and protracted sensory auræ which precede ordinary epilepsy. Gowers found in his large collection of cases that in twenty-six only there was loss of sight preceding the epileptic paroxysm, which was simultaneous in both eyes. In three of this writer's cases the visual aura was preceded by *pain* in the arm upon the same side as that upon which the unilateral visual aura was perceived, and in one case the visual aura was associated with loss of speech. He, however, brings forward no case in which such visual auræ—which, by the by, were of an incomplete, spectral, or other nature—were associated with anæsthesia.

Ross speaks of temporary blindness succeeding attacks, but this is all, and it would seem that when visual loss occurred, either temporary or permanent, with epilepsy, it was commonly a secondary condition.

Ross refers to the temporary hemianopsia which is so familiar to oculists, and details his own case. It appears that he suffered for years from temporary attacks of sudden blindness, accompanied by tension and fulness, lasting for three minutes or more, and always due to excessive use of tobacco.

Many writers have described a temporary and suddenly developed hemianopsia which they explain in various ways, either as the result of toxic or other causes; but no one, so far as I know, has spoken of its association with anæsthesia and the other symptoms presented by the two cases. It is hardly necessary to say that the condition should not be confused with the hysterical hemianæsthesia so admirably pictured by Charcot, and so often seen by neurologists. The unilateral blindness is purely an amblyopia of another character, and is quite frequently connected with achromatopsia and concentric constriction of the visual field.

Todd [1] reported a case, many years ago, of epilepsy in which the patient's attack consisted in a slight headache, insensibility, and anæsthesia of one side of the body, with swelling of the affected arm and affection of speech. There was no impairment of motor power whatever. He had subsequent similar attacks. There are three continental cases which, though not as uniform in their method of expression, are significant in showing how the association of hemianopsia, speech disturbance, and sensory trouble existed in connection with disease of the posterior cortex, which may be briefly referred to in this connection.

Case III. (Traube [2]).—A man, forty years of age, had been an epileptic for seven years and suffered from left hemispasms which subsequently became general. "An aura, consisting of darkness coming gradually over the field of vision from the left side, always preceded the attack. *During the intervals* a left-sided headache and hemianopsia preceded the attack."

A cyst, the size of an apple, was found in the white matter of the right occipital lobe. The cyst, which was filled with serum, was "surrounded by a zone of softening which did not involve either the cortex or wall of the lateral ventricle." No other lesions were found.

Case IV. (Westphal). — "Male, aged forty-two, suffered from left unilateral convulsions without loss of consciousness, and temporary left hemiplegia with loss of sense of pain after such convulsions. During the convulsions patient was aphasic. In June, 1878, left hemianopsia appeared after a convulsion, and continued until his death in April, 1879; during the last few months there was a slight contraction of the left arm.

"The convolutions posterior to the fissure of Rolando on the right side were atrophied and sunken in, and the white matter beneath was softened. The area of softening included the entire white substance of the occipital lobe and of the superior and inferior parietal convolutions. Thalami optici, corpora striata, and internal capsule intact. Microscopic examination showed the optic tracts to be normal." [3]

Case V. (Stenger [4]).—"Male, aged fifty-two, who had been subject to epilepsy for years, had an attack of left unilateral convulsions without loss of consciousness, followed by paresis of the left leg, paralysis of the left arm, and paræsthesiæ in the left hand. The unilateral convulsions recurred daily for thirteen days, when left hemianopsia suddenly developed and a total loss of muscular sense in the left hand occurred. The paresis gradually disappeared, but the hemianopsia persisted till his death, six months after.

"Autopsy showed, besides softening of the first temporal convolution, ventricular distention, extensive softening of the right occipital lobe, and flattening and softening of the right optic thalamus."

Ixner [5] pictorially reproduces cases such as I have described, in which the central lesion was occipital, and confined to the lobus cuneus and lobus quadratus.

In a case reported by Jastrowitz,[6] a tumor in the left occipital lobe involving the præcuneus, resulted in right hemianopsia, and aphasia with inability to read or write.

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[1] Clinical Lecture on Paralysis, etc., p. 295. London, 1836.
[2] Gesammt. Beträge zu Pathologie, ii., 1883. Referred to by Starr, Am. Jour. of the Med. Sci.
[3] Westphal, cited by Wernicke and referred to by Starr, loc. cit., p. 10.
[4] Stenger: Archiv für Psychiatrie, xiii, p. 247, referred to by Starr, loc. cit.
[5] Op. cit., Taf. xii., xiii.
[6] Centralblatt für prakt. Augenheilkunde, vol. i., December, 1877, p. 254.

With this case, however, there was some paralysis of both extremities of the right side and of the facial nerve.

It is unnecessary to further refer to the ample pathological explanation of central hemianopsia. The alternation which took place in my two cases is worthy of further study, and naturally suggests the existence of cortical commissural connection of a delicate kind; and perhaps a lesion involving the optic thalamus.

The recent discoveries of D. J. Hamilton[1] regarding the anatomy of the corpus callosum prove beyond doubt that there are commissural fibres passing from the cells in the occipital cortex, and that this bundle of commissural fibres occupies the *posterior part* of the corpus callosum. It is not difficult to understand how the variation in the unilateral seizure depends upon the enfeebled inhibitory control of one or the other groups of centres.

II.

Attacks of epilepsy with suspension of the function of volitional speech.—The extraordinary character of the inter-paroxysmal state in a patient recently under my observation is one that not only possesses interest because of its medico-legal relations, but on account of an undoubted abolition of the *voluntary* power of speech and the derangement of certain cerebral speech-centres, which have recently been located by Münk in the occipital cortex. In this case the mechanical apparatus of articulate speech and the immediate organs of phonation were in perfect condition, so far as I was able to judge, and the asemasia was temporary.

Case VI.—C. O——, aged twenty-two, is a reporter attached to one of the New York afternoon papers, who received a severe injury of the head when but three years old. He fell from the second story of an unfinished building to the cellar, striking the upper and back part of his head upon a beam. He was rendered unconscious and remained so for a day or more. He recovered from the immediate bad effect, but has suffered from severe general headaches, which recur every week or so, with an increase in the amount of urine excreted. About six months ago he began to have epileptic convulsions of a violent character almost every day, and sometimes more often. These were precipitated by excitement, and he had a great many when worried about his wife at the time of her delivery. Upon one occasion he fell downstairs and injured himself quite severely. The attacks were, as a rule, preceded by an epigastric aura of long duration, and occasionally by a visual aura, and, according to the testimony of his associates, he became strange and queer. When in such a dazed condition he would restlessly wander about his office, and suddenly, without any cry, become convulsed. After the attack he slept soundly. The bromides of sodium and ammonium and digitalis did little or no good, but the bromide of nickel appeared to have some influence. During the past month he has had only two or three attacks, but these have been of a quite irregular character. He told me that there were times when he felt like doing himself an injury, and that he had impulses to kill some one else. His companions said he was irritable, pugnacious, and easily thwarted, and his brother-in-law stated that upon several occasions he had "queer turns," when he would raise his hand to strike some member of the family; that he subsequently knew nothing of his conduct, and when it was detailed to him he appeared greatly astonished.

Mr. O—— came to my office in company with a friend at ten o'clock in the morning of December 27, 1883. He had had one of his attacks at the newspaper office, of rather more severe character than usual, at eight o'clock, with a psychical aura, during the existence of which he was very morose and sullen. Upon recovery he was speechless, though he could communicate by signs. Upon his arrival at my office his manner was composed, and he appeared somewhat dazed. His pupils were dilated, but contracted readily to light. I asked him one or more questions regarding his inability to speak, which he perfectly understood, and when I gave him a pencil and piece of paper, he replied without difficulty in writing. When told to make a great effort to speak he did so, and I thought I detected the words "to-day," but he could not repeat them though he tried and expressed great annoyance. He was unable to utter any sound except a sort of groan, which could not be in any way taken as an element of speech. I examined his larynx, but found nothing which could explain his impaired phonation, and I sent him to Dr. Asch, who found absolutely no abnormal appearances to account for the speech difficulty. The patient could not phonate, and though he made attempts to enunciate the vowel sounds, and the vocal cords were approximated, he made no orderly sound. Dr. Asch found a slight laryngitis of no importance.

The patient went home and remained speechless all day, and was seen by my associate, Dr. G. de Forrest Smith, in the evening. What occurred during and after that gentleman's visit is contained in his notes.

"I was called to see patient about 8.15 P.M. He was lying upon the bed, but had not slept, recognized me and motioned that he could not speak, and I found that he could only say one or two words, and this with the greatest effort, and so all my questions were put so that he could answer them by nodding or shaking his head. He knew that he had had an attack in the morning, that he had seen Dr. Hamilton and Dr. Asch, and recalled various incidents of the day, answering intelligently my questions in regard to them. He indicated by motions that his inability to speak was due to 'a lump in his throat.' When asked if he had any trouble to think of the word he wanted, he shook his head, but shortly afterward hesitated in an answer, and when asked if this was due to his inability to think of the word, said 'yes.' Was asked if he had any loss of power in either side, and he motioned to his right arm and leg, and said that he felt a numbness and prickling on that side. On his grasping my hands with his, the right was perceptibly weaker.

"At one time he seemed confused as to which was his right or left side, and put up both hands, and after looking at first one and then the other in a puzzled manner, at last decided correctly, then smiled apparently at his confusion.

"All this time he had been half lying on the bed. He now intimated that he was tired, put his head down on the pillow and began to belch up wind, and as he appeared about to vomit, I called for a basin; but this was only the beginning of an attack, the muscles of the neck and right side assumed a state of tonic spasm, the extensors predominating so that the head was turned a little to the left and forcibly thrust back into the pillow, and the *right arm* and *leg* were firmly extended. He remained in this position about one minute, then taking two or three full inspirations, put his hand to his throat and *said plainly* 'something had fallen from there.' On being asked 'what,' he replied 'A bone has fallen from my throat.' I told him it was well that the bone had fallen, as now he could speak. 'Why,' said he, 'I have had no difficulty in talking.' On being asked why he had seen Dr. Asch, he said 'Who is Dr. Asch? I never saw any such person.' Further questioning showed that all the occurrences of the day (except those which had taken place immediately before the first attack) were an absolute blank, and he thought it still morning. He asked the time and I told him half-past eight o'clock, in the evening. At this he seemed much surprised and said, 'Why, I went to work this morning, how did I come here?' I then explained to him that he had been ill. After further conversation he said he felt sleepy, and, after resting a few minutes, he arose, put on his slippers, and came out into the room. He walked with difficulty, because of the loss of power in the *right side, which he said felt numb and*

[1] Proceedings of the Royal Society, No. 230, 1884.

sore, as if it had been pounded, also a sensation of pins and needles. After the attack his mind was *perfectly clear, and he could talk as well as ever*, and all that had happened before the attack in the morning he could remember perfectly well; but the interval between the two was a complete blank. His inability to speak seemed due, not to lack of knowledge of what he wanted to say, but rather to want of power to form the words, although there was no paralysis of the vocal muscles. When he did manage to say a word it was invariably the correct one, but it was always done with the greatest effort. The day after the attacks he remained at home; the next day he went to work, but his head felt heavy and confused. Two days after he complained of a 'pressure' on the left side and back part of the head, otherwise he was all right. At this visit he said that after I had left him on the night of the attacks, he intently thought, striving to recall the incidents of the day, and after a time concluded he could remember being at Thirty-third Street, but did not know how he got there. He thought he could recall going to see Dr. Asch, but would not know him if he should see him. I then asked him how questions were answered by him on that day; he answered he did not know, as he 'had not thought of that;' then, after a few moments' reflection, said he must have written the answers. He was then shown some of the answers he had written, which he recognized, and by an effort of memory could recall some of the incidents of writing them. He was still unable to remember anything that occurred after his arrival home previous to the last convulsion."

January 27, 1885. This patient subsequently suffered from several attacks in which the psychical element predominated. His head presented a remarkable deformity, there being a prominence posteriorly which might be compared to a *caput succideum*, only it was entirely osseous. The upper margin was separated from the anterior parts by a deep sulcus.

A case in which a remarkable speech defect was observed is that reported by Dr. Edward B. Gray,[1] of England.

Case VII.—The subject was a little girl aged seven, who in every respect was healthy, well nourished, and an intelligent child. Her skull was firmly ossified, large in proportion to the body *especially in the occipital* half. The parents were alive and healthy. She was one of nine children, two of whom had died, one a little girl of three years, who "had had a very big head," and another a boy, of convulsions, a month after birth. The patient had always been a bright child, and no history of any previous ill-health is known. In the latter part of the year 1859, she had been working very hard in school, desiring to head her class. About Christmas of this year the mother first noticed that she would have a vacant look, would or *could not speak for several seconds*, then would jump and run in a semi-choreic manner, in unusually high spirits. These attacks were so marked as to excite the attention of her playmates. She continued to have these attacks for the next three months (how frequently not mentioned) and then they assumed a graver form. No impairment was noticed in her speech until early in April, after which the fits became more and more frequent, and the speech defect greater. Soon after (April 25th) she entered the hospital, and although by no means a listless child, she was never observed to speak, or laugh, or cry. The organs of speech and facial expression were perfect, the tongue and facial muscles were fully under her control, and in every respect she was well, with the exception of the fits and inability to speak, laugh, or cry.

The fits came on very frequently (almost every hour of the day), without warning, "consisting of lossof consciousness" for about a minute, during which time the head was generally bent gradually forward till the chin touched the sternum, and irregular slight spasms of the muscles of the face and eyes took place. The right hand was generally stretched out in front, the index finger being slightly extended and the other fingers contracted as though she were pointing at some object. The tongue was never bitten. There was rarely any turgescence or lividity of the face. During the fits she used to make feeble guttural sounds, much like the noise of a guinea-pig. There was little intellectual disturbance, and the attacks were quite light.

The child under active treatment recovered entirely and was able to speak, and had during the time she was under observation a temporary disturbance of deglutition.

Dr. Gray, in commenting upon the case, says: "The loss of speech was not due to any want of effort, neither could it be attributed to forgetfulness of the meaning of words, or loss of (mental) faculty of combining them in a sentence. . . . She remembered words well enough, her difficulty was to articulate them. Nor, thirdly, could the loss of speech be ascribed to any paralysis of the muscles of the face or tongue."

Wernicke[1] has investigated the aphasiæ of posterior origin, which undoubtedly include those found which are disconnected with facial or hypoglossal paralysis, and in cases where it was associated with hemianæsthesia without hemiplegia he found a lesion of the posterior part of the posterior third of the internal capsule. He has traced out certain fibres which pass backward "along the outer border of the lenticular nucleus in the external capsule, lying just beneath the upper part of the island of Reil, till they reach the posterior angle of the nucleus, over which they curve and then *enter the posterior third of the internal capsule between the sensory tract from the surface of the body, and the visual tract to the occipital lobe.*" In the cases associated with hemianopsia and anæsthesia, there was undoubtedly some lesion affecting this region, but it is necessary to go a step further to determine its extent in those cases in which mutism is the dominant feature, and in which no visual disturbance of moment existed.

Münk and Krause[2] settled beyond question the existence of certain occipital centres, which *psychically* presided over the muscles of the larynx and others concerned in the movement of the jaws and tongue. Krause conducted a series of experiments upon ten dogs, by extirpation and otherwise, and found that when the mutilation had been made, the dogs lost the power to bark and only uttered a hoarse whine, or the sound such as young puppies usually make. He afterward killed several of the dogs, and found besides the degeneration of the cortical centres he had destroyed, many collapsed and discolored nerve-fibres, especially in the *ganglion mammillare*, through which they passed to go to the larynx.

In these cases, especially the former, the patient's behavior bears out the idea that the mutism simply depended upon the inability to use the various muscles of the larynx in the formation of orderly speech sounds. The tests employed demonstrated beyond doubt that there was no actual paresis, but there undoubtedly existed for a time a complete suspension of function of the cortical laryngeal centres.

(To be continued.)

Benzoate of Ammonia is relied upon by some in enlargements and irritations of the prostate gland, and in hypertrophy of the bladder with alkaline urine. It distinctly renders the urine acid when phosphatic deposits are present. It combines also with the glycocin or sugar of gelatine in the bile, and has some obscure curative relation to some bilious troubles. In jaundice there is a deficiency of glycocin. The dose is fifteen to twenty grains.

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[1] Medical Times and Gazette, November 9, 1861.

[1] Fortschrift der Med., January 15, 1884.

[2] Oral communication before Physiological Society of Berlin. [Nature, December 13, 1883.

THE MOST SENSITIVE AND CREDIBLE TESTS FOR ALBUMIN.

By HENRY B. MILLARD, A.M., M.D.,

NEW YORK.

SINCE my contribution to THE RECORD of May 31, 1884, upon the tests for albumin, I have gone over the ground many times again, both in the way of clinical practice, and in the laboratory, with new experiments.

There is a danger from too many contributions upon this subject, that over-refinement, as it were, the creation of imaginary proteids, etc., in the brain of the practitioner, may perplex in many instances where there is no occasion for doubt. Proper and thoroughly conducted researches, however, should simplify examinations, and diminish instead of creating perplexity.

It should be superfluous to say that the positive determination of the presence or absence of albumin and its approximate quantity is a matter of serious import. But it is not always so regarded. It has not yet been positively shown that the presence of renal albumin is perfectly physiological, that is, that it is ever voided without at least some disturbance of the renal circulation. Its presence without some known cause is to be regarded always with suspicion. Of all the rational and physical phenomena, as microscopic appearances, etc., accompanying renal disorders, the absence or presence of renal albumin and its amount, as shown by frequent and thorough examinations, is one of the most important. But I have known many to assert that to test the urine for albumin by heat and nitric acid are all-sufficient, and that if these do not show it the amount present is unimportant. As will be seen, I give full credit to the value of these tests; my observation, however, is to the effect that even these are, as a rule, used so as not to elicit their best indications: turbidity of urine, dirty test-tubes, and indifferent light, among other things, make them often almost valueless, and in some conditions, without care, they are liable to lead to errors.

I have sometimes been questioned as to the utility or need of reagents that show 1 part of albumin in 200,000 or 300,000 of urine. My reply is, that if it be of sufficient importance to examine the urine at all for albumin, it is extremely desirable to have reagents capable of showing it without error, no matter whether in minute or large quantities, and it is no small recommendation to a test that it will show clearly such a small trace as $\frac{1}{25}$ of a grain in 10,000 grains of urine.

Assuming the most important desiderata in tests for albumin to be: first, *accuracy*, and second, *delicacy*, I will endeavor to show how four, especially, combine these attributes to a considerable or nearly perfect degree, the manner in which I have ascertained their capacities, and the possible sources of error from each.

I have used in my experiments the ordinary dried albumin from blood, used mostly, I believe, in photography, but not chemically pure (artificially prepared and dried egg albumin I have employed to test certain reagents and for comparison), artificial peptones and peptone powders, urine, albuminous and non-albuminous, and lastly, chemically pure serum—albumin made expressly for me by Merck, of Darmstadt, and bearing his seal as chemically pure, a guaranty than which there could be none better. Nevertheless, I have tested this for other protein substances than albumin, but have found none. Of albuminose it certainly contains none. I have also employed solutions of most of the alkaloids in medicinal use, the gum resins, etc.

The reagents which I have found to be of the greatest value are nitric acid, heat, Tanret's test, and my own test of phenic and acetic acid and potash. I will say *in limine* that in testing for albumin, and, especially for minute quantities of it, many precautions are necessary; the test-tubes should be clean and bright, there should be a clear light and some sort of a dark background. When I speak of the possibility of detecting by certain reagents, 1 part of albumin in 300,000, it must not be implied that this can be done without care, and even then its recognition is possible only by very careful observation and some experience.

Nitric acid.—To employ this test, the urine, unless perfectly clear, should be boiled with one-fourth its weight of liquor potassæ and filtered. If minute quantities only of albumin be present, I prefer to put the urine in the test-tube, and let the nitric acid trickle along the side to the bottom.

I have found this test to show 1 part of albumin in 100,000, both in a solution of Merck's albumin in distilled water, and with albuminous urine. It *scarcely* shows it, however, and I think 1 part in 100,000 is the extreme limit. The method of ascertaining the capacities of the tests, I will refer to hereafter.

Sources of errors and objections.—As is known, the urates may show a white zone, which will not, however, be produced if the urine be thoroughly heated by letting the test-tube stand in hot water. It does not precipitate peptones. According to Roberts,[1] it shows mucin, which forms a very light stratum above the albuminous zone; it assumes the form of a distinct haze, quite different from the dense opalescent zone in contact with the nitric acid; on twirling the test-tube the mucin becomes diffused, while the albumin resists a considerable amount of agitation.

Heat.—The urine, if not perfectly clear, should be boiled and filtered as directed above. It should then be rendered slightly acid by the addition of acetic acid, or if not boiled with potash, unless very acid, a drop of acetic acid should be added to three drachms.

I have found it to show 1 part to 100,000 of a solution of Merck's albumen, and about the same in albuminous urine; anything beyond that it did not show. Thus, its sensitiveness appears to be about the same as that of nitric acid. It shows 1 part in 100,000 with rather more distinctness, and more satisfactorily, however.

Objections and sources of error.—The turbidity produced by the phosphates with heat clears up on the addition of a few drops of nitric or acetic acid, but when a scarcely visible cloud from albumin is present, this may be scattered by the addition of a few drops of *any* substance. A most serious objection, however, is that when mucin is present *without albumin*, heat will produce cloudiness. Again, in the urine of cystitis, or where there is much leucorrhœa, even after filtration, acetic acid alone produces a slight cloud, and this is intensified by boiling. Allowance can be made for this when the quantity of mucin is considerable and that of albumen slight by observing the haze produced by nitric acid. According to Roberts the addition of a fourth part of a saturated solution of common salt will prevent the mucin reaction. Nevertheless, I have found the amount of turbidity upon the addition of acetic acid, when there was but a minute quantity of albumen, very troublesome, and sometimes very marked without much cystitis, even after filtering. This circumstance often destroys the value of this test. Roberts also claims to be able to detect 1 part of albumin in 250,000. Careful and repeated experiments have convinced me that it is not so sensitive.

The double iodide of mercury and potassium (Tanret's test), employed by Winckler and others as long ago as 1830 in detecting alkaloids, was first introduced as a test for albumin by Tanret in 1872. Full directions for its proper preparation may be found in my article in THE MEDICAL RECORD of May 31, 1884. It is considered to possess the disadvantage of precipitating not only albumin, but the peptones and all protein bodies; that it precipitates the peptones is certain enough, but these may be distinguished from albumin by disappearing immedi-

[1] Medical Chronicle, October, 1884.

ately upon heating or the addition of alcohol. The resinous compounds disappear by alcohol, and the alkaloids and the urates in excess, that may be precipitated, disappear by heat.

It may produce a reaction with mucin and in purulent urine, even after filtration. The nitric-acid test can be employed to form an idea of the amount of mucin, but, in doubtful cases, the co-operation of the microscope will almost always indicate the causes of disturbance by the reagent.

According to Capitan, this reagent will detect the presence of 0.0035 c.c. in 1,000 grammes, about one-twentieth grain to 16,000 grains, or 1 part to 320,000.

I have found it to show, with Merck's albumen, 1 part in 200,000. Beyond that the reaction was somewhat doubtful. With albuminous urine it showed very easily 1 part in 200,000, and in 300,000 clearly enough, but faintly. So it would appear, as is also the case with the next test I shall mention, either that in the preparation of blood-albumin artificially some of the protein elements may be lost, or that in albuminous urine some protein elements may exist which we know nothing of. Certainly the turbidity produced in the 300,000 parts of urine did not disappear, but was intensified by boiling; nor have I ever found such a reaction with non-albuminous urine, unless in the case of cystitis, etc.

But even if this reagent precipitates all protein bodies, they readily disappear by heat. That these bodies often exist in albuminous urine may be shown in many ways, as, for instance, coagulating the albumin by heat and filtering, when, if peptones be present, they can be shown by various reagents, as Tanret's test and others. I do not wish, however, to dwell more upon this matter of peptones and proteids than is necessary to the elucidation of the action of tests with reference to them. To show, however, that protein bodies may be found where there has not been peptonization, I will instance the following experiment: I boiled in a test-tube a small quantity of Ferre's beef-powder, which I know to be chemically pure and to have undergone no process except drying and powdering. I then filtered it; the filtrate showed no albumin, but gave a precipitate and distinct zone with Tanret's test, picric acid, and my own test of phenic and acetic acid and potash. This disappeared at once by heating. This certainly was neither a peptone nor albumin, but was undoubtedly some protein substance liberated by boiling. How many of these protein substances there are afloat in the blood and urine we cannot conjecture.

My examinations of the artificial peptones, although these may not be exactly similar to those found in the blood and urine, were nevertheless of value, as showing clearly that while certain reagents precipitate albumin and peptones, the peptone precipitate produced by certain ones of these disappear wholly by heat and alcohol, while that produced by others, as picric acid, disappears only in part by heat. I have used many of the solutions of peptone, peptone powders, etc., in the market; none of those that I have used show albumin in the filtrates.

According to Méhu the peptones are not often found in the urine, and there is too great a disposition to refer to them many of the phenomena produced by reagents. In cystitis, blennorrhagia, or severe leucorrhœa, the decomposed epithelia may produce a reaction with Tanret's test without albumin peptones or mucin being present. Due consideration must, therefore, be given to this fact. I often direct women suffering from profuse leucorrhœa to syringe the vagina before urinating.

The phenic-acetic acid and potash test.—This reagent, which has given me great satisfaction, was suggested to me by Méhu's reagent of phenic and acetic acid and alcohol for ascertaining the percentage of albumin. The objection to Méhu's formula is that, while a delicate test for albumin, this disappears upon applying heat, which makes it impossible to distinguish it from the proteids and alkaloids.

My formula is as follows:

℞. Acid. phenic. glacial. (ninety-five per cent.)	ʒ ij.
Acid. acet. puri	ʒ vij.
M. Add liquor potassæ	ʒ ij. ʒ vj.

It is important that glacial, that is, chemically pure, acetic and phenic acid should be used, both for the accuracy of the test and the perfect clearness of the solution. The proportion of liquor potassæ I have indicated is not arbitrary, but has been the result of careful experiment, so that the mixture would be neither too acid nor too alkaline, otherwise, as is well known, a soluble acid or alkali-albumin would be formed. The advantages of this test are, that although it gives a precipitate with strong solutions of quinine and strychnine and the peptones, this disappears readily upon the application of heat and with alcohol; the cloudiness produced by the gum resins and copaiba disappears by alcohol. Though less liable to do so than Tanret's test, it may, like it, produce a very slight reaction in the urine of cystitis, even after filtration. The same means of recognizing the cause of the reaction may be resorted to that are recommended when Tanret's test is used.

Another possible source of error, easy, however, of avoidance, is that an excessively acid urine might form with the acids of the test an acid-albumin, disappearing on the application of heat; or in very alkaline urine an alkali-albumin might be formed; in the first of these cases a little more potash, and in the second a few more drops of acetic acid might be added, when the precipitate would reappear, the cloud, however, produced by protein bodies would not reappear. The necessity of adding either of the above reagents is, however, exceedingly rare. I find that with Merck's albumin this test shows distinctly 1 part in 200,000, and faintly 1 part in 250,000. With albuminous urine it shows 1 part in 300,000, showing, like Tanret's test, a smaller proportion than in Merck's albumin. It produces with 1 part in 150,000, and above that, a light blue tint. Its reaction in 1 part in 300,000 is, however, clearer than by Tanret's test. I need hardly say that when albumin exists in such minute quantities the urine should be clarified, and great precautions should be taken, the urine being allowed to trickle slowly down upon the reagent. In such cases a zone is not formed, but a greenish tinge with Tanret, and a blue with my own test, is produced; with this last, if there be much albumin, a whitish turbidity ensues, or a thick whitish layer.

Method of procedure.—The albuminous urine I employed in the above computations was that of a patient suffering from chronic interstitial nephritis of a mild type; the specific gravity was 1.022, normally acid; there was no cystitis, and it was, except being albuminous, about normal in every way. It contained, by Roberts' method of estimation, one-fifth of one per cent. of albumin, or 1 part in 500.

With this figure to start from, I made dilutions with distilled water of 1 part in 10,000, 100,000, etc. I made a ten per cent. solution of Merck's albumin in distilled water, and the other dilutions from that. In testing for minute quantities, as 1 part to 100,000, and above that, with each of the above tests, I placed side by side with the albuminous solution and urine, distilled water and non-albuminous urine treated the same way for comparison. Even distilled water with nitric acid and my own test will show a faint bluish zone at the point of contact, and it is necessary to be able to recognize the difference.

My experiments with all the substances I have used, and various reagents I have not here referred to, have numbered many thousands. My

Conclusions, as the result of these experiments, are: That nitric acid shows 1 part of albumin in 100,000. Heat shows 1 part in 100,000, but rather more clearly than nitric acid, and in examinations of urine I often find it to show minute quantities of albumin where nitric acid

does not. Tanret's test and my own test will show 1 part in 300,000; the latter test the more clearly; this precipitates fewer of the alkaloids than Tanret's.

Nitric acid and heat show almost exactly the same reaction and percentage with artificial albumin and albuminous urine. Tanret's test and my own show the reaction better in the urine than in the artificial preparation. I think, for practical purposes and ordinary clinical use, we may show with ease, by nitric acid, 1 part in 100,000; heat, 1 part in 100,000; Tanret's test, 1 part in 200,000; the phenic-acetic acid and potash test, 1 part in 200,000; heat showing it more clearly than nitric acid, consequently being more sensitive, and my own test showing it more clearly than Tanret's.

Heat, although somewhat more sensitive than nitric acid, is often quite unreliable from the turbidity produced by it with mucin, and this particularly after acetic acid has been added.

Finally, there are cases in which no single reagent is sufficient, and in which, in order to determine the presence of albumin, the employment of several is indispensable.

TWO UNUSUAL CASES OF APOPLEXY, WITH ANATOMICAL DEMONSTRATIONS.[1]

By GEORGE L. PEABODY, A.M., M.D.,

VISITING PHYSICIAN AND PATHOLOGIST TO THE NEW YORK HOSPITAL.

CASE I.—W. J. F——, aged nineteen years, a native of the United States, unmarried, a collector by occupation, was brought into the New York Hospital by ambulance at 3.30 A.M., December 5, 1884. He was in a condition of coma, and nothing regarding his history could be obtained from him. Later his father came and gave a few facts in his history. The patient had been in perfect health a couple of hours before, and so far as the father knew there was no cause for his present illness. When first seen his pulse was rapid, bounding, and incompressible; his respirations were stertorous; his pupils reacted sluggishly, though they were sensitive to light. He was having general clonic convulsions at short intervals, the convulsive movements being rather more marked upon the right side than upon the left. His reflexes were abolished. On the suspicion of possible poisoning he was given apomorphia hypodermically, which produced an effort at vomiting. His respiration gradually assumed a Cheyne-Stokes character, and his pulse gradually failed till he died at 4.20 A.M., fifty minutes after he came under observation.

The autopsy was made ten hours after death. The body was that of a well-nourished, well-developed man of medium weight. There was very slight œdema of the feet and ankles. The adipose layer was thin, and there was no appearance of external violence.

Head.—The convolutions of the vertex were generally markedly flattened. The vessels of the pia *in the sulci* were congested; on the surface they were anæmic, doubtless from the same internal pressure which produced the flattening. Both lateral ventricles and the third and fourth ventricles were distended by blood, partly coagulated, partly fluid. There was a rent in the floor of the right ventricle, chiefly in the corpus striatum, but also in the thalamus, nearly two centimetres deep, externally to which the brain tissue was hemorrhagic and broken down. On the median surface of the rent the brain tissue was but little changed. A clot of blood, a little longer than a hen's egg, and not quite as thick, lay partly in the rent and partly in the cavity of the ventricle.

The *heart*, which I have the pleasure of showing you this evening, was of normal color and consistency. There was marked hypertrophy of the left ventricle; there was atheroma in both of the coronary arteries near their origin, but not enough to interfere with their lumina. The valves were competent, and there was the usual patch of atheroma in the anterior segment of the mitral valve.

The *aorta* was, as you will see, *very small*. Its diameter at the beginning of the transverse portion of the arch was 1.6 centimetre, and just above the iliac bifurcation it was only one centimetre in diameter.

The *lungs* were congested and œdematous.

The *spleen* was normal.

The *kidneys* presented interesting lesions. The left kidney was, as you will see, very small, measuring only ten centimetres in length. Its capsule was not adherent, its surface was very granular, its cortex was very thin, its markings were indistinct. Both fat and urates were visible to the naked eye in the straight tubes near the papillæ. The microscopic examination revealed very numerous areas in the cortex of completely atrophied kidney tissue, in which vessels and tubes were obliterated, and Malpighian bodies were converted into little balls of dense connective tissue covered by droplets of fat. Fat was also present in the tubes of the pyramids, here and there. The ureter was normal.

The right kidney was abnormally large, as you see, doubtless as the result of a compensatory hypertrophy. It was congested, but careful examination, both by the naked eye and by the microscope, failed to detect any lesion of importance.

The *stomach*, *intestines*, and *liver* were normal.

The *arteries* generally appeared thicker than normal; and microscopic examination of both internal carotids, one common carotid, both renal arteries, also of small arteries in the tissue of the atrophic kidney, all revealed the evidences of the lesion known as endarteritis obliterans in a marked degree. I have placed under the microscope sections of most of these vessels for your inspection, and the condition described will be readily recognized.

In regard to syphilis no history could be obtained. I present the case because of its being somewhat unusual to find these lesions at this age. A careful search failed to detect miliary aneurisms in the cerebral vessels. This does not, of course, preclude the possibility of their existence; but cases enough have occurred in which they have not been found to lead us to believe that the results of Charcot and Bouchard, who found them in eighty-three consecutive cases are, to say the least, unusual. So far as I am aware these results have never been duplicated by other observers.

It is well recognized by pathologists[1] that a normal heart or a normal aorta may rupture under circumstances of unusually high tension. Why not also a normal cerebral vessel? With the increased arterial tension in this case, due to a very general thickening of the arteries, such as has been described, and the hypertrophy of the left ventricle, together with the nephritis and the congenitally small aorta, may not a normal vessel have ruptured and given rise to the hemorrhage? It seems more than likely to me, and it is also in that way that I explain the second case, although there seems to be more likelihood of an aneurismal condition of cerebral vessels in this case than in the one just related.

CASE II.—For the use of this case I am indebted to Dr. W. H. Draper of this city. The patient was a large, unusually well-developed boy, nineteen years of age, of good heredity and habits (except as to a recent overindulgence in cigarette smoking), and was at the time in excellent general health. On the evening of April 5, 1884, after an unusually hearty dinner, in which, however, stimulants had not been partaken of, he ran rapidly a distance of about four hundred feet. Immediately thereafter he complained of an agonizing pain in the head, and an absence of all sensation in his legs, which in a few moments was followed by a convulsion, and this by coma and death. His physician arrived in time to note

[1] Read before the Practitioners' Society on March 6, 1885. (See MEDICAL RECORD, March 28th, p. 360.)

[1] Vide V. Recklinghausen, Handbuch der Allgemeinen Pathologie des Kreislaufs und der Ernährung, p. 824.

the manner of his death, which was distinctly due to a cessation of respiration before the heart ceased to beat.

The autopsy was made sixteen hours after death.

Rigor mortis was well marked, and there was no œdema.

On removing the calvaria the dura mater was observed to be dark in color from the presence of blood beneath it. The convolutions were flattened.

Everywhere between the dura and pia there was a small amount of extravasated blood. This was most abundant about the pons and medulla. In this latter situation there was a large quantity of clotted blood beneath the pia and in its meshes. The vessels at the base were normal, except that both internal carotids appeared thicker than usual and did not collapse as these vessels usually do on being emptied of their blood. There was no appearance of atheroma about them, nor were they at all less translucent than usual. The lateral ventricles were found to contain bloody serum rather more in amount than that of the serum which is usually found in them. The third ventricle was filled by a soft, recent clot, and the fourth ventricle was found completely filled by a similar clot.

The origin of the hemorrhage was found in an extensive laceration of the posterior commissure. On washing away the blood with a very gentle stream of water, this laceration was distinctly visible, and in it were to be seen numerous lacerated vessels, some of them of large size, which had been separated from the surrounding brain-tissue and moved about in the stream of water, being still attached to the brain tissue, each by one extremity, the other being free in the deep laceration.

The iter a tertio ad quartum ventriculum was filled with a coagulum similar in color and consistency to that seen in the third and fourth ventricles.

Microscopic examination of sections of the two internal carotids revealed marked hypertrophy of their muscular coats, the lumen in each being perceptibly narrowed. The other coats were normal. The vessels exposed by the laceration of the posterior commissure were next examined, and upon one of them a distinct varicosity was observed, but no other lesion.

Examination of many vessels from other parts of the brain failed to reveal anything abnormal in them.

The organ of secondary interest was the *heart*. Here there was seen, as is still visible, very slight hypertrophy of the left ventricle, and the endocardium of this ventricle is also seen to be markedly thickened and white. The valves are all competent; but the aortic valve consists of only two semilunar cusps, which are equal in size and evidently congenital. These cusps are both rather thicker than usual, but are smooth, and otherwise healthy in appearance. The coronary arteries are normal, as is also the muscular tissue of the heart.

The *aorta* is much smaller than normal in calibre, as are also the great vessels leading from it. The descending thoracic aorta has an internal circumference of four and a half centimetres. A small patch of atheroma is seen just above the aortic valves. Otherwise its structure appears normal.

Of the other organs the pleuræ, lungs, spleen, kidneys, stomach, and liver were carefully examined and found to be intensely congested, but not to be structurally changed.

In this case, too, the arterial tension was doubtless very high. We have again the congenitally small aorta, the hypertrophied left ventricle, the muscular hypertrophy in the two internal carotids, with the possibility of similar changes elsewhere—all these causes predisposed to a rupture. To them was superadded the increased force and frequency of the heart's action caused by the violent exertion of running after a full meal.

I have the pleasure of showing you the heart and aorta of this case.

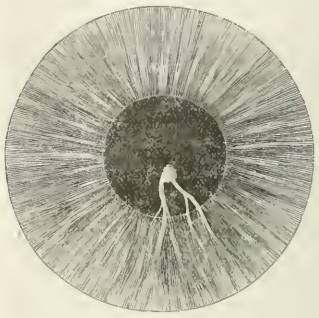
A CASE OF PERSISTENCE OF THE PUPILLARY MEMBRANE WITH ILLUSTRATION.

By F. C. RILEY, M.D.,

LECTURER ON OPHTHALMOLOGY NEW YORK POST GRADUATE SCHOOL; CONSULTING OPHTHALMOLOGIST AND OTOLOGIST NEW YORK INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB, ETC.

THE persistence of the pupillary membrane with its accompanying phenomena is of interest from the fact of its infrequency. The pupillary membrane is a vesicular structure of embryonic life that covers the pupil during its existence as a series of vascular loops which nearly meet at the point which subsequently becomes the centre of the pupil.

About the seventh fœtal month these vessels begin to be gradually absorbed, and rarely exist after birth. The accompanying cut shows the continued existence of a portion of this membrane, persisting in a male patient who recently consulted me on account of certain painful sensations occurring in his right eye. A cursory examination revealed a small spot, of which he had spoken, on the pupil, which I at first thought to be an opacity of the cornea. Examining by oblique illumination, I could distinctly trace the muscular fibres of the outer iritic circle as they gradually narrowed down to the fineness of a delicate silk thread, running upward from the lower segment of iris, and forming an almost perfect arc as they dipped down into the pupil to unite at a point but slightly below its centre.



Four fibrinous tendrils presented; the two of the left and right side, respectively, uniting before becoming adherent to the lens capsule, but not until after having passed the pupillary border.

The accompanying drawing was made by the patient, with the aid of a concave mirror and condensing lens, and represents most accurately the appearance of the abnormality.

With the ophthalmoscope, with a strong convex glass, the delicate muscular fibre of the iris can be easily traced and its action studied. When the stimulus of light is brought to bear on the eye, the pupil, contracting, shows the adherent fibres lying quiescent in the aqueous humor. As the pupil dilates the outer circle undergoes a contraction, and as these fibres belong to that portion of the iris they contract, and the delicate thread-like processes become somewhat taut, and, doubtless, at times may drag on the anterior capsule of the lens to a slight degree.

The "spot on the pupil" was first discovered some fifteen years since by the patient, while endeavoring to "sight" his rifle. The hole in the sight being but a hair's breadth in diameter, the opacity prevented his obtaining a view of the target through it, and in consequence the left eye was resorted to for such purpose. The test of vision revealed the following: O. D., V.$=\frac{20}{15}$, Jaeger No. 1 at 1 foot; field normal.

He complains of a sense of weakness in the eye at times, especially after long exertion at his professional duties, that of an artist. The contraction of the fan-shaped bundles of muscular fibres that are connected so intimately with the delicate structure of the capsule of the lens doubtless produces an irritation of the ciliary nerve terminals that would account fully for the pain and lachrymation. Neither are, however, very intense, and when they become annoying it is his custom to put over the eye a shade that excludes it from all participation in

the visual act, when a subsidence of the phenomena supervenes.

In connection with the foregoing I may add that a slight conjunctivitis existed which readily yielded to proper treatment.

That the eye is hyperæsthetic to outward irritation there is no doubt, but I am of the opinion it is due entirely to the connection between the iris and lens, there being no refractive error or other lesion to produce it.

105 Madison Avenue.

ANTIPYRIN IN PNEUMONIA AND OTHER FEBRILE DISEASES.

By LEONARD WEBER, M.D.,

NEW YORK.

Antipyrin was first produced by Dr. Knorr, of Erlangen, and introduced into practice by Dr. Filehne (*Zeitschr. f. klin. Med.*, 1884, vol. vii., No. 6, p. 641). It is an alkaloid derived from chinolin, and, according to its chemical composition, would be "dimethyloxychinicin." A white, crystalline powder, it is freely soluble in cold and warm water, also in alcohol and chloroform, and has a somewhat bitter, but not exactly disagreeable taste. It may be given by the mouth in an aqueous solution with some syrup and a drop of the oil of peppermint, or done up in a wafer; also by the rectum or hypodermically. From one to two or three grammes (fifteen to thirty or forty-five grains) as a single dose has been given to adults, and one-half to one gramme to children. Doses of one or one-half gramme every two or three hours, together four to five grammes *per die*, are generally of good service, and sufficient to keep the temperature at a moderate degree, in typhoid fever, for instance, and may be continued with safety for a length of time.

In order to produce a decided and enduring antipyretic effect with the remedy Dr. Filehne originally advised that six grammes should be given in hourly intervals of two grammes for each dose. That this method is not without danger is shown in a recent report on the use of antipyrin in the Dresden City Hospital, by Dr. Jusinelli (*Deutsche Med. Woch.*, March 5, 1885). After three such doses the temperature fell, in one case of typhoid fever, from 39.6° C. to 35° C., in another from 40° C. to 34 4° C., and in a third from 39.6° C. to 34° C. Dr. Jusinelli did not notice any symptoms of severe collapse in these patients, but reports their condition as by no means comfortable for the time being.

Thus far I have tried antipyrin in about fifteen cases of pneumonia, bronchitis, and scarlet fever, and have either given two or three full doses in hourly intervals, where it was my object to reduce a dangerously high temperature as fast as could be done; or small doses administered once in three hours, in cases in which I desired the temperature not to go above 101°. It will suffice for the purposes of this short communication to recite three out of the whole number of my cases, to show the two different ways in which I have given the remedy, and the results obtained. My first case was that of Clara W——, five and a half years of age, whom I found afflicted with double pneumonia, more extensive on the right than the left side, on December 19, 1884. Temperature in the morning on that day 104.5°, the same in the evening.

December 20th, A.M., temp. 104.5°, slight delirium; 15 grains of antipyrin administered per rectum at 11 A.M. and at 1 P.M. At 5 P.M., temp. 100.5°, sensorium free.

December 21st, A.M., temp., 102.5°; 15 grains of antipyrin by the mouth at 11 A.M. and 1 P.M. At 5 P.M., temp. 100.5.

December 22d, in every respect the same as on the 21st.

December 23d, resolution takes place.

My last case thus far has been that of Mrs. R. N. C——, forty-three years of age, of very spare habit, but nevertheless strong, with a good pulse and decidedly nervous temperament. Within the last ten years she was under my care twice for croupous pneumonia, and made a complete recovery from each attack.

On March 16th, I found her again with pneumonia in posterior portion of right upper lobe, and well-marked but not extensive pleuritis on the right lower side. Temp., 103°; pulse, 106.

The pleuritis was the cause of severe pain, and the latter interfered with the respiration. A blister was applied to the lower right side of the thorax, and Dover's powder and calomel, five grains each, were given.

March 17th.—At noon, temp. 101.5°, pulse 100; pleuritic symptoms better, respiration easier, pain entirely relieved; previous signs of pneumonia more marked, but not extending beyond the lower border of the upper lobe. Patient had slept some during the night, and had two or three loose passages in the morning.

March 18th.—General condition, pulse, and temperature about the same as before. No medicine was given on this nor the preceding day.

March 19th.—At 11 A.M., I found a most alarming change in her condition. Although the pleuritis was better and the pneumonic area had not increased, as far as could be made out, the temperature had risen to 104.5°, the pulse to 110, the respiration to 44 per minute. The patient had become extremely restless, but not delirious; her face was of a dusky hue and wore a very anxious expression; her pulse, though fast, was good and strong; skin dry. Twenty grains of antipyrin were given by the mouth at 2, 3, and 4 P.M. When I saw the patient again at 9 P.M., I found her in a pretty profuse but warm perspiration, which had commenced between four and five o'clock in the afternoon. Temperature had fallen to 100.5°; pulse to 96, soft and somewhat small but regular; respiration, 38. Patient complained somewhat of nausea, but was otherwise comfortable and had no symptoms whatever of collapse.

The perspiration continued more or less all night until the morning of March 20th, and from that day until the 25th, her temperature ranged from 100.5° to 102°; pulse, from 95 to 100; respiration, from 36 to 40. Resolution began March 24th and proceeded gradually, and it was not until March 28th that her temperature and pulse returned to the normal standard.

In a case of scarlatina simplex with high fever in an otherwise healthy girl, seven years old, which I treated in February last, the temperature ran up to 105.5° on the second day after the appearance of the exanthema. From the third to the end of the fifth day I gave the child ten-grain doses of antipyrin every three hours during the day, reducing thereby the temperature to 102°, and keeping it there, without causing any unpleasant constitutional symptoms or influencing the course of the disease in any other way. She had later on a moderate attack of nephritis, but eventually got well.

The literature on the subject of antipyrin is already somewhat extensive, but all observers, I believe, agree, and I with them, that the action of the new antipyretic is prompt and decisive, and almost devoid of the unpleasant and sometimes dangerous symptoms of collapse often seen after full doses of kairin. Beyond a doubt, it has been of signal benefit in the case of Mrs. C——, and it will also be noted, that the temperature in her case did not rise again to an alarming height after the administration of sixty grains of the drug, though its use was not resumed subsequently nor any other febrifuge given to the patient. The remaining twelve cases in which I experimented with antipyrin were not such as to develop abnormally high temperatures, and ten to fifteen grain doses every two or three hours were given with the sole intention to reduce the temperature one or two degrees. The success was in that respect all that I expected. Finally, I believe it to be a good plan to begin in all cases with a relatively small dose, *i.e.*, fifteen to twenty grains for adults, ten grains for children, and wait for an hour or two before giving the second.

25 West Forty-sixth Street, March 28, 1885.

Clinical Department.

TRACHEOCELE, WITH THE HISTORY OF A CASE.

Dr. E. Fletcher Ingalls furnishes us with the report of a typical case of this rare and interesting affection. It was shown at his laryngological clinic at Rush Medical College. The patient was a laboring man, aged fifty-four, who suffered from chronic bronchitis and emphysema. He presented a tumor irregularly hemispherical in shape, about the size of half a hen's egg, and located directly in front of the upper part of the trachea in the position of the isthmus of the thyroid gland. This tumor was firm but elastic to the touch and moved upward and downward with the acts of deglutition, but its movements are much less than those of ordinary bronchocele. Pressure upon it did not materially lessen its size, but when the patient closed his mouth and nose and made a sudden expiratory effort, or when he coughed, the tumor suddenly enlarged to the size of a small orange, and the left side of the neck and supra-clavicular region would bulge out from one-half to three-fourths of an inch. By percussing over these regions and over the tumor, when thus disturbed, decided tympanitic resonance was observed. The larynx was normal and nothing peculiar could be discovered in the limited portion of the trachea which could be seen.

The diagnosis was tracheocele. The disease is a rare one. It occurs oftener in men than women, and in two cases at least it was congenital. The cause cannot always be ascertained, but it is usually some unusual strain on the expiratory muscles. Tracheocele sometimes causes dyspnœa and weakness of voice. In the present case it caused no inconvenience and required no direct treatment.

ANEURISM OF THE POPLITEAL ARTERY.

Dr. W. H. Carroll, of Paterson, reports the following case, occurring in the service of Dr. C. S. Van Riper, at St. Joseph's Hospital, in that city. The patient, a laborer, had noticed, for three months prior to admission to hospital, a swelling on the inner and posterior surface of the thigh, which was quite painful when the limb was flexed. On examination a small oval tumor, about the size of a pigeon's egg, was found lying a little to the inner side of the popliteal space. A distinct heaving impulse was felt on palpation, and on auscultation a bruit was perceptible. Several exostoses were felt on different parts of the limbs. A diagnosis was made of aneurism of one of the recurrent or lateral branches of the popliteal artery. Twelve days after admission the patient, while sitting in a chair, experienced suddenly a severe pain in the tumor, which became greatly enlarged and inflamed. Dr. Van Riper, who saw the case two days later, pronounced it one of rupture of the aneurismal sac and proposed operation. On the following morning, the patient being etherized, an incision six inches in length, was made through the skin and subcutaneous tissue. The muscles being retracted, the sac was exposed, and was found filled with a quantity of dark, clotted blood. This was turned out and the sac was thoroughly washed with a two and a half per cent. solution of carbolic acid. It was found that the rupture had been caused by the pressure of an exostosis situated near the inner bifurcation of the linea aspera. This was removed by the bone-forceps, and the femoral artery was then ligated at the lower end of the Hunterian canal and at the lower boundary of the popliteal space. The Esmarch bandage being then removed, it was found that a small opening existed in the popliteal vein. An attempt was made to ligate the vessel, but its coats were so soft that the ligatures would not hold. The vein, and as much as possible of the surrounding tissues, were then seized by the clamp-forceps and the latter were left *in situ*. The edges of the wound were then approximated by silk sutures, and dressed with iodoform and absorbent cotton. The patient was somewhat exhausted, but rallied under the influence of stimulants. On the sixth day the clamp was removed. The wound healed kindly, and the patient made a good recovery.

SYMMETRICAL DRY GANGRENE (SYPHILITIC ?).

Dr. Judson C. Brown, of Syracuse, N. Y., reports the following history, suggested by Dr. S. C. Clayton's case, of which an account was published recently in The Record: H. E——, widower, aged about sixty-three, occupation bartender. His health had always been good until a year ago, when his hands began to swell and became very painful. This condition having existed about three or four weeks, the last phalanges of his left hand began to sphacelate together, with three or four of those of his right hand. In looking about for a cause none could be found except syphilis, which he had contracted during the war, and of which he supposed himself completely cured. His treatment consisted of mercury and iodide of potassium, put together with local palliative measures. Gradually the line of demarcation formed. Amputation was advised by some of the physicians who saw him, but the patient refused to allow it. He came under my professional care about July 1, 1884. His treatment during last summer was mostly sustaining without specific medication, with an occasional shaving off of the dry and blackened tips of his fingers with a scalpel. This condition continued until, financially exhausted, he entered the St. Joseph Hospital, of this city, where he is to-day patiently waiting for nature to amputate his fingers, which she is certain to accomplish in time. Dr. Brown suggests that an early amputation would have been the wisest course in the case.

COCAINE.

We present below some additional reports concerning the use of cocaine in the production of local anæsthesia.

Dr. M. E. Alderson, of Russellville, Ky., writes that he applied a four per cent. solution to several ulcers of the rectum, and in fifteen minutes was able to cauterize them without exciting any spasm, and with the production of scarcely any pain, although some months before the same application had caused severe pain and spasm of the sphincter. By means of the same anæsthetic, he was able to inject some hemorrhoidal tumors without the production of any sensation to the patient.

Dr. A. E. Loewenthal, of Hoboken, N. J., was called upon to remove a cancerous tumor of the vagina, and, as the patient was exhausted by hemorrhage, he decided to employ local anæsthesia by cocaine rather than to use ether. The tumor was painted with a five per cent. solution for a period of about fifteen minutes, and was then excised with the Pacquelin knife. Cocaine was then applied anew, and the surface of the wound was thoroughly scraped, and finally the actual cautery was used to arrest the rather copious hemorrhage. The patient experienced no pain at all until the hot iron was used, and then complained but slightly.

Dr. Charles N. Dixon Jones, of Brooklyn, sends reports of a number of cases in which cocaine was used with the usual satisfactory results. The first was one of very sensitive urethra in a man, sixty years of age, suffering from stricture. Five minutes after the injection of fifteen minims of a four per cent. solution a sound was introduced and the stricture dilated without pain. The writer now uses an iodoform ointment, to which is added a small percentage of cocaine, to anoint his urethral instruments, with the result, he thinks, of greatly lessening the pain attending their passage. On another occasion he incised

the meatus without pain, and with the loss of but two or three drops of blood, after a previous application of a four per cent. solution on absorbent cotton. The third case was of excision of the tonsil. The fauces, tonsil, and wall of the pharynx were painted with the same solution, and the gland was removed without pain, although the patient could feel the knife dividing the tissues. Finally, a case of acute coryza and conjunctivitis was almost immediately relieved by a local application of the drug.

Dr. Frank C. Larimore, of Mount Vernon, O., relates a case of pulmonary and laryngeal phthisis, in which the suffering from dysphagia was extreme. By means of cocaine, applied three times a day to the ulcers on the epiglottis, vocal cords, and aryteno-epiglottidean folds, such relief was obtained that the patient could eat heartily and without the slightest pain. The applications were made regularly for three weeks, when death occurred from the pulmonary trouble.

A CASE OF TRICHINOSIS.

Dr. C. F. Damall, of Walnut, Iowa, writes that he was called to see a German woman, supposed to be suffering from chronic rheumatism. She was in a typhoid condition—morning temperature, 102.5°, evening, 105°; pulse 140; respiration, 36 to 40. There was puffiness of the face, dysphagia, dyspnœa, hoarseness, flabbiness of the muscles, pain on voluntary motion, and excessive and constant perspiration. The tongue looked like a piece of raw beef; the spleen was enlarged and painful; there was obstinate constipation, some tympanites, but no other signs of gastro-enteric irritation. The patient suffered from constant thirst, there was no appetite, and scarcely any sleep could be obtained. A diagnosis of trichinosis was made, and was confirmed after the patient's death, which occurred four days later. The woman had eaten no raw pork since coming to this country, in November, but had done so before leaving Schleswig-Holstein, in October. Immediately after eating the pork at this time she was taken with vomiting and diarrhœa, and was sick for about a week. After that pains were felt in the flexor muscles, and in the back and neck, but only when attempts at voluntary movements of the limbs were made.

A REMARKABLE CASE OF HYSTERIA.

Dr. T. B. Camden, of Parkersburg, W. Va., sends an amusing report of his investigation into the wonderful case related by Dr. J. P. Shafer in The Medical Record of November 22, 1884. He accompanied the doctor, by invitation, on three different occasions in May last, to the patient's house, and witnessed the alleged transit of the calculi from the kidney to the chamber vessel. The incidents of the first visit he describes as follows: "The doctor, after a bedside lecture on his mode of passing the calculi from the ureter and kidney, asked the patient if she felt any gravel. She located those along the course of the ureter. The doctor placed two fingers over the parts, proceeded to pull and push, stopping at times to have her locate the gravel, and keeping up the manipulation, and gradually bringing them along the supposed course of the ureter until he got *an inch above the pubes*, when he made steady pressure, remarking that the lady could tell when they slipped into the bladder by loss of pain. She said: 'There, it is in.' Another and a third were landed the same way, and all found the *new* entrance of the duct into the bladder just an *inch above the pubes*. The doctor remarked that at a certain point in the journey they caused the patient to 'jerk'—and she 'jerked.' The doctor would have me try my skill at the new feat, but, from lack of faith or awkwardness, I failed. The operation was not very painful. I have seen patients suffer agony in passing a renal calculus, so that opiates and chloroform had to be resorted to; but three were passed in this case in a few moments, and we all seemed to enjoy it. 'Now,' said the doctor, 'I have them in the bladder, I will introduce this catheter.' (It was a large female gum catheter, with a large eye.) 'She will then get up over the chamber, and pass the calculi through it into the vessel. If any are too large to pass through the catheter she will catch them *in the eye* of the instrument and pull them out.' I was struck with the skill necessary to scoop one into the eye. She got out of bed and over the vessel and soon we heard something drop, drop into it. 'There they come!' said the doctor. She soon produced the catheter from under her clothes and, sure enough, a big, rough, irregular stone peered from the opening. It almost smiled at me. Both doctor and patient appeared well pleased. I was presented with the find, 'which they both regretted was not larger.'"

Dr. Camden remarked that some of the stones were rather large to have passed through the catheter, and was answered by Dr. Shaffer that he also had observed the same fact, but presumed that it was due to the "peculiar expansive power of the urine over the gum." Among the stones taken from the chamber after the operation was a coal cinder. This was shown to the medical attendant, who ventured the suggestion that its presence might have been accidental. Upon being invited a second time to be present at the *séance*, the writer prepared a cork to fit the catheter and drilled in it a small hole of just sufficient size to allow a stream of water to pass. This he managed to insert into the catheter unobserved. The previous operation was repeated in all its details, and the stones rattled into the vessel with just as much ease as if the catheter had not been plugged. Still a third time the invitation to witness the manipulation was extended and accepted, and again the cork was slyly introduced into the catheter. But the stones laughed at all obstacles and dived into the water as before. Each time also one large fellow was deftly captured in the eye of the instrument. An attempt was made to pass some of the pieces of stone through the catheter, but they were far too large. The stones were all, the cinder of coal excepted, of the same general appearance. They were almost flat, comparatively smooth on one surface, and somewhat nodulated on the other, while the sides were very rough and showed unmistakable evidences of fracture. They were on an average five-eighths inch long by three-eighths inch wide, some being larger and some smaller. Some of them were examined by Curtis C. Howard, an analytical chemist of Columbus, O., who reported that they resembled ordinary limestone in composition, and "could not have been formed in the human body." The little ruse with the cork was explained to the attending physician, but "he insisted that the stones must have come from some place, and he was sure he could not have been deceived."

[In publishing Dr. Shafer's letter we added the comment that it appeared to be one of hysterical simulation. The reading of Dr. Camden's letter, and an examination of the specimens forwarded, leave no doubt that he has correctly interpreted the case. Dr. Shafer has also sent us on several specimens, and reasserts his original view that the case is a genuine one. In charity we must believe that he is imposed upon, as his specimens look like anything but renal calculi.—Ed.]

The Supply of Medical Men in Prussia.—During the official year 1883–84, 460 doctors of medicine and students presented themselves for the State's examination in the Kingdom of Prussia, against 404 in the previous year. Of the nine centres for examination, that of Berlin gave the worst results. Here 184 presented themselves, and 62 failed or withdrew. Königsberg was not much better; 36 presented themselves, and 15 failed. At Halle 42 were examined, and only 3 failed; while at Bonn 33 were examined, all of whom passed. Of the total number presenting, 125 failed, or twenty-seven per cent.

Progress of Medical Science.

Muscle-Grafting and the Regeneration of Muscular Fibres.—Dr. Eduardo Salvia has recently published at Naples a memoir embodying experimental researches on muscle-grafting (London *Lancet*, January 31, 1885). He recalls that Gluck was the first to prove, experimentally, that muscular tissue detached from a living animal has the power, when introduced into the tissues of another animal, of contracting organic adhesions and continuing to live. He observed that by adopting certain precautions, chiefly of antisepsis, pieces of muscle, without tendon, might be transplanted in rabbits and hares, and remain in the part grafted as true muscular tissue. If, however, the graft excited inflammatory reaction of some intensity, the histological characters of the engrafted tissue underwent fibrous metamorphosis. In 1882 Dr. Helferich, director of the surgical clinic in the University of Munich, sought to put to practical use the knowledge so far acquired by experiments in muscle-grafting. His clinical note, published in the *Archiv für Klinische Chirurgie*, embodies notes of a case worthy of reproduction. In removing a sarcoma from the front of the right arm of a lady, aged thirty-eight, Dr. Helferich had been compelled to excise a considerable part of the biceps, which had become infiltrated with the pathological product. Nearly the whole of the upper half of the biceps was removed; only a small bundle of muscular fibres as thick as a slate-pencil being left, on the outer side, continuous with the tendon. The resulting space was exactly filled with a piece of muscle, weighing three ounces and two drachms, detached from the thigh of a healthy dog just at the moment of grafting. Care was taken to insure accurate adaptation of the muscular surfaces, without bagging; and the grafted muscle was secured to the remaining portion of the biceps with thirty points of catgut suture. Some counter-openings were made in the skin for drainage, the external wound sutured, and a Listerian dressing applied. The arm, bent at an acute angle, was fixed to the thorax. The operation was performed with strict regard to antiseptic rules, but without spray. The process of recovery was uneventful. The first dressing was only on the ninth day. In consequence of detachment of some of the sutures, the lower angle of the wound gaped somewhat; and through it issued a necrotized fasciculus of the engrafted muscle, when a carbolized solution was injected through the drainage-tube. The piece of separated muscle was as long as the canine portion inserted, and about one-eighth its depth. On the eighteenth day a piece of skin as large as a shilling sloughed at the point of issue of the mortified muscular fasciculus. A month later the patient had completely recovered; but the limb was somewhat œdematous. After employing for two months constant and induced currents of electricity, the right biceps muscle regained its normal electro-motor power, alike on the right side, where a part of the original muscle remained, and on the inner side, corresponding to the engrafted muscle. The patient could move the forearm with power, and without the slightest pain, alike in pronation and supination. Dr. Salvia's experimental researches were instituted with a view to ascertain if it be possible to transplant muscles between animals differing in species, food, and habits. After a number of failures he succeeded, under strict antiseptic precautions, in engrafting into the thigh of a dog a portion of the rectus femoris of a rabbit. So perfectly did the transplantation succeed, that no trace of it could be discovered by the naked eye or the microscope when the dog's thigh was dissected three months later. Reviewing all the steps of his research, Dr. Salvia has felt justified in formulating the following propositions: First, it is possible to transplant a piece of the muscular tissue of an animal among the cut muscular fibres of another animal, although the two may be of different species. Secondly, the piece of transplanted muscle may become thoroughly united with the muscle into which it is grafted, without exciting suppurative or specific inflammation. For the attainment of this result it is necessary that the piece of transplanted muscle should completely fill the space resulting from the retraction of the ends in the excised muscle. It is equally necessary that the operation be carried out with the strictest antiseptic precautions. Thirdly, the union between the fibres of the transplanted muscle and those of the animal grafted takes place by new formation of young muscular fibres; these become immediately continuous with the fibres of the animal and of the graft, without leaving any trace of the primary point of separation. Fourthly, the grafted muscular fibres gradually lose their distinctive anatomical characters, acquiring those of the animal's fibres in which they live; no difference between them can, after a certain time, be detected by the most careful microscopical examination. Fifthly, the function of the muscle after the graft is perfectly restored, and that comparatively quickly, without the slightest indication of weakness or torpor.

The Treatment of Foul Wounds by Hot Air.—A correspondent of the *Lancet* writes concerning the above as follows: "The perusal of Mr. Kesteven's interesting paper on antiseptic steam irrigation of foul wounds induces me to offer you a description of a method of treatment by hot air that for some years I have used with marked success in cases of chronic, indolent, and varicose ulcers, syphilitic or otherwise, which are known to every practitioner, and are a source of annoyance to the patient and his friends from their offensive discharge. I employed a village carpenter to make the box I used. It is constructed of well-seasoned wood, the bottom, or floor, consisting of three layers about an inch apart from one another, the outer one, of stout sheet zinc or tin plate, is that against which the flames of the spirit-lamps impinge; the middle is of perforated zinc, and above that a wooden floor, also perforated by numerous holes. The apparatus is placed on the bed, and the limb put in it by lifting the two lids which are perforated by holes for the escape of hot air and vapor; the spirit-lamps, two or three in number, are lighted, and the temperature is quickly raised within the box to as great a height as can comfortably be borne by the patient, and maintained for two hours, the process being repeated morning and evening. Sprinkling the inside of the box with an ounce or so of terebene is of value in neutralizing the offensive smell from a large ulcer, and also probably contributes to the stimulative effect of the hot air. In syphilitic cases calomel may be vaporized by sprinkling on the zinc floor above the lamps. Before placing the limb in the box I well wash off as much purulent matter as possible with a syringe and a solution of boracic acid. After removal from the box I apply a piece of lint cut to the shape of the wound, but a quarter of an inch smaller, and soaked in a saturated solution of boracic acid, and either no bandage or just enough to keep the lint in place. I need hardly add that the rapidity of healing will be greatly accelerated if the patient will maintain the horizontal position entirely during the treatment; in other words, keep his bed or sofa. I have found large chronic ulcers of many years' standing heal rapidly under this process, and the limb remain sound and useful for years with the help of an elastic stocking or bandage. I think both Mr. Kesteven's experience and my own go to prove that in heat we have a manageable as well as powerful stimulant which is undeservedly neglected in treating the class of cases referred to."

Vomiting of Pregnancy.—Dr. Galceran reports a case of very severe vomiting of pregnancy which had resisted every effort to control it, but which was arrested at once by the application of ether to the epigastrium. The vomiting began again at two different times, but was controlled immediately by a fresh application of ether.—*Rivista Clinica*, February, 1885.

Tracheotomy in a Child Two Months Old.—Dr. J. Hassing, of Copenhagen, relates in the *Hospitals-Tidende* of January 14, 1885, the case of an infant two months old, suffering from congenital syphilis, who was suddenly seized one morning with intense dyspnœa, and was brought to the hospital in a cyanotic condition. An attempt to induce emesis having proved unsuccessful, and the dyspnœa increasing, tracheotomy was decided upon. The operation was performed at once and the edges of the wound were retracted by silk sutures, no canula sufficiently small being at hand. The urgent symptoms were immediately relieved, and the patient made a good recovery. There was evidently stenosis of the upper part of the respiratory tract, but the exact seat of the obstruction was not definitely ascertained. It was thought, however, to be due to œdema of the glottis from catarrhal laryngitis.

Helenine.—This is a new antiseptic which has been brought forward within the past few months. It is a concrete volatile oil, crystallizing in quadrilateral prisms, and derived from *inula helenium* or elecampane. It was discovered as long ago as 1660 by Lefebre, pharmaceutist to the king of France, but its medicinal properties were described only recently by Korab. It diminishes all the secretions, especially of the trachea and larynx, and will in small quantity prevent the sialogogue and diuretic action of jaborandi. It is a powerful antiseptic, one centigram (about $\frac{1}{7}$ grain) being sufficient to prevent putrefaction in a litre ($1\frac{3}{4}$ pint) of urine. On account of its antiseptic properties and of its affinity for the respiratory mucous membrane, it has been proposed as a remedy for pulmonary tuberculosis. Dr. Baeza has been studying this drug (*La Crónica Médica*, February 5, 1885) and has found its claim as an antiseptic to be well founded. We hope to be able to refer again to these experiments, which are not as yet concluded.

Electro-puncture in the Treatment of Lead Palsy.—Dr. Lopez Alonso relates the case of a man thirty-six years of age, a printer, who suffered from severe lead-poisoning. The hands and fingers were flexed and the electrical contractility in the extensor muscles was abolished. Not being able to produce contractions with the strongest currents when the electrodes were placed on the skin, the writer bethought himself of electro-puncture, which he had already employed in the preliminary examination. By this means the muscular contractility was revived, and after a few days reactions could be obtained with electrodes placed on the integument. In about a month the wrist-drop was cured and the patient was able to resume his occupation of type-setting.—*Revista de Medicina y Cirugia Prácticas*, February 7, 1885.

Prolonged Baths.—Dr. Danchez relates a case of gastric hysteria, with intractable vomiting, of two months' duration, in which a cure was obtained in a short time by means of tepid baths continued for from four to eight hours and repeated once a day. This mode of treatment has also been used with advantage in acute mania and in other nervous affections, in psoriasis and prurigo, and in surgical injuries. The baths should last from three to eight hours, and the temperature of the water should be maintained at a uniform height throughout. The water should not be too hot, but may range from 68° to 82° F., provided the temperature decided upon be kept invariable.—*Rivista Clinica*, February, 1885.

A Symptom of Meningitis.—From the study of a considerable number of cases of meningitis, Dr. Kering has convinced himself of the presence of a symptom which hitherto has attracted but little attention. In the majority of cases the classical symptom of rigidity of the neck and back is present, and in a few there are also contractions of the extremities. But in many cases, the author says in most, while there is rigidity of the neck and back, there is not any of the extremities as long as the patient lies in bed. If the legs or arms become flexed they can readily be straightened again. But if the patient be raised and placed, for example, sitting on the edge of the bed so that the legs hang over, the limbs become markedly rigid, and there is even a contracture of the knees and sometimes of the elbows in the flexed position. If now the patient be placed in the erect posture, the contractures disappear, and return again when the former sitting position is resumed.—*Raccoglitore Medico*, February 28, 1885.

Subcutaneous Urethrotomy.—In a letter of Dr. Eugenio Casati, from Vienna, to the *Raccoglitore Medico* of February 28, 1885, is described Dittel's method of performing urethrotomy. It may be called subcutaneous external urethrotomy. A large grooved sound is first introduced and passed down to the seat of the stricture, the groove looking toward the posterior part of the urethra. Then a rather slender tenotome is introduced beneath the skin and passed down until the point engages in the groove of the sound when it is driven forward, cutting the stricture from within outward. The writer states that the operation has given excellent results in Dittel's hands, but it is one that requires some skill, since it is performed as it were in the dark, and the operator can be guided by the sense of touch alone.

Treatment of Sprains.—According to M. Marc Sée there are two indications in the treatment of sprains: 1, To provoke rapid absorption of the fluid effused around and within the joint; and 2, to favor cicatrization of the torn parts by immobilizing the articulation. Now, the modes of treatment hitherto in vogue do not fulfil these two indications. Massage would seem to present some real advantages, but it can be of little service in the case of severe sprains, and mild injuries would probably do as well under rest alone. M. Sée advises an elastic bandage, the depressed parts being covered with a layer of cotton so as to prevent too great pressure over the prominence, and thereby causing sloughs. This bandage acts like massage in promoting absorption and also secures immobility of the joint. It is of equal service in sprains complicated with rupture of points of insertion, whereas massage would be productive of harm in cases in which splinters of bone were torn away.—*Revue Médicale*, January 31, 1885.

The Injection of Hot or Cold Water in Uterine Hemorrhage.—Dr. Schwarz relates a case of post-partum hemorrhage which was controlled temporarily by an injection of water at a temperature of 120° F., containing two and a half per cent. of carbolic acid. The bleeding began again, however, and could not be arrested by further hot-water injections. A trial was then made of ice-water with perfect success. In other puerperal and non-puerperal cases, after failure with hot water the author obtained most satisfactory results with cold injections. Dr. Graefe has also had several cases in which he found cold irrigations to answer the purpose after hot water had failed. He regards the styptic action of hot water as due not only to the swelling of the tissues which it causes, but also to a certain degree of muscular contraction in the uterine walls. The former is not sufficient in itself to arrest the hemorrhage unless aided by muscular contraction. When cold water irrigations follow those previously made with hot water strong contractions of the uterine muscle are excited, but the œdematous swelling caused by the hot water cannot be so rapidly overcome, and hence the two conditions most favorable for arresting the hemorrhage are present. In the same way, when hot injections follow cold ones the irritation to the muscular tissue remains and to it is added the swelling of the tissues above mentioned. If only one be used Schwarz prefers the cold water, as having the advantage of absolute safety. Hot water, if too hot, may cause a paralysis of the uterine muscular tissue, and if not hot enough will only increase the hemorrhage. If a trial with one temperature be unsuccessful, the use of the opposite will almost certainly control the bleeding.—*Schmidt's Jahrbücher*, No. 7, 1884.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, April 4, 1885.

ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.

WE have received a copy of the Rules and Preliminary Organization of the Ninth International Congress, to be held in Washington, D. C., in 1887.

The regulations as to membership of the proposed Congress are as follows: As regards foreign members, it is only required that the person be a regular physician, that he shall inscribe his name on the Register, and take out tickets of admission.

The American members of the Congress must be appointed by the American Medical Association, by regularly organized State and local medical societies, and also by such general organizations relating to special departments and purposes, as the American Academy of Medicine, the American Surgical Association, the American Gynecological, Ophthalmological, Otological, Laryngological, Neurological, and Dermatological Societies, and the American Public Health Association; "each of the foregoing Societies being entitled to appoint one delegate for every ten of their members."

It is requested that all societies entitled to delegates elect them at the last regular meeting preceding the meeting of the Congress.

The work of the Congress is to be divided into nineteen sections, as follows: 1, Medical Education, Legislation, etc.; 2, Anatomy; 3, Physiology; 4, Pathology; 5, Medicine; 6, Surgery; 7, Obstetrics; 8, Gynecology; 9, Ophthalmology; 10, Otology; 11, Dermatology and Syphilis; 12, Nervous Diseases and Psychiatry; 13, Laryngology; 14, Hygiene; 15, Collective Investigation, Nomenclature, and Vital Statistics; 16, Military and Naval Surgery and Medicine; 17, Practical and Experimental Therapeutics; 18, Diseases of Children; 19, Dental and Oral Surgery.

These sections are organized with a President, one to seven Vice-Presidents, a Secretary, and a Council of from four to fifteen members. In the selection of various officers, the Committee has, on the whole, displayed excellent judgment, and neither sectional nor ethical prejudices have been allowed to appear. Possibly it may be claimed that the East has more than its share. Among the nineteen presidents, five are from New York, four from Philadelphia, two from Boston, Cincinnati, and Chicago, respectively, one each from Rome, Ga., St. Louis, and Louisville. The largest section is that of Surgery, of which Dr. David W. Yandell is President; Dr. J. M. Da Costa is President of the Section on Medicine; Dr. Reamy, of Cincinnati, President of the Section on Obstetrics.

The policy of dividing the work of the Congress into nineteen sections is open to much criticism, and is the result, we fear, more of personal than of scientific considerations. The consequence must inevitably be that the individual members can hope to hear and see but very little of the Congress outside two or three sections. The subdivisions, for example, of such subjects as Hygiene, Vital Statistics, and Medical Legislation, seems hardly called for. It is ungracious, however, to criticise the work of the Executive Committee at this stage, when it has coped so successfully, in most respects, with the difficult task of preliminary organization.

We would, in conclusion, suggest that the Executive Committee cause to be corrected a very manifest grammatical blunder in the first Rule of Organization, quoted by us above. It is unfortunate that a document which is to have an international circulation should start off with a solecism.

THE CHILDLESSNESS OF LITERARY WOMEN.

THE recent publication, by Mr. Cross, of the Life of George Eliot, has called special attention to the subject of distinguished literary women. Literary women are a product of the last hundred years. Before that time famous women were made so by the accidents of history, or because their genius or character led them into political, religious, or social prominence.

A survey of the lives of later and literary women shows us two things: first, that most of them were either single, or if married were childless; and second, that they have been generally long-lived. The list of literary spinsters includes Fredrika Bremer, Emily Brontë, Hannah More, Harriet Martineau, Eliza Cook, Miss Sedgwick, Gail Hamilton, the Carys, Miss Dickinson, Maria Edgeworth, Miss Mitford, Augusta Evans, Jane Austen, while that of childless women includes Mrs. Nichols (Charlotte Brontë), Mrs. Somerville, George Sand (?), Mrs. Cross (George Eliot), Mrs. McLean (Letitia E. Landon). Several have had one or two children only; for example, Mrs. Barrett Browning had one son, and Madame Darblay one son, Madame De Sevigné two children, Madame De Staël also had children.

It is no doubt true that both men and women of distinguished intellectual talents, and who are active brain-workers, are liable to be childless, or to have but few children. The world would soon be depopulated if it were filled with persons of great intellectual stature. Physiologists assert that the diversion of force brainward leaves an insufficient amount for the needs of propagation.

The longevity of female brain-workers is simply in accordance with the established fact of the longevity of masculine brain-workers. Thus, Hannah More died at the age of eighty-eight; Mrs. Somerville, at the age of ninety two; Miss Mitford, at the age of sixty-nine. At the time of her death Madame De Sevigné was seventy, Miss Bremer sixty-four, Miss Edgeworth eighty-two, Madame Darblay eighty-eight.

OVER-PRESSURE IN AMERICAN PUBLIC SCHOOLS.

One might expect that in America, if anywhere, the results of over-pressure in the education of children would be felt. The children here are generally ambitious to get ahead, if not to study, and parents are often more anxious to get their children settled in the world and at work earning money, than to see them carefully educated. Some years ago the late Dr. Clark, of Boston, woke up our educators with some striking facts regarding the evils of over-pressure in the education of girls. Since that time a knowledge of these evils has been kept well before the public, and, indeed, so much so, that for a time a kind of educational panphobia prevailed. A fear lest the child should have its health injured by over-study prevailed decidedly over the desire for a sound mental training.

This feeling, undoubtedly, did much good in awakening an interest in physical culture, but it was, in many cases, carried too far. Just now an agitation has been started in England regarding over-pressure in the London public schools. This agitation has started, or been coincident with, an investigation of the public schools in this city.

It has been stated that there is over-pressure and "cramming" in the last two grades of the grammar schools, in order to enable the pupils to pass the examinations for the college. A committee of the Board of Education has been appointed for the purpose of considering the matter, and, if deemed needed, of rearranging and lengthening the courses. From the evidence furnished by commissioners and teachers, there seems no doubt that some change is needed.

So far as actual physical and mental injury, caused simply by over-pressure in schools, is concerned, medical men see little of it, and it exists mainly in the imagination of the anxious and the sentimental. School-children in cities become ill mainly because they live badly at home, and because the school houses are overcrowded and ill-ventilated. Evils result also from the hard-and-fast methods of grading, but the number of pupils made ill by excessive mental work is very small.

DISSOCIATION OF THE AURICULAR AND VENTRICULAR MOVEMENTS OF THE HEART.

Professor A. Chauveau reports in the *Revue de Médecine* a case so unique and striking, that we at once present a brief account of it to our readers. It was that o a man, a patient in the service of Professor Boudet, who had a radial pulse of only twenty-one to twenty-four beats per minute. Upon auscultation, and by means of sphygmographic tracings, it was found that, while the ventricles beat only twenty-one to twenty-four times per minute, the auricles pulsated sixty-six times. These auricular pulsations were tolerably regular, but were perfectly independent of the ventricular rhythm, being sometimes presystolic, sometimes post-systolic.

Professor Chauveau adds the results of his investigations as to the pathogeny of this condition. By cutting one of the pneumogastric nerves in a horse, he obtained some dissociation in auricular and ventricular movements. But by slightly stimulating by a galvanic current the left vagus, he obtained a sphygmographic tracing of dissociated rhythm which almost completely resembled that obtained from his patient. The inference is that a slight irritation of the vagus is a cause of the dissociated movements. The case throws light, therefore, upon the pathology of dissociated rhythm of other types than the unique one here described.

THE DRUG TRADE.

The sale and use of drugs, excluding those employed in the manufacture of patent medicines, is, in a certain measure, an index of the professional activity of medical men. Judged by this, the year 1884 just passed was not an especially unfavorable one, but the contrary. In his "Annual Review of the Drug Trade of New York" for 1884, Mr. D. C. Robbins says that the statistics of the imports of goods into this country show an exceptional gain in the total sum of imports in the drug trade, and that as compared with other business this trade has suffered less.

The total import of dutiable and free drugs and chemicals in 1884 was valued at $52,063,910, as against $50,867,165 in 1883. This gain was entirely in the free list, while there was an absolute falling-off in dutiable articles.

With regard to quinine, it appears that we are every year importing more, and are manufacturing less, since we import less cinchona bark. In 1884 we imported 1,263,732 ounces of quinine salts, and 2,588,307 pounds of cinchona bark, as against 794,495 ounces of quinine and 5,010,547 pounds of bark in 1882. In other words, we imported twice as much quinine and half as much bark in 1884, as in 1882.

As to opium, the next most important drug, it will probably astonish many readers to learn that in 1883 more opium was imported for smoking purposes (viz., 298,153 pounds) than for all other purposes put together, and that the money value of the opium imported for smoking in the past four years has on an average exceeded that for all other forms of opium. Last year there was a sudden and very great fall in the amount of opium imported for smoking, owing to a largely increased duty placed upon it.

GALVANO-PUNCTURE IN THE TREATMENT OF THORACIC ANEURISM

Dr. C. M. Richter reports (*Pacific Medical and Surgical Journal*) three new cases in which galvano-puncture was used in the treatment of aneurism. In one, a case of intra-thoracic aneurism, the patient is apparently cured (one year after operation). In the second, also a case of thoracic aneurism, the disease was very much advanced. Galvano-puncture was successfully performed, but, although it cured the aneurism, the patient died a month later. A post-mortem was made and a large saccular aneurism was found springing from the arch of the aorta. Dr. Richter says, as a result of this examination, that, "Thus, with the most unfavorable circumstances; with the highest degree of atheroma; with the sac as thin as tissue-paper, where the needles were inserted; with an aneurism of such dimensions; and all this on a decrepit individual—an entire cure of the aneurism and a perfect solidification of the sac was obtained by electrolysis."

The third case was that of a traumatic diffused aneurism of the radial artery; and here galvano-puncture failed.

Galvano-puncture for the treatment of aneurism has not yet obtained a position in surgical therapeutics. This is so true that even writers of the experience of Mr. Bryant, show an entire ignorance of the practical details of the operation.

Galvano-puncture, though introduced by an English surgeon—Phillips, in 1829—has been chiefly in the hands of the French surgeons and of the Italians. Among the latter, Civiselli reported 29 cases, with 11 "improvements," lasting over four years. Petit, in 1880, collected 114 cases, in 60 of which there was improvement. Barwell collects 8 cases, operated upon since 1877. Of these, 4 died, and 4 were improved. In the matter of technique, Barwell recommends the employment of both poles. Robin, Chambers, and Richter strongly insist upon using only the positive pole.

Chambers experimented on an imitation aneurism, and came with Robin to the same conclusion, that no clot is formed by the negative needle, while that of the positive is solid, resistant, and adherent. Both etherize the patient, insert several needles at the same séance, and let a strong galvanic current pass through them for from five to eight minutes per needle; they insist that the needle should be insulated, for instance, by collodion, and that about three centimetres of the polished steel of the needle should be exposed in the tumor.

RAILWAY HOSPITALS.

We learn from an article by Dr. C. B. Stemen in the *Fort Wayne Journal of the Medical Sciences*, that several western railroads have adopted systems providing medical and surgical care for their injured employees. The Missouri Pacific Railroad first started the plan of assessing a small monthly sum on all employees who receive fifty dollars a month or over, and a less sum on those receiving lower wages. The money thus collected constitutes a hospital fund, which is used in taking care of the sick and injured. This "provident plan" has been adopted by the W., St. Louis & P. Railroad, the St. Louis & Iron Mountain, and, we believe, by some other roads. A number of small hospitals have been erected, and in some cases the injured employees are obliged to go to these hospitals instead of going home.

The railway hospital system involves a great deal that is arbitrary, but on the whole it seems to have worked well and been of much service to the sick and injured.

IS DEATH NECESSARILY INSTANTANEOUS AFTER BULLET WOUND OF HEART?

A case of some interest has just been developed in a post-mortem examination held a few days since at Utica, upon the body of S. Clark Smith, killed by Dr. Richter at Middleville, N. Y., February 27th. It appeared that one bullet passed through the left auricle and right ventricle of the heart. Another ball passed through the right lung.

Each shot was fatal, but Smith walked by actual measurement eighty-two feet, before he fell. Upon the day when this murder was committed, Calvin McCarg was on trial at Utica for killing Theresa Johnson at Forestport last April, and the deed was committed in much the same way; but the expert testimony produced in the trial was strongly at variance with the facts as shown in the Smith case. Theresa Johnson was found dead on a bed in her father's house. In another room, twenty feet distant, a revolver was lying. One theory of the defence was suicide. This was rejected by the positive testimony of physicians that the girl's death was necessarily instantaneous, as the bullet passed through the right and left ventricles and aorta of the heart, and that she could not have stirred after receiving the fatal wound. Other physicians gave testimony disputing this conclusion, but the theory of instantaneous death was accepted by the jury and McCarg was convicted by circumstantial evidence.

After the conviction much interest was caused by the knowledge of the second murder and the demonstration it gave, that a person with two mortal wounds, one of which was similar to that of Miss Johnson, could move and did in fact walk eighty-two feet. The crime was satisfactorily proven against McCarg in any case, so that the doubt as to the correctness of the expert evidence would not make a new trial a necessary one.

DIET AND DYSPEPSIA.

One finds that, as in the name of liberty, so in that of common-sense, great sins are sometimes committed. And we can point to no greater recent instance than that of the article of the venerable Professor Austin Flint on the "Dietetic Treatment of Dyspepsia," read before the New York State Medical Association. The article in question has received wide circulation, and, as it appeals alluringly to "common-sense" and the "instincts" as against diet, drugs, and other artificial measures used for indigestion, we do not doubt that the doctrines inculcated will be adopted at once by many.

The special points in Dr. Flint's views which invite criticism are that dyspepsia is more or less a mental trouble, and that fixed rules of diet and established modes of life adopted to cure the dyspeptic tend rather to keep up the disease. Says the writer: "Don't diet yourself; don't systematize your meals; distrust your past experiences with foods that disagree; follow your instincts in gratifying your appetite. Learn a lesson from the *gourmet*, and fare sumptuously every day." Dr. Flint has never seen a dyspeptic cured by dieting.

Discussing these recommendations with chronic dyspeptics, we have been uniformly met with the statement that their author had not had and did not know dyspepsia. Probably nothing is more absolutely contradicted by experience than that dieting does not benefit, and does not sometimes cure dyspepsia. There is hardly a practising physician who has not evidence confirmatory of this. And the young doctor who, in the confidence of authoritative utterance, tells his dyspeptic patient, who is fond of pie, fond of sausage, flap-jacks, late suppers, and prodigious meals generally, that he can indulge his appetite and be guided by his instincts, will soon lose his case and gain wisdom.

Physicians will do well, however, to note the excellent advice which Dr. Flint gives, not to prescribe a line of treatment which unnecessarily concentrates the patient's mind upon himself and his stomach.

GENERAL GRANT.

At the time of our going to press General Grant is in a very feeble condition. His vital powers are beginning to give way, and his pulse is weak and intermittent. The local disease has evidently progressed, although this cannot be proved, owing to the physical impossibility of making a satisfactory examination of his throat. The exudation has not separated, and the sloughing process has extended to the free border of the palatal curtain on the right side. The gland under the angle of the right lower jaw has not enlarged, and the surrounding induration has in a measure disappeared. He is still able to walk from his bed to his chair. His nasal and pharyngeal passages are unobstructed, and his breathing, although somewhat labored, is unimpeded.

The present outlook is exceedingly grave. His liquid food, which he can generally swallow without pain, is amply sufficient for nourishment.

News of the Week.

The Texas State Medical Association holds its seventeenth annual meeting at Houston, beginning on Sunday, April 21st. Is Texas to introduce the European and un-Christian practice of holding medical conventions on Sunday?

A Histological Society has been organized in Austin, Texas.

The "Commercialization" of Medicine.—The correspondent of *L'Union Médicale* speaks of the relative attractiveness to students of Vienna and Berlin as medical centres. Vienna, he says, is now ahead. In Vienna, however, a large part of the "Docents" belong to the Israelitish race, and exhibit a tendency to indulge in the "commercialization" of medicine. The writer believes that, as a consequence, the tide of medical students will turn toward Berlin.

The Prospects for National Health Organization.—"The friends of a national health organization," says *The Sanitary Engineer*, "have reason to be satisfied with the appointment of Mr. Fairchild as Assistant Secretary of the Treasury in the place of Judge French. Mr. Fairchild has for a long time shown his active interest in health and social problems, having now for some time served as President of the State Charities Aid Association of this State, and not as a mere figurehead either."

The Association of American Medical Editors will hold its next annual meeting the evening before the day of the meeting of the American Medical Association. The following are the officers of the Editors' Association: President, Dr. Henry O. Marcy, Boston; Vice-President, Dr. John V. Shoemaker, Philadelphia; Secretary, Dr. H. O. Walker, Detroit.

The Prize for the Best Essay on the Prevention of Blindness, offered by the English Society for the Prevention of Blindness, has been awarded to a German physician, Dr. Fusch.

A Large Fee.—Koeberle, of Strasbourg, is said to have received a fee of 500,000 francs from a Spanish princess, whom he professionally attended.

Vienna Physicians.—The number of Vienna physicians is 1,500, in a city of 800,000 inhabitants. Vienna has therefore nearly as many proportionately as New York, and ten times as many proportionately as London, where there are 3,000 in a city of 4,000,000 inhabitants. The local journals complain of the hard times, the severe competition, and the small fees.

Cancer of the Tongue and Smoking.—Mr. Whitehouse writes to the *British Medical Journal*: "As to whether smoking may be the immediate cause of cancer, surgeons are not agreed; but there is a condition of the tongue which is, in many cases, the precursor of epithelioma, namely, 'leucoplakia;' and this disease is more generally considered to be caused by smoking. Mr. Barker, writing on this inflammation, in Holmes' 'System of Surgery,' points out that among 75 recorded cases, 71 smoked, and only 4 were non-smokers. Buzenet used the term '*plaques des fumeurs*' for this disease, because he was convinced that smoking so often gave rise to it. Mr. Hulke has more than once shown that 'leucoplakia' may be the starting-point of epithelioma, and out of the above mentioned 75 cases, 44 developed epithelioma, and in one only was there a family history of cancer." Mr. Morris also states that out of 55 cases of cancer of the tongue 13, or about one-fourth, had been the seat of this leucoplakia, or icthyosis. Mr. Bryant's experience has been of a similar character.

The Average Duration of Life in Cancer of the Tongue is, without operation, ten and a half months; with operation, sixteen months. In some cases, after operations, the patients have lived for from two to five years, or even ten years.

The Frequency of Cancer of the Tongue.—Five per cent. of all cancers are situated upon the tongue.

A New Medical Education Bill has been introduced into the State Assembly.

Medical Legislation in Minnesota.—"It is a matter of deep regret" says the *Northwestern Lancet*, "that the amendments to the medical registration act failed to pass. Now that so many States are passing medical laws or making their old laws more stringent, we need more protection against the crowds of charlatans who are being driven out from their old hunting-grounds. The history of the defeat of the amendments would, we imagine, be an interesting one to the profession, and we hope it will sooner or later be made public. In sanitary matters the Legislature has made 'the sanitary code of Minnesota the most complete, and the machinery for its execution the least expensive but the most simple of any State in the Union.'"

The Bacillus of Syphilis.—Dr. Lustgarten's researches are now finished and will be shortly published. He attributes real diagnostic value to the organism. In sixteen cases of syphilis he succeeded in rendering visible this bacillus by a mode of decolorization peculiar to itself. It is very similar to the tubercle bacillus, but always occupies a cell. In cases of sclerosis, gumma, and in the contents of syphilitic ulcers, the same micro-organism was found; in the soft chancre, however, the presence of a bacillus could not be proved.

Transmission of Tuberculosis by the Genital Tract.—M. Ricard adds another to the cases recently reported as illustrating the transmission of tuberculosis by the genito-urinary tract. A healthy man, aged twenty-three, without a tuberculous history, contracted a gonorrhœa. The discharge ceased in three months. Three months later he was attacked with cystitis, followed by pulmonary tuberculosis. Bacilli of tuberculosis were found in the urine.

Total Extirpation of the Uterus by the Vagina.—Dr. Max Schede, of Hamburg, has removed the entire uterus some dozen successive times with success, at his hospital in that city. Tait has removed the uterus fifty-four times, with nineteen deaths; Keith has done it thirty-eight times, with three deaths.

Mesmeric "Horses."—An *exposé* of the methods of travelling mesmerists was recently made in Chicago. One of the so-called subjects admitted that he made a business of being "mesmerized," and subjected to the ordinary tests of burning, pricking, etc. He was not, he said, really mesmerized, but acquired an insensibility simply by training. The same was true with his fellows, who were professional subjects. They simply trained themselves to stand the tests. They called themselves "horses." Every one who has seen these public exhibitions of mesmerism has observed that there was a great deal of trickery about them.

San Francisco.—According to the *Pacific Medical and Surgical Journal* the law of California regulating medical practice is a failure, because juries cannot be found who will convict, "even though they be the lowest Chinese charlatans." The San Francisco County Medical Society proposes to have a reading-room, but has to meet the following conclusive objections: "1, That of extra expense; 2, that the present library is not consulted; 3, that the present library is not worth consulting!"

Medical Missionaries Wanted.—A convention of medical students, physicians, and clergymen was recently held in Philadelphia, under the auspices of the Young Men's Christian Association. A number of addresses were made, Professors Parvin and Agnew being among the speakers. The object was the praiseworthy one of getting students interested in medical missionary work.

Collective Investigation in Germany.—The results of the attempt to obtain information by means of an organization similar to the Collective Investigation Committee of the British Medical Association, under the auspices of the Medical Society of Berlin, have been published, and they certainly show, says *The British Medical Journal*, that the medical practitioners of scientific Germany are, if anything, less easily aroused to participation in such work than their brethren in practical England. The inquiry, which extended over twelve months, related to certain points in the history of phthisis, and these have received separate reports. In all, two hundred replies were received, of which thirty-eight were useless. The first report is on the heredity of tuberculosis, by H. Vedendorff. The facts recorded are not specially striking, concerning, as they do, only 24 cases of phthisis. The second report, by Meyerhoff, is on the contagiousness of phthisis, and concerns 40 individuals, 23 of whom were husband or wife. Contagion appears to be most often communicated just before death. One case became phthisical after using the milk of a tuberculous cow. Leyden and Fraentzel report on the curability of phthisis, relying on fifty-seven replies. The greatest number were cured between the ages of twenty and thirty. In 9 cases both apices were affected. In 37 cases there was no special treatment, but the patients had been once or more to winter or other health resorts. Kalischer reports on 8 instances of pneumonia passing into phthisis. In 6 of the cases the pneumonia pursued a typical course.

Medicine in Florida.—The profession in Jacksonville is talented but reserved. There is no mixing. The County Society meets when it can get a quorum, which is very seldom. We have been cordially received by some, and not so cordially by others. Surgery has been greatly neglected in Florida. We found cases of stricture, small tumors, fistulæ, *et id omne genus*, sent to New York for treatment.—*Florida Correspondent of Southern Practitioner.*

A Curious Combination.—A Politzer air-bag and a Western medical journal are offered to subscribers for the small sum of two dollars.

Warm Discussions in the South.—The columns of some of our Southern contemporaries have been of late in a very heated condition. The warmth-centre started in Texas, where the *Courier-Record* chastised a Philadelphia professor for intimating that the mothers of Texas fed their babies with ensalivated and auto-peptonized crackers. A prairie-fire of resistless editorial logic consumed this slander. The heat-centre then passed to Atlanta, where the Hopkins-Hammond controversy engendered much fervid rhetoric. Richmond seems now to be the tropical spot, the occasion being the expulsion of a student from a medical college in that city. As to the sequel we quote the *Medical Age:* "The editor of one of our exchanges brands the dean of a certain medical college as 'one who has descended but little from his level and has reached the ranks of the lowest order of human depravity,' and posts him as 'a falsifier and slanderer, whose unscrupulous mendacity is only equalled by his asinine stupidity and close resemblance to the trembling spaniel.' One would naturally infer from this that our brother does not like the dean. Inasmuch as he says in a subsequent article, as a reason for rejecting a communication, that he 'will not print personal abuse of any man,' the average reader will be at a loss to know under what head he classifies the above. Perhaps it is a panegyric."

Mortality from Trephining.—Walsham deduced, from a study of 770 cases, the conclusion that the mortality from trephining was 10.6 per cent. R. W. Amidon, from a study of 125 cases operated upon since 1879, concludes that the mortality is only 3.2 per cent., provided symptoms endangering life have not already developed

The Westminster Hospital Medical School has recently begun the erection of a new building, which with the site is to cost about $75,000.

Our Esteemed Contemporary, the Philadelphia *Medical and Surgical Reporter*, criticises the *Medical News* for indulging in personal medical journalism, and sending a batch of confidential communications to the secular papers.

The Toledo Medical College, at its annual commencement, conferred degrees on thirteen students—eleven male and two female.

Fighting Quackery in Philadelphia.—At a recent meeting of the Philadelphia County Medical Society, efforts were initiated for carrying out the law against illegal practitioners. The committee having charge of the matter have made arrangements for dividing the city into sections, which will be placed under the care of one or more members of the committee, whose duty it shall be to search out and collect evidence against this class of practitioners.

The Market for Coca and Cocaine.—Coca leaves, writes Dr. Squibb, still continue to be very scarce and very high in price, both in this country and Europe, and those which are accessible are of very poor quality. The supply of cocaine is, however, considerable, and it can be manufactured and sold for thirty cents a grain, with a fair profit to the manufacturer.

The Indiana State Medical Society.—The meeting of the Indiana State Medical Society will be held in Indianapolis, convening the second Tuesday in May (12th), and closing on the 14th.

Dr. Henry B. Millard, of New York, has been recently elected, unanimously in each instance, a Foreign Corresponding Member of the Société d'Hydrologie Médicale, of Paris, and of the Verein Deutscher Aerzte, of Prague; in the latter particularly with reference to his researches in the department of the kidneys and urine. Dr. Millard is the first American elected to these societies.

Adulterations in Quinine.—As the result of investigations by the City Board of Health, one druggist has been arrested and two reprimanded for selling adulterated quinine pills. In one case the adulterations amounted to fifteen per cent., in another to about twenty per cent.

A New Bill for the Protection of Public Health.—Dr. Cartwright, of Delaware County, N. Y., has prepared a bill, which has passed the New York Assembly, for the purpose of adding safeguards against the introduction of cholera. The main features of the bill are indicated in Sections 1 and 6, which are as follows. It will be seen that these provide that all vessels bring a bill of health from all the ports at which they have stopped:

Section 1. It shall be the duty of the Health Officers at the several ports of entry within the State of New York, to require the masters of all merchant ships and vessels arriving at said ports from any foreign port to present a bill of health, duly executed by the Consul, Vice-consul, or other consular officer of the United States, or by the medical officer attached to the United States Consulate by appointment of the United States Government, or the representative of the United States Government resident at said port of departure, which shall set forth the sanitary condition and history of said vessel; also the sanitary condition of the cargo and of the crew and passengers; also the sanitary condition of the food, water, and ventilation of said vessel; the number of cases at such port of yellow fever, cholera, small-pox, typhus fever, relapsing fever, scarlatina, measles, and diphtheria; the total number of deaths from each of these diseases from all causes, the week preceding the date of said bill of health, as far as can be ascertained by the said Consul, Vice-consul, or other consular officer of the United States, or the medical officer attached to such consulate.

Sec. 6. The diseases against which maritime sanitary regulations at the port of New York shall apply are yellow fever, measles, cholera, typhus or ship fever, small-pox, scarlatina, diphtheria, relapsing fever, and any disease of a contagious, infectious, or pestilential character, which shall be considered by the Health Officer dangerous to the public health. And all such quarantinable diseases, except yellow fever, cholera, typhus fever, and small-pox, shall be removed to the emigration hospital, Castle Garden, or Ward's Island.

Sections 4 and 5 provide for examination as to vaccination, and vaccination if necessary.

The New Board of Health of the State of Maine.—Governor Robie has appointed the following State Board of Health: Frederick Gerrist, Portland; Lewis Barker, Bangor; Stephen J. Young, Brunswick; O. A. Horr, Lewiston; E. C. Jordan, Portland; and J. O. Webster, Augusta.

Dr. David Griffith, at one time one of the most prominent citizens of Louisville, Ky., died of paralysis on March 21st. He was the Medical Director of Sheridan's army corps, and was with General Nelson at the battle of Shiloh.

A Lipomatous Infant.—Accounts are published, apparently authentic, of an infant, aged thirteen months, weight eighty-three pounds, height about three feet. It is reported to be in good health and intelligent. This interesting monster lives in Norwalk, Conn.

The Prize-Ring.—Our esteemed contemporary, the *Sun*, states that the muscularity and general physical tone of the prize-ring was never at so high a pitch as at present, the various champions being superior to all their predecessors in any age. Thus we see the far-reaching effects of sanitary science.

The Birth-Rate of Illegitimates in Prague.—The city of Prague must have some special attractiveness for the erotic and the emancipated. Among 7,031 births there are 3,762 legitimate and 3,329 illegitimate; or per 1,000 persons, 43.12 births, 23.78 legitimate and 21.36 illegitimate. A curious fact is that the death-rate among the illegitimate does not greatly exceed that among the legitimate. The inhabitants of Prague evidently obey the injunction of Shakespeare: "Let copulation thrive."

A Serious Alphabetical Outlook.—*On dit* that Dr. Legaré Wistchnnewettzky, of Taganrog, Russia, the husband of Congressman W. D. Kelly's daughter (herself a physician) is to locate here, and give us one medical sesquipedalian.—*New York correspondent Virginia Medical Monthly.*

A Triumph for Experimental Science.—After a long and bitter fight, the Physiological School at Oxford is firmly established. In November, 1882, Professor Burdon-Sanderson was appointed Waynflete Professor of Physiology at Oxford. On June 5, 1883, the convocation voted by a majority of only three to appropriate $50,000 for the laboratory. On February 5, 1884, the vote was taken again on this point and the measure re-endorsed by a majority of forty-one. A final struggle was made by the anti-vivisectionists this spring upon the question of voting $2,500 for current expenses. A circular of protest was sent out, signed by Mr. Ruskin, Mr. Freeman, and several other professors and fellows. A counter-circular was immediately drawn up, and it secured a list of names still larger and more influential. The vote for the money was carried by a majority of 168 in a house of 656. "It is hard to over-estimate," said the circular issued by the anti-physiological party, "the influence on popular opinion which is exerted by the attitude of a University such as ours."

Death of Professor Von Frerichs.—We regret to announce the death, on March 14th, of Professor von Frerichs, of Berlin, in the sixty-seventh year of his age. Frerichs commenced his clinical and pathological studies at Breslau. He was called to Berlin in 1859, where he has been teaching ever since. He is best known for his treatise on diseases of the liver. He also wrote a work on Bright's disease, in which he enunciated the carbonate of ammonia theory of uræmia. Only last year he contributed a monograph on diabetes.

An Alleged Cure of Hydrophobia is reported in the *Lancet*. A native surgeon of India, Dr. Nursimula, treated the case with gr. $\frac{1}{16}$ of atropia. The patient was a man, aged twenty-four, who had been bitten by a dog the week before hydrophobia symptoms appeared.

Retirement of Professor Bouchardat.—Dr. Bouchardat, Professor of Hygiene at the Paris Faculty of Medicine, has, after a service of nearly forty years, retired, and his name is transferred to the list of Honorary Professors.

Dr. Frank Woodbury has been elected Professor of Materia Medica and Therapeutics in the Medico-Chirurgical College of Philadelphia.

The American Surgical Association holds its next annual session at Washington, D. C., on April 21, 22, 23, and 24, 1885. Ten papers and subjects for discussion are promised. The meetings will be held at the Army Medical Museum. Drs. Stephen Smith and J. W. S. Gouley represent New York.

The St. Louis Medical Colleges.—The medical schools of St. Louis closed their winter sessions the first week in March. The Missouri Medical College held its commencement Tuesday, March 3d, and conferred the degree of medicine upon ninety students. The St. Louis Medical College celebrated its commencement Friday, March 6th, graduating twenty. The St. Louis College of Physicians and Surgeons closed March 7th, and graduated eleven students.

Dr. Joseph Braman, of Braman's Corners, Montgomery County, N. Y., died March 25th, aged ninety-six. He was one of the oldest physicians in the State.

Reviews and Notices.

The Inhalation Treatment of Diseases of the Organs of Respiration, Including Consumption. By Arthur Hill Hassall, M.D., Member of the Royal College of Physicians, England, etc. Pp. 357. London: Longmans, Green & Co. 1885.

To the author belongs the credit of having produced the first English work upon this subject, and while making this statement he pays a handsome tribute to those of his French and American confrères who have preceded him in this therapeutic field. His experience has shown him the fallacies of some of the old theories on the subject, and the latter he has thoroughly recast. Experiments have demonstrated to him that our ordinary atomizers, nasal and oro-nasal inhalers, are practically useless so far as bringing medicated vapors in contact with the deeper air-passages is concerned. With the former the spray is nearly all condensed in the upper passages. The latter furnish very little inhalation, as nearly two-thirds of the medicament employed can be recovered after prolonged use of the inhaler. The essentials for true inhalation require primarily an increase of temperature over the surrounding atmosphere for complete volatilization, and a large surface from which the latter may take place. These two requisites our ordinary apparatus completely fails to furnish. Hence the employment of such therapeutic measures demands specially constructed chambers, or at least such devices as shall thoroughly charge with medicated vapor the air of an ordinary room. Such appliances, the author shows, can be easily prepared at small expense.

An interesting theory (credited to Sales Girons) is advanced, that the respiratory mucous membrane may serve as a channel for constitutional medication. The favorable conditions existing for this are the intimate relations between the blood and air in the lungs and trachea, and the fact that the blood can be charged with the vapor at the moment of its highest vitality. The author's experience includes the use, by inhalation, of some remedies rarely so exhibited on this side of the water, as, for instance, arsenic and digitalis. The final chapter discusses consumption, and regards as an open question our ability to destroy the bacilli by inhalation methods. It is shown, however, that the character of the secretions may be so changed as to greatly retard their development. The spirit of this most valuable treatise is that of a recognition of every plan of general treatment, to which inhalation is a most important adjuvant.

Women, Doctors, and Plumbers. By Mrs. H. M. Plunkett. Pp. 241. New York: D. Appleton & Co. 1885.

The aim of this book consists in showing that, "if women and plumbers do their whole sanitary duty, there will be comparatively little occasion for the services of doctors." Yet the medical profession is by no means relegated to the background. Its work as a pioneer in the march of sanitary science and preventive medicine receives its own due meed of praise. This manual is the warning of a housekeeper of many years' experience to her sisters, and yet the pages may furnish many revelations to medical men. The ideas set forth are within the comprehension of all.

They formulate into working theorems all the essentials of the domestic sanitary code. They tell us how to select a proper building site, and how to construct thereon a dwelling, in accordance with true sanitary law. We are warned against the vagaries of that modern triumvirate, the mason, builder, and plumber, and yet we are told that good work necessitates a fair outlay, that "cheap" houses generally mean poor health for their inmates. The style of the book is domestic and graceful. It ought to be on the shelves of every home library, and consulted even more frequently than the time-honored almanac or cook-book.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 11, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. T. MITCHELL PRUDDEN presented, in behalf of a candidate, a specimen illustrating *acute intestinal strangulation with gangrene from volvulus of the sigmoid flexure, with remarkable distention of the gut.*

DR. JOHN H. RIPLEY, in behalf of a candidate, presented specimens from a case of *diphtheritic tonsillitis, faucitis, and laryngitis tracheotomy, death.*

DR. R. C. SHULTZ, Acting Secretary, presented, in behalf of a candidate, *a fœtus strangulated by five loops of the cord encircling the neck.*

SUPPURATIVE INFLAMMATION OF THE TUNICA VAGINALIS TESTIS, FOLLOWING REPEATED TAPPING FOR HYDROCELE.

DR. T. M. PRUDDEN presented specimens of a case, for the clinical history of which he was indebted to Dr. W. F. Hazelton, House-Surgeon to Bellevue Hospital. S. M——, male, Cuban, aged forty-two, admitted to hospital February 6, 1885, with a scrotal tumor, which had the characters of a hydrocele, and was found, on the introduction of a hypodermic needle, to contain a clear amber fluid. Patient has had this for fifteen years. One week before admission it was tapped, and *probably* injected. After this patient was confined to a cold room, and had no food until he was brought to the hospital.

The sac rapidly refilled, and on admission was twenty inches in circumference. Patient is anæmic and emaciated. Temperature, 102½° F. Tumor is tense, red, and sensitive to touch. A few ounces of fluid were withdrawn, under the usual antiseptic precautions, to relieve the tension, and patient was put on tonics and extra diet in view of a radical operation. For six days after admission the temperature averaged 99° F. in the morning and 99½° F. in the evening. The evening rise was accompanied sometimes by slight chilliness, and invariably followed by sweating. On the seventh day, at night, temperature rose to 103½° F. Tumor was tapped and clear serum was withdrawn.

On the ninth day, at night, the temperature was 102½°: tapped, clear serum withdrawn. Following this the temperature ranged between 99° and 99½° F., with sweats following the evening rise till the eighteenth day from admission, when it fell to normal and remained so. Patient gradually emaciated and lost strength, having a typhoid tongue, diarrhœa, and occasional vomiting, and died on the thirtieth day after admission, apparently from exhaustion. No albumen or casts in urine.

At the autopsy Dr. Prudden found the heart normal; lungs moderately emphysematous, with chronic bronchitis; spleen small and fibrous; liver moderately fatty. The kidneys showed a moderate degree of chronic diffuse nephritis, being of about normal size, with adherent capsule, and thickened and roughened cortex.

The left tunica vaginalis testis was moderately distended, containing about one and a half ounce of clear yellow serum. The subcutaneous tissue on the right lower side of the scrotum was considerably thickened and dense. The sac of the tunica vaginalis on the right side was much distended and very tense, and contained about one pint of odorless pus, in which floated numerous yellowish shreds of apparently dense masses of pus. The inner surface of the sac was partially lined with an irregular membranous layer of fibrin and pus. The testicle was crowded back and flattened to a mass about half an inch thick.

A portion of this pus was received into a clean bottle and was examined microscopically, as well as a portion of the cyst-wall with its lining purulent pellicle. The pus was fairly swarming with bacteria of two kinds: those which are so frequently found in connection with the suppurative process in various parts of the body, namely, the *staphylococcus pyogenes* and the *streplococcus pyogenes.*

These cocci, specimens of which are shown under the microscopes, have been fully described by Ogston, Rosenbach, Passet, and others, and need not be described here further than to say that the staphylococcus, of which there are several varieties, has the form of minute spheroidal bodies, which may occur singly or in clusters, while the streplococcus is apt to occur in longer and shorter chains.

These cocci have been separated by pure culture and found to induce suppuration by inoculation in animals. Microscopical examination shows that the purulent pellicle which lined the distended sac contains enormous numbers of the cocci, singly and in larger and smaller masses. These are shown under the second microscope.

DR. JOHN C. PETERS inquired whether the hydrocele was tapped with a large trocar.

DR. PRUDDEN replied that the tapping, while the patient was in the hospital, was performed with the hypodermic needle. The exact nature of the operation performed previous to that time was uncertain; it was possible that some material was injected after the withdrawal of the fluid.

DR. PETERS added that his object in asking the question was to learn how the bacteria or cocci got into the tunica vaginalis.

DR. PRUDDEN said that suppuration did not take place until after the tapping with the hypodermic needle, about twenty days before the patient's death. He coincided in a remark by the President, that a mechanical source of invasion was not necessary for the development of cocci, as they were found in deep abscesses which had no apparent communication with the exterior. Dr. Prudden also referred to their presence in dish-water, etc., and their possible relation to the sore hands of housemaids.

THE PRESIDENT said that the case related by Dr. Prudden was not unique with respect to death from tapping a simple hydrocele with a hypodermic needle, as several such cases were on record.

HYPERPLASTIC ENLARGEMENT OF THE OVARIES.

DR. H. C. COE presented several ovaries, which were interesting because of their power apparently of performing their function as well as in health, notwithstanding the fact that they had undergone marked enlargement. The specimens led to the inference that in a great many cases diagnosis of useless ovaries was made by the operator rather than by the pathologist. He had as many as thirty or forty enlarged ovaries in his possession which on close examination revealed normal Graafian follicles, and had been, as far as appearances went, useful organs. They resembled very closely true fibroid tumor, and under the microscope it was difficult to distinguish between their structure and that of a real fibroid. In the few cases of so-called fibroid tumor of the ovary which he had seen, it was impossible to avoid the inference that the change was simply a hyperplastic increase of the ovarian stroma, and that they did not constitute real tumors.

One of the specimens illustrated hæmatoma of the ovary, or hemorrhage into what was originally a Graafian follicle or small cyst. In the centre of one of the ovaries was a number of small cysts, the walls of which were very much thickened. This had been spoken of as a possible explanation of the development of cystic ovaries; *i.e.*, a small cyst became imprisoned within the centre of the ovary, surrounded by fibroid tissue, and being unable to reach the surface, developed within the interior of the organ. Dr. Coe had sometimes entertained the idea, although it might be fanciful, that the pain which some patients experienced at menstruation was due to the difficulty with which the follicles burst through a thickened capsule.

DR. PRUDDEN asked Dr. Coe concerning the degree

of thickness of the capsule necessary to cause difficulty in the rupture of the Graafian follicle.

Dr. Coe replied that according to his observations the ovarian cortex presented varying degrees of thickening at different points; at some points it was so thick that probably rupture of the follicle was aborted.

Dr. Ripley inquired, with regard to the first specimen presented by Dr. Coe, whether menstruation was abnormal.

Dr. Coe replied that he did not remember the history of each case, but in most of them there was severe dysmenorrhœa.

Dr. Ripley said his object in asking the question was to learn whether this change in the ovary might not exist without the presence of dysmenorrhœa. Even if dysmenorrhœa were present, it would not necessarily be due to the cause mentioned by Dr. Coe.

Dr. Coe remarked that a number of cases of disease of the ovary had been observed at autopsy, there having been no history of ovarian trouble during life.

Dr. H. J. Boldt inquired whether the ovaries had not become prolapsed, which condition in itself would give rise to dysmenorrhœa.

Dr. Coe said that as a rule enlarged ovaries which had not become adherent in their normal position from inflammatory adhesions, sank below their usual level.

Dr. Boldt's observations confirmed that statement.

Dr. W. P. Northrup asked if it was considered that menstruation and ovulation were contemporaneous.

Dr. Coe thought it was fair to suppose that there was some connection between the two. Theoretically we might suppose that in health the Graafian follicle ruptured prior to menstruation, whereas in disease rupture occurred later.

The President thought a death-blow to the argument was that menstruation sometimes continued after removal of the ovaries.

Dr. Coe thought it a question whether the discharge which sometimes took place after ovariotomy was true menstruation.

The President mentioned the fact that at the meeting of the Medical Society of the State of Georgia two cases were referred to by gentlemen of high authority, in which the women conceived after complete removal of both ovaries.

Dr. Ferguson thought there was a possible source of error in these cases, for he had several times found elongation of the ovary to two and a half to three and a half inches. In such a case the operator might remove only a portion of the organ and suppose that he had removed it entirely.

Dr. Coe remarked that he had found a mass of old adhesions which had exactly the gross appearance of an ovary, and afterward found the true ovary (which was atrophied) almost by accident.

AMPUTATION OF THE HAND.

Dr. Van Gieson presented the hand of a man, aged about thirty years, a painter by occupation, which had been removed for an injury sustained by the fall of the paint-pot of his fellow-workman who was on the ladder above him. The edge of the pot struck upon the metacarpus, while the hand was resting upon the round of the ladder. The patient was treated for some weeks by his family physician, and finally entered St. Catherine's Hospital. As he was anxious to retain the hand, the surgeon in charge gave him every opportunity to do so, but in spite of the opening of sinuses, and washing the parts with disinfectant solutions, the case went from bad to worse, dead bone could be felt wherever the probe entered a sinus, and the patient then became anxious for amputation. A careful examination of the member led the surgeon to the conclusion that it was better to comply with the patient's wish for amputation than to try to save the hand by an operation of exsection. The appearance of the parts after removal made it evident that exsection would not have been wise, as in all probability it would have been followed by amputation. The articulating heads of the radius and two of the metacarpal bones were destroyed in the necrotic process. Dr. Van Gieson remarked that in some cases on record in which the indications seemed to have been favorable for excision, the final result showed that amputation would have been preferable, and this was especially true when the disease had become somewhat extensive.

SARCOMA OF THE LUNG.

Dr. Van Gieson presented the lungs, the seat of sarcoma, removed from the body of a man twenty-seven years of age, who about fifteen months ago, when examined by his physician, was found to have some dulness over the apex of the right lung, the limits of which seemed to be well marked; and there was some enlargement of the glands of the neck. The diagnosis made at that time was incipient tuberculosis, with involvement of the glands of the neck. The patient passed from under the observation of the physician for a year, when he again came under his care in the hospital. Dr. Van Gieson saw him a few minutes after he entered the hospital, when he was suffering from intense dyspnœa, and a satisfactory physical examination could not then be made. The next morning there was found to be universal dulness over the right lung, less pronounced dulness upon the left side, the glands of the neck and those in the axillary space were very much enlarged, and there was a marked prominence of the middle of the sternum. The patient died of exhaustion ten days after admission.

At the post-mortem, made seven hours after death, the following notes were taken by the pathologist: The body was very much emaciated; there was general anasarca; sarcoma of the right lung; enlargement of the axillary and cervical glands; the thorax contained eight pints of serum; the spleen was found filled with nodules; the liver was not involved; the left kidney contained a white infarction; the retroperitoneal and the lumbar glands were involved to a very great extent; the intestines were in a normal condition.

CARCINOMA OF THE PERITONEUM.

Dr. Van Gieson exhibited a second specimen of malignant disease, that of carcinoma of the peritoneum, removed from the body of a man who died in his fiftieth year. Some time before his admission to St. Catherine's Hospital the patient had had the great toe amputated by Dr. Markoe, in Bellevue Hospital, for a disease which was thought to be of a semi-malignant character. The only symptom which seemed to be of special importance on his admission to St. Catherine's Hospital, November, 1884, was an enormous abdominal enlargement in the region of the spleen, extending to the right side and downward to near the suprâpubic region. Over this region the percussion note was dull. The surface of the tumor was smooth, and it seemed as if the mass could be lifted up. There was apparently a sharply defined border. The patient was excessively anæmic, the conjunctivæ almost bloodless. Microscopic examination by the pathologist to the hospital seemed to indicate an excess of white blood-corpuscles, but means for an exact estimate of their number were not at hand. The patient's appetite was good, he suffered no pain, and there was no nausea except a few hours before death. Dr. Van Gieson had examined the patient carefully on several occasions, and had made a diagnosis of splenic leucocythæmia. He based his diagnosis upon the fact that there was freedom from pain, freedom from nausea; there was desire for food, intense anæmia, and the microscopic examination of the blood seemed to point to leucocythæmia. The necropsy revealed extensive carcinomatous degeneration of the peritoneum and mesentery. In certain portions, especially in the region of the sigmoid flexure, the gelatinous form of degeneration was found, which probably would eventually have resulted in colloid degeneration, which was present elsewhere. He was not prepared to say, however, whether carcinoma of

the peritoneum was initially a form of so-called colloid cancer. The point in the case which especially interested Dr. Van Gieson related to diagnosis. He had seen, and been able to verify, in private practice, six cases of malignant disease of the peritoneum, in all of which there were marked emaciation, pain, and occasional nausea. But in the present case all of these symptoms were absent, the body was fairly nourished, the patient was free from pain, and nausea was absent. One of the physicians who saw the patient suspected a possible connection between the abdominal trouble and the former disease of the toe.

In the case of sarcoma of the lung there was marked emaciation, it differing in that respect from four or five cases previously seen by Dr. Van Gieson, in which emaciation was not a marked symptom.

Dr. A. G. Gerster inquired, concerning the first case, what was the character of the inflammation of the hand, whether phlegmonous, septic, or one of the forms of inflammation called tubercular?

Dr. Van Gieson replied that the question of tubercular inflammation was raised, but there were no physical signs of tuberculosis of the lungs, and when he saw the patient nine weeks ago his appearance was that of excellent health.

Dr. Gerster remarked that if the extensive destruction of the bones of the hand were due to phlegmonous inflammation, exsection certainly would not have been indicated. But if it were due to tuberculosis, exsection would have promised a better result, especially if the soft parts were not extensively implicated. He thought the fact that the patient rapidly recovered health after amputation was not against the possibility of the disease having been tubercular; for it was usual for patients, after being relieved of a source of suppuration, to rapidly improve in general condition.

Dr. Ferguson inquired whether the lung, the seat of sarcoma, had been examined microscopically.

Dr. Van Gieson replied that he hoped to be able to report the microscopical examination soon, but that the diagnosis at present rested upon the gross appearances.

He asked Dr. Prudden whether so-called colloid cancer of the peritoneum was initially carcinoma, the gelatinous appearance developing later.

Dr. Prudden said that question had frequently been raised, and he had come to the conclusion, after examining a considerable number of specimens, that both things occurred; that in some cases the disease was in the beginning colloid, while in others it began as a carcinoma, and later took on colloid appearances. As to the relative frequency of the two conditions he could not speak.

Dr. Van Gieson remarked that the two processes seemed to be present in different portions of the peritoneal cavity in this case.

Dr. R. W. Amidon asked Dr. Van Gieson if in the cases in which there was absence of pain the neoplastic process had not yet involved the serous membrane. In a case of colloid cancer of the peritoneum, the specimen from which he presented five or six years ago, and in which pain was a very prominent symptom, both the visceral and the parietal layers had become much involved by the disease.

Dr. Van Gieson was of the impression that in all of his cases both the visceral and parietal layers were involved; they evidently were so in the specimen presented.

Dr. Gerster asked whether the condition of the retroperitoneal and inguinal glands would not throw some light on the diagnosis.

Dr. Van Gieson replied that the inguinal glands were not enlarged.

Dr. Coe remarked, with reference to the condition of the blood in leucocythæmia, that in four or five cases in which he had examined it under the microscope, it was evident at a glance that leucocythæmia was present.

UTERINE FIBROID AND COLLOID DEGENERATION OF THE OVARY.

Dr. John C. Peters related the history of a colored woman, nearly seventy years of age, who came under his care three months prior to death. She had been supposed to have malarial attacks, for which she had taken quinine and various other remedies. There was ascites, albuminuria, diarrhœa, delicate appetite, absence of pain. Malignant disease was suspected, and also the possibility of fibroid of the uterus, usually present in colored women. The liver and spleen were not enlarged. Death took place from exhaustion.

The autopsy was made by Dr. Ferguson, who presented the specimens, and stated that the interest of the case centred in the fact that there were two varieties of growth present, one being a soft fibroma of considerable size involving the body of the uterus, and the other a colloid cancer of the right ovary, and secondary nodules in the peritoneum. There was a large amount of fluid in the peritoneal cavity. The heart was small.

Dr. Peters remarked that last summer the patient was in apparent good health.

GENERAL MILIARY TUBERCULOSIS.

Dr. Van Santvoord presented the lungs of a child which died at the age of nine months, having had general miliary tuberculosis. The specimen was chiefly interesting because of the extensive involvement of the lung in a patient so young.

CIRRHOSIS OF THE LIVER—CHRONIC DIFFUSE INTERSTITIAL NEPHRITIS—GLYCOSURIA.

Dr. W. P. Northrup presented a specimen accompanied by the following history:

The patient was Mrs. A——, aged sixty-two, a native of this State, and resident of this city; a total abstainer from the use of alcohol; without hereditary taint of any kind; a woman of strong physique; clear, florid complexion, and excellent health until a year before her death.

In May, 1884, she began to fail in general health, began to lose flesh; complexion became sallow; had fugitive pains; "neuralgia" of left side of head, left arm, and leg. This general condition prevailed till September, 1884, then she became deeply jaundiced, and so remained for six weeks. From that time the jaundice of conjunctivæ and skin gradually disappeared. The skin, however, maintained the dirty brownish color characteristic of the liver lesion. The fæces were at first pasty and clay-colored (looked like putty), became later rather more yellow and dry and "crumbly." The patient remembered that her ankles had been inclined to swell for two years.

November 1, 1884, the abdomen, which, from loss of fat in a previously rather corpulent person, was flaccid, became gradually distended with fluid. General anasarca followed ascites. A few days before death the abdomen was relieved by trocar of seventeen quarts of clear, straw-colored fluid. It is somewhat difficult to determine the quantity of urine passed. Dr. Northrup's acquaintance with the case began about four months before the death of the patient. At that time ascites was pronounced, the quantity of urine passed was sixteen ounces in twenty-four hours. There was a history of frequent and copious micturition for months before the patient really became sick. This was thought to be due to excessive use of Saratoga mineral waters.

Four months before death the urine was examined and found to be slightly bile-stained, having a "sickish," sweet, "heavy" odor; strongly acid; specific gravity, 1.023; a trace of albumen (thought to be due to pus from vaginal discharge); sugar, three to four per cent.; pus, amorphous waters, no casts; quantity, sixteen ounces. Examination a week later: Quantity the same, sugar the same, specific gravity, 1.012.

Gradually the sugar decreased in quantity, and wholly

disappeared three weeks before death; specific gravity ranged from 1.012 to 1.023; albumen disappeared; no casts; quantity decreasing; fæces remaining dry, hard, and lemon-yellow, and passed in large irregular masses. Pulse remained full and strong till the last two days, and one day after coma set in—80 a minute.

Patient died in coma.

Autopsy.—Heart: moderate hypertrophy of left ventricle. Liver: Size, that of the liver of a four-year-old child; color, grayish; consistence, hard and unyielding; surface, granular and nodular. On section, color yellow (cirrhotic), mottled with red. The section under the microscope shows the characteristic lesions of chronic diffuse interstitial hepatitis, with added parenchymatous degeneration. Spleen normal in size and consistence. Kidneys normal in size, hard and unyielding; capsule strips off, tearing away the kidney at points of adhesion; surface of the organ lobulated. On section the markings of cortex are indistinct and pale, pyramids congested. The specimen under the microscope shows an interesting example of chronic diffuse interstitial nephritis with parenchymatous degeneration. The walls of the blood-vessels are thickened; walls of the capsules are thickened; in many places the vascular tufts are crowded into small quarters by this thickening, and many are wholly transformed into connective tissue. There is also degeneration of the epithelium of the convoluted tubules. No casts in tubules. Colon filled with irregular masses of yellowish-gray fæces. These when crushed are granular and dry. Mucous membrane of intestines normal.

Remarks.—We have, then, a case of (1) ordinary cirrhosis of the liver in a person of abstemious habits; (2) chronic Bright's disease; (3) organic disease of the liver and kidneys attended with glycosuria. The glycosuria was not attended by any other symptom of diabetes mellitus. It seems of interest on account of the amount of sugar present, and that it completely disappeared before death.

I found the friends of my patient imbued with the idea that "in dropsy tapping is a last resort." In view of the necessarily grave prognosis in the case, I advised the operation, but did not urge it. Then came a time when the patient asked for any relief, and herself suggested tapping. So great was the œdema of the subcutaneous tissue that the wound made by the trocar did not close, and the patient had the annoyance of being more or less wet all the time.

After the fluid was removed the patient complained of pain over the region of the liver and along the spine, which was not relieved by a tight, many-tailed bandage nor lying in bed, and by no means all the fluid had been removed.

The tapping proved to be a "last resort," for the patient in two days passed into coma, and died three days later.

In looking back I am convinced that had the patient been tapped earlier the kidneys would have had a better opportunity to do their work, all the abdominal circulation would have been facilitated, and the wound of the abdominal wall would have closed promptly.

Dr. Ripley remarked that the size of the liver alone would not point to atrophy, inasmuch as the normal liver in the adult varied in weight from a pound to five or six pounds. Another interesting fact was that the liver decreased in size after the fiftieth or sixtieth year. Further, cirrhosis of the liver might occur without the abuse of either food or drink, and in the absence of syphilis.

SECTION OF SARCOMA OF THE BRAIN.

Dr. Ferguson presented under the microscope a section of the sarcomatous tumor of the brain exhibited at the last meeting.

REPORT OF THE COMMITTEE ON MICROSCOPY.

Dr. Ferguson also reported on the specimens presented by Dr. Van Santvoord at the last meeting of the Society, that the ulcer of the epiglottis and the disease of the bones were tubercular in character and contained large numbers of tubercle bacilli.

The Society then went into executive session.

[Note.—Dr. John C. Peters, Editor, stated that a sufficient number of copies of The Medical Record could be obtained from the library of the New York Academy of Medicine, in exchange for books, to make complete scrap-book volumes of the proceedings of the Society from the year 1866 to the present date. He asked the members to aid him in securing these complete volumes by sending books to be exchanged for medical journals.]

NEW YORK ACADEMY OF MEDICINE.

SECTION IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Stated Meeting, February 26, 1885.

Alexander S. Hunter, M.D., Chairman.

Dr. Henry E. Crampton read a paper on

INVERSION OF THE UTERUS,

in which he gave the history of the following case: Mrs. L——, twenty-eight years of age, had borne one child, had had one abortion, and at her second confinement was the subject of the accident which formed the basis of the paper. She was delivered with forceps. Otherwise there was nothing special in the history of the labor. When Dr. Crampton visited her for the second time, twenty-six hours after confinement, he found the patient doing well. Five hours afterward, that is, thirty-one hours after the completion of labor, he was called in haste, and when he arrived he found the patient in quite a restless condition, and on examination found the uterus completly inverted. With the aid of Dr. A. S. Hunter, who assisted him in delivering the woman with instruments, and Dr. W. T. Lusk added to the council, the uterus was, with very great difficulty, reposited thirty-eight hours after confinement. The woman died forty-four hours after delivery, from shock and hemorrhage.

Dr. Crampton then reviewed the literature of the subject, referring especially to the notable monograph written by Cross, who collected the largest number of cases, and made a complete *résumé* down to the year 1850. He had been able to collect two hundred and ten cases of complete uterine inversion following parturition, occurring or treated since 1850. From a study and analysis of these he reached the following conclusions:

1. Inversion of the uterus is preceded by paresis of some portion of the uterine muscle (not necessarily of the placental site) caused either by too frequent childbearing, tedious labor, previous miscarriages, traumatism (blows upon the abdomen received during pregnancy or labor). emotional excitement (notably in primiparæ), or too rapid labor. It is a pure neurosis in its inception. Traction upon the cord induces prolapse, or if severe, procidentia. It will *never alone* produce inversion, but may facilitate it if paresis is present.

2. It is more apt to occur in first than in subsequent deliveries.

3. This liability in primiparæ is due to the peculiar emotional excitement preceding and associated with a first labor, reflected upon the exhausted uterine muscles for the first time called into unusual action (eight in ten of all cases of puerperal eclampsia occur in primiparæ for analogous reasons). Given a slight degree of depression, and the natural vigorous contractions of the uterus in a first labor become a source of increased danger.

4. In the great majority of cases of recent inversion, firm and persistent pressure (under anæsthesia) upon any portion of the inverted organ will serve to reposit it.

5. In chronic inversion gentle, graduated, and long-continued pressure, either manual or instrumental, or both combined, has proved the most successful treatment.

Forcible taxis is not devoid of danger. Extirpation is a last resort.

6. Chronic inversion would be rarely found if every physician adopted the invariable custom of making repeated and careful vaginal examinations within twenty-four hours after every labor.

7. The prophylactic treatment of uterine inversion is obviously the same as that required for the prevention of puerperal eclampsia.

Dr. Malcolm McLean referred to a case which occurred in the practice of Dr. John B. Campbell. Mrs. ——, twenty-five years of age, primipara, a previously strong and healthy woman, went through a normal pregnancy. The first stage of labor was of eighteen hours duration. The second stage was completed, without assistance, in two hours and a half. Chloroform was administered in the second stage. The third stage of labor was accomplished in fifteen minutes, the uterus contracting firmly and promptly, although it seemed at times to soften up for a moment or so. The doctor did not leave the patient, however, until uterine contraction was firm, and could be distinctly felt. Two hours afterward the uterus was found completely inverted, and almost distending the vulva. It was reposited with considerable difficulty, but quite promptly. Four days afterward the woman was taken with chill, septicæmia developed, and she died on the fifteenth day. Dr. McLean spoke specially of the sensation which the inverted uterus gave to touch, namely, as if pressing upon a piece of wet chamois; there seemed to be complete paralysis of the organ. Dr. McLean also thought that absolute gravitation of the abdominal viscera had considerable to do with the production of this accident.

Dr. J. P. Garrish had just completed his five thousandth case of labor in private practice, and in these he had seen only four cases of inversion of the uterus, all of which occurred in patients who were being attended by midwives. His method of reposition had been to place the woman upon her hands and knees and, holding a ball of medium size in the hand, to press against the protruding mass firmly and steadily, and in all the cases which he had met the reposition had been effected quite promptly. To arrest the hemorrhage in these cases, the most effectual agent he had employed had been vinegar, carried into the uterine cavity on a saturated mass of cotton.

Dr. Boldt referred especially to the manner of removing the placenta with a view to prevention of inversion of the uterus. He objected to the frequent vaginal examinations after confinement recommended by the author of the paper.

Dr. Kearney spoke of the difficulties which sometimes arise in making a differential diagnosis. He was of the opinion that, in all cases of inversion of the uterus, paresis of the organ existed, and was inclined to think that the accident was never caused by traction on the cord. He also objected to the frequent vaginal examinations suggested by the author of the paper for the purpose of diagnosis after confinement.

The Chairman also agreed with Drs. Kearney and Boldt with reference to the frequent digital examinations after labor, and thought such examinations justifiable only in case of failure to determine whether or not this condition of affairs existed.

Dr. Crampton, in closing the discussion, said that he spoke of making vaginal examinations within the first twenty-four hours, and he still thought that it was not inadvisable, and that they could be made with safety to the patient if proper precautions were taken. The principal points to which he wished to direct attention were paresis in the etiology of inversion of the uterus, and the emotional disturbances of the primipara, and of frequent child-bearing in the multipara, as a cause of this paresis.

The Chairman gave notice that at the stated meeting in March, Dr. Malcolm McLean would read a paper on "An Improved Method by which to Complete the First Stage of Labor in Placenta Prævia."

The Section then adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

ABDOMINAL SECTION FOR ACUTE PERITONITIS—PAPERS ON THE SUBJECT BY MESSRS. TREVES AND MARSH AT THE MEDICO-CHIRURGICAL SOCIETY—THE ANTI-VIVISECTIONISTS AGAIN—UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

London, March 14, 1885.

Abdominal section for acute peritonitis! This is sufficiently venturesome a proceeding, one would think, to satisfy any surgeon, however enterprising. Yet it has been recently performed by two different surgeons, and in each case with success. In one, the operator was Mr. Frederick Treves, Surgeon to the London Hospital; the surgeon in the other was Mr. Howard Marsh, of St. Bartholomew's Hospital. The cases formed the basis of two papers by these gentlemen at the last meeting of the Medical and Chirurgical Society, the reading of which excited a good deal of interest, as might be expected, and was followed by a lively discussion.

Both these gentlemen are well known in the surgical world, and as they both took prominent parts in the meetings of the Surgical Section of the Congress in London (1881), will probably be remembered by those Americans who were present.

Mr. Treves, although quite a young man, is well known as a bold surgeon. He has the reputation at his hospital of being unsparing in the use of the knife when a resort to it is necessary. Last year he brought forward at the same society what he termed "The Direct Treatment of Spinal Caries." His paper excited great interest at the time, and was followed by a discussion which lasted the entire evening. Although not the first to perform the operation, Mr. Treves did good service by drawing attention to it, and his successes have induced other surgeons to follow up the subject, and in some instances with marked success. I described Mr. Treves' operation at the time (January, 1884), and therefore need not dwell upon the subject further now.

In his present paper, Mr. Treves narrated the case of a young woman, twenty-one years of age, who came into the London Hospital on January 21st. She was then suffering from chronic pelvic peritonitis, following severe gonorrhœa. On February 25th symptoms of acute diffuse peritonitis suddenly appeared. On the 26th, the patient being in a very critical condition, the abdomen was opened, with antiseptic precautions. The general surface of the peritoneum showed the ordinary appearance of acute peritonitis. The intestines were lightly glued together in some places. A quantity of semi-opaque fluid, mixed with lymph-flakes and pus, escaped. The whole peritoneal cavity was well washed out with water, and a drainage-tube introduced. The patient was allowed to go in the hospital garden on the fortieth day. Mr. Treves alluded to several cases in which operations involving laparotomy had been performed successfully during the progress of acute peritonitis, the cases having been in most instances the subject of error in diagnosis. He also referred to the recent experiments on dogs by Dr. Parkes, of Chicago. In conclusion, he suggested the performance of abdominal section in certain cases of acute general peritonitis, such as that following injury, gunshot wound, the bursting of an abscess, and some forms of perforation.

Mr. Howard Marsh's case was one of acute circumscribed suppuration of the peritoneum, occurring in a youth of nineteen. He performed abdominal section and washed out the cavity with a one in sixty solution of carbolic acid, by means of a soft india-rubber catheter. The patient rallied somewhat at the end of four hours, the temperature being normal. The wound healed in twelve weeks, but the bowels never acted without enemata. Dr. Andrew and Mr. Marsh thought that the case might be

one in which an abscess in the mesentery around old tubercular glands had burst. The disease was so extensive that it could hardly be regarded as an ordinary circumscribed peritonitis. Mr. Marsh said he thought that in cases where there was any definite collection of pus in the peritoneum, the abscess should be opened and freely drained. He did not think the operation would be attended with any large measure of success in cases of suppuration of the whole peritoneum, because of the extensive surface involved and of the difficulty of drainage afterward. The formation of extensive adhesions might also cause obstruction of the bowels.

In the discussion which ensued, the President (Dr. George Johnson) remarked that it was plain that the life of each patient had been saved by the surgical procedure adopted.

Mr. Bryant warmly commended Mr. Treves, and said the value of his paper was enhanced in that it advocated the application of well-recognized surgical principles to the treatment of abdominal abscesses. He thought Mr. Treves might have brought forward cases from other sources to prove the correctness of his views, such as, for example, cases of abscesses about the cæcum, which, as Mr. Treves had shown in his demonstration at the College of Surgeons, were really abscesses of the peritoneum, for there was no portion of the cæcum that was not surrounded by peritoneum. Mr. Knowsley Thornton, Dr. Douglas Powell, Mr. Barwell, Dr. Goodhart, and Mr. Meredith also took part in the discussion. After a few remarks from Dr. George Johnson, Mr. Treves and Mr. Marsh briefly replied.

The anti-vivisectionists sustained another defeat at Oxford on Tuesday last. The occasion was the bringing before Convocation of a decree to grant £500 annually for the maintenance of the new physiological laboratories which cost ten thousand pounds. The clerical party strained every nerve but were outvoted, 412 voting for the decree as against 224 against it.

A meeting of the Metropolitan Counties Branch of the British Medical Association was held yesterday week, to consider the subject of university degrees for London medical students and the report of the council of the Branch on the subject. A lengthy discussion followed and an important speech was made by Dr. Bristowe, in which he recapitulated the more important of the points dwelt on in his former letter on the subject to the Chancellor of the University, Earl Granville, now Foreign Minister. I have several times referred to this subject and only briefly allude to it now to show the continued interest it is exciting.

"THE TRUE POISON IN THE COFFEE-CUP."

To the Editor of The Medical Record.

Sir: In the issue of your valuable journal dated February 14th, in a letter entitled "The True Poison in the Coffee-Cup," a correspondent makes two assertions which may mislead some of your readers. The first was that the Board of Health "was making a mountain out of a mole-hill" when it claimed that the material used to give coffee a bright green color contained enough poison to make the so-called coffee injurious. The second was that a much greater evil is being carried on without the interference of the health officers in the sale of what is known in the trade parlance as "poor skimmings."

The process of coloring and polishing coffee, to which your correspondent refers, was objected to by the Board of Health because poisonous pigments were used. The green color was produced by revolving the coffee in large boiler-iron cylinders with a mixture of prussian blue and chrome yellow (lead chromate). The shade of green was brought to any desired tint by the addition of one or more of the following colors: Burnt umber, yellow ochre, drop black, and venetian red. The process was finished by adding powdered soapstone and gum arabic for the purpose of giving the berry a fine glazed polish. It is impossible to impart color to an article of food or drink by means of lead chromate without introducing enough lead to render the article unsafe for human consumption. Burnt umber, yellow ochre, and venetian red are all liable to be contaminated with arsenic. In one sample of coffee which had been treated with yellow ochre, Dr. Waller the chemist of the Health Department, found the equivalent of $\frac{1}{60}$ of a grain of arsenite of copper in a half ounce of coffee, the quantity necessary to make a cup of the beverage.

The coloring and polishing of coffee has not been stopped, but the use of poisonous colors for that purpose has been prohibited. The green color now used is a mixture of indigo and turmeric.

Chrome yellow is a favorite color with manufacturers of food. I have found it in candy, mustard, vermicelli, and cake. In the two latter articles it was used instead of eggs.

Lead pipes have contaminated drinking-water; lead has been found in preserves put up in open cans made from "lead tin plate." It has also been found in food cooked in utensils made from "lead tin plate." These articles of food might be all eaten at one meal, followed by a cup of leaded coffee. I consider it one of the first duties of a Board of Health to stop the free use of this insidious poison in connection with human food.

The second assertion can be disposed of in a very few words. Before being used, coffee must be subjected to the process of roasting; it must be subjected to a very high degree of heat (about 320° F.) for about forty-five minutes. Now I may be wrong; if I am, I would like to know it; but it is my opinion that this degree of heat applied for the length of time stated, will destroy any injurious mould or rot that may be present in the substance.

The traffic in skimmings should be stopped, for it cheats the poor; but I do not believe it can be attacked from a sanitary standpoint.

I am very respectfully yours,

Cyrus Edson, M.D.

50 West Ninth Street, February 16, 1885.

To the Editor of The Medical Record.

Sir: I have read Dr. Edson's letter of the 16th ult. addressed to you. It was not my intention to mislead any of your readers, nor to do our worthy Board of Health an injustice. My information was obtained from those who have made coffee both their business and study for years. From them I also learn that, wishing to be certain in their belief that the polishing of coffee was not injurious, Prof. Henry Morton, Stevens Institute, Hoboken, was requested to obtain and analyze samples of the ingredients used, and of the coffee after being polished. I beg leave to quote from his report. . . . "I also took myself from the packages from which they were being used samples of each of the materials employed in the treatment of coffee as there carried on from time to time" (he here gives the names of all the articles used, those mentioned by Dr. Edson). Continuing, he says: . . . "Not one of these substances is of a poisonous character or contains anything poisonous; and, moreover, on account of the minuteness of the quantity used, they would be need to be poisons of the most intense character to do any harm to those consuming the coffee. As a fact, however, none of the substances above mentioned are poisonous in any degree. As to all the substances, it should be remembered that the aggregate amount in the polished coffee is less than one pound to a ton. By operating on samples of usual quantity, say ten to twenty pounds, *traces* of many injurious substances may be found in almost any material. Such traces, it is unnecessary to say, are entirely insignificant, and to detect them by operating on large quantities would be simply misleading as well as useless. In conclusion, I would say that I have found no trace of any injurious substances in any samples of your coffee which I have examined, nor have I found any of the materials used by you to contain any arsenic whatever or anything else which would be injurious to health

under the conditions involved in its use. Any one would seriously injure himself by excessive use of coffee long before he could swallow enough of any of the materials used by you to have any effect at all on him."

It is to be remembered that coffee is polished, if at all, before it is roasted, and should there be any poisonous material on it after polishing, during this process of roasting, the same would be volatilized by heat or carried off with the vapor arising from the coffee, which amounts to about fifteen per cent. of its original weight. I do not believe that there can be any arsenic on roasted polished coffee. I agree with Dr. Edson on the first duty of the Board of Health to stop the free use of insidious poisons in connection with human food, but for that reason they should not overlook the greater for the lesser evil. I cannot agree with him that the roasting of the coffee will destroy all the mould, rot, and offensive materials that may be present in thoroughly decayed coffee. The proof of which may be obtained from drinking a cup of coffee made from roasted "poor skimmings." It is quite certain to nauseate one. I think that Dr. Edson would much prefer to drink a dozen cups made from polished coffee than one made from the "skimmings." I believe that there is a law against the sale of decayed fruits and vegetables under which the sale of decayed coffee can be attacked from a sanitary standpoint.

I am, yours truly, A. WAKEMAN, JR.

NEW YORK CITY, February 25, 1885.

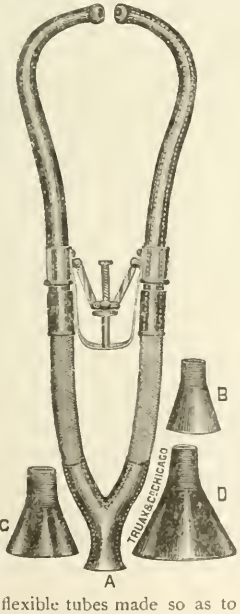
New Instruments.

AN IMPROVED BINAURAL STETHOSCOPE.

BY CHARLES DENNISON, A.M., M.D.,

DENVER, COL.

THE instrument here presented is the result of considerable experimenting and differs from those heretofore used in many particulars which are of great importance in a good instrument, though in outward appearance it is very much like other stethoscopes. The points of dissimilarity are those which I am convinced, by having many different kinds made, are the essentials in a perfect instrument.



1. *As to the quality of sound.* — The material of which an instrument is made determines the character of the sound obtained. A stethoscope made wholly of metal, or with metal tubes only, gives a metallic quality to all the sounds transmitted, whose pitch seems to be elevated and thereby made unnatural. This perversion of natural sounds is not obtained in any such degree by gutta-percha, wood, or celluloid. In this instrument I have chosen hard rubber for the arms instead of the metal heretofore used in most stethoscopes, and have had the flexible tubes made so as to give a smooth inner surface to the coiled wire, which holds them in shape. The manufacturers have succeeded very nicely in imbedding the wire between two tubes of soft rubber and then vulcanizing them together. This arrangement gives nearly as natural effects as does a stethoscope made wholly of hard rubber, which of course would be inflexible and unyielding.

2. *As to the form of the instrument.*—The size of the canal in this instrument is largest at the attachment of the bell and gradually decreases in diameter to the ear ends, and is in imitation of those trumpets or conversation tubes which best serve the purposes of deaf persons, owing to their property of concentrating and conducting the waves of sound. This gradually decreasing channel, which forms one of the principal advantages of this instrument, may be clearly traced by the dotted lines in the accompanying cut.

The larger-sized tubes used in this stethoscope is an especial advantage to those physicians who have slight defects in hearing, and will be preferred I believe by the great majority of the profession. The ear-tips are shaped with particular reference to the direction of the canal in the arms of the stethoscope and have the lower and forward edges bulged to such an extent as to fill in spaces behind the tragi, so that it throws the tube-openings in the direction of the auditory canals. The ear-tips are crowded into the external auditory canal as firmly as can be comfortably done by means of a rather stiff spring, which brings the arms of the instrument together, and which is supplied with a set screw so that it can be regulated to suit the listener.

All the joints, bells, tubes, and arms are constructed on the principle of a slightly conical tube, each portion fitting evenly and tightly into the other, and the fastenings of the flexible portion to the gutta-percha are so perfect that there is no interruption in the transmission of sounds from the chest to the ear.

3. *As to the bell endings.*—These are of my own design, and I have special reasons for the peculiarities of each. There are four of them in number, the smallest (*A*) is the stationary portion and is large enough for use in detecting valvular lesions and for auscultation with infants. The medium-sized bell (*C*) is the one to be most generally used. It has a rim an inch and a half to an inch and five-eighths in diameter, and flaring enough at the edge to give a good impinging surface against the chest-walls, an important feature in every good instrument.

The soft-rubber bell (*B*) fits inside of the medium so that its flexible edges project the fourth of an inch. This is proved to be a very good idea; for, when pressure is made against the uneven surface of the chest-walls, as in emaciated consumptives, every crevice around the edge is filled and the transmission of sound is nearly as complete as with the hard-rubber bell when pressed against an even surface.

The largest bell (*D*), with a rim three inches in diameter, is especially constructed for what I have termed stethoscopic percussion, a process I always make use of when I suspect the existence of bronchiectasis, excavation, or softening. It consists in using forcible percussion over and around suspected portions, chiefly during expiration, while this large bell is held in front of and one to three inches from the patient's open mouth.

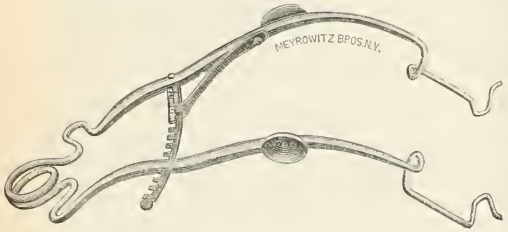
An excavation connected with the bronchial tract is thus very nicely mapped out, the cavernous and cracked sound being brought out with a certainty which cannot be obtained by any other method; because of the fact that the commencement of softening is recognized as a most critical period in every case of phthisis, any improvement in the stethoscope will be appreciated which gives, as this does, earlier and more exact knowledge of the giving way of lung tissue. Hence I make a point of this stethoscopic percussion.

I have had these instruments manufactured by Charles Truax & Co., 81 Randolph Street, Chicago, Ill., who have taken special care to insure all the requirements which I have mentioned, and which I deem essential in a good instrument. Take it all in all, the instrument pleases me better than any stethoscope I have ever seen, and I think physicians who use it will be similarly gratified.

COWGILL'S EYE SPECULUM.

By WARWICK M. COWGILL, PH.B., M.D.,
PADUCAH, KY.

I WISH to call the attention of the profession to a new eye speculum, which has proven, by trial, to be worth bringing into notice. It is a fixation speculum, con-



trolled by a ratchet arm. In adjusting the instrument, the two blades of the speculum are controlled by the thumb and forefinger, while the ratchet arm is controlled by one of the remaining fingers of the same hand. The one virtue I claim for this speculum, above other specula, is that it can be controlled with one hand, which cannot be claimed, I think, for any other fixation speculum.

This instrument, as made by Meyrowitz Brothers, No. 205 Fourth Avenue, New York City, is adjustable for either eye, hugs closely the side of the head, and is entirely out of the way of the operator.

109 EAST TWENTY-EIGHTH STREET.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 22, 1885, to March 28, 1885.

TAYLOR, M. K., Major and Surgeon. Granted leave of absence for one month, to take effect about April 15th. S. O. 46, Department of the Missouri, March 21, 1885.

HAVARD, VALERY, Captain and Assistant Surgeon. Leave of absence extended one month. S. O. 65, A. G. O., March 21, 1885.

RAYMOND, H. I., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Gaston, California, as Post Surgeon. S. O. 30, Department of California, March 20, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 28, 1885 :

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 21, 1885.....	5	10	93	7	156	57	0	0
March 28, 1885	1	6	88	7	144	52	0	0
Deaths.								
March 21, 1885.....	0	3	9	7	18	27	0	0
March 28, 1885.....	0	4	18	6	23	29	0	0

A SPECIFIC FOR TYPHOID FEVER, says Dr. J. W. Hawkins in the Kansas City *Medical Record*, is bromide of potassium in five-grain doses every three hours. It invariably cuts the fever down to seven or ten days. Dr. Hawkins has probably never seen typhoid fever.

THE MINUTENESS OF ANTISEPTIC PRECAUTIONS TAKEN BY GERMAN SURGEONS.—A Berlin correspondent of the *Cincinnati Lancet and Clinic* writes regarding Dr. A. Martin, of Berlin : "During the time of the operation and for half an hour before it is commenced, the spray apparatus is kept going, so that the air in the room, which is a small one, is saturated with the carbolic acid spray. So thoroughly is the air saturated with moisture, that long before the operation is completed the water is running down the walls, and the bystanders' clothing looks and feels like they had taken a bath. The spray is so thick that one can see with difficulty; soon it becomes so irritating to the air-passages that all in the room are more or less inconvenienced from it, and are compelled to cough a great deal. I have seen the spray used by many different men, but I have never seen any surgical operation performed in a room so thoroughly filled by it as here when he operates. Professor Schroeder also uses the spray, but he operates in a larger room and uses a weaker solution of the acid, and has the spray apparatus at a good distance from the patient, perhaps twelve or fourteen feet, and the air is saturated with the spray enough to inconvenience the bystanders. Dr. Martin and his assistants wear linen clothing during the operation, which are washed before they are again worn. All of their usual clothing is removed and the linen only worn during the time of the operation. After the patient is on the table, and everything ready to commence the operation, the visitors are invited into the room; they have been previously requested to remove their coat, vest, and necktie before they enter, and not to leave it until the operation has been completed. Dr. Martin has performed ovariotomy one hundred and five times with four deaths, and sixty laparotomies with mortality of about thirty per cent."

CONTAGIOUSNESS OF SCARLET FEVER.—Dr. M. L. Chambers, of Port Jefferson, L. I., writes : "In view of the recent discussion at the Practitioners' Society of New York City over the contagiousness of scarlet fever in its early stages, the following case may prove of interest. Several years ago I was called to a neighboring village to see a boy, eight years of age, suffering with scarlet fever. There had been no scarlet fever in the village in two years, and never before in the boy's family or in the house in which he then lived. But five days previous the boy's seat-mate at school, who had just returned from a visit at Brooklyn, N. Y., was taken sick with vomiting and sent home, and afterward suffered from what a neighbor, who was considered authority in slight ailments, diagnosed as *scarlet rash*. A sister of this boy died three weeks later with scarlet fever. Three other children in the family of the boy I attended had the disease, and there were altogether about twenty cases in the village during the epidemic. I have no doubt but the disease originated with the boy who had visited Brooklyn, and that my patient caught it from him at school when he was first taken with vomiting, which occurred while they were sitting together in the seat."

A NEW METHOD OF ANÆSTHETIZING.—Under this title, M. Columbel (*Lyon Méd.*, No. 41, 1884) recommends the injection of a Pravaz syringeful (1 to 1.5 grammes) of the following : ℞. Atropiæ sulph., 0.02 ; morph. hydrochlor., 0.20 ; aq. destillat., 20.00. This to be given twenty to twenty-five minutes before the chloroform. The atropia lowers the irritability of the pneumogastric, and prevents the inhibitory effect of the chloroform on the heart. Eight hundred cases have been successfully anæsthetized by this method in Lyons.

COMPRESSED AIR.—The *Weekly Medical Review* says that "it would require a long array of cases, associated with severe demonstrations, to convince us that any simple pneumatic pressure applied to the mouth and nose would favorably compare with an exhilarating buggy ride, facing a gentle and refreshing breeze."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 15 NEW YORK, APRIL 11, 1885 Whole No. 753

Original Articles.

GLYCOSURIA.[1]

BY THOMAS E. SATTERTHWAITE, M.D.,

PROFESSOR OF PATHOLOGY AND CLINICAL MEDICINE AT THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

OUR ideas of glycosuria may be grouped about the four principal clinical phenomena that characterize the disease, after it has been thoroughly established. These are inordinate thirst; excessive appetite; bodily emaciation; and grape-sugar in the urine. One or other of these symptoms may be wanting in a given case, or at times in the course of an attack; but they are all associated in our minds with every typical example of glycosuria.

Still, chief in importance is one symptom, and it alone will enable the practitioner to perfect his diagnosis; for if grape-sugar be found in the urine, no further evidence is requisite. Sometimes this is the only phenomenon of importance, and if the standard clinical tests in vogue indicate its presence, we know in what direction to institute remedial measures. The term standard tests was employed with due consideration, for they indicate with great readiness and certainty a pathological quantity of sugar. It may be as well at this point to note that Trommer's and Fehling's methods are thoroughly satisfactory in most cases where sugar is present, though on the whole the latter is less apt to be misinterpreted. The characteristic reaction by which, in both, the suboxide of copper is thrown down as an abundant yellowish-red or orange precipitate settles at once the diagnosis, and this characteristic appearance is not seen in normal urine, which contains sugar in minute quantity,[2] even possibly half a grain or more to the fluid ounce.[3] Nor is this point, which was long since demonstrated, a matter that is extraordinary, for physiologists tell us that grape-sugar exists to a certain extent in blood and lymph, and in the chyle during digestion. And so long as it maintains its proper proportion to the other fluids and solids of the body, and is restricted to its regular physiological sphere of activity, we are not concerned about it as a symptom of disease. When, however, it occurs in unusual amount, its presence from that moment is fraught with serious consequences, and if the system becomes at any time overburdened with it we have to contend with an enemy of most dangerous and fatal character.

Grape-sugar seems to be produced very largely in the liver, where it is formed from glycogen in the intervals of digestion.[4] But it is also formed in the intestine through the agency of the pancreatic juice, which is the chief factor in converting starchy substances into sugar;[5] subsequently it is found in the chyle. And it is not merely the ordinary starches that suffer this change, but the whole category of carbo-hydrates, such as cane-sugar, sugar of milk, maltose, dextrine, etc., are susceptible of similar transformation, and it is not improbable that the fats also, and albuminous substances, may, under circumstances to which I shall subsequently advert, be converted into grape-sugar, as Donkin[6] maintained.

It has always been a matter of great interest to discover the reason for this enormous production of sugar in the system, and why it should be robbed so remorselessly of everything in it that can by any means be converted into saccharine material. And for a long time the combined efforts of physiology, pathology, and clinical medicine were unavailing. When, however, Claude Bernard, in 1848, began his series of experiments on this topic, which he afterward followed out with such brilliant results, a new impulse was given to the study, and physiologists repeated and varied his experiments, until now it may be said that we readily understand the manner in which an excess of sugar is often produced, while it also appears probable that in a short time we shall be furnished with the full series of etiological factors.

First and foremost, then, we may regard it as an established fact that the nervous system is commonly at fault, and starting with the famous puncture of the fourth ventricle (Claude Bernard) we have since then found that section of the medulla, the cervical sympathetic and splanchnic nerve,[1] extirpation of the superior cervical, the first thoracic and abdominal ganglia, will produce diabetes, and the explanation is simple, viz.: that the vaso-motor nerves of the liver are paralyzed in each of these instances.

But the action upon the hepatic centre in the lower part of the floor of the fourth ventricle may be reflex. Thus, Schiff cut the sciatic, and irritating its central extremity produced diabetes, and this experiment has been frequently repeated with success, while the same results have been obtained after section and subsequent stimulation of the central extremity of the pneumogastric.[3] And the explanation of the uniformity of these results is based upon the fact that the vaso-motor channels for the liver pass partly through the spinal cord and partly through the sympathetic.

Direct stimulation of the liver may also cause glycosuria. Thus, Harley[3] injected ether and ammonia into the portal vein and sugar appeared in the urine; but Schiff[4] found that puncture of the liver with needles accomplished the same result. The most decisive experiment, however, was that of Pavy,[5] who merely tied the portal, and allowed the liver to be fed solely by the hepatic artery, which is quite capable of sustaining the nutrition of the organ. Sugar appeared in the urine. All of the experiments thus far cited may severally be interpreted, so far as the glycosuria is concerned, from the point of view that in each instance the blood in the liver became unduly oxygenated, and in the absence of any other explanation this one seems to be satisfactory.

But an excess of glucose, or of any substance that is capable of being converted into it, directly or indirectly, through the medium of glycogen, may produce glycosuria, and if we realize that after the injection of starchy or sugary food glucose is found in the small intestine, and subsequently in the chyle, during ordinary digestion in healthy persons, it is quite comprehensible that an excess of these or allied substances may accumulate in the system, and to an extent that they are only partially assimilated. As a matter of fact it is noticeable, in this connection, that the pancreas, whose juices are primarily devoted to the task of converting starchy substances into

[1] The substance of this paper served to open the discussion on diabetes mellitus at the meeting of the Clinical Society of the New York Post graduate Medical School and Hospital, January 17, 1885.

[2] Landois and Stirling, i., p. 511. Neubauer and Vogel: Analysis of the Urine, p. 404.

[3] George Johnson: Albumen- and Sugar-testing, p. 43.

[4] Dalton, Human Physiology, pp. 61 and 173. 1882.

[5] Landois and Stirling: Human Physiology, p. 511. 1884.

[6] Donkin: Diabetes and Bright's Disease, pp. 62, 63.

[1] See Schiff, Journ. de Anat. et Phys., 1866, pp. 376, 379; and Landois and Stirling, vol. i., p. 352.

[2] See Landois and Stirling, l. c. Kulz: Schmidt's Jahrb., 10, 1884, p. 72.

[3] Pavy on Diabetes, p. 83.

[4] Schiff, Jour. de Anat. et Phys., 1866, p. 379.

[5] Op. cit., p. 81.

glucose, has been found in a large number of cases altered. Rokitansky[1] found it small, hard, and irregular in about fifty per cent. of his post-mortems in diabetics.

This description, thus tersely furnished by one of the most celebrated pathological anatomists of our day would indicate that the organ had been the seat of chronic congestion, and, in the absence of proof to the contrary, we are justified in inferring that owing to some abnormal influence its juices were so diminished in quantity or altered in quality that they were unfitted to perform their ordinary duties; and experiments may yet prove that the same sort of vaso-motor disturbance, if not the identical agency, may affect the pancreas equally with the liver. In fact the province of the former, so far as we understand it, appears to be wholly related to its action either upon the carbo-hydrates, fats, or albuminous bodies,[2] every one of which is capable of being converted into glucose.

But in still another class of instances we may have glycosuria, as when the secretion of a part in full activity is suddenly checked or arrested, in its elaboration of a saccharine material. Thus Lehmann[3] found that sugar always appeared in the urine of women from four to forty-eight hours after the weaning of an infant; the system in such case being suddenly overpowered by an excess of lactose (sugar of milk), and it has been found when there was an obstruction merely to the flow of milk (De Sinety[4]). Of course this position is abundantly sustained by our clinical experience in chronic cases of glycosuria, where, by merely cutting off the starches, sugars, and allied substances, the quantity of sugar in the excretions is reduced to a proportion closely related to the reduction in amount of these carbo-hydrates and their allies.

It is next our plan to inquire into the prominent pathological findings not already noticed, and to observe in how far they support the views that have been advanced. It is to be said, in the first place, that the liver has been frequently found altered (in about fifty per cent. Rokitansky[5] found it brown, hard, and indurated), and at this point it may be well to state that at a recent post-mortem of a diabetic there was marked cirrhosis, though of the variety that has been noticed chiefly in syphilis, where the individual liver-cells are separated by a new deposit of connective tissue; and as a further contribution to this topic the writer recalls to mind a case that has been under his observation where the individual had tertiary syphilis, and possibly, therefore, a cirrhotic liver, and whose restoration to a fair degree of health was ascribed to a six months' anti-syphilitic course.

Though we have thus far implicated the nervous system, liver, and pancreas in the development of glycosuria, it is tolerably clear that the first named is usually the point of departure for the disease, and that the affections of the organs last named play a secondary part. This statement is based upon our clinical knowledge. But it is equally true, though more rarely so, that the liver or pancreas, chiefly the former, may develop glycosuria, through some organic changes in their tissues. Thus Klebs has recorded an instance in which there was a great dilatation of the hepatic and splenic arteries, and gastric branches of the cardiac axis.[6] We need not be detained long with the peculiar appearances described by Dickinson[7] about the cerebral vessels in a diabetic. The characteristics of his case are probably not in any way related to disease, but are those which are found in brains that have been prepared in a peculiar way. This is the view that has been taken by many prominent pathologists. The "vacuolization," or "Gruyère cheese" formation, was probably due to an unnatural dilatation of the lymphatic channels, caused by the shrinkage of the cerebral tissues, from the use of alcohol as a hardening reagent. Richardson's[8] findings are noteworthy, for he narrates that he found an ossific growth pressing on the pons.

Von Frerichs[1] found a fibro-myoma of the pneumogastric the size of a pea pressing on the floor of the fourth ventricle.

Harley,[2] in one case, found a clot pressing on the fourth ventricle, and extravasations of blood have been noticed in the spinal canal, the clot causing vaso-motor paralysis, possibly by the pressure brought to bear upon the vaso-motor nerves. Numerous findings of similar bearing have been published.

We next pass to the kidneys, which naturally hold a subordinate place in our study of diabetic pathology, for though they serve as the media by which the saccharine blood of the kidney is converted into urine they are not affected unfavorably until the disease has become chronic. At least this is the conclusion to be derived from clinical experience, for it is only in advanced cases that we detect the swollen and granular condition of the parenchyma. No doubt this renal complication occurs in a large proportion of the cases. (Rokitansky says sixty-seven per cent.) Of course, if such a volume of water passes through the organs, it is but natural for them to increase in size, and the passage of sugar would be apt, by its irritating qualities, to cause an infiltration of the epithelial elements, both of which characteristics belong to the advanced stages of the disease.

The lungs next claim our attention. Dickinson[3] found them ulcerated and inflamed in twenty-five out of twenty-seven cases; Griesinger[4] found tubercles in thirty-nine per cent. The precise nature of the pulmonary difficulty is still *sub judice*, Pavy and Dickinson denying the tubercular nature of the affection.

In this connection it is interesting to note some recent studies by Leyden.[5] He found at the autopsies of diabetics that often miliary tubercles were absent, or that there was no general eruption, or, finally, that a sort of obliterating arteritis was present, and that as the result of it certain lung territories had become necrotic, exhibiting the so-called coagulation-necrosis of Cohnheim. This tendency to disease in the smaller arteries was due, whether in the lungs or elsewhere, to the diminished quantity and thickening of the blood, cardiac weakness, and loss of muscular force, especially in the respiratory muscles.

Whatever be the proper view of this question, it is evident that the lungs are not primarily affected, and this conclusion is based upon clinical experience, which shows that in the prediabetic period of life there are proportionately fewer manifestations of pulmonary phthisis than in ordinary individuals taken from a general average. We may take the occurrence of phthisis in the community at large at the figures of 1 to 7 (an average estimate). But in my cases it was in the prediabetic stage as 1 to about 13. This result, then, so far as it shows anything, proves that phthisis is comparatively seldom the precursor of diabetes. Of all complications of glycosuria, the most frequent and the most dangerous is the morbid alteration of the kidneys, evidenced by the occurrence of albumen and casts in the urine, and other symptoms which are classed as uræmic.

The foregoing considerations have prepared us for the study of the etiology of diabetes, and have indicated the sources of the disease. As in many others, there is in glycosuria often a hereditary influence, possibly a congenital weakness of the nervous system, or an undue susceptibility to external impressions. This is shown by the fact that its origin is frequently traced to a mental or physical strain, especially in families where there is insanity, epilepsy, or functional nervous disturbance of any sort. With them a violent mental shock, or blow, in which the nervous system receives the most damage, es-

[1] Rokitansky: Lehrbuch der Path. Anat., 1855-61.
[2] Neubauer and Vogel, p. 101.
[3] Zimmer (Schmidt's Jahrb., 10, 1884, p. 73) thinks that the muscular tissue furnishes sugar to a large extent.
[4] De Sinety: Gaz. Med. de Paris, 1873, 43 and 45.
[5] Rokitansky: loc. cit.
[6] Coats: Man. of Path., p. 78.
[7] Dickinson: Diseases of the Kidney, Part I., p. 37.
[8] Richardson: Medical Times and Gazette, March and May, 1862.

[1] V. Frerichs: Ueber dem Diabetes, 1884 (Schmidt's Jahrb.).
[2] Harley: The Urine and its Derangements, p. 247.
[3] Dickinson: Diseases of the Kidney and Liver, Part I., pp. 52, 53.
[4] Griesinger: Arch. f. Phys., Hlkd., 1859, p. 49.
[5] Leyden: Zeitschrift f. klin. Med., iv., 1882. Schmidt's Jahrb., 10. 1884.

tablishes the disease. Often several of these etiological factors combine, as in a medical student formerly under my tuition, and under the medical care of a colleague. He was a young man, quite obese, and therefore a good subject for diabetes. While preparing for his medical examination, he became suddenly straitened in his finances, and took to drinking lager beer to excess. Glycosuria set in, very actively, no less than four gallons having been passed in one day. After diabetic treatment had been instituted, with bromides and opiates, the unfavorable symptoms yielded and disappeared altogether within eight weeks. Whether exposure to cold or dampness or malarial poisoning should be considered as causes of the disease, are topics that may still be questioned. There is no doubt that a male subject who has passed the middle period of life is in most danger.

We shall best come to an understanding of the clinical phenomena of the disease, if we realize, as the evidence before us clearly demonstrates, that there are three tolerably distinct forms of glycosuria. They may be designated as: (1) *temporary*, of which an example has already been given in the case of the medical student who drank four quarts of lager beer, and in whom, under sedative treatment and a restricted regimen, recovery took place in a few weeks; (2) the *mild* form, in which the disease will continue for years with few symptoms that distress, and all of which may be regulated or mitigated by appropriate treatment, so that the diabetic will improve in strength of mind and body, and concern himself but little about his sugary urine. The classical features of this disease may be so modified that he cannot be said to have "inordinate thirst," "excessive appetite," or "bodily wasting;" and though he have sugar in the urine, he may pass little or no more than in health. Such cases are comparatively uncommon, but occur occasionally among old and obese men, though sometimes in the middle period of life. They serve to indicate, however, that the term diabetes, indicating, as it is intended to, an increased flow (*dia*, through, and *baino*, I flow), is a misnomer. And since the only one constant symptom is sugar in the urine, we may more properly use the word glycosuria, which covers the ground precisely and satisfactorily.

In fact, the word diabetes is practically equivalent in significance, though not so precise, as polyuria, which indicates merely a clinical condition, common to the so-called diabetes insipidus, all forms of the sclerotic kidney, certain neurotic disturbances, and glycosuria. This form we may call (3) the *severe*, it is the classical variety with which we are best acquainted.

With this broad classification of the disease in types we may undertake the consideration of some details that bear upon its symptoms. Though the disease is most common in males and about the fiftieth year of time, it has occurred at almost every age. A child of twenty months has had it, and in the young it is commonly severe and rapidly fatal.

In the majority of instances, it progresses steadily to a fatal issue. At first there is a premonitory lassitude, with certain dyspeptic symptoms, such as flatulence, possibly vomiting; there is also usually neuralgia, and often dizziness. Though the patient feels that his strength is failing, he does not consult his physician until the thirst at night urges him to get up to satisfy it; then he appreciates that his urine is becoming excessive in amount, but, though his appetite is good, food does not seem to give strength. The urine is usually of a light yellow color, thick in consistency, sweet to the smell, and has a high specific gravity. The skin is now apt to become dry, the countenance pale, and the lips seem to be covered with sordes, but it is merely a collection of sugar. All of these symptoms may improve under treatment, but they usually do not, the patient gradually but surely failing—his thirst becoming more inordinate, his appetite more acute, while he is constantly craving for starchy food.

As he emaciates, boils are apt to break out on his body. Sexual power fails, and, in about one-half the cases, cough sets in, and pneumonia or phthisis is established. Death may ensue from either of these complications, or the urinary symptoms may abate, the sugar diminishing, and with it the thirst, and improvement appears to be at hand, when it is suddenly apparent that a new complication affects the prognosis: for, although the amount of sugar may be reduced to a minimum, or even disappear entirely, and the specific gravity fall to the normal, and with it the volume of water, albumen and casts will be detected in the urine, and the kidney is now the source of greatest danger, for coma may at any time supervene and be the last scene in the drama. This last complication is not generally recognized by those who have written on urinary diseases, but it is a condition which is most common. In rarer cases sudden coma may ensue, and from the peculiar reaction that is given to the urine by the perchloride of iron, acetonæmia is believed to have been developed, causing the fatal issue. It has been my experience that in a goodly number of cases, the urine being in great measure suppressed, it is not examined, or else we should find that the coma is uræmic. In doubtful cases, a catheter should be used to draw the water for examination. Death sometimes occurs from cardiac failure, showing that the heart must always be sustained where it is known that the danger lies in this direction. When uræmia is impending, it will sometimes be observed from the sudden swelling of the lids, face, or extremities; the headache will become more marked, the mind clouded, and gastric symptoms more pronounced. But, owing to the watery condition of the blood, œdema of the extremities may occur independently of nephritic trouble.

An attack of diabetic coma may be thus described: It is insidious; occurs with prostration, headache, restlessness, and anxiety, pain in the epigastrium, nausea and vomiting; suppression of urine: the pulse, at first quick and feeble, is afterward slow and intermittent. The breathing is short, labored, and superficial. The mind is disturbed, and memory often for the time affected. There may be delirium. It has been thought that an attack can be induced by a diet rich in albumen, but poor in starch. This is probably true. Such attacks must be differentiated by apoplexy and alcoholism. Whatever may be the immediate cause, they will supervene sooner or later in the majority of cases.

In the mild form of the disease the unfavorable symptoms are often brought immediately under control by a proper dietetic treatment, with or without medicinal reagents. In many of them there is but little, if any, increase in the quantity of water voided, the disease is characterized by intermissions of such length that the patient imagines himself cured; the disease is not only arrested, but the symptoms have very much improved. I have in mind such a case. The patient was attacked seven years ago. He suffered much from thirst, inordinate hunger, and nervousness. He had been syphilitic. No remedies appeared to do him much permanent good, until he was put upon a full six months' course by his physician, and now he appears to be in much improved general condition, has regained his strength and weight to a marked degree, has a florid complexion, and is only disturbed by his thirst, which he allays by drinking red wine in moderate amount at meal-time.

The incidental form is observed after whooping-cough, asthma, poisoning by chloroform, carbonic oxide. Its character is so evanescent that it seems as if it can hardly be called a disease.

From a review at this point of the records of physiological study, experimental pharmacology, morbid anatomy, and clinical medicine, it may be seen that we are prepared to understand most of the conditions under which glycosuria exists, and it is not improbable, as has been already intimated, that the solution of the remaining problems will not be difficult. It would appear, then,

that there exists in certain families a tendency to the disease, which has for its very near relations certain nervous disorders, such as insanity and epilepsy; among skin disorders, eczema. In this class of persons more than in others, a severe mental strain or a physical shock, in which the nervous system is profoundly disturbed, glycosuria is apt to occur; though with a suspension of predisposing and existing causes, there is apt to be a suspension or suppression of the glycosuric symptoms. But the method by which the influence is brought to bear upon the system is through the vaso-motor system, the medium being either the sympathetic directly or indirectly. Under such pathological action a disturbance of the hepatic circulation takes place, by which probably the blood of the liver is unduly oxygenated, the experiments of Pavy being apparently conclusive on this point. Again, any injury to the liver substance, such as laceration, may cause the same condition, and therefore we infer that a special irritation of the hepatic cells is also competent to produce glycosuria. But the amount of sugary material or carbo-hydrates, ingested fats, or albuminous substances, all of which are capable of being converted into sugar, may be so great that neither the liver nor pancreas can assimilate them, and they will therefore appear in the excretions; or finally, it may be possible that the pancreatic juices—whose provinces embrace the conversion of starch into sugar, emulsification of fat and solution of albuminous matters—are so altered in quality or quantity that they do not perform their proper office. In support of this view the pancreas was found diseased by Rokitansky in about one-half the post-mortems of diabetic patients, as already stated, and other changes noted by Klebs, Frerichs, and Recklinghausen,[1] would appear to offer corroborative evidence.

In glycosuria the amount of water passed during twenty-four hours will vary, in uncomplicated cases, from forty ounces or thereabouts to several gallons. In the mild form the quantity may not be increased above the normal. In a severe form Bence-Jones has known seven gallons to be passed. A fair average would be about four quarts. But it is known pretty positively that the amount passed does not exceed the amount of fluids taken into the body by way of drink. The specific gravity varies from 1.015 to 1.060 and more, with an average of perhaps 1.030 to 1.035. The quantity of glucose will vary from seven to twenty-five ounces in weight, and has reached two pounds. An average of four to five ounces of sugar represents the ordinary amount. Urea is always in excess; sometimes it reaches five times the normal quantity.

Of the twenty or more tests for sugar it is needless for us to detail them all; but an enumeration of them may be interesting: (1) There is the polarization test; (2) then that with caustic potash; (3) with quicklime; (4) with common salt; (5) with potassic or sodic hydrate; (6) with caustic potash and sulphate of copper; (7) with indigo-carmine; (8) by fermentation; (9) by the ammoniated solution of nitrate of silver; (10) by the carbonate of sodium and subnitrate of bismuth; (11) by the hydrate of potassium and molybdate of ammonia; (12) Fehling's; (13) Fehling's, modified by Pavy; (14) Trommer's; (15) Moore's; (16) Bence-Jones'; (17) Brücke's; (18) Johnson's picric acid[2] and potash; (19) Roberts' differential density, for quantitative analysis.

For practical purposes Trommer's and Fehling's answer satisfactorily for qualitative analysis, and Roberts', the volumetric, or Johnson's for the quantitative. Moore's is now abandoned, because it will not indicate a proportion of sugar less than two grains to the ounce.

The objection to Fehling's volumetric test is that it is not always easy to determine at what point the blue color disappears, for the cuprous oxide still remains after the cupric oxide has disappeared. This difficulty has been met by Pavy (Johnson), who adds ammonia to the mixture.

[1] See Coats: Manual of Pathology, p. 78.
[2] See Neubauer and Dogel, p. 101.

In practice this method has its disadvantages, because the ammonia given off is extremely disagreeable, and air must be excluded during the test.

For those who can detect slight changes of color or tints, George Johnson has devised a picric acid and potash test that offers some special advantages for bedside use, as the apparatus can be carried in the pocket and both the qualitative and quantitative examination made in the consulting-room. This apparatus, however, has (according to his admission) the following disadvantages, which are sufficient to prevent its being generally accepted. In the first place, the standard solution changes color by exposure to the light, and must, therefore, be kept under cover, and secondly, we may assume that a large number of persons cannot appreciate the shades of color by which the quantity is estimated. We are therefore obliged, for the present at least, to fall back upon Roberts' differential density test, which in practice will be found to be second only in point of precision to the cumbrous method of evaporating to dryness an ounce of urine, washing and weighing the residue.

From the reports that we now have access to it would at first appear that the disease is increasing in frequency, but it should be remembered that we are more prone to detect it now than formerly. According to English statistics taken during the decade from 1851–60, one death from glycosuria occurred annually in an average population of 40,000; but in some instances the proportionate mortality is much less. In some statistics it is given as 1 to 86,000; in others 1 to 68,000. Of cases treated at the New York Post-graduate School and Hospital there were only 3 in the first 10,000. Romberg found 3 to 10,000 at the Vienna Polyclinic. The following statistics were derived from a study of 40 cases which I have collected in my own experience and in that of my friends. It occurs more frequently in males than in females; of my cases 27 were males, 13 females. The age varied from nine to eighty years, but the disease began in the larger number after middle life had been passed. In many instances the early symptoms were referable to the nervous system, but in most the premonitory symptoms were ill-defined.

The exciting cause in seven was set down as abuse of alcoholics; in four, mental anxiety; in four, concussion of the spine; in one, sexual abuse; in one, the opium habit; in one, syphilis. The specific gravity varied from 1.015 to 1.044; the amount passed daily from two quarts to four gallons; the amount of sugar per ounce from five grains to forty grains. But few post-mortem examinations were made (three), and the findings given were: in one, cirrhosis of the liver; in one, peri-hepatitis; of pulmonary lesions, in two, congestion of the lungs; in one, gangrene. The treatment in two only was successful (five per cent.), and the method employed in one was codeine in small doses, with a restricted diet; in the other, preparations of opium and the bromide of potassium, with a restricted diet. The disease was also arrested in two cases (five per cent.), in one by iodide of potassium and Fowler's solution; in the other by bromide of sodium in large doses (thirty grains), three times a day, and ergotine. These last two cases were regarded at times as cured. Improvement followed in eight cases (twenty per cent.), under 1, Fowler's solution; 1, codeine, skim milk, and restricted diet; 1, jaborandi and pancreatized milk; 1, opium, cod-liver oil, and iron; 1, cod-liver oil, sulphide of calcium, and dietetic treatment; 1, iodide of potassium; 1, dietetic treatment alone; 1, restrictions as to sugar only.

The complications were, so far as noted: pneumonia, 2; phthisis, 7; Bright's disease, 7; albuminuria, 1; coma, 3; acetonæmia, 1; sloughing ulcers of feet, 1; eczema, 2; and hemiplegia, 1. It will be observed that though there is a lack of definiteness as to the precise nature of some of the complications, the chief dangers are from the lungs or kidneys, and it is not impossible that the instances of coma may largely have been due to uræmia, which in

my view of the case is the most frequent cause of death. Whether in the cases where phthisis was recorded as a complication, tuberculosis was intended, is a matter that cannot be decided at present.

The duration of the disease is usually (on a general average) from one to three years, though death has occurred in eight days; and one only of Griesinger's 100 cases lived seven to eight years. But there is a case on record in which the patient lived eighteen years. It has been said by Vogel, that gouty persons and those who live on rich food have a comparatively favorable prognosis. He treated such a case in an old person for ten years or more, and the general health was but slightly disturbed. The younger the person, *cæteris paribus*, the more unfavorable the prognosis. We have already observed that complications affect the prognosis. Thus, according to some statistics one-half the cases have pulmonary tubercle. There is also a tendency to pneumonia which may cause death independently of the diabetes. Then gangrenous inflammations have their influence in determining a fatal issue. In a case under my observation, death was much accelerated by this condition, though phthisis and parenchymatous nephritis also had their part. It is possible, indeed, as it has been stated, that carbuncles may cause death.

According to the reports of the London Hospital for eight years, coma caused death in 19 out of 37 cases, and pulmonary phthisis in 9. According to Guy's Hospital Reports, 33 out of 53 diabetics died comatose, but death may occur from sudden heart failure. According to my own statistics of 40 cases, the causes assigned were as follows: Pneumonia and suppression, 1; pneumonia and cardiac failure, 1; pulmonary hemorrhage, 1; phthisis and coma, 1; phthisis and nephritis, 1; hemiplegia and nephritis, 1; nephritis, 1; coma, 2; acetonæmia, nephritis, 1. Thus we see that kidney and lung diseases are the factors most prominently concerned in the causation of death.

One of the first principles to be laid down in the treatment of glycosuria is that a strict dietetic regimen should be enjoined, so that all sugary and starchy food, together with all substances capable of conversion into them be excluded from the diet. But while this plan is imperative, it is often hardly less desirable that the change be not made too suddenly or completely. We should be satisfied with throwing over first one and then another of the carbo-hydrates, until none remain. Some persons can, without much suffering, accommodate themselves to their altered mode of life; others cannot, so well, and will seek and find opportunities to break in upon the restrictions. But the physician will more often be called upon to treat the concurrent symptoms, and perhaps first of all the neuralgic and muscular pains. The bromides often are sufficient, but sometimes opium or its alkaloids have to be resorted to. Perhaps as popular a remedy as any for these phenomena is codeine, first recommended by Pavy, for it accomplishes the result and without increasing the constipation that is often so aggravating a feature of the disease.

Ergot and ergotine have been found successful, and indeed they are indicated as remedies to combat vasomotor paralysis. An empirical remedy which is thought well of by several of our best clinicists is Clemens' solution of the arsenite of bromine, of which the dose is three drops three times a day. The sulphide of calcium in from one to three-grain doses, three times a day, has been used with good effect by two practitioners of my acquaintance.

Gluten and bran breads have not met with general favor for any great length of time. Patients usually object to them as being unpalatable. A point of practical importance in the management of any such case is that the patient should be made to understand that the more rigidly he adheres to the restricted diet, the sooner will the unpleasant symptoms disappear, and that he may hope, after from six to eighteen months of treatment, to be able to return to a mixed diet. When this favorable point is reached the carbo-hydrates should be gradually one by one restored to the food, but only if there has been a total absence of sugar for several months. Of course all diabetics should be made to understand that their position is never free from danger.

Most often complications set in, and these have to be guarded against. The danger may come from the lungs, from the kidneys, the heart, or even from the skin. Symptoms indicating such implication of organs should be duly noted, and it is therefore desirable for the diabetic to report frequently to his physician, and especially that his water be regularly examined. Once a week, when under treatment, is not too often, and then nephritis will be recognized in time to guard against it. Necessarily, then, the treatment of diabetics must be always in the direction of the greatest danger. Pulmonary complaints must be met with cod-liver oil and iron; nephritis with iron, digitalis, and diuretics in general; when the heart must be sustained, by alcoholics or diffusible stimulants, and the nervous disturbances regulated by sedatives. Coma is the most insidious and dangerous symptom; though cardiac failure is hardly less alarming. As has been indicated, the coma is usually uræmic, and we, therefore, should be prepared for the most active treatment to relieve suppression. Sometimes when other remedies fail and coma is deepening, the muriate of pilocarpin by hypodermic injections in three-fourths grain doses, will have a most happy effect. In advanced cases it may be desirable at times to return to a mixed diet, rather than run the danger of nephritis, which appears sometimes to be set up by the use of nitrogenous food. Whether the trouble be renal or cardiac, treatment, fortunately, if well directed, will carry the patient successfully over many alarming attacks.

HOW MUCH SHALL THE DOCTOR BE PAID?

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In considering the question of the amount of compensation due the physician or surgeon for his professional services, there are two or three preliminary points which require an answer favorable to the practitioner. There must be no doubt as to the fact of the services being faithfully and skilfully rendered, and the charge of malpractice must not be raised against him. If there is a question as to the skillfulness of the treatment the compensation may be seriously cut down, or if an improper and harmful mode of treatment has been adopted, the right to any compensation at all may be denied, and the patient allowed to recover damages instead.

Under the usual circumstances, however, of skilful treatment the interesting question presents itself of the amount which the physician can properly ask from the patient.

It may be said at the outset that there is no legal rule requiring all practitioners to accept the same fees for the same services. The professional eminence and knowledge of some members of the guild makes it proper for them to ask and to receive higher rates of compensation than those given to young and inexperienced men. This is a sound principle in law and in common-sense, and will be respected by courts and juries. The importance and delicacy of an operation or mode of treatment are, of course, to be considered in estimating the amount of a charge. The wealth of a patient is also an element to which some weight can be given, and within proper limits larger charges, based upon this consideration, will, no doubt, be allowed by the courts.

It occasionally happens that a physician will make an agreement with his patient to make no charge unless a cure is effected. Such an agreement is a foolish one on the part of the physician, as it obliges him to take the risk of contingencies which may be absolutely beyond

his control. The physician has no infallible knowledge which will enable him to predict with positive certainty the outcome even of a slight ailment, and much less is this true of the result of more serious ones. The promise, then, is objectionable in itself as presuming upon the prerogatives of a Power higher than that of the physician. In addition to this the risks of such a promise are needless.

If a promise of this kind is made, however, the physician will be held to it absolutely. Nothing will excuse the failure to effect a cure. In the case of Smith *vs.* Hyde, 19 Vermont, 54, the physician made this agreement with his patient, and afterward during the course of the treatment, feeling uncertain about his payment, asked the patient's son for some security. A written guarantee was then given by the son, and when payment was refused suit was brought upon this guarantee. It was shown on the trial that a cure had not been effected, and although the guarantee made no reference to this agreement and did not seem to have been made in connection with it, the Court held that there could be no recovery. The guarantee must be construed in subordination to the "no cure, no pay" agreement. When there is no express promise to pay a fixed amount for a physician's services, and this is usually the case, the law implies a promise to pay what is reasonable. The gauge of what is reasonable is largely in the physician's control, but when a dispute arises a jury becomes the final arbiter, and the practitioner is obliged to accept its estimate of the value of his services. As juries are uncertain bodies, at one time giving large verdicts, and at another cutting down the recovery to meagre limits, it can hardly be said that the physician has any way of accurately forecasting the result of a suit.

Juries in the city will be likely to give a higher rate of compensation than similar bodies in the country, and the professional position of two physicians may be so diverse, that very different amounts may be given in the two instances for exactly the same services.

There being, then, no invariable rule to govern these cases, the only way to secure information as to the compensation which juries deem to be reasonable will be to consider some of the cases as reported in the law-books.

It may be said that the tendency of the average juryman is to give the physician less than he asks. Perhaps this is done for personal reasons and because the juryman knows that sooner or later he will be obliged himself to receive a physician's bill; and he wishes to impress the profession by his verdict, for his own advantage, with the idea that small bills are to be preferred to large ones.

In Baxter *vs.* Gray, 4 Scott, N. R., 374, an English case, a surgeon rendered services to a certain Mary Bostwick from 1829 to 1840, but expecting that a legacy would be left him, did not present a bill. At this time and until 1858 in England there could be no recovery for medical services unless there was an express promise to pay. Upon the death of the patient, without mentioning the surgeon in her will, a bill was presented to the executors for £500. Payment being refused, suit was brought and a verdict secured for £250, but the record does not show the extent or value of the services rendered. It can only be inferred from the length of time (eleven years) that the claim might fairly be a large one.

In another English case, Stackman *vs.* Vivian, 34 Beav., 290, the physician treated a lady for several years, but received no compensation, except on one occasion when he was called to attend a servant in her family. On the day before her death, the lady wrote to her executors asking them to remunerate the doctor in a handsome manner, and in addition she gave him in her will £3,000 and a reversionary interest in £6,000 more. The physician was not satisfied with this, but brought suit for his fees. There does not seem to have been an express promise to pay, and it was proven on the trial that the physician had treated other persons without having sent in any bills. His claim was, therefore, disallowed by the court. It would seem in this case as if the physician had been well paid, and that the suit ought to have been decided against him.

In an interesting case in Louisiana, decided in 1856 (Succession of Victor Duclos, 11 Louis. An., 406), there were two physicians attending a patient; one of them, Dr. Aufoux, presented a bill for eighty visits, day and night, amounting to $175; and for thirty consultations, amounting to $300, the whole bill being $475. The other physician, Dr. Natili, put in a bill for $320, without specifying the character of the services. On the trial the jury gave $195 to each physician. The verdict was appealed from, and the court held that even this amount was too large. It was decided upon the evidence that only two visits in each case were entitled to rank as consultations, and that there were fifty-four visits in all paid by Dr. Aufoux, and fifty-two by Dr. Natili. The court further held that when there was contradictory testimony as to the proper charge, it was right to take the lowest estimate given. On this theory the court took the rate given by one physician, who testified that a reasonable charge would be $10 for the first consultation, and $5 for subsequent ones, while for ordinary visits $2 might be charged for the first and $1 for subsequent ones. On this basis Dr. Aufoux was held to be entitled to $15 for consultations and $53 for other visits, or $68 in all, and Dr. Natili to $66. This was certainly a heroic reduction, and while it may have been warranted in this individual case, it can hardly be said that the rule for the court to take the lowest rate of charges testified to as reasonable by different experts, is necessarily binding on the courts of other States.

A physician is not absolutely bound as to the value of his services by the bills he may have presented. If payment is not made promptly he can bring suit for what he deems reasonable, and the jury will give a verdict on the *quantum meruit*.

In Miller *vs.* Beal, 26 Ind., 234, where the question was in regard to the value of an attorney's services, the principle being the same as in the case of a physician, it was held that the "demand upon the appellant for payment of a sum named could only be regarded as a proposition to receive that amount in discharge of the debt, and as furnishing evidence to the jury of the value placed by the appellee upon his own services. Payment of the sum demanded would have been an acceptance of the proposition, and, no amount having been fixed by previous contract, would have been conclusive upon the parties. In the present case there was evidence from which the jury might find that the proposition was not accepted, and that the services were of greater value than the sum demanded."

It may be said, however, as a practical rule, that a physician had better stick to a bill once presented, no matter how small it may have been, and notwithstanding the fact that it was intentionally made lower than usual to induce prompt payment. A jury will not be inclined to view with favor any increase in a bill from what it was originally. This, at least, is the experience of the writer in testing the temper of juries in similar circumstances.

The physician, as a usual rule, is not an expert bookkeeper, and his books, when brought before a jury, not infrequently cause derision. It is necessary, however, in most cases to present the original entries for examination whenever there is a dispute in regard to the number, character, or value of the visits made. It is not proper to make a general and indefinite charge of "medical services." Dates will be required as well as the number of visits.

In the case of Hughes *vs.* Hampton, Const. Rep., 745, a South Carolina case, the physician made a lump charge of $13 for medicine and attendance on one of the general's daughters in curing the whooping-cough, and the natural objection being made that the charge was too vague the plaintiff was not allowed to recover.

In Simmons *vs.* Means, 8 Sm. and Marsh, 397, a Mis-

sissippi case, tried in 1847, the plaintiff sued for $150 for medical services and recovered $130, which verdict was reversed on the ground of insufficient evidence. It was held that a physician should show that he kept correct books, and that the account sued for was correctly copied from these books, upon which evidence he will be entitled to recover the amount of his account, but in all other particulars the physician must be held, like other persons, to the customary rules of evidence.

In Lance *vs.* McKenzie, 2 Bailey, 449, the Court said: "The usages of the medical profession have given to their professional services for the most part a fixed value. And the value may be ascertained with a tolerable degree of certainty from description. This the physician may furnish, and he is bound to do it, as the means of informing the judgment of a court and jury as to the value. Without it he is the sole judge of the measure of his reward; and, however safe that privilege might be in the hands of liberal and honorable men, it would be unsafe to confide so much to any class of men. The rules of the Medical Society of South Carolina, by which regular physicians are usually governed, prescribe, as I am informed, specific rates as far as specification is practicable; and, as far as my own intercourse with the profession extends, they are observed with great particularity. They owe it to themselves as the means of avoiding suspicion of extortion to be thus particular, and, as it is alike necessary to protect the community from imposition, it ought to be rigidly exacted. The rule that medical charges must be specific is distinctly laid down in Hughes *vs.* Hampton (cited above), and has been invariably acted upon ever since. One of the witnesses on the trial states that his own habit was to charge for medicine generally without specifying kind or quality. Between him and his patients the court disclaims the right to interfere; but if he come here and is put upon his proof, he will be obliged to make out his case according to the settled rules of evidence."

The existence of epidemics does not allow excessive charges to be made. This point and the further one of particularity in charges came up in Collins *vs.* Graves, 13 Louis. An., 95, in 1858, where the following bill was presented:

J. W. Graves

To R. T. Collins, Dr.,

1855. To waiting on himself, wife, daughter, son, and negro woman during the yellow fever, at $100 each..... $500

The jury returned a verdict for $150, with interest. The testimony as to the value of services rendered during yellow fever epidemics was contradictory, some witnesses testifying that double the ordinary rates were customary, others that it was usual to make a charge of $100 for heads of families and $50 for each other member.

No evidence was presented as to the number of visits and the court held that under the Louisiana decisions the lowest rate was the proper one; but as the record did not show the number of visits, a new trial must be granted.

These citations do not cover by any means the various questions arising in cases involving the amount of compensation due physicians, but they show some of the principles involved.

For the Country Doctor.—An Englishman has devised an arrangement for driving a horse with one's feet. The feet rest on a firm board, and the horse is guided by raising or lowering the toes, thus bearing on one or other rein by means of straps in connection with them, which pass over the pulley mounted on the front board of the vehicle. The driver's hands are quite free, and may be inserted in the pockets of his great-coat, or grasp firmly a hot potato.

REMOVAL OF THE UTERINE APPENDAGES—RECOVERY.

By MARY A. DIXON JONES, M.D.,

Brooklyn, N. Y.

Miss A. Y——, twenty years of age, had been an invalid seven years, suffered with constant pain in the pelvis, increased at the menstrual molimen, and had various reflex nerve-symptoms. Her whole nervous system seemed to be greatly disturbed and in an abnormal condition. She was the younger of two children, both parents living; mother was extremely nervous and especially depressed before the birth of this child. The patient when young was not strong. Menstruation commenced at the age of thirteen, but a year previous to its occurrence she suffered with constant pain in the right side of the pelvis, so great that a physician was called in—a homœopathist—who said "it was because her courses were coming on," gave her some drops, and made no other effort to relieve her, or find out the trouble or the cause of her suffering. We regard menstruation as a physiological function, and not necessarily attended with pain. If the genital organs are healthy, and the system in a proper condition, there will be no special trouble or distress; and when there is much trouble or suffering, there is always something wrong locally or constitutionally.

The pain in the side continued to grow worse, the distress at the menstrual period lasted longer and was more severe, and she was less and less able to sit up each time; said, "I went myself to a doctor in New York to see what the matter was." This second homœopathic physician diagnosed her case as threatened hernia, to prevent which, he had from time to time her whole abdomen bandaged with strips of adhesive plaster. The next physician treated her for uterine disease. The second physician was again consulted, who said there was not anything the matter but a little displacement of the uterus, that could be easily cured, and he introduced a pessary which gave her most intolerable distress.[1] Another physician was consulted, who said she had curvature of the spine. Next physician treated her for "spinal irritation," cauterized each side of the spine, etc. After this she was treated by various physicians for "various nerve-troubles" and "head-symptoms." The next medical man pronounced "the whole difficulty to be a tape-worm," and proceeded by various medicaments to expel it, but it never came. After this she was sent to a homœopathic hospital, where she remained seven months, and her case was published as a cure in one of their journals.

After her return from the hospital she was still sick and suffering, and was attended by many physicians. Some recognized the backward displacement of the uterus; various pessaries were introduced; in all eighteen different kinds were tried during her sickness; each one, she said, was "perfect torture." The last one suggested was McIntyre's interuterine stem pessary. Fortunately she was spared this experiment.

At this time twenty-one doctors had attended her, but, notwithstanding their treatment and their various hypotheses, she was still growing worse, more and more of an invalid, suffering more and more distress, till she was confined to her bed most of the time, and "did not leave it for a period of eighteen months." Now was recommended coccygectomy. I saw her first June 18, 1884. She was in a weak, prostrated condition, suffering with great nervous excitability, complaining of pain in her head, down her spine, around her waist, and in the pelvis. She was pale, pulse feeble, flesh flabby; temperature, 100°, pulse, 95. I could find no evidence of organic trouble of any organ till I came to the examination of the pelvis; here I found the uterus completely retroverted, fundus near the anal orifice, os uteri one-half inch from the ostia vaginæ; left ovary enlarged to nearly the size of a small kidney, dislocated downward, and ex-

[1] Probably at this early period there was some oophoritis.

tremely sensitive. The right ovary was in a similar condition, and surrounded by peritoneal inflammation. The Fallopian tubes were indistinctly felt. At this first examination I informed the parents there was chronic inflammation of the ovaries, probably cystic degeneration, and some salpingitis; and that I believed the patient could be cured only after the removal of the uterine appendages. Still I recommended that she should have medical treatment, with the hope of relieving her distress, improving the condition of the nervous system, and, if possible, curing her without resorting to an operation. The father cordially accepted the idea of the diagnosis, expressed himself as convinced that such were her conditions, though, said he, "it is the first time it has ever been mentioned to me."

The patient spoke of the great soreness in the rectum, from which she had suffered for years; said that "every operation on her bowels hurt the back of the womb"—"always gave her distress, except when the bowels were very loose"—"it was extreme soreness, pain frequently lasting for hours, and pierced right through to the front." She also referred to her great suffering during menstruation, how at all times "the pelvis felt heavy and swollen, a constant bearing down, a dreadful feeling which extended up to the chest and down the legs. And in the legs there was a numbness, pain, and a prickly sensation."[1] At another time she expressed her feelings in these words: "Pain and weakness extreme in every part of the body, and a fearful nervousness."

I requested Professor B. F. Dawson, of the New York Woman's Hospital, to see the patient. He examined her very carefully as to any spinal trouble, found none, recognized the displacement and the disease of the ovaries, and thought much of her suffering and disturbed nerve conditions were due to reflex irritation, resulting from the diseased condition of the ovaries. He also cordially approved of making every effort to relieve and cure her if possible without subjecting her to an operation.

She was put under a course of treatment, medical and hygienic. She had massage twice a day, was kept quiet, bathed regularly, slept well, and had good nourishment. At the same time I made efforts to reduce the inflammation of the pelvic organs, and as soon as the tenderness would allow, endeavored to replace the uterus, and retain the ovaries in position. In some respects she seemed to be better, yet I could not perceive that the condition of the ovaries and tubes was in any respect improved. She was still suffering every day with pain and distress. I even believed their condition was growing constantly worse; and apparently they were incapable of any improvement. There was nothing left but to remove the diseased structures. The father was anxious for the operation to be performed as soon as possible, even desired it to be done during the month of August. He said "he knew it should be done, and he would take the risks."

At this time I requested Professor Gill Wylie, gynecologist of Bellevue Hospital, to see the case. He said he thought there was cystic degeneration of the ovaries, and there was no hope but to remove the uterine appendages. He most decidedly advised the operation.

The young lady was not only anxious for the operation, but said to me more than once, "Now I want you to take out both ovaries, I don't want one left to give me trouble."[2] Another time she said: "I want both ovaries and both tubes removed. Such distress I have suffered for years—I am sore now from my arm-pits to my knees. I want both out, I don't fear the operation; I only dread the ether."

The operation was performed October 11, 1884. Every precaution had been taken as to perfect antisepsis "painfully careful." I had the father to secure large, airy, sunny rooms; no furniture except essentials, floors and walls washed with carbolized water. Sponges had been prepared according to the process described by Weir in the *New York Medical Journal*, modified by the method described by Pilcher in his work on "Treatment of Wounds." During the operation the sponges were kept in a solution of bichloride of mercury, 1 to 5,000. The instruments were placed in five per cent. carbolized water, reduced by hot water to two and a half per cent. just before the operation, according to a suggestion of Goodell's.[1] Two days before the operation the patient was placed upon an exclusive diet of pancreatized milk[2] to lessen the amount of gas in the intestines. The patient had daily evacuation of the bowels, and every day a hot bath followed by massage and inunctions of sweet oil.[3] Fritsch says: "I hold the procedure in which the uppermost layers of the epidermis are fully removed to be of great importance."

Not only were antiseptic vaginal injections used, but, what I regard as very important, disinfectant injections were thrown into the rectum; also I prescribed, just before the operation, two to five grammes of sodium salicylate, for I believe many times the wound is poisoned, and septic conditions induced from retained impurities in the bowels.

Just before the operation, the abdomen was washed off with soap and hot water, portions of it shaved, and the whole again washed off with an antiseptic solution, the umbilical depression wiped out with a solution of iodoform dissolved in ether, two drachms to one ounce. The pelvic organs had been held up with pledgets of cotton wet with a solution of alum and glycerine, a procedure much practised by Dr. Wylie for softening adhesions, and which I have used in many cases with most satisfactory results. The patient was in good spirits, cheerfully awaiting the operation. Ether was administered by Dr. Merritt. There were present Dr. Gill Wylie, Dr. J. H. H. Burge, and Dr. Charles N. Dixon Jones. I made an incision of two and a half inches opening into the peritoneal cavity. On account of the thickness of the abdominal walls, the incision was increased to three and one-fourth inches. I passed in two fingers, found the fundus uteri, and readily brought up the right ovary and right Fallopian tube; there were some adhesions and a few parovarian cysts. The ovary and tube were both diseased. I secured a pedicle, passed in Peaslee's needle armed with twisted Chinese silk, made a chain loop, and tied firmly. Dr. Wylie then held the pedicle with pressure forceps, just outside of the ligature, and I removed with scissors both ovary and tube.

The stump was touched with a drop of pure carbolic acid, and dropped. The left ovary and left Fallopian tube were somewhat more enlarged and more diseased than the right; the pedicle was secured, ligated in the same manner, both ovary and tube removed, and the stump treated as above. Very little blood was lost. The abdominal wound was closed with silver sutures, stitches passing from within outward, according to Goodell's suggestion in *The Medical Times*, which in this case was very important, on account of the thickness of the abdominal walls; for a needle to have passed from without successively through the cut edges of the abdominal walls, with the thick layers of fat, there would have been danger of the cut edges of the peritoneum and of other tissues not being nicely adjusted, or of union not taking place, or of the formation of a neural abscess. Silver sutures seemed very much preferable, not only in holding the cut edges of the thick abdominal walls firmly in apposition, but less likely to excite inflammatory action. At each extremity of the wound a superficial ligature was introduced, one of catgut, the other of silk; both

[1] Dr. F. Mundé reports a case of partial hemiplegia due to apparent sclerosis of spinal cord: he performed oophorectomy, and it was followed by rapid return of power of motion of the lower extremities, after eight years' inaction.

[2] Lawson Tait says: "I have never known a woman to submit herself to the operation without finding sufficient cause to justify its being done." Lecture in Jefferson Med. Col. Hospital: Medical News.

[1] Med. Times. [2] Wylie.

[3] Professor James Hunter: Med. Journal.

caused some suppuration in their tract. The closing of the wound required a much longer time than all the rest of the operation, but I had the satisfaction of feeling that it was all right. After securing the stitches, the wound was dusted with iodoform, then was placed immediately over it a small piece of Lister's oil-silk protective, after which I laid on several layers of wet corrosive sublimate gauze, then several layers of borated cotton, on which was placed a layer of McIntosh's thin adhesive strips, and the whole surrounded with a flannel binder.

The patient was placed in bed, covered with woollen blankets, and bottles of hot water placed to her feet and limbs. She recovered pleasantly from ether. As soon as she opened her eyes, her only question was to know if both ovaries and tubes had been removed. When assured that they were, she replied, "Well, I am satisfied."

The ordinary temperature of this patient before the operation was 99°, 99½°, or 100° F. On the eighth day after the operation, it was normal, which it had not before been for months or years.

The first twenty-four hours after the operation, the patient took only cracked ice, to which was added a few drops of brandy. On the second, third, and fourth days she took pancreatized milk, and some Vichy water; fifth day, beef-juice and beef-tea; eighth day, sandwiches of raw beef and Irish moss gruel. Her digestion seemed good; she had a good appetite, and her bowels moved pleasantly. The stitches were removed the eighth day; wound perfectly healed, and the abdominal wall seemed firm and strong.

On the second day after the operation she commenced to menstruate; no pain or distress. Antiseptic vaginal douches were administered. At the end of four weeks she had all the symptoms of a return of menstruation, accompanied by some nervous excitement and repeated chills, but no flow of blood.

The first two weeks after the operation she was cared for by an excellent nurse of the Brooklyn Training-school for Nurses. After this she was mostly nursed and surrounded by members of her own family, which was extremely unfortunate and very much against the patient's welfare. But notwithstanding these adverse circumstances, the patient seemed to gain, her nervous system seemed to grow more healthful. I could at times see a placidity and quietness of mental conditions which I had not before observed. She had some hysteria and nervousness, yet she was manifestly on the straight road to improvement and returning health, and in time, with proper care, would be entirely well. On November 19th, she had a severe attack of indigestion and great nervous excitement, owing to nervous people around and some family trouble, yet under these unfavorable circumstances her temperature was only 98⅘°. I believe if she had continued to have proper surroundings as she had at first, her improvement would have been very much more rapid. Still, it is not to be supposed that when these diseased structures have been for years a continued irritation and excitement to the nervous system, that as soon as removed the nervous system will immediately show healthful conditions. It will take time to recuperate, just as it takes time for the system to recuperate from any disease or sickness. Here was a sickness that had lasted for years, and when the cause was removed, could it be expected that she would immediately be well? Professor Wylie well said: "Impress upon the minds of the parents that it will take time, probably months, and years for her nervous system to become normal after such a long sickness."

A careful microscopical examination of the tubes and ovaries I made in Dr. Hulzman's laboratory and with his kind assistance.

The macroscopical appearance of the organs when removed: Ovaries were greatly enlarged, of a livid purplish hue; a number of cysts were apparent from the outside, one of which was much larger than the rest, constituting nearly one-third of the size of each ovary. Both of these large cysts were ruptured in handling. The tubes were greatly congested, distended in some portions, and from them could be squeezed out a quantity of brownish green pus, and muco-pus.

Microscopical examination.—Many of the Graafian follicles were distended and filled with a serous fluid, without a trace of ova, evidently in cystic degeneration. Vertical sections cut transversely through each ovary showed a marked hyperplasia of the arteries in the vicinity of the hilus, also in the medullary portion; they were also very much distended and had marked convolutions. The connective tissue in the neighborhood of the arteries was crowded with globular, partly homogeneous, partly granular inflammatory corpuscles, and the muscular fibre of the stroma was transformed into similar inflammatory corpuscles; impossible to trace unchanged smooth muscle fibres. Such inflammatory foci were scattered throughout the medullary substance of the ovary. Said Dr. Hulzman: These "morbid changes sufficiently explain the symptoms during the course of the disease. Both the chronic hyperæmia and augmented tissue elements account for the pressure upon the sensitive and trophic nerves, thus explaining the excruciating pain, and the reflex neuroses."

Transverse section of the tubes showed morbid changes: parenchymatous salpingitis, muscle-fibres pushed aside, and beds of inflammatory corpuscles, deep muscle fibres inflamed. The mucosa was thickened and thrown into deep transverse folds, blood-vessels and arteries increased in number, and inflammatory corpuscles most numerous in their vicinity. The lining of columnar epithelia was most entirely missing, and there was almost entire destruction of the ciliated epithelia which line the tubes; in a few places where these cilia were still adherent, they were prolonged, some of them club-shaped and all of them showing granular thickening.

From the microscopical examination of these structures, we see, first, that there must have been for a long time chronic ovaritis, and some salpingeal inflammation; second, that the disease of the tubes was manifestly extending and increasing, and, third, there was no possibility of the ovaries or the tubes ever being restored to health. Consequently, the only hope of the patient was the removal of these uterine appendages.

We see also that this young woman had been, from these hopelessly diseased organs, suffering for years the greatest physical pain and disability, not able to do anything; constant distress, irritability and sensitiveness, and her nervous system becoming more and more abnormal. Naturally of a clear intellect, yet she was at times listless, and subject to the greatest depression. More than once she contemplated suicide, said very significantly, if she did not get well she was going to die; that she could not continue to live as she then was.

It would have been better for her general welfare, health, and condition of her nervous system, if these diseased structures had been removed two or three years before they were. Had they been then removed, less damage would have been done to the nervous system, and she would have recovered more quickly and easily healthful conditions, and her vital resources would not have been so much exhausted.

I can here repeat the same conclusions I drew from a case I reported in the *Journal of Obstetrics*, November, 1884.

1. This operation should have been performed on this patient two or three years before it was.

2. There was no other way to relieve her than by the operation.

3. The operation to her was not so great suffering, nor so much of a shock, nor so great a trial as was a week of her previous sickness.

A few weeks after the publication of the above-mentioned case in the *Journal of Obstetrics*, I received a letter from Mr. Lawson Tait, Birmingham, Eng., dated November 23, 1884, in which occurs the following sentence:

"I agree with your conclusions concerning it absolutely. That poor girl's life would have been saved had the operation been done months or perhaps years before you were courageous enough to undertake it. The whole gist of modern abdominal surgery lies in an earnest and continuous plea for early interference. There can be no doubt that the only regret about all such cases is that they are allowed to go on so long without operation."

ALCOHOLIC HYPERÆSTHESIA AND PARÆSTHESIA OF THE FEET.

By C. F. BARKER, M.D.,

FORT HAMILTON, N. Y.

As the various effects of alcohol, its treatment, causes, etc., are at present causing more or less discussion among the profession, I take the liberty of narrating the various features of these cases as they have presented themselves to me. It has been my good fortune to have been able to observe and treat many of them.

This affection does not, as a rule, occur to those who are in the habit of drinking periodically, but it is the steady imbiber, he who has habituated himself or herself to the use of stimulants for months and years. It has no choice as to age, attacking the young as well as the old. We find it appearing in the phlegmatic as often as in the nervous patient. Like many of the affections appearing in the inebriate, it usually is first noticed when the victim begins to lessen his or her amount of stimulants. This, however, does not always hold true, as you will find those in whom the disease has been complained of, while the sufferer was markedly under the influence of liquor, and again it sometimes attacks the patients while they are far advanced in convalescence. I have in mind a case where the symptoms did not show themselves for weeks after the gentleman had been without stimulants, and another where the invasion was apparent while the man was still continuing his debauch. In the latter case, the attending physician mistook the symptoms for those of rheumatism. Quality or class of liquors does not seem to have any special bearing as to the causation of the trouble. The premonitory symptoms are not the same in any two cases. In some the disease is first noticed by the patient on rising in the morning; the feeling as if they had had a bruise from stepping on a stone, or perhaps muscular twitchings may be the first inconvenience experienced by the patient. These disagreeable feelings wear away during the day, but gradually become more marked and troublesome. After the disease is fairly developed they are often obliged to remain in bed. They suffer from pains of varying degrees of severity. The intense pain lasts but a few days, while the milder forms continue for weeks. The patient is often unable to stand the weight of the bedclothes upon the troublesome parts, and to have the shoes and stockings on is impossible. At times the slightest touch is so painful that the physician is unable to examine the parts. The toes are of much annoyance to the patients, having, as they will say, the feeling of being drawn under the feet. This sensation is so marked that patients will ofttimes feel with their hands to satisfy themselves that they are really in proper position. The soles of the feet usually give much trouble and are last to yield to treatment. The feeling is as if pins and needles were sticking into them, or that heavy weights were fastened to their shoes. In the more severe cases, if you have an opportunity to watch these patients when they alight from their bed, you will observe that they move as one does when he is carefully feeling his way in the dark. They seem to be afraid to step out. When asked why they do not move their feet more naturally, they will tell you they are not sure that they will be able to stand on them if raised and put down in the ordinary manner.

At night more often than during the day they experience muscular twitchings and a sensation of burning (not like that produced by an electric current), but as if they were stepping on a hot stove, a disagreeable sense of heat. These various feelings cause them to lose sleep and quite often interfere with their appetite. For the same reason that they do not use their feet in walking, they are not able to go up and down stairs, without aid. To go up stairs is more difficult than to descend. In a case lately under my care the patient was troubled with pains, taking a serpentine course from the ankle to all parts of the foot. They would not follow the course of any nerve, but dart in this irregular manner from one point to another, causing the patient much distress. It is exceedingly rare to have these sensations extend above the middle of the belly of the gastrocnemius muscle.

I have heard of cases where this disease has been mistaken for rheumatism and the patient placed under treatment for that malady.

Under proper care and treatment these patients recover perfectly. The recovery is slow, depending greatly upon the condition of the patient. Relapses do not occur unless the patient returns to his old ways of dissipation, and then but little over-indulgence will cause a speedy return.

Various modes and measures have been tried and advanced for the treatment of this affection, and to enumerate them all in this article would occupy too much valuable room. Those which have proved most efficacious are electricity, massage, hot and cold water baths, moderate exercise, to those who are able to be about, and tonics.

There is no doubt but that electricity takes the first position in the treatment of this disease. Both galvanism and faradism have yielded excellent results, but for my own use, taking the experience which has been afforded me as a guide, I much prefer the faradic current, in strength varying according to the severity of the case. The little French instrument, "Gaiffe battery," has in some cases proved very useful, but as it is limited in its power it cannot be used in all cases. The amount of time employed at each sitting varies; usually, to commence with, from ten to fifteen minutes is as much as the patient will be able to bear, but as improvement takes place the sittings may be increased. After the patients have become accustomed to the sensations of the battery, they are anxious to have it applied, as relief is experienced which is very marked. If applied before bedtime it gives the subject a much better chance of having a good night's rest than when used in the morning.

Massage, to those who can bear the process, is found often of great service in giving relief.

Bathing the parts in hot or cold water, hot water usually being preferred, night and morning, has been found to relieve many where massage could not be practised. The temperature of the water should be that which is most agreeable to the patient.

As to the choice of drugs, that depends greatly upon the condition of the patient. The employment of the sulphate of quinine has met with most pleasing results in my hands, and its value, I think, will be found by those who will try it. Pil. phos. ferri, quinia et strychnia has also been of much service. Nux vomica in the form of the tincture has also proved useful.

Much more could be written regarding this disease, but the foregoing may be a nucleus upon which to build. Advancing step by step as we are in the subject of inebriety and its complications, we may soon be able to diagnosticate and treat with equal certainty its many forms as we do the now classified diseases.

ACONITE is the perfect physiological remedy against neuralgia, especially when it is based upon congestive or sub-inflammatory trouble, but its action is often slow, so that morphine will have to be given with it, as a palliative, until great relief or a cure is effected. When there is a rheumatic element, colchicum may also be added.

TRAUMATIC LESIONS OF THE MEMBRANA TYMPANI.

By GORHAM BACON, M.D.,

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TRAUMATIC injuries of the drum-head are usually produced (1) by sudden condensation of the air in the external auditory canal or cavity of the middle ear; (2) by a fracture of the cranial bones extending to the membrana tympani; or, (3) by the penetration of some foreign body. Occasionally, the rapid rarefaction of the external atmosphere causes a rupture. Most frequently injuries of the membrana tympani occur in individuals who are in the habit of scratching the auditory canal with hair-pins, tooth-picks, etc., in order to relieve a disagreeable itching, and accidentally the instrument is pushed in too far; occasionally unskilful attempts to extract a foreign body from the external meatus result in the total destruction of the membrane, with severe inflammation of the auditory canal. Other causes are the instillation of strong solutions into the canal, boxing the ears, diving, striking of the waves against the ear while bathing, blows, discharge of cannon, gunshot wounds, kick on the mastoid process, and hanging. Frequently the drum-head is ruptured during attacks of violent sneezing and in whooping-cough.

In most all of the cases of rupture of the membrana tympani due to the sudden condensation or rarefaction of air or from blows, falls, etc., an examination of the ears will show a catarrhal condition of the middle ear with more or less obstruction to the entrance of air through the Eustachian tube or some calcareous deposit or other change in the membrana tympani itself.

In direct injuries the most frequent point of rupture, according to Zaufal, who has made experiments on the dead body, is in the anterior half of the membrana tympani. Politzer's experience agrees with that of Zaufal and he accepts the latter's explanation that "the instrument in striking the drum-head slides off from the obliquely placed posterior portion of the membrane, and consequently it is less frequently injured than the anterior portion. In one of my cases, where the injury was due to direct penetration, the drum-head was perforated in the posterior superior quadrant. Immediately after an injury to the drum-membrane by a sharp-pointed instrument, the rupture will be found somewhat round, the edges of which are usually covered with a dark red blood, and frequently there is more or less in the canal. The shape and size of the perforation often cannot be made out, owing to the extent of the injury and amount of the extravasated blood. Usually in direct injuries inflammation of the membrana tympani and middle ear supervenes and suppuration takes place. In direct injuries the symptoms of rupture at the time of the occurrence are a loud report with a sharp pain, accompanied by vertigo, considerable tinnitus, and frequently fainting. The noises usually persist and the patient complains of a numb feeling in the ear and side of the head, which continues for some time.

Ruptures produced by rapid condensation of air in the external meatus are usually due to blows or falls on the ear or loud explosions. According to Politzer, the shape of the rupture in these cases is always gaping, so that the inner wall of the tympanic cavity can be seen. The perforation is generally round or oval, with the long axis of the oval parallel with the direction of the radiating fibres. According to this author the most frequent seat of rupture is in the posterior portion of the membrane. Usually there is but one rupture. When the rupture is occasioned by a blow or fall, there may be concussion of the labyrinth at the same time, with considerable deafness, diagnosed by means of the tuning-fork and it is in these cases that disturbances of hearing frequently remain after the rupture has healed, as well as in those cases where inflammation and suppuration have set in.

CASE I. *Perforation of the membrana tympani from the penetration of a pencil.*—Rudolph J——, German aged twenty-nine, bookbinder, consulted me January 15 1884, and gave the following history: This morning while putting a pencil into the right auditory canal to relieve the itching, somebody ran against him and the pencil was pushed in too far. There was no pain at the time, but he was immediately very dizzy and there was a noise like a drum, which has been present ever since; the dizziness lasted for about fifteen minutes, and when he sneezed he heard a whistle in the affected ear. There is some autophony. His general health is good, and he has never had any ear disease before; uvula enlarged as well as both tonsils, and he has chronic naso-pharyngeal catarrh. Hearing distance: watch, right ear, $\frac{1}{48}$; left ear, $\frac{3}{48}$. Examination of the right ear showed that the inner end of the canal is congested; perforation of the membrana tympani in its posterior superior quadrant and covered with a clot of blood. There is congestion of the drum-head around the perforation and involving half of the membrane; cone of light almost gone.

Left ear: Membrana tympani retracted, lustreless, and parchment-like; short process prominent, and cone of light very small.

CASE II. *Rupture of membrana tympani from a blow.*—John H——, aged fifty, Irish, 'longshoreman, came to me March 4, 1884. Says he has always been healthy but subject to catarrh. When a boy, had some trouble with the right ear, and a doctor applied leeches. Hearing has been good. No further trouble till last Thursday, when he was struck by a man's fist; he immediately thought his head was broken, and felt a sting in the left ear and side of the head; he also experienced a buzzing noise at the time, but now it is less. He occasionally has a little pain in the ear. At the present moment there is a noise like the roar of the sea, but it is not always present. His voice sounds unnatural to him. He hears a noise in his ear when he blows his nose, which has been present since the accident. Hearing distance: watch, $\frac{1}{4}$, for both ears. Tuning-fork on vertex cranii heard, when vibrating, louder in the left ear.

Examination.—Left membrana tympani, congested; perforation in posterior inferior quadrant oval-shaped, extending from near the umbo almost to the periphery of the membrane, and running parallel with the handle of the malleus; right membrana tympani parchment-like, short process prominent.

CASE III. *Probable rupture of the membrana tympani from a blow.*—Thomas L——, aged twenty-nine; truckman; September 19, 1882. Says that three weeks ago he received a blow on the back of his head, and just over the right mastoid process. He remained insensible for twenty-four hours. Had dizziness and a noise in the ear, especially when he pressed on the auricle or over the temporal region; has noticed no discharge till last Sunday, when there was some blood on his pillow. He has right facial paralysis; cannot whistle or close the eyelid. Has autophony and some deafness.

Examination.—Left membrana tympani somewhat opaque and retracted, otherwise normal in appearance. Right canal contains some brownish pus. Membrana tympani macerated, but no perforation whistle heard. At the time of the accident there was probably a rupture of the membrana tympani, followed by inflammation of the middle ear. Pulv. boracic. acid. was insufflated, and he was given pil. calcii sulphid., āā gr. $\frac{1}{10}$.

CASE IV. *Probable perforation of the membrana tympani from a blow.*—A. F—— ; Scotch; clerk; October 10, 1882. Last Friday night he was struck across the left side of his head. He immediately felt a noise in the left ear, followed by a numb feeling. This numbness has continued in the affected ear. He has some autophony, but no pain. Hearing distance: right ear, normal; left ear, he hears loud voice.

Examination.—Left membrana tympani very much congested, purplish color. Some clotted blood in the canal and over the lower portion of the membrane.

Case V. *Fracture of the base of the skull; perforation of the membrana tympani.*—John E——, aged sixteen; July 29, 1884. Five weeks before, patient had all the symptoms of fracture of the base of the skull, with bleeding from the right ear, nose, and mouth, and double facial paralysis. The latter has disappeared. He was treated at the New York Hospital in June and July, 1884. Since then he has been deaf, and there has been a purulent discharge from the right ear. No earache lately, and for the past few days no discharge. Hearing distance: watch, left ear, $\frac{5}{48}$; right ear, $\frac{1}{48}$. Hearing not improved by Politzer's inflation; both Eustachian tubes pervious.

Examination.—Showed perforation of right membrana tympani. To take pil. calcii sulphid., āā gr. $\frac{1}{10}$; one four times daily.

August 7th.—No discharge since, although there is some pus at the bottom of the meatus. Hearing distance: watch, right ear, $\frac{4}{48}$; left ear, $\frac{6}{48}$. Pulv. acid. boracic. insufflated, and pil. calcii sulphid. continued.

Case VI.—Robert W——, aged thirteen; August 5, 1884. About two weeks ago he put a hair-pin in right ear, and "ran it in too far." About four days after, having had considerable pain in the ear for two days, the ear gathered and discharged serous matter and blood. Ear continued to discharge for a week and then stopped. For the last few days the pain has reappeared, and the ear began to discharge again, and this time pus appeared. Parts about the ear have swollen greatly; pain in the ear when swallowing.

Examination.—Right canal full of thin pus; canal swollen and tender; marked swelling and tenderness in the parotid region, upper cervical region, and some œdema, with slight tenderness over mastoid process. He was given pil. calcii sulphid., āā gr. $\frac{1}{10}$; one every three hours to be taken.

August 8th.—Has had no pain since; discharge slight; external swelling of the parts has disappeared; some thick pus at bottom of canal; middle ears inflated by Politzer's method, and pills continued.

August 12th.—There has been some return of the pain and swelling of the parts, with discharge from the ear. Ear bleeds from sides of the exterior meatus, and apparently from the membrana tympani. Politzer's inflation; pills continued. Pulv. zinc. oxid. et acid. boracic. insufflated.

August 15.—No pain since; discharge has ceased. At the bottom of the canal some pus mixed with the powder. Same treatment continued.

Case VII. *Injury to membrana tympani from an unsuccessful attempt to extract a foreign body.*—F. M——, aged three; May 2, 1882. Presented himself at the infirmary, and father said that the child had put something into his ear. He had taken him to a physician, who had made unsuccessful attempts to extract the foreign body with an instrument, but without any head-mirror. An examination showed that he had succeeded in lacerating the auditory canal, and probably destroying entirely the membrana tympani.

I have lost the records of a case where a patient applied to me at the New York Eye and Ear Infirmary, several years ago, and said that he had a severe earache several days before, when he applied to a neighboring druggist for advice. The latter kindly recommended him to pour St. Jacob's oil into the canal. He had done this, and succeeded in setting up a very severe inflammation of the middle-ear, with perforation of the membrana tympani.

Ordinary Drinking-water, says Neiquel, has from 58,000 to 106,000 bacteria per litre. On heating to 60° C. the algæ are killed. After boiling (100° C.) the water for fifteen minutes 99½ per cent. of the microorganisms are killed, leaving 500 germs per litre that are still living. A temperature of 110° C. or 115° C. kills these.

Progress of Medical Science.

Lumbar Nephrectomy.—At a recent meeting of the London Medico-Chirurgical Society, Mr. Henry Morris read a paper on this subject and related the history of a case in which he had performed the operation for renal calculus. The symptoms pointed strongly to the presence of a stone in the right kidney, and this organ was removed. After removal the stone could not be detected by palpation, nor even by pressing the kidney against a table, but on section it was found the size of a marble. The organ was healthy, except that it was somewhat harder than usual. Careful daily examination of the urine, before and after the operation, showed that the remaining kidney was very soon able to perform the work previously done by two. The patient made a good recovery. Most of the speakers who took part in the discussion agreed with the author in preferring the lumbar operation, though they admitted that the peritoneal operation was called for when the kidney was much enlarged. Mr. Knowsley Thornton alone advocated the peritoneal operation in all cases. He said that he would as soon wound the peritoneum as any other tissue—indeed, he would rather wound it than many of the other tissues.

The Etiology of Rickets.—The following are the conclusions of Dr. J. Comby, in an article on this subject in the *Archives Générales de Médecine* for March, 1885: 1. Improper feeding of the new-born is the sole cause of rickets. 2. By improper feeding is meant the giving of any aliment other than human milk during the first year of life. 3. Improper feeding also includes nursing when it is irregular or too frequent, or when the nurse is unhealthy. 4. The surest way to cause rachitis is to feed infants prematurely with meat, bread-pap, and other similar substances not made of milk. 5. Artificial feeding with a bottle and long tube is a very frequent cause of rickets; the employment of a bottle without a tube, or more simply, of a cup or glass, is less dangerous. 6. Supplementing the breast with the bottle, although better than artificial nursing, is not without its dangers. 7. Premature weaning, finally, is an active exciting cause of rachitis. Weaning should never be attempted during the first year, and should then be accomplished gradually and with discretion.

The Treatment of Popliteal Aneurisms.—In a paper in the *Archives Générales de Médecine* for March, 1885, Dr. Reymond Largeau advocates a return to the old method of treating popliteal aneurisms by ligature of both ends of the artery and opening of the sac. He relates the histories of twenty-four cases of this operation, collected from various sources, of which there were nineteen recoveries and nine deaths. Comparing these results with those obtained in other modes of treatment, compression, ligature of the femoral artery, etc., the author decides in favor of the old operation. He concludes that it should always be selected in traumatic aneurisms; in diffuse aneurisms on the point of rupturing, or when suppuration has occurred; and in circumscribed aneurisms, when compression has failed, without waiting for the tumor to attain a great size.

Fetid Animal Oil in the Treatment of Cholera.—Having observed that certain laborers, such as gravediggers, night-soil men, stable cleaners, etc., who come in contact with putrefactive processes, seem to escape cholera, Dr. Allegri (*Rivista Clinica*, January, 1885) proposes as a prophylactic fetid animal oil or Deppel's oil. This is prepared by dry distillation from animal matters, and was formerly used as a general excitant, diuretic, and diaphoretic, as an anthelmintic, and as an antispasmodic. The oil is to be given internally in capsule, and may be rubbed externally on the abdomen and extremities. It is to be feared that, after one trial of the remedy externally, most patients (and certainly their friends) would prefer to let the disease take its course.

Chancre of the Eyelids in Infants.—At the recent meeting of the French Ophthalmological Society M. Beaudry, of Lille, related a number of cases of indurated chancre of the eyelids in infants, caused by infection from the mother's saliva. Mothers were in the habit of moistening the crusts forming on the free borders of the lids with saliva, under the impression that this secretion was effectual in removing the morbid condition.—*Revue Médicale*, January 31, 1885.

The Use of Shishm Seed in Ophthalmic Practice.—This seed is derived from the *Cassia absus*, and has long been employed in Egypt in the treatment of the blennorrhagic ophthalmia so prevalent in that country. It was introduced into Europe in the early part of this century, and for awhile enjoyed quite a reputation in the treatment of inflammatory eye troubles. It was employed as a fine powder, either pure or mixed with an equal amount of sugar, or as an ointment. The infusion and decoction were regarded as of no efficacy. The shishm seeds enjoyed but a short-lived popularity, however, and were soon forgotten. Dr. Schuchardt has recently been studying the drug, and thinks that it gives promise of usefulness in ophthalmia, and he says that further investigations concerning its action upon the healthy and diseased conjunctiva are to be desired.—*Schmidt's Jahrbücher*, No. 7, 1884.

Treatment of Affections of the Respiratory Passages.—Dr. E. Lasniée recommends as of undoubted efficacy in the treatment of diseases of the lungs and respiratory passages a combination of beech-wood creosote, balsam of Tolu, and Norwegian tar. He gives it in capsules containing three-fourths of a grain of pure beech-wood creosote, and one grain each of balsam of Tolu and purified Norwegian tar. In mild cases of phthisis and as a prophylactic, two capsules morning and evening may suffice; and in graver cases the commencing dose may be four capsules morning and evening, increased gradually to twelve per diem. The capsules should always be followed by a draught of liquid of some sort, water, milk, wine or tea, which may be hot or cold as preferred. The best way is to take the capsules during a meal.—*L'Union Médicale*, February 1, 1885.

Copper in the Treatment of Scrofula.—Dr. Moulin has obtained good results with the various salts of copper in the treatment of scrofulous affections. He states that the cutaneous manifestations of this discrasia are relieved most quickly and certainly, and the ocular troubles, with the exception of keratitis, yield with almost equal readiness. The suppurative and indurated forms of adenitis due to scrofula are also frequently benefited in a marked degree by this metal.—*Rivista Clinica e Terapeutica*, March, 1885.

Cerebral Infantile Paralysis.—Dr. Strumpell has well described this somewhat neglected disease in an article of which the following is a condensed abstract (*Centralblatt für klinische Medicin*, January 31, 1885). Poliencephalitis acuta occurs usually before the end of the first year, sometimes indeed in the first weeks of life. It begins acutely without any apparent cause, with fever, vomiting, general convulsions, and unconsciousness. These symptoms disappear as quickly as they began, leaving behind them, as a rule, complete paralysis of one-half of the body, which soon, however, in part disappears. The arm and leg usually remain more or less paralyzed, while the facial muscles are restored, though sometimes there is slight strabismus. In other cases the paralysis is a monoplegia, or a sort of ataxia alone is perceptible. There is never any degenerative atrophy of the muscles, though the growth of the affected limb is retarded. The paralyzed limbs are slightly contracted, and there is an exaggerated tendon reflex. Most of the patients suffer from subsequent epileptic attacks, which may be general or affecting only the paralyzed side. Athetosis is a very frequent accompaniment. In right-sided paralysis the speech is not infrequently affected, and the patients are usually imbecile, though the intelligence may not be weakened. Sensation is unimpaired. The seat of the disease is in the gray cortical substance in the motor region, where in older cases parencephalic lesions are always found. No autopsies have yet been made in the acute stage of the affection. The author remarks on the resemblance to spinal infantile paralysis, and believes that the two affections may be due to the same or similar etiological factors.

Syphilitic Joint Diseases.—The following are the salient points of a paper by Dr. M. Schüller upon the articular manifestations of syphilis (*Schmidt's Jahrbücher*, No. 8, 1884). In acquired syphilis we meet with the following: 1. Acute serous inflammation occurring among the secondary lesions. This usually comes in connection with extensive skin eruptions, and generally involves several joints simultaneously. The lesion is a simple serous synovitis similar to that of acute rheumatism. This form is analogous to the pseudo-rheumatism met with in other infectious diseases. 2. Acute, or more frequently subacute or chronic, serous synovitis occurring at the tertiary period. Here we see a large serous effusion in a single joint. The capsule of the joint is thickened, and there is also a villous hypertrophy, sometimes with crepitation, but there is seldom any ulceration of the cartilages. The characteristic points are a comparatively great degree of pain and an arrest of the disease under antisyphilitic treatment, without, however, a restitution to the normal condition. The disease seldom goes on to suppuration. 3. Arthritis excited by the presence of gummata. The course of this affection is very characteristic. The gummy tumors are either in the immediate neighborhood of the joint or in parts of the joint itself. There is at first a thin, and later a thicker, gummy effusion. When the tumors gradually invade the joint a true gummy synovitis may arise, and in caseous degeneration of the gummata suppuration of the joint occurs. The subjective symptoms are very insignificant, and in no way correspond to the gravity of the joint lesion. The cartilage is the seat of sharply defined ulcers or of cicatrices. 4. Disease of the articulation arising from osteitis, periosteitis, or osteomyelitis of one of the bones entering into the formation of the joint.

In hereditary syphilis the following conditions may be found: 1. Subacute serous inflammation. The bones and cartilages are unaffected and suppuration may be absent, but there is an enormous serous effusion into the joint. The contrast between the very grave clinical symptoms and the insignificant anatomical changes is most striking. The author regards the affection as perfectly amenable to antisyphilitic treatment, provided suppuration have not occurred. 2. Inflammation due to the presence of gummy tumors. This differs in no way from the similar condition in acquired syphilis. 3. Arthritis arising from osteitis, periosteitis, and osteomyelitis of a neighboring long bone. This is not common. There is here a chronic serous effusion which progresses with varying subjective symptoms, but with an increasing difficulty of joint motion. Antisyphilitic treatment usually effects a complete cure. 4. Joint disease dependent upon a syphilitic affection of the epiphysis. This little known and seldom recognized condition begins with a sudden swelling of the epiphyseal periosteum. Serous effusion follows, at first thin and becoming thicker, the capsule is thickened, the joint becomes flexed, and is more or less painful. Fever is rare. In other cases there is a suppurative separation of the epiphyseal periosteum and an effusion of pus in the joint. The latter may come from the rupture of an abscess at the epiphyseal junction, and in such cases small sequestra may be found in the articulation. The cases of this disease which came under the author's observation were in children of three to four years of age.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, April 11, 1885.

THE SANITARY CONFERENCE AT NEW ORLEANS.

THE Sanitary Council of the Mississippi Valley recently held a meeting at New Orleans, which was of more than ordinary importance. This Council is composed of delegates from the several States lying in the territory embraced by the Mississippi River and its tributaries. The Council, therefore, represents a population of many millions of people, whose interests, however diversified in industrial pursuits, are one in all matters pertaining to the public health. This was the seventh annual meeting of the Council, and delegates were present from Illinois, Iowa, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Ohio, Tennessee, West Virginia, and Wisconsin. These delegates were representative men, and their opinions, as embodied in the report adopted, are worthy of the attention of all the Health Boards of the Valley. The official report of the proceedings is now before us, and we cannot refrain from noticing some of the more important acts of the Conference. Perhaps the most interesting feature of the proceedings is the evident harmony of feeling and unity of interest and purpose so essential to the successful organization and prosecution of sanitary measures covering a wide area of country. In previous meetings there has been a tone of distrust on the part of some of the delegates, especially of those from Louisiana, that has impaired the usefulness of the Council. But in his address of welcome, Dr. Joseph Holt, President of the Louisiana State Board of Health, gave utterance to the most generous sentiments. He welcomed the members of the Council to the rooms of the Board as friends and brethren.

"We do not tender" he said, "this as an obligation to the strangers within our gates, nor are we in the formal relation of host to guests, but as members of one family we greet you. Identity of purpose, unity of spirit, together with the relationship of States, have made us kith and kin. There is not a feature but is possessed in common by us and declares the family likeness. Most conspicuously we are the representatives not of ourselves, not of personal theories, caprices, petty aspirations, nor of some friends at home, but of that great unit the Mississippi Valley. We are the conservators of its public health, upon which the happiness and material prosperity of its teeming millions directly depend."

The Council has accomplished a great and much needed result in thus allaying all jealousies and uniting the health authorities of the entire Valley in common efforts against common foes.

In his annual report the Secretary, Dr. John H. Rauch, of Illinois, outlined the measures that should be adopted in the event of the appearance of cholera in this country as follows: 1. Prompt notification of outbreak; 2, local treatment of outbreak; 3, supervision of travel from the infected point. The Committee appointed to report measures necessary to prevent the introduction of cholera, and yellow fever into the Mississippi Valley, define quarantine to mean observation and sanitation.

We should add inspection before observation for a complete definition of the modern quarantine. Time is no longer a fixed element in quarantine, but is only a relative term. The most rigid quarantine need scarcely obstruct travel and commerce. If ship sanitation was as thorough as it ought to be at the port of departure, at sea, and at the port of arrival, detention at quarantine would be reduced to a minimum of time as unimportant as that required in shipping cargo, or taking on passengers. The committee very justly remark:

"The best method of quarantine should begin its work at the port of departure and be completed at the port of entry, to include approved methods of ship sanitation under competent authority, pending the voyage of a vessel from one port to another. The hazards of importation of infectious diseases would certainly be immensely reduced it there could be a guarantee that all vessels loading in foreign countries for ports in the United States are thoroughly cleansed and rendered non-infected before receiving their cargoes. Such a system of international sanitation, by preventing the shipment and exportation of disease, would insure safety and promote commerce."

If such a system were rigidly carried out, and every vessel had an honest bill of health, and a daily record of ship sanitation which the health officers at quarantine could examine and fully rely on, he could perform all his duties without even bringing the vessel to anchor in the great majority of instances.

Another recommendation of the Committee is of vital importance in the regulation of quarantine—viz., that an infected vessel shall not be allowed to reach the mainland. It states:

"If, however, an infected vessel, or one suspected to be infected, enters the Mississippi River, the State Board of Health of Louisiana should remand such vessel to a station of detention and absolute isolation until all danger of the spread of the disease from ship, cargo, crew, and passengers has been entirely removed; the ship to be thoroughly cleansed and disinfected; the cargo and baggage thoroughly disinfected, and the crew and passengers kept under observation until free from all suspicion of danger to the public health."

It has always been regarded as a great hardship by masters and owners of infected vessels that their ships must be subjected to such detention as is proposed by the Committee. But the wrong perpetrated is not by quarantine against the master of the vessel, but by the master against the public health of the port which he seeks to enter with his infected ship. The master of a vessel knowingly bearing the germs of pestilence from an infected port to a healthy port, is more guilty than a

pirate or an incendiary. He should not only be debarred from entering a port, but he should be placed under arrest for one of the gravest crimes in the calendar of criminal acts.

The Committee urge with great force the necessity for the immediate co-operation of the National Government with State Boards of Health in the enforcement of preventive measures against cholera and yellow fever through the medium of the National Board of Health. As enlightened and conscientious representatives of the great public health interests of the vast population of the Mississippi Valley, they have wisely forecast the measures of prevention of the threatening pestilences of cholera and yellow fever, and now petition the Government to perform its part in this national service.

CANCER-CURERS AND CANCER-CURES.

It is not strange that a disease so distressing as cancer should have stimulated the liveliest activity in the search for a cure. In the Surgeon-General's Index Catalogue we find nearly four hundred references to the treatment alone of cancer, while many pages are taken up with references to studies of other phases of the disease.

The discovery of "cancer-cures" began in the last century and has been pursued with unremitting industry to the present day. Pretenders to the possession of a specific can even now get wealth by liberally advertising in religious weeklies; but fifty and one hundred years ago they got fame and honor also. The cancer-curers have been the most numerous of all quacks.

In the latter part of the eighteenth century there were two famous men of this class in London, named Plunkett and Guy. They "cured" cancer by the application of a paste, known as Plunkett's poultice. Lord Bolingbroke, who had a cancer of the face, was one of the victims, his death being hastened by this poultice. Plunkett, who seems to have himself believed in his remedy, finally published the formula, which is as follows: ℞. Crow's-foot, 1 handful, dog fennel, 3 sprigs, well pounded; crude brimstone, 3 middling thimblefuls; white arsenic, same quantity. Mix, make into balls the size of a nutmeg, and dry in the sun.

The successors in London to Plunkett and Guy were Dr. Pattison and Dr. Fell, men who, we are sorry to say, flourished as doctors by virtue of American diplomas. These men also used an external application, the basis of which was chloride of zinc. To this, Dr. Fell added sanguinaria. During this period a specific known as "Lord Arundel's cancer-cure" was also extensively used. It consisted of a corrosive sublimate wash and an arsenical powder. In 1857 Mr. Spencer Wells showed the inutility of the methods of a clerical cancer-curer known as the Rev. Mr. Reed. This gentleman made large sums of money by his pretended remedy, which seems to have consisted mainly in the forcing of chlorine gas against the tumor.

But the prince of cancer-curers of all ages was Landolfi, of Naples. Flourishing about thirty or forty years ago, he practised his method not only throughout Italy, but in Paris, Vienna, and other capitals of Europe. He was knighted by the Italian Government, and received the order of the Red Eagle from Prussia. He claimed to have cured 3,000 out of 4,000 cases, a Prince of Prussia and the Duchess of Anhalt-Cothen being among his grateful patients. He used chiefly a substance known as "Landolfi's paste," which had the following composition: ℞. Zinci. chlorid., bromini chlorid., auri chlorid., antimon., chlorid., āā. M.

After the paste had destroyed the tumor he applied lettuce poultices. He also gave the bromine chloride internally. It must be said of Landolfi, as of some other cancer-quacks, that he apparently believed in his remedy, and showed a willingness to have the Faculty try its efficacy. When careful tests were made, however, it was shown to have only such good effects as belong to other caustic applications.

Turning now to the efforts of regular physicians to find some remedy for cancer, we find that the juice of the hemlock, belladonna leaves, pokeweed, pulv. verrucæ equinæ, and strangle-weed, were in the last century credited with wonderful curative powers. In late years the use of pokeweed (phytolacca) and hemlock has been revived. The virtues of arsenic and zinc were known long before the London cancer-quacks utilized them. In the history of cancer therapeutics for the present century we find a long and curious list of drugs and other measures that have been put forward as specifics. Sarsaparilla, fucus helminthocorton, juice of mancenillier, thuya occidentalis (arbor vitæ), smilax, ergotine, tar, house-leek, pipsissewa, cundurango, Chian turpentine, are among the vegetable remedies recommended for internal and external use. Arsenic, aluminium, iodine, the bromides, sulphur, iron, corrosive sublimate; acetic, citric, and carbolic acids; choral, chromic acid, the zinc salts and caustic potash have all had their virtues extolled.

Among methods of cure, the congelation process of Arnott deserves commendation. Rubbing, friction, and compression are useful measures in some forms of cancer. Boyle reports seventy-one cases out of one hundred and twenty-seven cured by compression. Carrot poultices, introduced by Sultzer in 1760, and revived by Marsden, are spoken well of by some authorities. The use of either the carbonate or oxyphosphate of iron, the internal and external use of arsenic, the injection of acetic acid according to the method of Broadbent, are among the measures best recognized as of utility in the treatment of cancer. Mr. Spencer Wells believes that bromide of potassium and cod-liver oil are the two best things to be employed, but he also speaks highly of iodine, iron, and especially of the iodide of arsenic.

Dr. H. G. Bowditch in 1849 reported a case of cancer cured by a bread-and-milk diet. Dr. Peirce in 1831 argued that a diet of Indian corn, with repeated excision was the best treatment. Dr. D. Brainerd (1852) gave lactate of iron by the mouth and injected solutions of it into the veins. Thiry in 1851 proposed syphilization of the cancerous mass as a means of destroying it. The direct application of gastric juice and the use of electricity are measures that have been temporarily popular.

Despite all, we are no nearer curing cancer than we were one hundred years ago. We can postpone death, relieve suffering, and make life more tolerable. In a small per cent. of cases the use of the knife removes the

disease permanently, and to the knife belongs, so far, the chief triumphs in the therapeutics of carcinoma.

Cancer is a diathetic disease, and a specific for it will probably never be found. The best hopes for the future lie in discovering the causes of the development of the dread disease and in preventing its appearance.

Meanwhile cancer-quacks will thrive, because man wants to live, because hope will not die, and because the diagnosis of cancerous from other tumors is not always easy. Most cases of ulcerating "cancers" cured by quacks have been cases of syphilis, while the other "cures" are cases of non-malignant tumor.

HIGH BUILDINGS AND PUBLIC HEALTH.

The Cities Committee of the Assembly and Senate of this State has been much occupied with the consideration of a bill providing that the height of all dwelling-houses hereafter to be erected in New York shall be regulated in proportion to the width of the streets. They shall not be higher than seventy feet in streets of a width of sixty feet, and not higher than eighty feet in streets exceeding sixty feet in width.

This bill is being opposed by certain builders and manufacturers, and strongly urged by other gentlemen. Professor C. F. Chandler states: "I consider these very high buildings a menace to the public health, and a great outrage on the rights of neighbors. The more families you put into one house the greater the danger from contagious diseases. It is almost impossible to properly isolate cases of scarlet fever, measles, etc., in these enormous apartment-houses. Another objection is the great danger from fire, and the difficulty which the great height offers to the escape of the inmates; but one of the strongest objections to them is the fact that they entirely cut off the sunshine from ordinary houses so situated as to be entirely overshadowed by them. Nothing is more necessary to health in the dwelling-house, especially for children, than sunshine, and some of these high buildings, particularly when two or three of them are clustered together, absolutely prevent all access of sunshine to certain dwelling-houses situated at the west or north of them." Most of these objections apply excellently to tenement-houses, but hardly to the high apartment-houses. Against the latter Dr. S. O. Vander Poel and others have urged that their sewage gutted the sewers and thus caused annoyances that were felt by the whole neighborhood; that tremendous draughts were created in their interior, siphoning out the pipes and the traps, and thus endangering the health of occupants. Sworn statements of responsible officers of the Fire Department have been submitted, showing that seventy-five feet is a limit beyond which the firemen cannot reach with their apparatus with any prospect either of saving life or of successfully fighting the flames.

On the other hand, several New York physicians have signed the following: "The undersigned physicians of the city of New York are of the opinion that the sanitary arrangements of the modern buildings known as apartment-houses are equal or superior to those of houses generally in the city of New York, and that houses with elevators have not only proved to be a great convenience, but of material benefit to both men and women afflicted with diseases which are aggravated by going up and down stairs. We are also of the opinion that any statements made to the effect that the erection of tall apartment-houses has materially injured, or is likely to materially injure, the health of the public, by obstructing the sunlight, and thus fostering malarial and other diseases, are largely fanciful and not justified by the facts."

There can be no question that high apartment-houses have in them serious elements of danger to health. It is possible, however, to reduce these dangers to a minimum by regulation of site, by thorough plumbing, etc. It is also to be borne in mind that the air at the height of the upper stories has been shown to be purer and healthier.

The erection of high apartment-houses need not be absolutely forbidden, but their construction should be most carefully regulated.

THE INHALATION AND INJECTION OF BLOOD.

It would truly be a great help in therapeutics if the functions of the stomach could be temporarily transferred to the lungs, or those of the lungs to the intestinal tract, thereby giving the affected organs rest. Professor S. Fubini, of Palermo, has been working in this direction, testing the capacity for vicarious action of the lungs. Obtaining a mixture of 20 parts defibrinated ox-blood and 80 parts of a three-fourths per cent. solution of common salt, he caused it to be inhaled by means of a double-bulb spray. No irritation was caused, and Fubini claims that the effects upon anæmic patients were instantaneous and striking. In cases of oligæmia, repeated inhalations of blood produced rapid improvement, as evidenced by the ordinary signs, and as tested by examining the blood with the hæmatocytometer and chromocytometer.

Professor von Ziemssen, of Münich, has recently brought forward claims for the therapeutic value of subcutaneous injection of human blood. After much experiment, he found that the injection of the blood of other animals was attended with unpleasant symptoms and did no good. On the other hand, the subcutaneous use of human blood in doses of 25 to 50 cubic centimetres, repeated a few times, exercised a pronounced and beneficial effect upon the quality of the patient's blood and the general condition.

A man forty years old, suffering for six weeks from scorbutus, and having a high grade of anæmia with hemorrhages, etc., received an injection of 50 ctm. of defibrinated human blood, in two doses. Next day the hæmaglobin amount had risen from 0.34873 to 0.47887 (normal being about 1.44000). Two days later this had fallen a little. He then received a second injection and on the following day the hæmaglobin amount was 0.49758. From this time on he improved so rapidly that further injections were not needed.

The blood used is drawn from the veins into a warm vessel and defibrinated. The most careful antiseptic precautions on the part of the operator are required. Finally, the blood must be directed toward the heart, and as it is injected, massage with the oiled hands must be actively used.

Professor Ziemssen's method of injecting blood produces similar results to those obtained sometimes by transfusion. He claims an advance, however, in that he has rejected the use of anything but human blood, and has devised a process which is simple and safe.

CHOLERA VACCINATION.

We find in *La Independencia Médica* of Barcelona, of March 1 and 11, 1885, the details of some interesting experiments by Dr. Ferrán relating to the personal prevention of cholera. Dr. Ferrán has been making a very exhaustive study into the natural history of the comma-bacillus, and it is claimed for him, by Dr. Sereñana and others of his disciples, that he has followed this microbe through all the phases of its existence, and has found it in certain periods of its evolution under forms never before described. But he has also been experimenting in the direction of the attenuation of the virus of cholera, in order, by inoculation with it, to produce a modified form of the disease which shall secure immunity for the subject from the graver scourge. It cannot be asserted that this object has as yet been obtained, nevertheless the results thus far observed are by no means such as to make the learned naturalist despair of success.

The first to submit himself to this somewhat hazardous experiment was Dr. Sereñana, who, on February 23d of the present year, received an injection into each arm of half a cubic centimetre of the attenuated virus. In less than three hours, he states, he began to experience severe pain in the posterior region of the arms, which gradually increased and rendered movement of the limbs difficult. At the end of seven hours he had a slight chill accompanied by a feeling of general languor, elevation of temperature, rapid pulse, insomnia, and headache. This condition remained for a little more than twenty-four hours, when there was a rapid abatement of all the symptoms, both local and general. Dr. Jacques was the second to receive the virus, and although he was injected in one arm only with half a cubic centimetre, his symptoms were even more pronounced than those of the first experimenter, and he also had slight cramps and nausea. Dr. Bertram, of Rubio, likewise submitted to the injection and experienced similar effects. An examination of the blood eighteen hours after inoculation, revealed the presence of micrococci, said by Ferrán to be the first form assumed by the comma-bacillus when injected into the living organism.

At the expiration of nine days two of these persons submitted to a reinoculation with negative results, while four others, who received primary inoculations with the same attenuated virus at this time, suffered from symptoms of considerable intensity. About two hours after the inoculation pain was felt in the arms, and toward evening, the injection having been practised shortly before noon, the temperature rose, the pulse increased in frequency, there were headache, languor, slight chills, and nausea. Later there was a rapid fall of temperature, and the hands and feet grew cold and presented a marbled appearance; at the same time the headache and nausea increased and were accompanied by complete anorexia. Some of the subjects had also slight cramps in the calves of the legs. In about fourty-eight hours all these symptoms had passed away. The highest temperature recorded was 102° F., and the pulse 125.

It must be confessed that these phenomena bear considerable resemblance to those of Asiatic cholera, and they are the more remarkable when it is remembered that an injection of the same virus, in identical dose, produced absolutely no results in two individuals who had been inoculated some days previously. These experiments must of course be repeated many times, and in presence of an actual epidemic of cholera, before they can be accepted as in any degree conclusive. But, if the cable reports truly, the disease has already reappeared in Spain, and Dr. Ferrán will now have an opportunity to put his experiments to the crucial test. In the presence of the unsatisfactory state of cholera therapeutics we can but hope, faintly though it may be, that a second Jenner has arisen in Spain, and that we may yet see cholera relegated to the position of small-pox, as no longer a scourge to be dreaded by civilized communities.

AN OFFICIAL OPINION OF THE PROBABILITIES OF AN EPIDEMIC OF CHOLERA.

The degree of knowledge of sanitary matters which now enlightens the General Government is frequently made public by newspaper-paragraphs. The latest utterance of "Surgeon-General Hamilton, of the Revenue Marine Hospital Service," to a reporter, was to the effect that, "with the single exception of Paris, the cholera did not spread in Europe beyond the places originally infected; that is to say, the south of France, certain Italian cities, and certain places in Spain bordering on the Mediterranean." The conclusion drawn from this statement is more remarkable than the statement itself, viz.: "Therefore, I am inclined to think that the present panic is unwarranted by any state of facts at present existing." Such ignorance of the recent epidemic, which spread consternation and death through Italian cities, and of the lessons which former epidemics have taught, is alarming as well as humiliating, for it represents the highest grade of intelligence which now governs the sanitary acts of the National Administration. It is now not surprising that, while every European nationality is making suitable preparations to protect its people from an invasion of cholera, and the State and municipal boards in this country are enforcing sanitary measures with great activity, our Government, with ample funds placed at its disposal, is literally doing nothing, either of itself or in aid of the health authorities. There will be no rational and intelligent action taken by the Government to prevent present or future epidemics, until the National Board of Health becomes in fact, as well as in name, the sole authority on which it relies for advice and counsel.

TYPHOID FEVER IN CHILDREN.

In an article upon "Typhoid Fever in Children," published in the "Archives of Pædiatrics," Dr. A. Jacobi gives the results of an analysis of twenty-five cases occurring in his wards in Bellevue Hospital. Of the twenty-five cases it may be said that approximately two-thirds ran a single course, one-fifth had a relapse, one-eighth were sick continuously for from four to six weeks, one fifth of the cases died. Roseola was observed in fourteen and diarrhœa in fifteen of the cases. The ages ranged from two to fourteen years, the average being nine.

Typhoid fever in children has not many strongly marked clinical features distinguishing it from that of adults. It appears, however, that in New York cases at

least, the roseola and diarrhœa may be absent, the bronchial symptoms mild, and the mortality of the disease less than in adults. The nervous symptoms, such as restlessness, or coma and delirium, are, in Dr. Jacobi's opinion, not prominent.

The local changes in the intestine are less marked than in the adult. In many cases the region of the ileocæcal valve only is affected, its redness being either dendritic or uniform; not often the colon, also, with the exception of its upper part, is in a condition of catarrhal congestion. The mucous membrane exhibits but rarely the peculiar infiltration so common in the adult. The ileum has but slight and superficial erosions; deep ulcerations are not frequent, in infancy they are but exceptional.

The mildness of the course of typhoid fever in children was attributed by Dr. Jacobi some years ago to the small number and size of Peyer's patches in early life. He now thinks that Gerhardt's theory is possibly correct, viz., that the infectious poison is taken in slowly through the lungs, instead of rapidly through the stomach and intestines. This hypothesis is a strained and fanciful one.

As for treatment, Dr. Jacobi speaks wisely. The main dangers, he says, arise from the elevation of temperature, the loss of blood, the diarrhœa, the insufficiency of nutrition—this insufficiency depending on the condition of the nervous system impaired by the poison, and injured digestion—finally the debilitated heart. "If the expectation method of treatment means, as it has frequently been understood, the letting alone of the disease, it is all right; if it means letting alone the patient, it is all wrong. It is not the disease we have to look after, but the sick."

To reduce high temperatures, quinia has not served him well in infectious diseases. A dose of from eight to ten grains (gramme 0.5 to 0.6) may be given during the remissions. It may be used internally or hypodermically. "Now and then injections into the rectum or suppositories are required or advisable when the stomach cannot be relied upon. The preparation to be used in the rectum must be one of those which are most soluble, the bisulphate, muriate, bromide, carbamide." No acid must enter the solution; large quantities of glycerine are objectionable. The rectal dose is to be at least fifty per cent. larger than that employed by the mouth.

"The internal administration is often hindered by the taste of the drug. Thirty parts of the compound known as elixir simplex cover the taste of one part of the sulphate, provided the mixture is made with each dose and not kept ready." Antipyrin has been used with quite good results; also salicylate of soda. But the best antipyretic is thought to be cold. Cold sponging and cold packs are used, and the rule prescribed is: "No cold bath for cold extremities; no more cold bath when once, after it, the extremities remain cold or cool."

As to whether antipyretics should be used at all we have these sensible words: "The question whether antipyretics ought to be employed at all, or how long, is answered by the general condition. As long as this is satisfactory, and particularly as long as the heart holds out, a febrile temperature harms but little. The common sense and ripe experience of the physician has to decide in every individual case, whether or no the heart requires strengthening or stimulation. As long as the pulse remains good, and not frequent, we need not hurry with either antipyretics or cardiac stimulants. The latter will often be more indicated than the former, and by improving the surface circulation will reduce the temperature also. In this sense digitalis and caffein are antipyretics. In some cases they may be combined to advantage with strychnia or ammonia, or camphor, and alcohol."

GENERAL GRANT'S CONDITION.

Although General Grant is, on the whole, much weaker than he was a week ago, his general condition is not so bad as many have been led to believe by the various sensational reports which have been circulated. He still manifests a remarkable vital power despite the temporary depressing effects of the recent hemorrhage. The latter was by no means considerable in amount, being scarcely four ounces. It appears to have had its origin by the exposure of a considerable granulating surface on the occasion of the spontaneous separation of a portion of the superficial sloughy patch on the right side of the vault of the pharynx. The bleeding ceased of its own accord, and has not recurred. As far as can be ascertained by any examination which the painful state of the parts will admit, the disease has apparently made very little progress within the past week. At least no signs of progressive ulceration are visible. There is no pain in swallowing, and the glandular enlargement under the angle of the jaw has not increased.

During the twenty-four hours succeeding the hemorrhage the pulse became more feeble, frequent, and intermittent, and the temperature at one time rose to 102°. In order to relieve pain and procure sleep the distinguished patient is kept mildly under the influence of morphine, the latter being injected hypodermically to the amount of six minims every six hours. A slight diarrhœa also existed during the period named.

The amount of nourishment taken is ample, and the powers of assimilation are reasonably active. Slight emaciation is noticeable, but no more than might be expected. The bodily vigor is in a great measure retained as the patient walks unaided to his basin, and stands during the act of gargling his throat. His intellect is clear, with the exception of a slight incoherency a few minutes after awakening from the morphine sleep.

The amount of bodily weakness, such as it is, bears no proportion to the extent of the local disease, but so far exceeds the latter that it is the serious matter in the element of prognosis. But, taken as a whole, even this condition, ruling out the possibility of heart-failure or the accident of another hemorrhage, does not necessarily militate against the probability of a prolongation of life for a number of days. Even as we write the pulse is inclined to become slower, with increase of volume, and his temperature has dropped to the normal line. Let us hope that the favorable indication may not be without significance.

ROLLER-SKATING AND LEUCORRHŒA IN GIRLS.

A correspondent of the *Boston Medical and Surgical Journal* writes that his attention was called to the existence of leucorrhœa in two young girls, aged respectively ten and twelve years. These girls had been in-

dulging excessively in roller-skating. Following up the inquiry, he found seven other cases of leucorrhœa in girls whose age ranged from nine to sixteen, all roller-skaters.

Excessive indulgence in roller-skating, especially at about the time of puberty, may very well be the cause of the trouble in question as well as of other disturbances. The *Journal* has wisely suggested that careful observations regarding the effect of roller-skating upon boys and girls be made by physicians and the results published. We shall be glad to hear from our readers upon the subject.

News of the Week.

The Symptoms Indicating Yellow Fever.—At the meeting of the Sanitary Council of the Mississippi Valley at New Orleans, March 10th and 11th, a committee reported the following as the "Groups of Symptoms Considered to Indicate Yellow Fever":

"I. Groups of symptoms which shall be considered to indicate yellow fever.—Group 1. A person, after a sudden attack, has a fever of one paroxysm, attended with marked congestion or blood stasis of capillaries of surface, conjunctivæ, and gums, with a history of probable exposure to infection, and no history of a previous attack of yellow fever. Group 2. A person, after a sudden attack, has a fever of one paroxysm, followed by unusual prostration, albuminous urine, yellowness of conjunctivæ and skin, and having no positively authenticated history of a previous attack of yellow fever. Group 3. A person has a fever of one paroxysm, albuminous urine, black vomit, suppression of urine, general hemorrhagic tendency, under circumstances where exposure to infection is a possibility.

"II. Suspicious cases of yellow fever.—The following symptoms associated with a fever of one paroxysm, in a patient who has apparently been exposed to infection, and has never had yellow fever, shall be held to justify in either of the six following cases a suspicion of this disease, viz.: 1. Suddenness of attack, either with violent pain in the head and back, injected eyes and face, or with marked congestion of the superficial capillaries. 2. Want of that correlation between pulse and temperature usual to other forms of fever. 3. Albuminous urine. 4. Black vomit. 5. General hemorrhagic tendency. 6. Yellowness of skin. The following cases shall also be deemed suspicious: 7. Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever. 8. Any case respecting which efforts are made to conceal its existence, full history, and true nature."

Sickness in the Egyptian Army.—The pestilence is mightier than the sword. Gen. Lord Wolseley has sent to the War Office a significant report made out by the medical staff attached to the Khartoum expedition. The subject of this report is the result of the exposure to the desert heat of the British troops stationed along the borders of the Soudan desert. The report states that if the present British military station in the Soudan be maintained, fully one-half of the troops will die or be disabled by the heat before the arrival of autumn.

The Indiana State Medical Society will hold its annual session in Indianapolis on the second Tuesday in May, and will continue for three days. Let every physician of Indiana, who can possibly do so, be present.

Regulating Veterinary Practice.—A bill aiming to regulate veterinary practice in New York State is before the Assembly, and, it is reported, is likely to pass.

The Fairfield County Medical Society holds its ninety-fourth annual meeting at South Norwalk, Conn., on April 14th. An address will be given by the president, Dr. Seth Hill, and also one by Dr. Simon Baruch, of New York.

The Late Professor James L. Little, M.D.—At a meeting of the Faculty of the New York Post-graduate Medical School and Hospital, held April 5, 1885, the following resolutions were unanimously adopted:

Whereas, In the providence of Almighty God, our colleague and friend, James Lawrence Little, M.D., one of the founders of this school, has been removed from us by death. Therefore,

Resolved, That, in the death of Dr. Little, this institution, and our profession, have lost an accomplished and successful teacher and practitioner of surgery, and one who was also a wise counsellor in all the interests of the medical profession, and a firm friend and supporter of all efforts to advance its position.

Resolved, That we shall ever cherish the memory of his life, characterized as it was by scientific and philanthropic devotion to his calling, unblemished integrity, and genial relations with his associates.

Resolved, That a copy of these resolutions be signed by the officers of this school, and sent to The Medical Record and New York *Medical Journal* for publication.

(Signed) D. B. St. John Roosa, M.D., *President.*
Frederic R. Sturgis, M.D., *Secretary.*

Regarding the Adoption of the Term "Kollerism," a correspondent from Albany, N. Y., writes: "In your issue of March 7th, Dr. B. J. Baldwin proposes to introduce 'the words kollerization, kollerism, kollerized, as convenient terms to employ,' and adds: 'If the profession will adopt these words it will not only facilitate the expression of an idea, but their use will be a merited tribute to the fame of Dr. Koller.' Some word instead of cocaine and its proper derivatives would be indeed such a boon to the profession! To Dr. Baldwin and those in accord with him the following very sensible words of Dr. W. R. Gowers, London, are commended: 'This system of nomenclature is full of inconvenience, increasing the difficulties of the student, and leading to frequent mistakes in scientific writings. There are few observations in medicine regarding which it is not obvious that they would speedily have been made by some one other than the actual observer; that it was very much of an accident that they were made by certain individuals. Scientific nomenclature should be itself scientific, not founded upon accidents. However anxious we may be to honor individuals, we have no right to do so at the expense of the convenience of all future generations of learners.'"

American Medical Association.—The Illinois Central Railroad have arranged to run a special train of Pullman palace buffet sleeping-cars for the accommoda-

tion of delegates who wish to attend the meeting of the Association, which convenes in New Orleans April 28th and continues until May 1st. The special train will leave Chicago Saturday evening, April 25th, at 9 P.M., and run through to New Orleans without change of cars, reaching there at 9 A.M. Monday morning, April 27th, only thirty-six hours *en route*. The rates for the round-trip are as follows: Tickets good for return within fifteen days, $20; tickets good for return within forty days, $25; tickets good for return until June 1st, $30. Parties desiring to return another route, either via Louisville, Cincinnati, or St. Louis, will be provided with tickets at $5 in excess of above rates. Sleeping-car rates: From Chicago to New Orleans, one double berth, $6; from Chicago to New Orleans, one section, $12. Apply to C. S. Burton, ticket agent, 121 Randolph Street, Chicago, for berths.

TREATMENT OF CANCER.—A correspondent of the *British Medical Journal* advocates treating small cancerous tumors by arsenical paste, after a preliminary hypodermic injection of cocaine. He reports one case where this plan appears to have been efficacious.

THE CHOLERA WAR AGAIN.—A most important discussion over the significance and characters of Koch's cholera bacillus took place at the meeting of the Royal Medical and Surgical Society, on March 24th. Dr. Klein, who was present, showed his specimens and methods of culture. He made a strong argument against the contagionist view of cholera, and denied, as before, the specific character of the comma bacillus. Mr. Watson Cheyne defended Koch's view and gave illustrations of his own work. We can only say at present that while Dr. Klein made some very strong points against the view that the bacillus represents the virus of cholera, it was quite well shown, despite his evidence, that the comma bacillus is a specific micro-organism, always present in cholera.

Obituary.

PROF. JAMES LAWRENCE LITTLE, M.D.,

NEW YORK.

IT is with extreme regret that we have to announce that Dr. James Lawrence Little, Professor of Surgery in the New York Post-graduate Medical School, died very suddenly on April 4th, of peritonitis, following perforation of the appendix vermiformis.

Dr. Little was born in Brooklyn in 1836, and his professional education was obtained as a student under Dr. Willard Parker and at the College of Physicians and Surgeons of this city. He was graduated in March, 1860, having previously served six months as Junior Assistant Physician in Bellevue Hospital. Upon receiving his degree he was appointed *interne* of New York Hospital, where he remained for two years, and then became Surgeon-in-charge at the Park Barracks. In 1863 he was appointed Clinical Assistant to his old instructor, Dr. Parker, in the College of Physicians and Surgeons, and the following spring he delivered a course of lectures on fractures and their treatment.

Dr. Little delivered these lectures annually until 1868, when a regular Summer Faculty was formed, of which he was appointed Lecturer upon Operative Surgery and Surgical Dressings, a position which he held for more than ten years. In 1875 Dr. Little accepted the Chair of Surgery in the University of Vermont, and it was largely through his efforts that that college was made so successful. In 1882 Dr. Little assisted in organizing the New York Post-graduate Medical School, in which institution he was appointed Professor of Surgery. He earnestly identified himself with the interests of this school, and did much to promote its present prosperity. He was appointed Consulting Surgeon to the Northwestern Dispensary, Attending Surgeon to both St. Luke's and St. Vincent's Hospitals. He was a permanent member of the American Medical Association, and of the New York State Medical Society, a Fellow of the New York Academy of Medicine, and a member of the Pathological Society, the County Medical Society, the Northwestern Medical and Surgical Society, and of the *Medical Journal* Association. As an author Dr. Little's publications have been confined chiefly to medical journals. One of his most important papers, published in 1861, described a new method that has been generally adopted since, of using plaster-of-Paris splints for fractures. This paper was afterward considerably enlarged by the author, and republished and extensively circulated by the Sanitary Commission. One of his most important publications is "Median Lithotomy," a subject upon which he was considered a high authority, having performed the median operation more frequently than any other American surgeon then living. Probably his most brilliant surgical operation was the simultaneous ligation of the subclavian and carotid arteries of the right side, for aneurism of the first part of the subclavian, an account of which was published in the New York *Hospital Gazette*, in 1878. The feat has been accomplished in only fourteen instances in the history of surgery. He also had large experience in operating for hare-lip.

Among his other principal papers are to be found "Puncture of the Bladder by Dieulafoy's Aspirator," 1872; "An Excision of the Lower Jaw," 1873; "A Case of Naso-pharyngeal Tumor," 1876; "A Modification of Lister's Antiseptic Dressing," 1881; "Five Successful Cases of Tracheotomy for Croup," published in the London *Lancet*, 1883; "Operation for Restoration of Lips," 1883, and "A Case of Hypospadias," 1883.

Dr. Little was always a strong Republican in politics and opposed to slavery. In his early manhood he wrote a number of articles for the press on political subjects, and especially against slavery. On several occasions during the progress of the war he proved his willingness to go wherever the demands of patriotism or humanity called. After the second battle of Bull Run he proceeded to Washington, and offering his services to the Government was, with several other surgeons, assigned to the charge of the hospital for wounded temporarily erected in the National Capitol. At a subsequent period, acting in response to the call of the Governor of New York, he volunteered for service in the care and treatment of the wounded in the field, and went to White House, on the Pamunkey River. In the spring of 1864 a movement toward the sanitary reform of New York City was instituted by an organization known as the Citizens' Association, which appointed a number of sanitary inspectors to aid in carrying out its purposes. Dr. Little was among those thus appointed, and before the close of the year submitted an able report on the condition of the Twenty-first Sanitary Inspection District, of which he had charge. This report was embodied in the printed report of the Council of Hygiene of the Association above named, which led to the formation of the present Board of Health.

Dr. Little married, in 1858, Miss Elsie A. Charlotte, daughter of John Charlotte, Esq., of Newbern, N. C., subsequently a resident of Brooklyn, N. Y. For several years he has been a member of the Union League Club. As a lecturer and teacher Dr. Little was eminently practical and successful. As a man he was conscientious, faithful, of a genial and kindly manner, and greatly liked by all who knew him.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 3, 1885.

A. Jacobi, M.D., President, in the Chair.

The President read the by-laws concerning

ESSAYS AND PAPERS

read before the Academy, and stated that the publication of the Transactions would be resumed under the supervision of the Council. The third volume of the Transactions is now ready for sale.

The President also directed attention to

NOTORIETY BY THE NEWSPAPERS,

a point he believed to be sure to attract the earnest attention of the Academy, and to elicit the sympathy of every professional man who had at heart the dignity and morals of our calling. Dr. Jacobi further said: "When you elect a President you not only mean to confer a great honor upon him and give him great powers, but also grave responsibilities and urgent duties. Feeling as I do that you have placed me here for the performance of such duties, I invite your attention to the fact that membership in the medical brotherhoods imposes upon us certain obligations which no gentleman among us can possibly forego. I allude to the craving or obtaining, intentionally or otherwise, of newspaper notoriety. The rules of the Code of the American Medical Association forbid any form and manner of advertising through other than the strictly professional channels. That it has not succeeded in creating gentlemen out of men who have nothing but a diploma, a shingle, a carriage, and plenty of self-assertion, we all know. If it had done so, it would not have been abolished by a majority of the profession of the State of New York. If it had succeeded, there would not have been in so many instances so much advertising, openly and stealthily, in newspapers, under the circulars of proprietary medicines, and in other ways carefully avoided by the right-minded and high-souled men of the profession. The very fact that it did not succeed in preventing all that, was one of the reasons why the profession of the State was so ready to accept the teaching of the 'new code' movement. But the 'new code' movement, while insisting upon certain inalienable rights on the part of the individual physician, in cases in which the requirements of humanity impose duties of which no power can relieve him—even sanctioning consultations, in cases of emergencies, with persons who place themselves outside legitimate medicine by upholding sectarian names—has not done away with the moral teaching of the old code, so far as it gives expression to the conscience of the professional gentleman. Still high-minded sentiments, whole-souled convictions are not monopolized by either old code or new code. Indeed, the very men who favored the 'new code,' and those who went as far as to desire the abolition of all codes, did so for the very reason that the physician must be a professional gentleman, and not a tradesman.

"In this Academy I need not dwell upon the differences between the two. But it has so happened that of late several newspapers have been replete with sensational articles in large numbers on notable cases or operations. It must be admitted that it is almost impossible for a medical man to be kept out of the public prints. The reporter is everywhere. He has as many facilities to collect news as to distort them. Interviews cannot always be avoided, nor is it possible or perhaps advisable for a medical man, belonging as he does to a profession which is the natural teacher of the public in matters of public health, to withhold a reply to questions which can be answered in plain words of advice or instruction. But what can and must be avoided is the appearance in print of reports of striking operations or rare cases, which cannot possibly be of interest to the public at large, while they harm the professional man who is thus held up to public view, to be talked of in the morning, to be smiled over in the afternoon, to be forgotten with the new day.

"It must not enter my mind to say or believe that a gentleman whose demonstration of a new instrument was listened to by this New York Academy of Medicine, should be justly credited by a reporter of a newspaper with making the statement that 'there are hundreds of patients in our hospitals suffering from this kind of disease who are simply treated externally, because the city does not pay for surgical operations. They remain there for years until they die, but if this method of treating them proves successful, they can all be cured in a few weeks.'

"Such statements are simply inventions; no sane man could have known so little of the hospitals of the city, the surgeons attending them, or the nature of chronic bone diseases. I trust that no medical man anywhere has for a moment believed that such assertions could fall from the lips of a member of the regular profession, who is known to have a sufficient amount of both industry and ambition to make his mark without detraction of the efforts and services of others. But what I wish to urge is this, that our reputation and standing may be, after he is once called in or allowed inside, at the mercy of a lay reporter, whose capacity for understanding professional matters cannot amount to anything, as he has had no training for it, and whose principal object is to be interesting, though at the expense of his victim. Certainly a victim, for if there be anything less desirable than a stern investigation by a committee on ethics, it is to be held up to ridicule. If there be anything more certain than the futility of a temporary satisfaction to vanity obtained by a newspaper article, that would be the humiliation growing out of a derisive smile on the part of the profession.

"Why do I speak of the subject at all, and here? Simply because I have the interests of the Academy at heart, and feel deeply for the medical profession. Whenever I read glowing newspaper reports of cases, operations, and successes of a medical man, I cannot help both sympathizing with him and deploring the sensationalism of a report made by an outsider, as something which may prove derogatory to the dignity of the profession at large.

"This is what I feel as a member of that profession. As the President of this Academy of Medicine I claim the privilege of proclaiming those convictions which I was taught when I was young, and learned during my whole life to be those of the American medical profession."

Dr. Wm. H. Draper then read a paper on

ANTIPYRIN AND ITS EFFECTS,

beginning with the statement that, while progress in science had added but little to our knowledge of the essential cause of fever, it continued, from time to time, to enlarge our resources for its treatment.

After referring to the derivation of antipyrin, one of the many derivations from coal-tar, to its physiological effects as demonstrated by experiments on animals, and also to the fact that, while the poisonous dose in the human subject had not been determined, single doses of two decigrammes (about three grains) up to five years of age, and of two grammes (about thirty grains) in adults, should be given only when the patients were under constant observation, Dr. Draper gave a résumé of his experience in the use of the drug in the treatment of twenty cases of typhoid fever in the New York Hospital.

The majority of these cases were severe, seventeen occurring in males and three in females. The ages ranged from fifteen to thirty-five years. Five patients died and fifteen recovered. The ages of those who died ranged from eighteen to thirty years, and death occurred from the fifteenth to the fifty-fifth day.

The highest temperature in the fatal cases was 107.6 F. on the twenty-fourth day of the disease. The average

temperature of the fatal cases was 104° F., 102° F., 101.2° F., etc. In one of the fatal cases the temperature, under baths, remained at 104° F.; under antipyrin it fell to 101.2° F.

The highest temperature in the cases of recovery was 103° to 106.6° F.; the average from 100.6° F. to 103.6° F. Vomiting, in all the cases, was a frequent symptom in fifteen, diarrhœa was present in seven cases, constipation existed in eight cases, hemorrhage from the bowels occurred in two cases.

Antipyrin was given in maximum quantity of seventy-five grains, in three portions of thirty and fifteen grain doses at intervals of one hour. The pretty uniform result was reduction of temperature within three or four hours by gradual defervescence, and the depression continued from four to nine hours, usually attaining its maximum again in twelve hours. The *pulse* followed, approximatively, the temperature. No marked depression of the heart's action was noted, and cleaning and moistening of the tongue was one of the most marked and uniform effects. In one case seventy-five grains of antipyrin reduced the temperature to 93° F., but the reduction was not accompanied by any other signs of collapse. Generally the drug quieted the delirium, cleared the intelligence, diminished the deafness, and allayed restlessness and subsultus. In six cases it caused an erythematous rash, which gave rise to but little irritation and faded in the course of a few days, even though the remedy was not discontinued. The urine presented no other changes than those which accompany parenchymatous nephritis. The experience in the treatment of these cases confirmed that which had been claimed by foreign observers, namely, that antipyrin can only be commended as a sure and apparently safe means of reducing high temperature. It seemed idle to the reader of the paper to speculate as to how antipyrin reduced high temperature. It was not an antipyretic in the sense in which quinine and the salicylates were antipyretics, which neutralized the causes of the fever. Antipyrin smothered, but did not exterminate; however, it affected favorably all the phenomena of fever.

Dr. Draper believed that the only safe conclusions which could be drawn concerning antipyrin were the following:

First.—It is an efficient means of reducing temperature.

Second.—It is apparently a safe means of reducing temperature if prudently administered and carefully watched.

Third.—While it has not, so far as present experience demonstrates, markedly modified the progress or aborted diseases in which it has been administered, it contributes to the comfort of those suffering from high fever.

Fourth.—The unpleasant effects in some cases are more than counterbalanced by its advantages.

Fifth.—Future experience and modifications in methods of administration may so modify its effects that it may prove to be a precious contribution to the art of healing.

Dr. Corning spoke in favor of the theory that antipyrin produced its effect through the nervous system.

Dr. L. Weber continued the discussion (see The Medical Record, April 4, 1885, p. 373).

Dr. H. J. Boldt had used antipyrin in the treatment of two cases of puerperal septicæmia and also two cases of pneumonia, without obtaining reduction of temperature. The special effects which he noticed, the drug being given in doses of four grammes, were increased frequency of pulse with diminished strength, and intense prostration, the patient presenting the conditions seen in carbolic acid poisoning.

Dr. Kinnicutt had used antipyrin in his wards in St. Luke's Hospital, and in private practice, with quite similar results to those obtained and described by Dr. Draper. The list of cases embraced facial erysipelas with a high temperature curve, inflammatory rheumatism, pleurisy, pneumonia, scarlet fever, tuberculosis, typhoid fever, and a single case of intermittent fever. Gastric disturbance during its use had been exceptional in his experience, and in only one or two instances had he seen a chill occur. The latter symptom had been developed, as had been the experience with kairin, with a rising temperature following the minimum point reached. He had been particularly gratified with the certainty with which antipyrin controlled the usual afternoon or evening rise of temperature in phthisis. Its use had been believed to be contra-indicated in this disease, on account of the sweating which often accompanied its employment. In his experience, this symptom had been quite as often absent as present in such cases, during the administration of the drug. The curious phenomenon of a subnormal temperature, one of collapse, without other unpleasant symptoms mentioned by Dr. Draper, had been observed by him in a single instance. Twenty grains of antipyrin had been given in a case of pneumonia on the sixth day, with a temperature of 104°. The temperature at the expiration of three hours had fallen to 95° (in the mouth). The pulse, however, had improved in quality and diminished in frequency, and the patient had expressed herself as feeling excellently well. He had adopted the plan mentioned by Dr. Weber, of giving moderate doses of antipyrin, repeated two or three times in the course of the twenty-four hours, in cases of pneumonia and scarlet fever in children. He had found that by this method the temperature could be maintained within reasonable and safe limits. His dosage in such cases was a decigramme to each year of the child's age.

Dr. George L. Peabody believed that the lack of effect apparent in many cases was probably due to the adulteration of antipyrin. He had used it in the treatment of almost all febrile diseases, and, until recently, had succeeded in reducing the temperature in every case. According to his experience, no harm was done in ordinary cases by the administration of the drug, if the desired effect was not produced. It could be given hypodermically without causing local irritation or general evil effects, and it was freely soluble in hot water, so that the quantity could be readily regulated.

At present, however, all that could be claimed was a symptomatic effect, but that was such as to make it worthy of further trial.

Dr. Malcolm McLean referred to a case of chronic pyæmia following puerperal septicæmia, in which the cold bath, the cold coil, the salicylates, quinine, etc., were used thoroughly by Dr. Cox and himself, without affecting appreciably the temperature, which ranged between 103° and 104° F. After forty days' experience in the use of the above means, they resolved to try antipyrin, sixty grains daily, and the reduction of temperature to 100° and 101° F. was prompt and permanent during two weeks.

Dr. Draper, in closing the discussion, said that he had used antipyrin in a number of cases, according to the plan mentioned by Dr. Weber, and had given twenty grains twice a day, with very great comfort to the patients.

Dr. A. C. Post then described

AN ORIGINAL OPERATION FOR RUPTURED PERINEUM

as follows:

"The operation which I have devised for ruptured perineum has not been performed a sufficient number of times to entitle it to be regarded as an established operation. I have performed it but three times, but the result in each case has been so satisfactory as to induce me to commend it to the profession as worthy of further trial. The operation appears to me to be much simpler in execution than the operations which are ordinarily performed, and I think that it secures a more solid perineal body. It has also the advantage that there is no loss of substance in its performance, and if, from any cause, it should fail, it may be repeated with a good chance of success.

"The following is the mode of operating: An incision is made on each side of the fissure to the depth of fifteen or twenty millimetres. These incisions meet in front of the anus. They divide the parts into upper and lower segments. The upper segments are turned up to form the floor of the vagina, and are secured in position by a row of catgut sutures passed, not through the skin, but through the subcutaneous cellular tissue, so as to turn the edges of the skin upward in such a manner as to form a ridge on the floor of the vagina. A second row of sutures, composed of silver wire, is passed from side to side through the deepest part of the incisions, where the upper and lower segments meet; the ends of these sutures pass through glass beads and perforated shot, and when the flaps are brought into close contact, the shot are compressed with forceps, so as to keep the flaps approximated. The inferior segments then form a ridge on the perineum, and are secured by a row of fine silk sutures. When the parts have been well washed with a solution of mercuric bichloride, and dusted with iodoform, and a compress of iodoform gauze has been introduced into the vagina, the operation is completed. The integument at the inner side of the thigh should be protected from the pressure of the beads and shot.

"The patient should be allowed to urinate without the use of the catheter if she is able to do so. And, after each evacuation of the bladder, the parts should be washed with a solution of mercuric bichloride.

"The sutures may be removed at the end of ten days or of a fortnight."

Dr. Fanning, who had seen Dr. Post operate in two cases, said that the method seemed to be one that would prove serviceable.

Dr. Dawson thought that if all could be accomplished by the method which Dr. Post had mentioned, a great deal would be gained. At the same time, he thought the multiplicity of sutures, with the use of shot and glass beads was objectionable.

Dr. Post remarked that the deep row consisted of *three* silver-wire sutures, while the row on the floor of the vagina and also that on the perineum consisted of numerous catgut sutures.

The amendment to the by-laws, offered by Dr. Gibney at the last stated meeting, making provisions for the organization of

A NUMBER OF NEW SECTIONS,

was unanimously adopted.

The Academy then adjourned.

SECTION IN OBSTETRICS.

Stated Meeting, March 26, 1885.

Alexander S. Hunter, M.D., Chairman.

Dr. Malcolm McLean read a paper entitled,

THE MANAGEMENT OF PLACENTA PRÆVIA—AN IMPROVED METHOD BY WHICH TO COMPLETE THE FIRST STAGE OF LABOR IN SUCH CASES,

and exhibited some instruments, modifications of mechanical appliances already known, but which so simplified their application that the completion of the first stage of labor may be more promptly, easily, and safely accomplished by their use than by any other means at our command. The author regarded the views given by various authorities concerning the treatment of this complication as quite confusing, and the object of his paper was to suggest a line of treatment which was applicable to the great proportion of cases, and which gave the best chances for both mother and child.

The prominent feature of this grave complication of labor was the occurrence of hemorrhage, and all efforts must be directed toward its prevention.

The reader of the paper then mentioned the varieties of implantation, such as partial and complete, and also the conditions which present themselves in different cases, such as marked differences in the conditions of the tissues, notably the firm condition of the tissues in the primiparæ and the soft condition of the same in the multiparæ.

Of the various plans of treatment which had been recommended for the management of this inevitable hemorrhage, Dr. McLean only referred to those which deserved particular attention. First, the application of chemical styptics to the bleeding os; second, tamponing the vagina; third, the use of the vaginal tampon for completing the first stage of labor; fourth, rupture of the membranes and allowing the fœtal mass to press upon the bleeding surface; fifth, rupture of the membranes with rapid delivery; sixth, bimanual version, bringing down the feet; seventh, separation of the placenta, and either leaving the case to nature or delivery by version; eighth, plugging the vagina with Barnes' dilating rubber bags.

Dr. McLean thought the day had passed when chemical styptics, such as vinegar, alum, salts of iron, etc., should be applied to the bleeding os for the purpose of arresting hemorrhage. Posture and absolute rest should take the place of these local applications.

The vaginal tampon acted mechanically, and was the most valuable means we had. It was particularly valuable when the blood came from a firm cervix, and there was no indication for hastening the process of delivery. For such a tampon, there was nothing so good as carbolized wet cotton rolled into small balls, packed about the cervix, and filling the vagina full by the aid of a Sims speculum; the tamponing must be thoroughly done to be effective.

Tamponing the vagina and leaving it to be pushed out in front of the presenting part, according to Wiegand, was a plan of treatment which had been spoken favorably of by Hodge and others, and Dr. McLean wished to lay special emphasis on the advantage which this method possessed in primiparous cases. As serviceable as the method was, any condition demanding immediate interference called for some other method.

To the fourth plan, namely, rupture of the membranes and allowing the fœtal mass to press upon the bleeding parts, Dr. McLean offered some theoretical objections.

The method by rupture of the membranes and *accouchement forcè* he regarded as dangerous to both mother and child, and he could scarcely conceive of a case where such a procedure would be justifiable.

With reference to completing the separation of the placenta according to Simpson's method, he thought that, if cases occurred in which it seemed to be the most desirable way of management, the method should be confined to those in which there was a dead child or faulty pelvis.

In regard to Dr. Barnes' method and the use of the dilating bags, it was a most valuable method, and the dilators were one of the most valuable aids in the practice of our art. In cases in which the separation of the placenta had partially taken place, these dilators were invaluable.

Dr. McLean then exhibited a modification of the rubber bag, which consisted in a duplication of the bag and tube so that one side may be distended independently of the other, and required but one insertion; besides, the bag had no extra pocket on the outside. There need be only two sizes used, and he always used carbolized hot water for filling them. The bag was introduced by doubling it upon itself, seizing it with the curved jaws of a forceps which was devised especially for this purpose.

The conclusions to which the author of the paper arrived were substantially as follows: 1. In any case of placenta prævia avoid the application of chemical styptics. 2. Inasmuch as the dangers from hemorrhage were greater than all else, preparations to induce premature labor should be made. 3. In primiparous cases

with rigid tissues, the vagina should be well distended with the colpeurynter or tampon until cervical dilatation had taken place. 4. It was safer to rely upon thorough continuous pressure by Barnes' dilator than upon pressure by the fœtal parts. 5. Where the placenta was lateral or partial, and there was no indication for hastening the labor, the method of Braxton Hicks might be practised, consisting of turning by the bimanual method as soon as possible, pulling down a leg and with it and the breech of the child tamponing the ruptured placental vessels, and then letting the delivery be completed spontaneously, or aided by gentle traction. 6. When the head presented and the os was dilated, or very dilatable, rupture the membranes. 7. Podalic version was to be preferred to the application of forceps within the cervix, especially when the cervix was dry. 8. Complete vaginal tamponing might be applied and left in position in cases in which other means were not at hand. 9. The dangers of septic infection with the proper use of tampons and dilators was so slight that it need not be considered. 10. Wherever possible, delivery should be accomplished deliberately. 11. The greatest care must be exercised not to convey infectious material to the mother's system, which involved the application of the great principle of absolute cleanliness.

The discussion was opened by Dr. W. T. Lusk, who said the points in the paper were so fully in accord with his own belief, and had been made with so much judgment, that he had nothing to add by the way of criticism. He was much pleased with the double dilator and also the instrument devised by Dr. McLean. For some time he had been in the habit of using an ordinary pair of cotton forceps for the introduction of the dilating bags, but the instrument exhibited seemed to possess special advantages.

Notwithstanding his substantial indorsement of the views offered by the reader of the paper, he wished to say a few words with reference to the Braxton Hicks method advocated so strongly by Lomer. From statistics it appeared that in ninety-three cases in which this method had been adopted, there was only a single death —a result which certainly was extraordinary, and so extraordinary that it was worthy of most careful consideration.

Soon after looking over these statistics, Dr. Lusk was called to a case of placenta prævia occurring in the practice of Dr. Spaulding, of Harlem, and a day was finally appointed for beginning premature labor. On account of delay, over which the consultation had no control, the day for inducing premature labor was postponed, and when finally the day was reached on which it was to be begun, he was summoned before the hour appointed, and on arrival found that labor had begun spontaneously, and that the os externum was nearly completely dilated, with the internal os dilated to about the size of a silver half-dollar. Dr. Lusk at once prepared the patient, introduced his hand into the vagina, passed two fingers through the cervix, ruptured the membranes, pulled down an extremity, and version was completed, the whole operation probably occupying not more than two or three minutes. Then the breech was brought down into the cervix. Thus far, the dangers to the mother are almost nothing, and now the question arises concerning the life of the child, can it be saved? Although, of course, this is a secondary consideration, it is desirable to do so, if possible. In order to prevent hemorrhage, he found that it was necessary to make slight traction upon the breech, just sufficient to retain the child in contact with the surfaces from which hemorrhage might take place, and in a very short time the child was delivered alive. The patient was a multipara, which favored the accomplishment of labor with a living child, and the manipulations were practised with comparative ease; doubtless if the patient had been a primipara the difficulties would have been much greater than they were, but the method was eminently satisfactory.

The patient did well until two or three days later, when she died somewhat suddenly from pulmonary embolism, probably due to delay in the induction of premature labor. So far as checking the hemorrhage was concerned, he could not speak of the method in too high terms of commendation. The method of treatment, therefore, of placenta prævia, which he felt disposed to recommend, was to tampon the vagina if dilatation of the cervix has just begun, and, as soon as possible, introduce a Barnes' dilator into the cervix, and when the cervix was sufficiently dilated to render the extraction of the child a matter of no great danger, proceed to follow it up by the method of Braxton Hicks. He should hesitate very much before adopting the method by rupture of the membranes and trusting to uterine contractions to bring the head down.

Dr. Isaac E. Taylor thought that a distinction should be made in the treatment of placenta prævia between the cases of placenta centralis and cases of placenta lateralis, or partial prævia. The treatment of partial separation of the placenta was so simple that it required but little consideration.

With regard to placenta centralis, early delivery should be effected, for the patient's life was in great jeopardy. This was to be accomplished by dilatation of the neck of the womb and resorting to version, and version could be best accomplished by the bimanual method; that is, by the aid of external manipulations. The dilatation of the cervix might be accomplished by different means. When Barnes' dilators were used, or a vaginal tampon, dilatation or separation of the placenta did not take place at the internal os, but it excited contractions, and the placenta was partially separated when the external os was dilated to the size of a two-shilling piece. Nature had then done her work, and the case became one in which only partial separation was to be accomplished.

Out of fourteen cases of placenta centralis which had been under his care, only five deaths had occurred. In most of the cases of placenta centralis the children were lost, but that was a matter of but little moment as compared to the saving of the life of the mother.

Dr. Taylor remarked specially with reference to the situation of the placenta in placenta centralis, and said that he had established by ocular demonstration the fact that the placenta was not attached to any part of the cervical canal.

Dr. W. M. Polk said that after the concise paper by Dr. McLean, and the remarks made by Drs. Lusk and Taylor, there remained but very little which need be said upon the subject. He thought the point brought out by Dr. Taylor, namely, that of making a distinction between placenta centralis and partial attachment of the placenta, was an important and practical one, as there was a great difference in the management of these two classes of cases. The fact of the placenta being central added very much to the danger, both with reference to the mother and the child.

As far as the general management of these cases was concerned, it was practically that adopted by Dr. Taylor, and Dr. Polk believed that the vaginal tampon was the safest remedy which could be employed. The points suggested by Dr. McLean, that the ablest obstetrician would often find difficulty in introducing Barnes' dilators, was one which most obstetricians were willing at once to grant, and therefore any device which would facilitate the introduction of the dilating bags would be very acceptable. But it seemed to him that the wisest plan to be adopted was the simplest and safest plan for meeting the hemorrhage, and the tampon was probably the best way by which it could be arrested. He would suggest that the modification of the tampon by the use of the roller bandage would not fulfil the indications at all. He did not pretend to say that it had not done so in Dr. Taylor's skilful hands, but it must also be said there were but few who were equally skilled in obstetric manipulation. Dr. Polk recommended thorough tamponing of the vagina,

and by balls of cotton, tied together kite-tail fashion to facilitate removal, as the best and the most effectual method, and also introduced by the aid of Sims' speculum.

With regard to after-treatment, if the method of management advocated by Lomer was adopted, and the child was ignored, the management of these cases was comparatively simple, and certainly introduction of the hand into the vagina and through the nearly completely dilated cervix gave the accoucheur thorough control of the situation. With perforated membranes, version according to Braxton Hicks' method could be readily performed; then bringing down one leg, allowing the other leg and body to remain in the cavity of the uterus, such pressure was exerted upon the lower segment of the uterus as would completely control hemorrhage.

One would think that the child need not suffer materially in these cases, because the hemorrhage is arrested, and the extraction can be accomplished quite readily; but the statistics referred to by Dr. Lusk proved conclusively that the mortality to the child is very great.

The use of Barnes' dilator was unquestionably a measure of very great value in the milder cases, where the placenta is attached to the borders of the os, or a small portion overlaps the cervix, so that the hemorrhage will not probably last long. But where we have to deal with central implantation. Dr. Polk preferred to commence and continue with the tampon until the cervix was certainly dilated sufficiently to permit version.

Dr. Polk also sustained Dr. Taylor's opinion, that the placenta is not attached to any part within the cervical canal, and referred to museum specimens which illustrated that point.

Dr. E. L. Partridge referred to some of the clinical features of placenta prævia, of which he had seen quite a large number of cases, and in quite a proportion of them the placenta was centralis. He wished to commend the rubber bags in the management of placenta prævia of both forms, and he also spoke against the use of the tampon, especially with reference to the liability of conveying septic material to the mother; for, in very many instances at least, the material of which they were composed was such as rendered the liability of the induction of septic infection very great. He indorsed the view that the little pocket on the side of Barnes' dilator must be abandoned, and regarded Dr. McLean's instrument as a most excellent device for the introduction of the bags. With reference to the liability of hemorrhage to occur during the change of the ordinary Barnes dilators, the point which had been referred to by Dr. McLean, he believed that it did not constitute a serious objection to the use of Barnes' dilators, for he had used them in four cases of placenta prævia, and no hemorrhage had occurred in either of them during the period of the withdrawal of one bag and the insertion of another. The rubber bag goes directly to the source of hemorrhage, and was the most effectual means at our command, for controlling this hemorrhage, as had been brought out by the author of the paper, and this pressure should be continued until the cervix was dilated. According to his experience the further obstetric procedure had been by version, as recommended by the very large majority of obstetricians, and complete version—not the method advocated by Braxton Hicks. Dr. Partridge did not regard placenta prævia under ordinary circumstances as a serious complication of labor.

Dr. R. A. Murray was fully in accord with the remarks which had already been made, and would simply refer to the importance of distinguishing between lateral and central implantation, as the management of the two classes of cases was entirely different.

With regard to Barnes' dilators, he had used two side by side, sometimes three of the smaller size, when the larger ones were not at hand, and really had obtained the results mentioned by Dr. McLean. Dr. Murray, however regarded the instrument and the dilators exhibited by Dr. McLean as a very great improvement on the instrument and dilators which he had ordinarily used.

Dr. P. F. Mundé said he had nothing to add in the way of criticism on the excellent paper of the evening. He had seen twelve cases of placenta prævia, four of which were centralis, and the others partial prævia. Of these twelve women, only two died, and four children were born dead.

Dr. Mundé regarded the three cardinal points in the management of placenta prævia to be as follows: first, to arrest hemorrhage; second, dilatation of the cervical canal, and also of the soft parts sufficiently to allow easy manipulation, and then, third, rupture of the membranes and speedy extraction of the child, as rapidly as possible consistent with safety to the soft parts. He had usually employed the colpeurynter to accomplish dilatation, but any instrument which distended the upper part of the vagina was sufficient. If the cervical canal was dilated to the size of a silver half dollar, he thought that dilatation could be completed immediately, and delivery of the child accomplished at once, better than to turn and block the passages with the child, leaving nature to take care of the case. Although the life of the child was of secondary consideration, yet he thought that complete version and rapid delivery, as indicated, was equally safe for the mother, and that it would increase the chances of saving the life of the child.

Dr. W. E. Forest thought it important to first establish labor pains, and for this purpose the use of the colpeurynter or vaginal tampon was better than the use of Barnes' dilators; for the cervical canal might be thoroughly dilated, and yet no uterine contractions take place, and under such circumstances the condition of things was very unpleasant, not to say dangerous.

His plan of tamponing the vagina was by means of cotton balls soaked with soapsuds, which rendered it unnecessary to use a speculum, and he believed the vaginal canal could be thoroughly tamponed in this way. This tamponing was followed by pains which dilated the cervical canal, and when dilatation was sufficient the child could be easily turned by bringing down a foot, and the labor went on because the pains had already been established before the version was practised. If, however, the os was dilated rapidly, as by means of Barnes' dilators, there was no natural condition present for the subsequent process of labor.

Dr. McLean, in closing the discussion, said that if there was one thing which Barnes' dilators accomplished it was to produce uterine contractions quicker than could be done by any other method, and it was because of this that he urged their use. The colpeurynter would excite contractions, but not so quickly, and, besides, it was not known, when the vagina was distended with the colpeurynter, exactly how much dilatation of the cervical canal had been secured until the colpeurynter was removed, and then a gush of blood might come which did not follow dilatation with the rubber-bag.

The Section then adjourned.

The Present Drift of Gynecology.—One often hears, nowadays, that the uterus is a much-abused organ, but if that organ could speak for herself I think one would hear her say that she felt herself very much neglected, and that her neighbors, the ovaries, tubes and ligaments, were receiving all the attention. She is not credited now even with an independent catarrh. This will serve as a hint to the direction in which modern pelvic pathology is tending. One specialist of note here is known by his *confrères* as the "ovarian fisherman," for he usually finds an ovary that has strayed away from its *habitat*, thus disquieting the whole pelvic household. There seems to be a pretty general feeling against the use of pessaries except in a very few cases. The treatment for displacements is principally by vaginal tampons, medicated either with glycerine alone or with alum and glycerine.—*Correspondence Canada Medical and Surgical Journal.*

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

DR. HERMANN WEBER'S CROONIAN LECTURES—THE COMMUNICABILITY OF PHTHISIS—ITS CURABILITY—DR. ROUTH'S REPLY TO DR. CLIFFORD ALLBUTT'S ATTACK ON THE GYNECOLOGISTS—NEW POISONS ACT—MEMORIAL HOSPITAL TO GENERAL GORDON AT PORT SAID.

London, March 23, 1885.

In his first Croonian lecture, Dr. Hermann Weber discussed at some length the questions of the infectiousness and contagiousness of phthisis. He remarked that he supposed we were all convinced that infection can take place by inoculation, and that this may possibly occur more frequently than is thought. Dr. Weber refers to some striking cases bearing on this point. He is an advocate for the view of the contagiousness of phthisis adopted by so many of our continental brethren, especially the Italian physicians. As a German physician settled in London, he is probably more *en rapport* with continental opinion than ordinary English physicians, though it is to be noted that Dr. Weber has somewhat modified the views expressed by him, ten years ago, in a paper on the subject read before the Clinical Society. He now acknowledges that cases in which phthisis has been communicated are rarer than then appeared to him, but states that he remains convinced of its communicability under certain circumstances, and urges the rigorous adoption of the hygienic precautions which this view renders desirable. In speaking of food, Dr. Weber said he quite agreed with Dr. Duckworth as to the insufficient use of milk as an article of diet in England, both by children and adults. Fresh air, sunshine, flannel underclothing, bathing, and exercise, were all pointed out as desirable. In speaking of ventilation, Dr. Weber mentioned the undeserved neglect which has fallen on Dr. Henry MacCormac's views, and said that whatever we might think of his explanation of the origin of consumption by the "breath rebreathed," we must acknowledge that pure air is the best way to prevent it, and that Dr. MacCormac has pleaded in favor of it more eloquently than any other author.

Another phase of the subject taken up by Dr. Hermann Weber was the question of the curability of phthisis. The prognosis of this disease is now generally regarded as more favorable than formerly. Most observant physicians have met with cases showing that some patients are able to throw off the malady, and numberless post-mortem records prove that a process of repair does take place and the patient is practically cured, although "lamed" so far as regards his lung-power. Dr. Weber related a case in which he had the opportunity of observing two separate attacks of phthisis in the same patient, from each of which he recovered. Dr. Weber says he found the remains of the lesion by post-mortem examination seven years after the second recovery, when death had occurred from typhoid fever with perforation. The question arises whether these two attacks were bacillary, and, if so, whether the encapsuled cretaceous and semi cretaceous masses still contained bacilli and spores. If bacilli and spores could live for years in such masses, it was possible that a fresh attack of phthisis, occurring in a patient after years of apparent cure, was in some cases due to self-infection from the escape of imperfectly shut-up parasites. It is interesting to note that Dr. Neuwerk, of Tübingen, has recently published a case tending to show this.

Dr. Clifford Allbutt's assault on the gynecologists provoked a good deal of comment at the time, and not a little angry feeling among the subjects of his animadversions. I am inclined to think a good deal of the latter arose from the "cap fitting" only too well. I suspect that most medical men, both in England and America, who have seen much practice, could narrate cases of patients who, while suffering from some local disorder really insignificant, have been persuaded by some unscrupulous specialist to go to him again and again (*and pay fees*) for the purpose of being examined, having caustic applied, and so on, until at last "the arrow of hypochondriasis is implanted." Of course, I do not mean to hint that every gynecologist is of this stamp, but there cannot be much doubt that such things have been. Uterine diseases cannot be treated without a diagnosis being made, and local examinations are necessary. I believe that most of the physicians in London who practise gynecology as a specialty, do so with all reasonable delicacy; but I believe there are a few who are quite as capable of applying caustics without need to the os uteri as of painting the uvula daily for weeks as a preparative to removing it! I have heard of the latter being done, but I would not have your readers infer that such is the usual practice of British practitioners.

At the last meeting of the Medical Society of London, Dr. Routh read a paper on "The Constitutional Treatment of Disease of the Uterus and its Appendages," in which he protested against Dr. Allbutt's views. In opposition to him, he maintained that general neuroses were not more common than uterine disease; that many cases of true disease of the uterus were overlooked, owing to imperfect methods of examination; and that the great advances made in the study of diseases of the female generative organs were due to the careful and systematic examinations conducted by gynecologists.

Dr. Allbutt, who had come up from Leeds to be present, replied, and said he felt Dr. Routh's criticism left him untouched. In the course of a long speech, he again put forward in an expanded form the views expressed by him in his Gulstonian lectures last year. It is impossible to epitomize his speech in a few lines, but I may just remark that one main line of argument he adopted was that, in cases of apparent uterine disease with neurotic symptoms, his view was that in many cases the neurosis was primary and the womb-mischief only secondary. If we merely treated the latter, we should fail to cure the patient. He would not deny that there were gynecologists who practised in a scientific spirit, but he knew that there were a large number of practitioners who treated cases of this kind from first to last as merely uterine. Dr. Allbutt concluded by saying that he did not wish to be classed as an obscurantist. He held very strongly that it was imperative, in certain cases, to make an examination of the sexual organs even in virgins.

The agitation for the repeal of the Patent Medicines Stamp Act is as yet unfruitful, but a new "Poisons Act" has just passed the second reading in the House of Lords, and may perhaps partly neutralize the evil caused by the Stamp Act. It renders more stringent the regulations for the sale of poisons, and the act is to apply to such patent medicines as can be proved to be poisonous.

The proposal for a memorial hospital to General Gordon, at Port Said is enthusiastically received, both within the profession and outside our ranks. Nearly all of the sum necessary has already been promised.

THE CHOLERA IN 1849.

To the Editor of The Medical Record.

Sir: During the epidemic of cholera in 1849 I was physician to the Seventh Ward, and I attended a large number of cases. As is usual in the early outbreak of nearly all epidemics, a great many of those attacked with the disease died, but toward the latter part of the epidemic, when the disease was not so rapid in its progress, I saw the good effects of the remedies used.

With all persons over whom I had control I compelled the use of water that had been boiled. I found I could do this better by extolling the virtues of black tea, so much so, that many of the drinking saloons kept hot tea

and I thus greatly reduced the use of spirits. Among this class of people I got the sobriquet of "Boiled Water." As much as possible I prohibited the use of crude uncooked foods, and induced people to use foods that had been subjected to fire.

As soon as I was called to a case of cholera, I administered five grains of tannin dissolved in a teaspoonful of sulphuric ether, and if there was much nervous irritation or fatigue this was accompanied with a dose of opium. I kept readily prepared the following mixture:

℞. Tannin..... ʒj. ɔj.
Sulphuric ether..... f ʒij.
Syrup simpl..... f ʒij.
M

This was shaken and a dessert-spoonful given at a dose, washed down with some sweet flax-seed tea.

I also kept readily prepared some very thick syrup of flax-seed; warm water added to some of this readily made flax-seed tea. This dose of tannin and ether was given every hour until the diarrhœa was controverted; occasionally it was necessary to give ten to twenty drops of laudanum, but opium alone was insufficient to check the diarrhœa. I have often seen a single dose of the tannin and ether check a profuse diarrhœa; then a full dose of laudanum in ether was given to keep the patient in the recumbent position for twelve hours or more. Often these doses of tannin and ether did not check the discharge, I then gave five grains of tannin and two drachms of ether in half a pint of warm milk as an injection, using a large catheter to throw it as far up the bowels as possible.

Tannin and ether afforded me better results than any other remedies; often I needed opium, but more as a sequence to keep the patient quiet after the effects of the tannin. Opium treatment alone gave me but little satisfaction.

During the month of August, 1849, I was conversing with Professor Joseph M. Smith upon the use of tannin. He said he had tried it without any good results, but he acknowledged that he had used it only in one-fourth grain doses. He said he should be afraid to give it in five and ten grain doses, as I had done, fearing it would be poisonous, but he afterward saw a patient with me to whom we administered ten grains of tannin and two drachms of ether within two hours, with most successful results.

I am happy to say that I had the confidence of the people among whom my labors were spent. I early insisted on cleanliness, both of person and household. I closed many of the cellars and cleared out many of the dark alleys. In most households, I kept a tea-pot full of hot tea constantly on the fire. I had less drunkenness than in many other parts of the city.

Having the confidence of the people, I had them send for me early when attacked with the epidemic, and by thus early treating them I was enabled to prevent the disease from progressing to its usual fatal termination.

In some cases it was difficult to get persons to swallow the ether, but invariably I mixed it with syrup, which made it less unpleasant, and a good large mouthful of flax-seed tea removed the disagreeable taste of the ether. If I needed opium, it was given in ether sweetened with syrup.

With drachm doses of ether mixed with syrup, given every half hour or hour, I treated many cases of diarrhœa —cases that seemed to me choleraic in their symptoms.

SAMUEL R. PERCY, M.D.
56 WEST TWENTY-FIFTH STREET, NEW YORK.

IS IRON GIVEN ALONE OF ANY THERAPEUTIC VALUE?

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: I have read in the column of "Medical Items," in THE RECORD of February 14th, the paragraph headed, "Is Iron given Alone of any Therapeutical Value?"

In my own case natural iron-water was of very great value, after iron in several other forms had failed.

I was troubled with a chronic otorrhœa and many other anæmic symptoms. I tried iron in various forms without other effect than a constant headache.

I had given up the use of iron entirely for several months when I began to use the chalybeate water, intending to give it a thorough test. I used no other water, and drank the chalybeate frequently when I was not thirsty. I used no medicine whatever.

In less than a week the otorrhœa had entirely disappeared. My appetite, which was diminished when using the other forms of iron, began to improve, and at the end of a month I had made a considerable gain in weight.

I continued to use the water two months constantly.

I have passed the winter since in much better health than for eight years, and a small fistula which has been in the habit of healing in the summer and opening in the winter months has failed to put in its appearance this winter.

C. C. FROST, M.D.
NASHVILLE, TENN., February 20, 1885.

THE HABITAT AND TREATMENT OF OXYURIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In your issue for January 31, 1885, is an interesting article by Dr. Millard on "The Habitat and Treatment of Oxyuris." He introduces the article by some criticisms of our standard text-books on the practice of medicine, and the diseases of children, for their faulty statements as to the habitat of this parasite, and states that for correct information it is necessary to consult the specialist in this department. Having had to consult various text-books at my command during the past winter on this subject—having some troublesome cases of oxyuris on my hands—I was struck by this statement, as it was so different from my experience as to what these works said. In defence of the writers on these subjects I here give the result of my readings. Taking one of the older works which I happen to have in my possession, viz.: "Tweedee's Library of Medicine," ed. 1842, vol. iii., page 626, it says: "The rectum seems to be the peculiar seat of the parasite, though it is also found in other parts of the large intestine, and masses of them are often expelled enveloped in mucus or rolled into a ball." On pages 627 and 628 full instructions are given for treatment by enemata, and especially the aiding of the former by purgatives, saying it is generally necessary to keep the upper as well as the lower portion of the alimentary canal clean by the administration of a free purgative, as of calomel and jalap, repeated according to circumstances; also quoting from Horbeden, who says: "Those purgatives are best which act briskly, and of which purging waters are of this kind; and jalap especially for children, two or more grains of which may be repeated daily."

Tweedee further says: "Purgatives which act more particularly on the rectum, as aloes, are extremely useful, and *those which bring away the greatest quantity of mucus*, and thus deprive the worms of their pabulum, afford most relief. Lastly, it must not be forgotten in the treatment of ascarides that in many cases these remedies will necessarily afford only partial and temporary relief, unless at the same time we pay attention to the restoration of the general health and the establishment of a proper degree of tone to the digestive organs."

This is quite full and explicit, although taken from a work long since out of print. Again, Wood, in his "Practice of Medicine," vol. ii., page 688, says: "The peculiar seat of ascarides is the rectum, but they also inhabit the *colon* and are said to have been seen occasionally in the stomach." Of more recent works, Bartholow is very explicit upon this point. In his work on "Practice of Medicine," page 123, he says: "The oxyuris is not confined to the rectum nor its excursion limited to the perineum and vagina. It migrates upward into the large intestine and develops in the cæcum, but the lower part of

the ileum is also invaded. . . . It should not be overlooked that they exist in the cæcum and the lower part of the ileum in large numbers." And he advises treatment accordingly. The administration of one of the vermifuges, especially santonine, aided by calomel, should be the first step in the treatment: as soon as it has acted the bowel should be irrigated by a weak solution of quassia or aloes. Also, Dr. Ransom, in "Reynold's System of Medicine," vol. iii., page 289, says: "It normally inhabits the colon of man only, especially in the neighborhood of the rectum," and quotes various specialists on the subject. In treatment he is not as satisfactory as the others. In special works on diseases of children, I find that "Condie" says, page 242, "It is found in the large intestine, particularly in the rectum of children." Of treatment he says: "In case of children infested with oxyures, the same general treatment will be proper as in other varieties of intestinal worms," and gives full instructions for the use of various anthelmintic injections, but also insists upon a course of treatment calculated to restore the healthy functions of the alimentary canal.

Also, Dr. J. L. Smith, in "Diseases of Children," first edition, p. 401, says, "Its habitat is the large intestine, commonly the rectum," and quotes Brunser as finding it in the cæcum. He advises use of anthelmintics as adjuvants to the main treatment, which should be local. Further, Eustace Smith, in his interesting little work on "The Wasting Diseases of Children," 1871, p. 170, says, "The seat of the worms (oxyures) is the lower part of the colon, especially the *sigmoid flexure*." Treatment: "The oxyures in the rectum and sigmoid flexure are within easy reach of injections and are best treated by this means." The diarrhœa which is so common when oxyures are present is readily arrested by a purgative, as castor-oil or the following powder: ℞. Pulv. jalap, grs. v.; pulv. aloes soc., gr. j.; pulv. scammoniæ, grs. v. M. To be taken every morning for two or three days, and use injections every evening until no trace of the worms is found in the stools or returning enema."

In some cases, I have used locally, after the internal administration of vermifuges, a suppository containing five grains of sulphur and two grains of santonine at bedtime, followed in the morning by an enema of infusion of quassia. This (oxyuris) is one of the lesser ills of the flesh, but a very annoying and distressing one, and as Dr. Millard has shown, one which may last for years, as I can also testify. It is well for us to remember that the local treatment will not always reach the seat of the trouble; still our general writers are not, I think, open to the criticism made by Dr. Millard.

Respectfully, W. H. Sharp, M.D.

Volcano, W. Va., February 10, 1885.

THE NECESSITY OF PURE BOVINE VIRUS.

[We give below the substance of a long communication from Dr. Martin, who deprecates the fact that the production of bovine virus is largely in the hands of irresponsible individuals and companies.—Ed.]

To the Editor of The Medical Record.

Sir: In your issue of February 21st is a communication from Dr. W. H. Doughty, entitled "An Experience with Bovine Virus in the Vaccination of Children," in which he holds up animal vaccine virus to unfavorable comparison with the humanized. Of late years there have appeared a number of communications in the medical press of the United States, narrating bad results and even deaths following the use of animal virus, and many of them advising the abandonment of animal vaccination.

In some of these cases it is plainly evident that the unfortunate complications were due to other causes than the quality of the virus used; but in an abundance of instances it has been clearly shown that the animal vaccine virus of commerce has been directly responsible for the results. I therefore feel called upon to make a few remarks upon this subject, and endeavor to rescue from unmerited reproach a method which I consider an incalculable improvement and blessing. It is extremely doubtful if a particle of the old humanized virus formerly used in this country at present exists, what is now called humanized virus being but a few human removes from the cow, so that it would take some years, were we to try to follow the advice of these writers, to get back to the lamentable condition of things which existed before my father introduced animal vaccination.

The explanation of the cause of the bad results reported is very simple, though, strangely enough, it does not seem to have occurred to the reporters; for, as is extremely unfortunate for the cause of vaccination, they appear inclined to regard everything that is offered in the market under the name of animal vaccine virus as possessing precisely the same virtues, no matter whether it come from a competent producer or an ignorant quack; and never for a moment realizing that they themselves are responsible for a want of proper care in the selection of material used, they throw all the odium upon the method of animal vaccination. . . .

That there should be a number of sources for the supply of animal virus in the United States, conducted by thoroughly competent men, is desirable and indeed necessary, and a few such have been established; but unfortunately a host of utterly incompetent and unscrupulous men, actuated merely by the greed of gain, and with no reputation to sustain, some of them with no medical degree whatever, and others armed with only the diploma of some bogus medical school, have rushed into the field as producers. These men, generally concealing their individuality by the convenient cover of the title, such and such a "vaccine company," underbidding each other in price, advertising extensively, and offering bribes to boards of health, have reduced one of the most solemnly responsible medical specialties to the level of a very low trade. Of course, with the feeling which seems to prevail among the majority of the profession in this country, of utter carelessness as to the source from whence the virus they use is obtained, and of procuring it of the nearest druggist, or of any one who will supply it a few cents cheaper, or at a little more ease to themselves, such propagators will supply a large proportion of the virus used, and reports of bad results will increase and multiply. Those who meet with them, however, have no right to attribute them to the practice, but rather to the malpractice of animal vaccination. I would here protest most emphatically, that the method of animal vaccination introduced by my late father, and practised by him, and myself, and other competent men, has nothing to do with, and is in nowise responsible, for the practice of it which largely obtains in this country. . . . Stephen C. Martin, M.D.

Roxbury Station, Boston, Mass., March 1, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending April 4, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 28, 1885	1	6	88	7	144	52	0	0
April 4, 1885	0	5	106	6	207	77	0	0
Deaths.								
March 28, 1885	0	4	18	6	23	29	0	0
April 4, 1885	0	2	19	6	19	24	0	0

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 16 NEW YORK, APRIL 18, 1885 Whole No. 754

Original Articles.

CHOLERA AND ITS RELATIONS TO STATE MEDICINE.[1]

BY S. OAKLEY VANDER POEL, M.D., LL.D.,

PROFESSOR OF PUBLIC HYGIENE, MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

CHOLERA interests from two aspects of study: First, to the physician, in which its symptoms, pathology, and treatment call for his patient investigation; where each case is regarded in its individuality, and where his recorded observations of the particular case forms the specific type of thousands which he subsequently meets; in the study of which he strives to formulate methods of palliation or treatment which may mitigate, if they cannot cure, the disease. Naturally this forms the first element of study upon the appearance of a new disease, and it was in this restricted field that all the earlier literature of cholera abounds. There are those before me who will readily recall this period in the study of the disease; for sixty years have not yet passed since cholera was an unrecognized and unknown disease, both in Europe or this country.

When, however, we study cholera in its *epidemic* relations, a larger and more extensive field is presented. We regard no more its action upon the individual, but as a devastating scourge which attacks whole localities and nationalities. Larger and more extended studies are then necessary. It is no more the study of the individual case in its personal aspects, but its relations to others; relations in which the individual work of the physician is but a component part of the work falling upon every individual, but which, for its harmonious and effective working, must devolve upon constituted authorities, and falls, therefore, in the domain of study now known as "State Medicine."

Indeed, in medicine there are few studies as laborious as the study of *epidemics*. Necessitating, as an essential point of departure, a knowledge of the disease in its clinical and anatomical characters, it imposes, in point of view of the etiology and prophylaxis, a series of investigations different from ordinary pathological researches, or mere knowledge of therapeutics.

It is no more the study of the disease itself, in which ordinary medical observation may more or less circumscribe the affection so far as determining its etiological relation with the persons and things surrounding, and thus arrive at a curative formula, based upon the examination of the single disease. But it has to do with a disease which strikes at a more or less considerable mass of individuals—possibly an entire population—disease, the universality of which will not permit the isolation of each case, to investigate the limits of its organism in its relations with others.

From a condition relatively simple in sporadic affections, is substituted a complex mass of similar cases. He recognizes a higher duty than the mere care of the individual case—the sentiment of the necessity of a common *preventive* treatment—the institution of prophylactic measures, the benefit of which may extend to a locality or to a State.

If, further, we reflect upon the obscurity which, even now, still weighs upon the conditions of the development of epidemics; if we recognize that upon the globe there is not a country which does not present different conditions of predisposition, or of immunity with reference to these scourges; if we consider that the prevention of epidemics depends not only upon the nature of the disease to be contravened, but also on a host of different circumstances, such as conditions of climate, of locality of the place to be protected; or, again, whether the topographical conditions of a country render efficient quarantine applicable; or, again, the receptivity of the people, whether from race or previous sanitary state; or still more, by density of population and the frequency of its commercial relations, you will appreciate how numerous the difficulties are to be overcome in the study of epidemic disease.

Although the studies of the past twenty years have greatly modified the *supernatural* as the intimate cause of epidemics, and while sanitary researches have pointed out the numerous accessories which facilitate their rapid and wide-spread diffusion, very much still remains which is intangible and hypothetical. Those who have made themselves familiar with the history and literature of grand epidemics well appreciate that much in their outbreak and spread still remains mysterious and obscure. While I recognize to the fullest extent the influence of telluric causes, the hygienic condition of localities, the sanitary condition of a people for the resistance of disease, neither one nor all combined can explain those fearful outbursts of a disease, which had been characterized by no especial virulence, productive of no great mortality, when it suddenly assumed the features of a devastating scourge and spread with rapidity over the civilized world.

A wide range of study must then be begun. It is no longer the personal features of an individual case, but the study of everything which pertains to the natural history of the disease. Its place of endemicity, its modes of propagation, its period of incubation, circumstances which may favor or retard its spread, and finally the most effective measures to be adopted for its contravention, become, each in turn, so many points of practical interest.

Nor have governments, particularly those of Europe, been indifferent in this respect. Hardly had the wail which followed the track of the first incursion of cholera in Europe, in 1831–32, subsided, when the necessity for some concerted action was spontaneously felt. An International Sanitary Conference was assembled to discuss and devise means for its contravention.

Even then, when the ideas of the modes of its propagation were of the most contradictory character—the one ascribing it to an "epidemic influence" against which human agency could effect but little; a visitation of Divine wrath against which we should not contend, but recognize as worthy punishment; or, secondly, as owing to some obscure meteoric influences, whereby was wafted, by atmospheric currents, the subtle and intangible poison to unknown distances; or, thirdly, the positive influence of contagion or infection, even then, through all this mist of contradictory opinions, the practical fact was not long in establishing itself, that whatever might be the infectious principle, in no instance had it travelled or been transported faster than man himself travelled. This was a great point to establish, for it gave a basis upon which to work for its contravention.

[1] Read before the Society of Medical Jurisprudence and State Medicine, April 9, 1885.

In the light of present knowledge, those first efforts seem feeble and very imperfect, but they were steps in the right direction. In the peculiar section of country, and modes of travel in which they were tried, they accomplished much; but the rapid strides of commerce, the more active interchange of persons and merchandise, brought new factors to the problem, which have called for long and patient work; but the requirements have, I think, been met. Were they fully carried out, cholera would have but an historical interest to the inhabitants of Europe and the Western Hemisphere.

But what is cholera? Where is its place of endemicity? What are the factors of its transmission, and what the measures to contravene its progress? To the first question, it is not necessary in this connection to reply, merely contenting ourselves with the assertion that it is neither malaria, nor miasm, but probably a specific germ, the origin of which has not been established. All my hearers are conversant with the extended studies which have of late been made by pathologists in Europe, tending to establish this opinion. Though the circle of evidence may not be absolute to verify the claim, still all analogy favors the opinion, and all efforts for contravention rest upon this basis of belief.

It is different, however, with regard to its place of origin. By universal assent India is the native habitat, and an epidemic which is recognized as the most pandemic of all known scourges, has its origin in a comparatively limited section of country; this is at the delta of the Ganges, comprising an area of about three hundred square miles. In this locality the disease has existed for centuries, with repeated epidemics which have spread over Hindostan, but which never reached the confines of Europe until 1831–32. Other places have since become secondarily affected, and it has become in them a permanent disease; at times comparatively latent, and then breaking out with renewed violence. Notable among these secondary places of infection is Bombay, the great seaport on the west coast, from which the principal commerce of the Western world starts. The statement of this fact explains the sensitiveness which has always been manifested by the British Government and by her agents in all the international conferences which had reference to the contravention of cholera. India, now regarded as an integral part of the British Empire, has enormous commercial relations with the home government. The obstruction of these relations, even in a remote degree, excites a feeling in the commercial circles of England which is at once reflected in the action of the government.

The agents which keep alive, and even intensify the virulence of the cholera germ, are the numerous and grand pilgrimages called for by the religious belief of the people. Even in Hindostan, independent of the Mohammedan pilgrimages, there are those of other beliefs, which call forth aggregations of nearly a million of persons. It is markedly the feature of cholera, that whenever aggregations of any kind occur, with their attendant filth, poor food, and fatigue, the disease assumes virulence and intensity. Particularly so when conditions of the *soil*, one of the most powerful factors, both for retention of the germ and intensifying its action, are present. A notable instance of the effect of aggregation has been noticed in vessels carrying passengers by the Red Sea route. Cholera, as we have stated, is now ever-present in Bombay. So long as vessels carrying passengers from there take only cabin passengers, cholera has not appeared upon the vessel, but whenever pilgrims are taken in the steerage, it is almost sure to develop.

The pilgrimages which take place in India proper, great as they are, would not of themselves spread cholera over the civilized world. There is also a large Mohammedan population. It is one of the fundamental tenets of that creed that every true believer must once in his life make a pilgrimage to the sacred shrine of Mecca, in Arabia. These pilgrimages must be so timed that from every portion of the Mohammedan world they reach the shrine at about the same time, the period being between the latter part of December and about the first of February. Formerly this was done by caravans, taking months to accomplish the journey. Thousands perished by the way from sickness and fatigue, but the swarming legions, fanaticized, ever pressed slowly on. Death under such circumstances was but to propitiate in a greater degree the favor of the prophet. Oftentimes over two hundred thousand were gathered at the sacred shrine. Caravans from India, Persia, Arabia, Syria, and Turkey, from Egypt, and the whole of Northern Africa, met in one indiscriminate mass. On their return they carried with them the dreaded scourge, leaving the germs on every part of their extended route. This explains the slow and peculiar course of the first two epidemics, which reached Europe by way of Russia. The epidemic which reached Europe in 1831 left India in 1815, and was seventeen years in making the transit. It passed through Arabia, along the shores of the sparsely settled Caspian Sea, and so on to Russia. When, however, it reached the denser populations of Europe, its spread was rapid and almost instantaneous. The measures which were at first formulated by the International Medical Conferences had in view only this route of introduction. When, however, in 1865, cholera suddenly appeared in the Red Sea, Egypt, and along the European shores of the Mediterranean, it was evident that new influences were at work, and that an entirely new study of the problem must be made. Up to that time, measures for contravention had been taken with a view to its incursion by way of the Caspian Sea. These had consisted chiefly in stationing small bodies of troops on the great caravan routes, in the most sparsely settled districts, with a medical officer at each to examine and isolate all cases of the disease. Originally five such stations had been created, but from time to time the number had been increased, until there were fifteen, circumscribing perfectly the land route. So long as cholera reached Europe only by the land route this measure was successful. It was so only from the exceptional character of the country—very sparsely settled, and impossible of transit except by the caravan route—that isolation could be maintained. I allude to this feature to deprecate the principle of *land quarantine*. All experience has shown its utter inutility, and as causing needless, and many times disastrous, obstructions to passage of persons and merchandise. Reference need but be made to the futile efforts during the past summer of the Spanish and Italian Governments. But the days of caravans composed of pilgrims to Mecca are ended. But one now goes yearly, that starting from Cairo, by way of the Isthmus of Suez. Steamships have taken their place, and a new class of factors had to be considered to meet the emergency. While the spread of the disease by this new method of transit was much more rapid and sudden over the civilized world, there were other conditions which rendered contravention of the disease even more feasible than when attempted upon caravans.

First, the pilgrims were saved the long, exhausting journey of the caravan; their hygienic condition could be more certainly watched; they arrived in a far better physical condition; their aggregation was for a comparatively short period, while their food was more healthy and more regularly dispensed. In order that you may form some idea of the magnitude of the undertaking to transport this vast mass of humanity, it is sufficient to state that from sixty to a hundred steamers are occupied in the work; that they represent nearly every nationality of Europe, though England furnishes the majority. Not only must these steamers bring them to Dejeddah, the seaport of Mecca, but they must await their return after an absence of a month in most instances, re-embark them, and distribute them to their homes over the vast territory of the Mohammedan world. They illy brook the delay of frequent inspections and re-embarkations, and

however willingly the truth of the principles of the International Sanitary Conference may be received, every method of obstruction is resorted to to evade their literal adaptation. Added to this, as the whole work of observation of necessity takes place on Turkish territory, the executive work is largely done by Turkish officials. It requires but to mention the fact to realize that much of it is synonymous with inefficiency, to use no harsher phrase. England, whose commercial interests in this great highway are so great, illy brooks the repressive measures; her influence in Turkish affairs is recognized, and her government has many times, through her agents, thwarted the rules laid down by the Conference. Not only through the action of the government, but her medical literature has teemed with articles tending to discredit all repressive measures. Writers, both in India and England, insist that cholera is not contagious, while still another class are equally strenuous that an "epidemic influence" is the pervading cause. We can only allude to this strong feature in the literature of English writers on cholera to caution readers against the too ready acceptance of such doctrines. They are inspired, it may be unintentionally, from the desire to place as few obstructions as possible to the supremacy of her commerce, placing reliance for immunity on the thoroughness of local hygienic measures rather than contravention to commerce.

France, however, by her geographical position and her climatic conditions must, as in this country, protect herself constantly against the invasion of two epidemics: that of yellow fever on her Atlantic seaboard, and of cholera and plague in her Mediterranean ports. Of all countries in Europe her sanitarians have best formulated the necessary provisions against the invasion of these epidemics, and show the best results of their protective influence. At the risk of seeming irksome and tedious, I shall narrate some of the principal of these provisions, as formulated by the International Sanitary Council, largely under the inspiration of the French physicians. It is the more necessary, because in studying them you study the underlying principles upon which all rational quarantine regulations must rest. Understanding them, you can make their application to any country and any clime.

The problem was large, and required large conceptions and broad ideas to grapple it successfully. Have you ever given thought to the immense body of human beings who gather annually at Mecca. Accounts vary, but estimates rarely place the number under one hundred and fifty thousand. Then, too, think of the character and habits of this mass of humanity. Without the slightest notion of sanitary precaution, huddled and crowded in the filthiest conditions, with insufficient and irregular supplies of food, in a climate and season when prolonged rains and cold are followed by a tropical sun and festering miasma; drinking from polluted wells, exhausted by prolonged travel, lying in the open air, or under the slightest tents—all conditions which, taken even separately, would favor the explosion of epidemic influences. Very many of these conditions, under proper supervision, have disappeared, while under the more speedy modes of travel they reach Mecca less exhausted, and remain in the vicinity a shorter time.

The whole stay in Arabia is not now over four weeks, enabling the sanitary supervision to be more concentrated. The sanitary contraventions now employed are not the evolution of a single sitting of the International Sanitary Commission, but developed from year to year as necessity and experience may have shown to be advisable. Some, which would seem the most important, and would be suggested as among the earliest restrictions, have only been put in force within the past two years. Manifestly, as the disease came from India, it would be thought of prime necessity that the pilgrims from that country should be examined before landing or approaching the shores of Arabia; yet this is one of the latest measures put in force. For if the disease existed among the pilgrims, they should not be allowed to mingle among the great mass coming from every other quarter of the Mohammedan world. Fortunately exceptional facilities are at hand for this purpose. At the entrance of the Red Sea is the island Camaran, some fifteen or twenty miles in length, by three or four in breadth. Its surface is undulating, somewhat wooded, and well supplied with water. At the lower part of this island vessels containing pilgrims coming from India are compelled to stop, and disembark their passengers for inspection. If all are well, they re-embark and proceed to Dejeddah. If, however, cholera is discovered, they are sent to another station, a few miles further up on the island, and are there detained until ten days elapse after the appearance of the last case.

It is not necessary to refer here to the measures of cleansing, isolation, and disinfection practised, as they are the same as pursued in every well-appointed quarantine. When the term of detention has expired, they re-embark and proceed on their route. It is apparent that if these measures are faithfully carried out, cholera should not appear in Arabia. Now it is this very obstruction against which England particularly protests. The delay occasioned is obnoxious to her commerce, and yet to the unprejudiced observer it is a measure so vital to the welfare of Europe and the world that it should not for a moment be considered.

Arrived at Dejeddah they are reinspected, and if no sickness is found they form in caravans and proceed at once to Mecca. With the caravan are placed the Medical Inspectors, who watch carefully the sanitary conditions, and promptly isolate a suspicious case. Sanitary regulations are enforced as much as possible among so miscellaneous a gathering. At each halt pits are dug for the dejections and covered up. All camp refuse and dead animals are buried. Drinking-water is kept as much as possible from pollution.

On the return of the pilgrims to Dejeddah, all, irrespective of nationality, are subjected to a quarantine of observation. If after five days there is no appearance of cholera they are allowed to embark on vessels for their respective destinations. Those who are to pass through the canal must undergo another inspection at Thor, some sixty miles before reaching it. Pilgrims from countries other than Egypt pass through the canal in quarantine; that is, they are not allowed to land or hold communication at any point, but the vessel must proceed direct to its destination. With the honest and full enforcement of these conditions cholera should not be a European scourge. The use of steam in the transport of pilgrims, while hastening the spread of a neglected epidemic, at the same time allows the application of restrictive measures with much more certainty, because the pilgrims are kept in fixed routes, and all must come under the same regulations.

You will notice the underlying principle in all these methods of contravention is based upon the *period of incubation* of the disease. It is no blind obstruction, founded on fear or caprice, but wholly on the natural history of the disease, its period of incubation, its modes of transmission, whether from the individual or his surroundings. We know cholera to be one of the most contagious of all diseases in the persistency of the vitality of the poison, its rapid dissemination, and the numerous ways by which it can be transmitted.

Perhaps it is well to mention here how cholera is transmitted from person to person, or from locality to locality. In the recital made, it is evident that atmospheric influence has a very inferior agency in its transmission—at no time has the contagious element travelled faster than man himself. The first outbreak of 1831, coming by the slow caravans along the sparsely settled district of the Caspian Sea, required eighteen years to reach Eastern Europe from India. Later epidemics have followed the means of communication between countries,

the steamships. To whatever portion of the world it subsequently spreads, it does so by the means of communication employed by man in any particular district. The contagious element is, then, primarily in the individual himself. This element is in the human dejections. We do not stop here to discuss the particular element which propagates—that belongs rather to the field of pathology, and has received within a recent period, through the researches of Koch, of Berlin, almost a mathematical demonstration. Secondarily, whatever these discharges touch becomes contaminated, and may become the focus for a new spread of infection—the hands of attendants which become accidentally soiled, bed-linen or clothing, or again the soil itself, under certain conditions which have not been wholly defined, becomes one of the most tenacious foci of infection. I do not refer to the soil in this connection as an element of filth as disease propagator, but in every epidemic, irrespective of local sanitary conditions, there have been certain districts, apparently refractory to the epidemic influence; even though the disease reached there it soon died out, without special sanitary precautions. So marked has been the tenacity of the poison to remain in certain soils, that Pettenkofer, of Munich, has presented a vast array of facts tending to prove that the poison emanates from the soil itself. When this does occur, it is a secondary, not a primary factor.

While these conclusions are accepted by the great mass of medical men, there is still an influential body, chiefly in England, who deny wholly all contagious influence, and insist that the spread of the disease depends upon "epidemic influence." It is not necessary to stop and seriously controvert these assertions, nor the facts by which they are upheld. There is, however, one point which has always been a stumbling-block to the believers in specific contagion, and which, so far, they have failed to explain; but which, taken in the light of recent germ studies, becomes an argument in favor of, rather than against, the specific transmission of the disease. When plague formerly ravaged certain sections of Europe, it was frequently observed that in districts where the disease had not as yet shown itself, non-febrile buboes became very common, and preceded for some time the incursion of the disease. So too with cholera. Prior to its epidemic and virulent appearance, there is a period, variable from weeks to months in some cases, where diarrheal diseases are far more common than ordinary, though no special fatality attends their presence. These two circumstances are largely dwelt upon by those who believe solely in epidemic influence. In this country the list of epidemic diseases could easily be extended to yellow fever. In every incursion of that fearful malady there has been what might be termed an "incubative epidemic period." The disease has not started off in full virulence, but has required a certain time to reproduce itself, or rather for successive reproduction of germs, the activity depending in a great degree upon the elements of filth, heat, and moisture to favor the propagation. So, too, in plague and cholera. When the non-febrile bubo is present, the germ has already gained a foothold. In cholera, where what is termed cholerine is present, there is already the specific germ, feeble it may be at first, but which by successive reproductions and favorable adjuvants gains in intensity, in deadliness, and rapid dissemination. Even without the demonstration of specific germs, which has been so incontrovertibly done, the above explanation would seem to be suggested by so many natural results emanating from feeble causes, as to present themselves almost unconsciously to the mind. This point disposed of, it seems to me the advocates of pure epidemic influence have no more a tangible argument upon which to rest. Cholera is a specific disease. All analogy points to a specific germ. Science has demonstrated its actual existence. . . . Passing then from this recital of the workings of quarantine, with reference to the Mohammedan pilgrims to Mecca on the shores of the Red Sea, let me for a few moments call your attention to the position of this country with reference to the contravention of the scourge. But first let me point out the distinction with reference to the word "quarantine," as originally used, and its signification as applied to-day. The word is an unfortunate one to be applied to measures of sanitary observation. Originally it had reference to the forty days' restriction which the countries bordering on the Mediterranean Sea, more particularly Italy, enforced against the progress of the plague. It has no such meaning to-day; but comprises the whole series of measures, restrictive as well as hygienic, employed to contravene the incursions of an epidemic. These are not limited to those taken at the port of arrival of a vessel, but include those which, in my judgment, are far more important, the *inspection of passengers and luggage before embarkation*, their systematic inspection in transit, and finally, their observation and inspection on arrival at port. As I mentioned, the inspection on embarkation must not be confined to the passengers alone, but what is more important, must include their *effects*.

Cholera, as we have stated, is transmitted solely by the dejections of the individual. Whatever these dejections touch or stain will transmit the disease for an almost indefinite period. Any piece of soiled clothing may be the nidus to cause an outbreak of cholera thousands of miles distant. In this connection it may be well to mention that the action of the Holland Government, during the past summer, was the most rational, as well as the most effective, of any taken by the other European powers. While they had upon their frontiers cordons of military to obstruct the passage of persons and articles of commerce, or again in other places subjected passengers and baggage to needless and even dangerous fumigations, the Government of Holland, on arriving at her frontiers, not merely determined that all travellers were well, but also made a thorough inspection of every article of clothing. If there was a soiled piece it was taken, the name and residence of the person from whom it was taken given, and in two days the article was forwarded to the owner in a clean condition. Very little delay, and no obstruction was thus made either to passengers or their surroundings.

I would therefore earnestly urge that said inspection of passengers and baggage be at *once* commenced by the agents of the General Government at all ports of Europe, from which emigrants embark for this country. To delay such action until cholera reaches our shores would render the whole system nugatory. If the luggage contains no germs of the disease it is perfectly simple to manage the individual. The time of transit is longer than the incubative period of the disease.

If, therefore, the person embarks with the disease undeveloped in his system, it will certainly show itself on the passage. Now a vessel, strange as it may seem, is one of the best places to jugulate cholera. If the inspection of the passengers is made at sufficiently frequent intervals, a case can at once be detected and isolated. When so isolated, place the attendants in absolute quarantine. Have the discharges passed in a vessel containing a solution of one part in a thousand of bichloride of mercury. They are at once rendered inert, and should be thrown overboard, precaution being taken that they do not touch the sides of the vessel; for should any portion of the discharge escape disinfection, and lodge on the side of the ship, it would become a new nidus for propagating the disease. Should any piece of bedding become stained, either destroy it at once or throw it into a solution of sulphate or chloride of zinc, and if by accident the hand of the attendant is soiled, wash it at once in a similar solution

Cholera can in this way be stamped out before the vessel reaches our shores, because as the time of transit exceeds the period of incubation every case which occurs must have brought the germs in his system when coming on board. If the measures above stated are faithfully carried out, the contagious element is rendered inert. We have therefore little to fear from its spread to

other passengers. Nothing, then, would remain for the quarantine authorities at our ports to regulate, but keep the vessel and passengers isolated and under observation a sufficient length of time from the last case, to be certain that no new cases occur.

It is evident that if preventive measures are to be effectual, they should be instituted at *once*. In a short time we shall have the flood-tide of emigration coming from every portion of Europe. Although thus far during the present epidemic in Europe none of the seaports from which emigrants depart have been invaded by the disease, we must bear in mind that these emigrants congregate from every locality, bringing with them, it may be, soiled and infected clothing, which I deem far more dangerous than any contagion from their persons. It is at these ports that the examination should be made. If we wait until the disease reaches our shores, such preliminary inspection would be almost useless, and the Government would be judged derelict in its failure to perform a duty which every sanitarian would deem of the first importance.

The time has come when neither the General Government nor municipalities can wait supinely the advent of a scourge.

It is no more the judgment of an offended Deity, under which one must supinely sit, but an active, deadly entity, which can be contravened, and which calls for the active intelligent efforts of those having this matter in charge on the part of the State and national authorities.

Of course, from what I have said the natural inference is that cholera will certainly be a visitant of this country the coming summer. Such, however, is not necessarily the case. The epidemic of the past season in Europe showed no inclination to travel to the northern seaports. During its reign at Paris, although intercourse with England and other countries was practically unrestricted, no case occurred, so far as I am aware, north of Paris. During the winter it has been quiescent, and it is to be hoped that the prompt sanitary precautions taken at the time have jugulated the disease.

While I deprecate the efforts which have been made in certain quarters to induce a panicky feeling, I should encourage unusual activity in all measures tending to place the city in a good sanitary condition. Bad as the surroundings of many of the tenement-house population are, they are, on the whole, much better than many of the same class in London, Paris, and Naples. While widened streets have lighted up many of the bad places in those cities, it has, on the other hand, not driven the inhabitants to larger quarters, but has crowded them more densely in the same districts in which they resided before. The problem is much larger than the mere superficial sanitarian would have us infer. Economic questions, not so vital it is true with us as with European countries, enter as factors. The people are there, they live near their places of employment. The radical reform is not so much in tearing down and building up, as to bring the best possible hygienic conditions to their present position. Give them good sewerage, plenty of water carried to every floor, separate water-closets thoroughly ventilated to every family, encourage by these means habits of cleanliness, and you go a great way to remove the evils which seem inseparable from their present condition. These are changes which can be effected without great expense, and consequently adding to the burden of rents. This, however, is too large a subject to introduce as part of a paper on cholera, and the suggestions are thrown out as hints to encourage the work of public-spirited citizens in the right direction.

A Small Spleen.—Before a recent meeting of the Clinical Society of Maryland, Dr. C. W. Mitchell exhibited a spleen which weighed only one drachm. The individual from whom it was extracted had been a large, robust man.

A READY METHOD FOR THE PRODUCTION OF LOCAL EXTENSION IN THE TREATMENT OF FRACTURES.[1]

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Local extension of a limb is indicated in cases of simple fracture, where shortening is likely to ensue, and also in fractures which are compound or comminuted, and the method for its production, to be detailed in this paper, will be found possessed of so much simplicity and applicability as to commend itself to surgeons without very strong advocacy on the part of the writer. In local extension only the parts about the seat of fracture are stretched, while in extension, as usually practised by means of a weight and pulley, or the long extension splint, the stretching is not limited to the affected part of the limb alone, but involves the entire limb.

Fig. 1.

It would seem, theoretically, if thorough extension of the part could be produced by means of traction force directed so as to produce stretching of the injured part alone, that the fracture would be placed in the best condition for prompt repair with a minimum of deformity; and in reality this is true, because, when properly adjusted, such a dressing not only insures better fixation of the fractured bones during the period of repair, but at the same time the traction can be regulated day by day, without the necessity of removal of the splints from the limb; and in compound or comminuted fractures the parts can be dressed and local treatment pursued without disturbance of the fragments or removal of the splint.

As an illustration of this method for the production of local extension, we will suppose an instance in which the fracture has taken place in the forearm, midway between the wrist and elbow. The requisites are: First, two stout wooden splints, notched at each end, as in Fig. 1; second, some strong moleskin plaster (the double-twilled, prepared for extension of joints, is best); and third, some strong webbing strips.

Fig. 2.

First cut *four* strips of the moleskin plaster of sufficient length to encircle the arm, and from two to three inches in width.

These should be cut in the fan shape, shown in Fig. 2, and have strips of the webbing sewed to them, as shown in the same figure.

To the end of *two* of these strips buckles should be attached.

To apply the splint the four adhesive strips should be placed upon the forearm, two above and two below the seat of fracture, and on opposite sides of the arm, the extremities interlacing, as shown in Fig. 3, care being taken to avoid covering the seat of fracture. The wooden splints are now to be placed, one on either side of the arm, and held there in position by circular strips of adhesive plaster in the usual manner.

The next step consists in drawing the webbing strips

[1] Dr. John Swinburne, of Albany, read a paper before the Medical Society of the State of New York, in 1861, advocating extension in the treatment of fractures of the long bones, but his method for its production differs materially from that here described.

through the notches at the end of the splints. on each side of the arm, and buckling them together, as in Fig. 4.

It will readily be seen that the tighter these linear straps are drawn together and secured by the buckles, the more stretch will be produced upon the parts over the seat of the fracture.

If the fracture is near a joint the splints must be carried beyond that joint sufficiently to immobilize it, but if in the middle of a shaft,

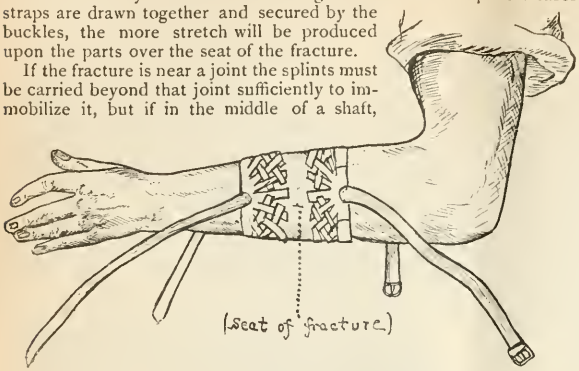

Fig. 3.

fixation of the joint is not a necessity if the local stretching is thoroughly effected.

It may be also suggested whether rubber webbing could not advantageously be substituted for the non-distensible form advocated by the writer.

It would seem, however, that its continuous action would be more apt to produce non-union of the fragments, and at the same time it would certainly cause the adhesive plasters to cut more deeply into the tissues, than if the extension was produced by the rigid webbing.

For fracture of the thigh, *four* short splints are

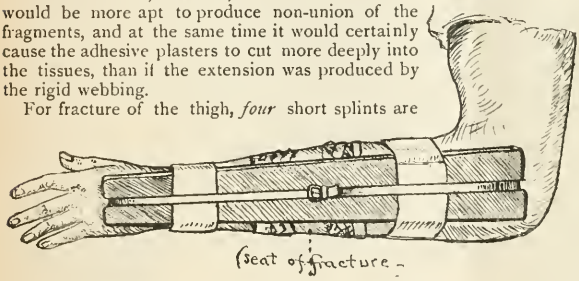

Fig. 4.

used about the length of the thigh itself, and notched in the same manner as those used for the forearm. These will require *eight* fan-shaped moleskin strips, to each of which a webbing strip should be attached, as already depicted.

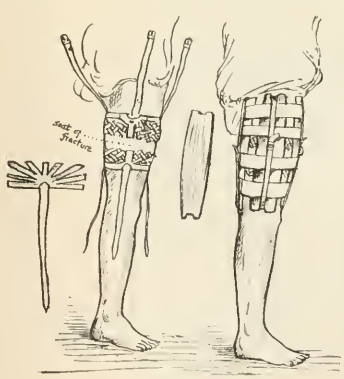

Fig. 5.

These should be interlaced above and below the fracture, and the webbing strips drawn tightly over the ends of the wooden splints, which are to be placed on the four sides of the thigh.

Traction can now be secured as in the forearm, and is maintained and regulated at the will of the surgeon. In most cases it will be found preferable to extend the posterior splint above the hip and below the knee, and secure immobilization of these joints for the first few weeks, but the lateral and anterior splints are not changed.

This method of treatment allows the surgeon to secure a more perfect coaptation of the fragments, and to maintain and adjust the extension; since the latter depends entirely upon the degree of traction which is exerted. The adhesive dressings, when interlaced in the manner just detailed, not only do not slip, but any increase in the traction causes them to embrace the limb more firmly, and, when the strips of webbing are drawn over the ends of the wooden splints and buckled together, such traction as is exerted is held securely, provided the splint itself be of sufficient thickness not to bend under the linear strain.

It is a difficult matter to disarrange the fragments if they have been properly adjusted and secured by the method just described, as the traction causes the parts over the seat of fracture to become stretched, consequently causing perfect fixation of the part by forcing the tissues themselves to act as a local and secondary splint, in addition to the remainder of the apparatus.

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DETERIORATION OF VISION IN SCHOOL-CHILDREN.[1]

By S. O. RICHEY, M.D.,

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Wherever "two or three are gathered together" a legitimate field is created for investigation by those interested in the moral and physical welfare of their race; because one may be in health and another diseased, the former, in time, being "made black by handling pitch."

If the hygienic arrangements of private houses, barracks, ships, and hospitals are studied, so should be those of theatres, churches, and schools.

Schools are, to a great degree, protected from the more pronounced contagious diseases, but are they guarded so well as they might be from those that are obscure and less easily detected? Should not each school be insured all possible safety by a preliminary physical examination in every respect of each child entering it? A certificate of vaccination is demanded of each new-comer in many schools; when any of the eruptive fevers are known to exist in a household, no child from that house is allowed to attend until all danger of contagion is believed to be past; but how many there are, especially among the poorer classes, who have some conjunctival affection, and yet attend the schools, associate intimately with those who have not, use the same wash-basin and towel, the same books and pencils? The extent of exposure is not justifiable, and a certificate of health is as important in this particular as in any other.

Reich[2] had an experience due probably to exceptional circumstances, but among three hundred and seventy school-children in Armenia, he found trachoma to exist to the extent of thirty per cent. of the males and twenty per cent. of the females; and there was conjunctival trouble of some character in sixty per cent. of the males and seventy-three per cent. of the females.

Weber suggests that a special physician be appointed with executive authority. This would meet the difficulty

[1] Read October 15, 1884, before the American Health Association, at its Twelfth Annual Meeting at St. Louis.

[2] C. f. A., October, 1878, p. 228.

at the outset, but it would add to safety to banish wash-basins and towels from the school-room, unless each pupil could have his own towel. This last recommendation will not seem uncalled for by those who have seen instances in which the different members of the same family have suffered in a like manner, the source being a single individual and the medium of communication the articles in common use.

A low form of granular conjunctivitis, with its train of consequences—trachoma, distortion of the lids, and pannus—is much to be feared. I have never seen it happen in a very young child but once; it is not infrequent after eight years of age. Landesberg[1] states that he has "seldom seen children under five years suffering with granular conjunctivitis."

An affection of the eye due to contagion is an accident not attributable to the *work* of the school-room; but there is another form of trouble which cannot justly be characterized as accidental, because of the constancy with which it prevails among all schools—a shifting or varying in the power of refraction of the eyes; the refraction *increasing* as the eyes are kept at close work for a long time. This condition of near-sight will in time be as much a curse to civilized people as tuberculosis, uniting as it does the influences of inheritance and acquisition.

Germany, to-day, probably heads the list in the percentage of myopia to its population, especially among its educated people; that country has also been among the first to appreciate the greatness of the evil, in that it disqualifies in a great measure those who have myopia for military duty, and, therefore, for good and efficient citizenship. We, in our neglect, or in the inadequacy of the measures adopted, are rivalling her in our results.

Hygiene will be the medicine of the future, and Prophylaxis the patron saint of physician and layman alike. More is to be gained for our race by avoiding *now*, when it is possible, the sins which will be sure to curse our children, than by all the measures of relief they can reach.

The sage contemplates the probabilities of the future and endeavors to prepare for them; the fool lives in the present, with a selfish regard for himself alone.

He drinks his wine to excess, regardless that his offspring must pay to Nature *his* debts in pain, blindness, general infirmity, and shortened life.

A debauch *is* such, whatever form it may take. No one disputes that excessive guzzling is dissipation; oversleep, over-exercise, anything which exceeds the limits nature has fixed, and which does not give to employment the variety that charms and rests is debilitating, and, in so far, adds a burden to those who come after us.

The overtaxing of any organ makes it *tired*—a street synonym for drunk. Our moralists inveigh against intoxication by drugs, and yet often encourage that of exhaustion, probably not realizing one to be as bad in its effects as the other. How often does one see this individual at his work giving testimony against excesses, while he himself exhibits the pallor and exhaustion of late hours, hard work, and mental anxiety, the result of which is felt by the child born of his wearied body! He forgets this possibility, and that the book from which often he gets his inspiration says, "The sins of the fathers shall be visited upon the children, even unto the third and fourth generations."

Others, with this example, are inclined to act in the same manner. The children of these individuals begin the work of life handicapped, and their school life at a very early age.

They must contend with the offspring of more vigorous parents, and, to keep abreast, must make greater effort. The working organs are forced to labor beyond that which allows of health, and structure change follows. The bow is never unbent, and it breaks. With longer persistence come greater changes and increased disqualification, which in turn are handed down to their own children, who then have the burdens transmitted by the father and the grandfather.

As living means struggling, there is rarely an opportunity to retrace our footsteps; therefore we must go *on*, and moving on struggle at a greater disadvantage with each succeeding generation, so the end of such a family can easily be predicted, because the evil influence calculates by geometrical progression. What is said of a family is true also of a race, except that the causes are in greater variety and intensity, and require a longer time, though the ultimate conclusion must be the same.

Let the organ of the body which shows this tendency to depreciation be what it may, the best method of procedure is that of prevention. The ills which our bodies suffer were probably not existent at first, but are the outcome of a long series of indulgences by our fathers. We should hold *them* responsible for them, and *ourselves* accountable for any addition to them which may be manifested in our children.

We should not be profligate in study more than in other things. It is selfish to ourselves to enjoy our patrimony, to spend it all, and then to propagate children who will inherit from us nothing but ills.

Though myopia may not exist in a given instance, the tendency may be inherited, and if any ancestor has had near-vision, the precautions against it should be increased. We have here to discuss school work as a probable cause in the production and increase of myopia and the best means to prevent or lessen it, if possible.

A small proportion of very young children in this country have a high degree of myopia, which is inherited, and these must be excluded from the discussion.

It is not infrequent that the individual begins as a hyperope, the refraction increasing to emmetropia (or normal refraction), to myopia, and progressive myopia.

The statistics, which are large enough for conclusions, show in our own and in foreign schools a gradual increase in the percentage of myopia from the lowest to the highest classes. The persistent use of the eyes at short range upon objects improperly illuminated, or for other reasons insufficiently distinct, is believed to be the prominent factor in its production.

Dobrolowsky, in examining the children of the Ural high school, finds myopia infrequent—12 per cent. of the whole. These children live much out-of-doors, and their high animal spirits, no doubt, so much diminishes their taste for mental work that they do less of it than many others. Compare the above with what follows.

Durr reports that among the scholars of the Lyceum, Hanover, in the lowest class there is 15 per cent. near-sight and 94 in the highest, with a mean of 37.7 per cent. In the lowest class there was 81 per cent. of hyperopia, allowing only 4 per cent. for normal refraction.

Reich found in a girls' school 12 per cent. myopia in the lowest class, and 53 per cent. in the highest, with an average of 33 per cent.

Dunnert examined 1,133 pupils of Hyde Park schools: 76 per cent. were normal; 12 per cent. of the rest were hyperopic; 8 per cent. were myopic, and 4 per cent. miscellaneous. Only 18 per cent. *under* ten years had eye trouble; among those over fifteen years emmetropia was exceptional; myopia increased from 3 *per cent. between five and ten years to* 30 *per cent. between fifteen and twenty years*—ten times.

Zehender[1] in his examinations found nearly 11 per cent. myopic in the sixth or youngest class; in the fifth class, 16; fourth, 33¼; third, 36⅔; in the second, 33⅓; and, in the first, 41.38, making an average of 28.6 per cent.

Agnew[2] examined 1,479 students. The ratio of myopia increased with the grade of the school, as in the previous statements, reaching an average of 28.8 per cent., nearly corresponding with the report of Zehender. In the District schools 10 per cent. were myopic; in the

[1] Archiv. f. Oph., vol. vi., p. 487.

[1] Rostock Gazette, February, 1880.

[2] New York Medical Record, 1877, xii., p. 34.

Normal High schools it reached 16 per cent., and in the Intermediate schools, 14 per cent.

In the New York College, introductory class, the myopia was 29; in the freshman class, 40; in the junior, 56, and in the senior, 37 per cent. At the Polytechnic Institute, Brooklyn, the myopia was 10 per cent. in the academic, and 28 per cent. in the collegiate departments.

Cohn, among 9,344 pupils, found the ratio of near-vision to increase from the lowest to the highest class.

In the sixth class the percentage was 22; in the fifth, 27; fourth, 36; third, 46; second, 55; and in the first, 58; making an average of the whole nearly 39 per cent.

Among 1,004 myopes, only 28, or 2.7 per cent. had a myopic father and mother.

These figures are not all, but they are sufficient to show the tendency of the eyes doing the necessary work at school to be in the direction of *increased* refraction.

A variety of measures, somewhat conflicting in certain respects, have been suggested for the purpose of preventing, or limiting as much as possible, the changes in the refractive power.

Von Reuss[1] claims that in early life the curvature of the cornea is greater, and that it lessens until the seventh year; that after the twelfth year the curvature again increases. The child is sent to school at a very early age (sometimes at four years in Germany, and at five or six years in America), when the tissues are forming and are more susceptible, because of their pliability, to outside influences than they would be a few years later. His school-days cover the period of second dentition, at which time the nutrition of the region of the trigeminus is much disturbed; his eyes are not yet accustomed to forced labor, and every deleterious circumstance makes the most of its opportunity. Constant labor, for from four to six hours a day, at close objects, often in themselves indistinct, with poor or badly regulated illumination and ventilation, enforced tiresome position, an existing slight error of refraction uncorrected, are *some* of the deleterious circumstances.

Weber, in his report on the higher schools of Darmstadt, recommends that the light should come from a point as high as the heads of the pupils standing up; that the benches should vary in size with that of the pupil; that the work should not be continued for more than forty-five minutes at a time, fifteen minutes being given to exercise; that the teachers be required to see that the work be held fifteen inches from the face; that a special physician be appointed with authority to enforce these requirements.

Derby[2] suggests that each pupil be tested every six months by the teacher, that a very early knowledge may be had of the condition, in order that he may be treated and progressive myopia avoided.

In my opinion it will be better if children are not permitted to attend the public schools until the age of second dentition is past, as the rapid progress their more matured minds will make will compensate for the time *apparently* lost, while they gain in bodily vigor and the eyes will be in a more settled condition structurally and functionally.

Objection is made by good authority[3] to *all* work requiring close vision for young children, giving as a reason, that they often leave the kindergartens myopic.

Hasket Derby's views with regard to the examination of the eyes every six months are good. The teacher might easily test the distant vision when the child enters the school; then, once in six months, and the record would be useful to the child and to school statistics.

Becoming a part of the school history, it would show the progress of each individual, as well as the changes from class to class.

The character of the materials used in the school-room has been discussed with some freedom and with varying conclusions.

Malarewsky commended to the Russian Society of Hygiene white letters upon a black background.

Cohn prefers the use of white slates, as they do not reflect, and the characters made upon them can be seen farther.

Horner advises that ink and paper be substituted for slate and pencil.

The effect of the various methods of writing has been studied, and with not greater unanimity of opinion as to what is important, or the kind of characters and the background which are most conservative.

Berlin[1] thinks slanting penmanship is the best method, the angle of the down-stroke with the perpendicular line being about 35° to 40°; that the vertical system requires more muscular exertion of the arm and forces an oblique position upon the child.

Schubert opposes the slanting system of penmanship in school, because he thinks the difference in distance of the point of fixation of the two eyes might produce anisometropia, squint, loss of binocular vision, and loss of visual power, by causing unequal accommodation.

Manz, of Freiburg, objects to inclined writing for the reason that it may assist in the causation of myopia by the unnatural attitude of the head.

Ellinger thinks the inclined method favors myopia.

Königshoefer does not agree with Berlin. He thinks the direction of the writing is not important; that the laws of the movement of the eyes act very slightly during writing; that the attitude is controlled by the desire for ease of the hand.

It occurs to me that the greatest danger is not to be found in the original work done by the pupil, as in writing on a slate or blackboard, but it exists in the effort he makes to get at the thoughts of others as expressed in print, keeping his eyes fixed upon the same character of type for a long time without relaxation.

Much more, in my judgment, is to be feared from the glazed paper, and the type unvarying in size and color, of the school text-books, read by bad light, with the body wearied by the overtaxing incident to our hot-house method of education, which so often *unfits* its victims for success in *anything* in after-life, than from any method of penmanship whatever.

Less mental work, more mental and physical recreation, with some variety in the images upon which the eyes are fixed, and in the distance of such images from the eyes will do much to obstruct the progress of the affection under discussion.

I would suggest in conclusion that in the arrangement of our school-books we should endeavor to follow the teaching of Nature, who offers us, instead of plain surfaces and flat objects, *broken* surfaces and objects differing in color, giving change in form, distance, and color. Instead of a white surface with black letters, or white letters upon a black background, it would save effort on the part of the eye if the school-books were made with *raised* or embossed letters, varying in color, printed upon an unglazed neutral surface: thus *direction* of light would have less importance.

With even surfaces, and even-colored flat objects, the ciliary muscle is kept in tonic spasm instead of healthful play, and like any other muscle when compelled to move in a fixed direction with measured force and regularity, it becomes less fitted for other efforts, as the man who has been walking over ploughed ground for a whole day will lift his feet unnecessarily high when walking upon a pavement immediately afterward.

Thus we have myopia acquisita from setting the ciliary muscle for objects at a given near point for a long time, and the *recti* muscles, being required to maintain great convergence, press upon the bulb and lengthen its antero-posterior diameter. A *plain* surface gives the idea of fixed

[1] Arch. f. Oph., Bd. xxvii.
[2] Boston Medical and Surgical Journal, June, 1880.
[3] Berlin and Rembold: The Influence of Writing on the Eyes and Attitude of Children.

[1] Archiv. für Oph., vol. xxviii., p. 259; and Report to Heidelberg Ophth. Soc., 1882.

distance, and a great extent of snow or sand gives in nature the persistent color, unchanging light intensity and unbroken surface, the effects of which are so familiar to us.

A NEW IMBEDDING PROCESS FOR MICROSCOPIC WORK.

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BEFORE the advent of celluloidin, I had been accustomed to use paraffin for permeating and imbedding delicate tissues (where the preservation of relation of structural elements was important), and for serial sections. In order to thoroughly permeate the tissue, it became necessary in many instances to completely remove all traces of the hardening fluid by prolonged maceration in chloroform or its equivalent. This process I found to injure certain tissues, besides requiring considerable time for the removal of the paraffin from the sections. The results, however, with most tissues were unexceptionable. The sections stained readily, and were not rendered brittle; neither were relations altered.

The objections to the paraffin method apply still more forcibly to the celluloidin process, the latter requiring more than double the time occupied in the successful employment of the former. If celluloidin is to be employed, every particle of water must be removed from the tissue by prolonged maceration in ether and alcohol—twenty-four hours being frequently required. A like period is required for the thorough permeation of the celluloidin solution, and still another delay occurs while hardening. This last part of the process requires considerable tact and experience, else tissue relations are distorted by contraction of the imbedding mass. The most serious objection I have found to the celluloidin process appears after staining. The tissue is either altered or is so insulated by the surrounding mass that the stainings are pale and diffuse. Only in rare instances have I been able to secure clean, sharp differentiation with tissue that had been subjected to the celluloidin ordeal. That the tissues are altered is evidenced by their extreme brittleness seen after the imbedding has been removed.

The principal desiderata in an infiltrating and imbedding mass seem to be: First, the material should readily permeate the tissue, and that without special maceration in fluids other than the usual hardening reagent; second, it should readily dissolve from the sections without leaving them brittle; third, the process must not alter the tissue so as to modify the usual staining effects; fourth, the whole method should be susceptible of rapid execution without delay. I might add that it is desirable that the materials employed be inexpensive and easily obtainable.

My method is based on the following facts: *Bayberry tallow is firm and solid at ordinary temperatures, and is soluble in warm alcohol.*

I take a piece of tissue from the alcohol in which it is usually kept after most of the hardening processes, and, without further preparation, place it in a cup of melted bayberry tallow. The temperature need not be above what can be borne by the hand. In practice, I place the cup on one of the steam radiators used in heating the laboratory. A small water-bath, similar to the one devised by Drs. Gage and Smith,[1] and employed by them in the paraffin process, would be a convenience. Fifteen minutes will suffice for tissue ordinarily permeable, when it is removed with the forceps and placed immediately upon a cork to cool. It is now ready for cutting. Sections are made in the usual way, fastening the cork to which the tissue adheres in the microtome, or holding it in the fingers in free-hand cutting. The knife may be flooded with alcohol or kept dry, as may be preferred.

[1] Medical Student, vol. i., No. 3.

To remove the tallow from the sections they are brushed into a dish of strong alcohol, and placing the same in a water-bath, the temperature is raised to near the boiling-point of the spirit. This might seem a dangerous procedure, but the tissue is in no way injured. A second washing in hot alcohol and the sections are ready for staining. I am at present using benzole for the removal of the tallow. The sections are dropped into benzole at the ordinary temperature, and the tallow is instantly dissolved. A second rinsing in benzole is given when the sections are put into alcohol, from which they are taken for staining.

Bayberry tallow does not contract in cooling, and the relations of structural elements of tissues are most perfectly preserved. I have lately used this process with the most delicate tissues, where it was exceedingly important to preserve the parts intact, and have succeeded beyond my expectations. The sections stain perfectly, and as far as I can see, tissues are not altered in the slightest degree by the process. The benzole used for the second rinsing may be saved and used for a subsequent primary washing. It should be borne in mind that benzole is very inflammable. Should the tissue break loose from the cork, it may be re-attached with paraffin, using a hot copper wire. A piece of No. 8 wire six inches long, stuck in a wood handle, is useful for this purpose.

The tissue will keep indefinitely after having been infiltrated with the tallow, if the precaution be taken to completely cover the surface with the same.

VALVULAR FRICTION SOUNDS.

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ANY practitioner who is in the habit of studying carefully the sounds of the heart must observe cases in which the closure of either the mitral or the aortic valve gives rise to a sound which is not strictly a murmur, but which is also not the typical normal sound. The heart-sound, first or second, as the case may be, is slightly lengthened and its quality undergoes a change. The first part of the sound has the normal character, while the second, which is of the briefest duration, suggests the idea of something added. This is sometimes expressed by saying that the sound is *impure*. It was formerly, and probably still is usually, attributed to slight leakage. But the addition to the normal sound differs from a regurgitant murmur in its quality, in its shorter duration, and in the abruptness of its beginning and ending. Moreover, it is often met with in cases in which there is no other sign or symptom which could be referred to valvular lesion, and in which the history presents none of the recognized antecedents of cardiac disease. Of late the diagnostic value of these impure sounds has been called in question by different authorities, but no definite explanation of their production has been given.[1]

A careful study has led me to the conviction that they are due to a readjustment of the curtains or cusps to each other after their first contact. In the case of the mitral valve, for instance, the commencement of systole throws the curtains together, but, as the systole gains in force and the pressure of the blood becomes greater, a difference in the relative tension of the curtains would cause a slipping of one upon the other and the production of a friction-sound which, from the slightness of the motion, would be brief and abrupt. Such an inequality in the tension of the curtains would result from a difference in their area, or in the length of the tendinous cords, or in the action of the papillary muscles. In the case of the aortic valve a slight thickening of one of the cusps would occasion a similar readjustment.

[1] Scheube: Klin. Propädeutik, 1884. Friedreich: Handb. der Sp. Path. u. Ther., Virchow. 1861.

I have observed this sound at the apex most frequently in those cases in which there is an accentuated second sound at the base; or, in other words, when there is increased arterial tension. This may be explained by the greater intraventricular pressure and thus consequently increased tension of the valve-curtains. In fact, I think it will be found that in a very considerable proportion of cases of contracted kidney with increased arterial tension, the apex first sound is not pure, even though signs of decided cardiac implication may not be present.

Cases in which there is opportunity for verifying by post-mortem examination the views which I have expressed, are in the nature of things rare. Still, I can recall two cases occurring some years ago, in which slight regurgitation was confidently diagnosticated by myself and others, but in which, at the autopsy, the valve was found competent by the hydrostatic test. I now believe that in these cases a valvular friction sound was mistaken for a regurgitant murmur.

This matter is important not only as a question of nice diagnosis, but as affecting prognosis and treatment. For, if we accept a given sound as possibly indicating the beginning of valvular insufficiency, we are naturally in doubt whether the insufficiency may not increase, and in the course of time the symptoms of valvular disease be developed. But if we regard the sound as produced by friction between the valve-curtains or valve-cusps, we can more confidently give a favorable prognosis, and the restraints usually imposed upon patients with valvular insufficiency will not be considered necessary.

Clinical Department.

THE MICROPHONE IN PHYSICAL DIAGNOSIS.

Dr. Edward J. Eve, of Augusta, Ga., suggests the use of the microphone as an aid to the exploration of the various sounds produced within the human organism, not only those of the heart and lungs, but also of the abdominal viscera, of the muscles, of the intracranial circulation, the fœtal sounds, crepitus of fracture, the click of vesical calculi, etc. To the objection that there would be such a rush of confusing noises as to render it impossible to differentiate those possessing any diagnostic significance, the writer answers that practice would soon enable the ear to distinguish the pure gold from the dross. He admits that many difficulties must be surmounted before the instrument can be so perfected as to be of practical utility, but predicts that patient endeavor will in time overcome them all, and that the microphone will be found capable of being converted into an instrument whose application will be the most wonderful and useful in the whole realm of acoustics.

SPLENIC LEUCOCYTHÆMIA—AUTOPSY.

Dr. Lyman Rogers, of Remington, Vt., relates the history of a man, aged forty-six, who came to him in August, 1884, suffering from leucocythæmia. Four years before he had had typhoid fever, and had never been quite the same since. In November Dr. Rogers examined the blood and found diminution in red-blood cells but no increase in the white cells. The disease pursued a rapid course, and the patient died of asthenia on January 1, 1885. Dr. Rogers continues: "Post-mortem at 3 P.M. Was only permitted to open the abdomen. Body very much emaciated. Found the visceral peritoneum roughened by exudation; liver five inches too low; spleen enormously enlarged, and the lymphatic glands everywhere hypertrophied. Considerable accumulation of serous fluid in the cavity of the abdomen. The spleen weighed six pounds twelve ounces. Its fibrous coat was covered with nodules three millimetres in diameter, and was thickened; consistency of the organ normal; there were two or three infarctions. The liver weighed eight pounds eight ounces; consistency, normal; color, rather pale. Kidneys and pancreas normal. Mesenteric glands are enlarged, the largest was two inches long. I brought away some blood to examine. Found the red globules as before described, they still preserved their integrity; the white globules were largely increased in number. By diluting and connecting different fields I obtained an average of one white globule to ten red. Microscopical examination of the spleen, enlarged glands, liver, kidneys, and pancreas showed the tissues crowded with white-blood cells. The organs appeared otherwise normal, except the kidney, in which the epithelium of the large tubules was detached and broken down; I found no heteroplastic glandular deposits.

"In reviewing this case I find three noticeable features. First, that it seemed to follow the attack of typhoid fever; next, that his skin and mucous membrane did not become pale until almost two weeks before his death, and the excess of white corpuscles must have developed very late in the disease; and last, that there were no enlarged glands in the neck, axilla, or groin. I am compelled to regard the typhoid fever as an important element in the causation of his disease. The influence of such a fever, when severe and protracted, upon the nutrition and functions of the parenchymatous organs, and especially of the hæmotopoietic viscera, is well known. As to the late development of anæmia and excess of white globules—following after the splenic hypertrophy—it seems to point to that as its cause. So that I would regard this case as serving to confirm the theory of Virchow as to the nature and etiology of this disease."

Progress of Medical Science.

Tumors of the Pituitary Body.—Pathological anatomy affords abundant illustration of the principle that morbid action is prone to occur in tissues and organs which have ceased to take any important share in the physiology of the economy. At the London Pathological Society several new growths of the pituitary body were recently exhibited (*Lancet*, February 7, 1885). The development of the hypophysis cerebri, or pituitary body, as it is commonly called, has been the subject of considerable controversy among embryologists. Von Baer and Schmidt taught, in 1862, that the whole of the gland was developed at the expense of the infundibular process at the floor of the third ventricle. In 1838 Rathke stated that a diverticulum from the upper end of the alimentary canal shared in the formation of the hypophysis. Dursy made the pituitary body to be formed out of the end of the notochord, as well as of the epithelium of the alimentary tract. Reichert at first believed this structure to be developed from the remains of the front end of the notochord, but later on he considered that the pia mater was chiefly involved in its formation. Rathke also modified his earlier views, and came to believe that the diverticulum of the alimentary canal disappeared, and that the hypophysis cerebri was developed from a portion of the mesoblast, in front of the clinoid process. Wilhelm Müller wrote an elaborate memoir on the development of the pituitary body, in which he made out that a hypoblastic diverticulum from the upper end of the alimentary tract joined the infundibulum from the third ventricle. Götte and others, however, believe that the epiblast of the stomodæum is concerned in the formation of the diverticulum which goes to meet the infundibular process, and this was the view which Mr. J. B. Sutton adopted at the discussion before the above Society. The specimens of the myoneuroma shown by Dr. Hale White contained abundant nerve-cells and striped muscle fibre. The mesoblast around the upper end of the alimentary tract is no doubt the source of these striped muscle fibres, and the explanation proffered by Mr. Sutton, that a larger amount than usual of nipping off of the epiblast took place, is very reasonable.

Hysterical Pyrexia.—Ancient authors used to allow the existence of hysterical fever, and though this idea has been ridiculed by modern authorities, yet recently M. Debove has advocated it afresh. He believes that he has seen several examples of it, although where febrile movements are recorded in hospitals for nervous females we might suspect the onset of tuberculous disease. A case was narrated by M. Debove (London *Lancet*, February 28, 1885), which he watched for five years after the commencement of the pyrexia. The patient was twenty-four years of age, and had suffered from neurotic disturbances ever since the age of seven years. Three years ago she suffered from a severe febrile disturbance, which exhibited the three stages of cold, heat, and sweating, very clearly; since that time the temperature, taken at regular intervals, has never been below 100° F., and two or three times a week the temperature has intermittently reached to nearly 104° F. The possibility of malaria was excluded by M. Debove, on the ground that the spleen was not enlarged, and that quinine had no influence over the fever. Deception seemed to be out of the question, as M. Debove himself took the temperature on several occasions. The question was discussed at the Académie de Médecine whether in hysterical individuals the heat-centres might not be functionally disturbed, thereby occasioning the alterations in the normal heat of the body —whether, in fact, hysteria of the thermic centres is possible.

A New Method of Treating Acute Intestinal Obstruction.—There has recently been advocated and successfully practised a method of affording relief in cases of intestinal obstruction, which may become widely applied. Dr. Kussmaul was the first to advance the view that free washing out of the stomach might prove efficacious, and already cases of marked success following this measure have been published. In one case, after eight days' complete obstruction, and in the other, after nine days, the symptom of fecal vomiting being present in each, the washing out of the stomach, and consequent evacuation of large quantities of fluid fecal matter from the upper part of the small intestine, resulted in complete relief from symptoms. The measure is compared by Cahn to the effect produced by laparotomy above the site of an obstruction; and the good result is explained on the ground that the evacuation of the distended bowel affords an opportunity for a spontaneous reduction of a herniated or twisted loop. The relief from the inordinate abdominal distention is very great, and, moreover, the disappearance of this distention favors palpation for the purpose of diagnosis. Obviously, not every case of acute intestinal obstruction could possibly be relieved by this method, but the simplicity of the practice, the certainty of affording temporary relief, and the possibility of a cure are reasons for its sedulous adoption prior to proceeding to more serious measures.—*Lancet*, February 14, 1885.

The Treatment of Intestinal Invagination by Washing out the Stomach.—Prof. Kussmaul has done this in several cases, and has almost always found the relief to be immediate and lasting; the treatment being specially applicable to cases where, the exact position of the lesion not being known, more energetic operative interference is inadmissible. The chief advantage of removing gas and fecal matter from the stomach is, that more room is thereby attained in the abdomen; and the digestive tract, being relieved from distention in its upper part, can more easily overcome the pressure and displacement at the seat of invagination. The exaggerated peristaltic action, too, is reduced to the normal, and an increase of the evil thereby avoided. If morphia have not already been administered, it is well to preface the operation with a subcutaneous injection; but it is found that the passage of the soft tube, which ought to be employed, causes less distress than the vomiting and straining induced by the lesion.—*London Medical Record*, February 16, 1885.

Extirpation of the Kidney.—Prof. von Bergmann, of Berlin (*Centralbl. für Chirurgie*, No. 45, 1884), says that this operation is no longer a rare one; for, since Simon's first case, it has been performed one hundred and twenty-one times. It may be indicated in a case of malignant tumor, or in one of pyelo-nephritis. In the former class of cases the operation is a very dangerous one, as it is necessary to perform laparotomy, and to make a double incision of the peritoneum. Moreover, a suppurating cavity may be formed behind the peritoneum, and discharge its contents into the abdominal cavity. Important mesenteric vessels are often divided, and thus a risk of gangrene of intestine is set up. Of twenty-four cases of operation of this kind, in seventeen death occurred during or soon after the operation, in five of which it was due to hemorrhage. Only four patients recovered. In cases of cancerous disease of the kidney, metastatic and disseminated growths are usually found at the time of operation in the intraperitoneal and mesenteric lymph-glands. Extirpation of the kidney has had much better results in cases of pyelonephritis, as of forty cases twenty have been cured. In one case, Von Bergmann attempted to attain a cure by simple incision of the numerous abscesses, but without success, as the suppuration persisted. The kidney was finally extirpated with a good result. In the course of twelve months he extirpated the kidney four times, in each case with success.

The Inhalation of Salt in Chronic Pulmonary Affections.—Dr. A. Tobold recommended some years ago the use of a salt spray in the sleeping apartments of those suffering from chronic inflammatory affections of the respiratory organs. There were many difficulties, however, in the way of this application, and now the author advises the insufflation of dry salt in very fine powder. This has the advantage over spray, that it penetrates more deeply into the respiratory passages. Two applications are made daily, and at each sitting ten or twelve deep inspirations of the salt powder are taken (*Schmidt's Jahrbücher*, No. 8, 1884).

Some Recent Observations on the Treatment of Dysentery.—The good effects of various remedies in the treatment of dysentery are frequently questioned by writers of large experience. On the other hand, there are those who insist on the power of drugs to cut short an attack of the disease. Among recent contributions to this subject we find the following: Dr. Seaton is very emphatic as regards the utility of ipecacuanha powder. The remedy, though an old one, is thought by many practitioners to be applicable rather to the tropical forms of the disease, than to the dysentery of our climate. Dr. Seaton, however, considers ipecacuanha the best medicament against the disease, and administers it as follows: 1, Abstinence from liquids for two hours; 2, introduction into the rectum of an opium suppository; 3, application, twenty minutes after, of a poultice of linseed-meal and mustard over the epigastrium; 4, ten minutes after, the administration of forty grains of the powder of ipecacuanha root, in a biscuit or in wafer, which is followed by a tablespoonful of milk or rice-water, to aid its deglutition; 5, the patient is recommended to keep the recumbent position for two hours at least, abstaining from any drink. Administered in this manner, this medicament has been, in the author's hands, in hundreds of cases, as efficient as quinine in malarial fevers. Dr. Rosenfeld employs and recommends iodized phenol, especially for the dysentery of children. The drug consists of a solution of about four grains of pure iodine in one and one-quarter ounce of glycerine, to which about four grains of carbolic acid are added. One to two teaspoonfuls of this mixture are administered three or four times a day in a glassful of water as an enema. A sensation of warmth in the abdomen is followed by a substitution of green stools for the former bloody ones, and in the course of a day or two the only remaining trace

of the malady is a slightly mucous diarrhœa. In a severe epidemic of dysentery, in which eighty per cent. of those attacked were under ten years of age, and forty-nine per cent. between one and three years of age, only 6 died out of 142 treated in this way. According to the *London Medical Record*, March 15, 1885, Dr. Schtchegloff, of Jisdra, Kaluga Government, has tried carbolic enemata in twelve cases of acute dysentery, and obtained most striking results. Six of the patients (all peasants and soldiers) left the hospital after three days' treatment, three after four days, one after six days, one after nine days, and one after ten days. In two of the cases the carbolic treatment was resorted to after other means (calomel, starch, and opium enemata, tartaric acid, etc.) had failed. In the remaining ten, the patient on his admission had six drachms of castor-oil, as well as wine and tincture of valerian (according to the state of his pulse). On the next morning an enema, made of six or seven pints of a carbolic solution (1 to 500), at the temperature of 27° R. (92.75° F.), was administered. In all the cases, within a few hours after the first enema, there was observed a decrease of the temperature and a great diminution of abdominal pain and tenderness; then the stools rapidly lost their dysenteric character, and after one or two pure diarrhœa stools, soft sausage-shaped and normally colored excrements followed. The author never observed any awkward accessory effects from the treatment. Dr. Schtchegloff tried also the treatment of dysentery by the internal administration of carbolic acid, but its success was only very moderate. The perusal of Dr. Schtchegloff's article induced Dr. Kampf, of Oster, Tchernigov Government, to try (*Russkaia Meditz.*, No. 48, 1884) the plan recommended by the former in eight cases of acute dysentery (three in hospital practice, five in private). Three hospital cases (peasants) were very severe. The treatment was commenced on the fifth, sixteenth, and twelfth days of the disease. The enemata (made of 1 part of the acid to 500 of water) were administered twice or three times daily, at the same time an emulsion of castor-oil and resorcin being given. The results were as brilliant as in Schtchegloff's cases. All three patients left the hospital after four days' treatment. Five cases in the author's private practice were all cured after two or three carbolic enemata. Feeling encouraged by his own and Schtchegloff's remarkable success, Dr. Kampf recommends carbolic acid as a specific remedy for dysentery. If carbolic acid be employed in dysentery the fact of its possessing toxic properties should never be lost sight of. That the drug is not a specific for dysentery, as believed by Kampf, need hardly be mentioned. It is probable that simple injections with warm water are safer than carbolic-acid enemata.

Persistence of the Foramen Ovale.—The following condition was found at the autopsy of a patient dead of phthisis in the Rudolph-Stiftung of Vienna (*Bericht vom Jahre* 1883). The foramen ovale was completely patent, measuring four-fifths of an inch in diameter, and its borders were somewhat thinned and perfectly smooth. The pulmonary artery was nearly as wide again as the aorta, and the pulmonary valves were correspondingly greater than the aortic. There was also marked dilatation of the right auricle and ventricle, as well as hypertrophy of the walls of the latter. The heart was displaced to the right side by reason of an induration and retraction of the right lung.

Phantom Tumors.—The case is related by Dr. Krukenberg of an hysterical woman twenty-four years of age, whose abdomen was very large and tense, giving the appearance of a tumor. This was present when the patient lay down as well as when she stood, but when she was placed under chloroform, the abdomen became soft and flat. The author remarked later that the patient had a marked lordosis of the lumbar vertebræ, with a posterior bowing of the dorsal spine, which he thought was due to weakness of the muscles of the back, arising from the long confinement in bed. The lordosis of the spine caused increased intra-abdominal pressure, and thus the intestines pushed out the weakened abdominal muscles. This condition persisted while the patient lay in bed, and and it was only when she was raised to the kneeling posture that the lordosis, and with it the phantom tumor, disappeared. Why the lordosis should persist during the maintenance of the recumbent posture is not very clear, though Dr. Krukenberg thinks that the abnormal position of the vertebral column had caused a gradual shortening of the spinal muscles.—*Schmidt's Jahrbücher*, No. 8, 1884.

A Case of Central Respiratory Neurosis.—A man twenty-three years of age, in fair general health and apyretic, was admitted to hospital suffering from very frequent respiration. These were sixty to the minute, very shallow, and occurred without any expansion of the thorax. There was a sinking in of the supraclavicular region, with slight raising of the epigastrium at each inspiration, and the shoulders were a little elevated. The movements of the nostrils were very apparent, as in a severe case of pneumonia. The respiratory sounds were very weak, but plainly vesicular after coughing. The voice was gone, and an audible tone could be emitted only on great exertion. Laryngoscopic examination showed a separation of the vocal cords of about one-tenth of an inch during phonation. Nothing else abnormal was found. The patient stated that the trouble began five years before, and was caused by a fall from a considerable height. He struck on his head and neck, and the rapid respiration was at once noticed. The symptoms had become less severe after about three years, but for the last year had been again growing worse. A slight improvement followed galvanization in the distribution of the cervical sympathetic.—*Bericht der Rudolph-Stiftung vom Jahre* 1883.

A Peculiar Effect of Digitalis upon the Eyesight.—The case is related in the *Bericht der Rudolph-Stiftung vom Jahre* 1883, of a man suffering from heart-disease following rheumatism. The urine contained a small amount of albumen. The patient was placed upon three grains of digitalis leaves, in the form of infusion, per diem. About a fortnight later the man complained of weakened vision, there seeming to be a cloud before his eyes. He attributed it to the digitalis, saying that he had been affected in the same way on a previous occasion while taking the drug. He could see better in the evening than by daylight. The pupils were not especially dilated, and nothing abnormal about the eyes could be detected on examination. There were no other symptoms of digitalis poisoning, such as nausea, etc. The administration of the drug was discontinued, and in a few days there was a marked improvement in the sight.

Parasitic Fibromata of the Skin.—A case is related by Professor Pio Foà of a man, forty-six years of age, who suffered without any apparent cause from cutaneous tubercles, appearing first on the right foot and extending, during the course of seven years, over various parts of the body. The tubercles ulcerated, secreted pus, and then healed, leaving flat cicatrices having no resemblance to the deforming and depressed cicatrices of syphilides. The patient died after amputation of the penis. At the autopsy were found œdema of the brain, sub-pleural and sub-pericardial ecchymoses, cloudy swelling of the myocardium, liver, and kidneys, and congestion of the spleen. The bones of the hands were denuded of their periosteum and had lost their normal consistency; some were swollen and could be readily cut with a knife. The cutaneous tubercles were found to be histologically fibro-sarcomata, but the progressive and malignant nature of the disease led Dr. Foà to suspect a parasitic cause. Treated by Ehrlich's method, all the preparations showed numerous granular micrococci isolated and arranged in groups.—*Lo Sperimentale*, February, 1885.

Inflammation of the Pulmonary Artery.—In an elaborate article on this subject appearing in the *Archivie delle Scienze Mediche*, vol. ix., No. 2, Dr. Rattone formulates the following conclusions from a study of upward of fifty cases: 1. Pulmonary arteritis may be either acute or chronic (atheroma), the latter being the more frequent. 2. It may be primary or secondary, the primary form not leading to cirrhosis of the lungs. 3. The cases seen by the author of acute arteritis had their origin from a primary inflammation of the semilunar valves. 4. Chronic inflammation or atheroma may be met with in any portion of the pulmonary artery, but is more often seated in the vessels of medium size, and especially at their points of bifurcation; it is distributed symmetrically in the two lungs. 5. In this disease there may be seen not only the atheromatous patches, but also abscess, ulceration, and in some cases calcification. 6. Pulmonary atheroma is entirely independent of a similar disease in the aorta; it may coexist with it, may exist without it, and may be absent when the aorta is profoundly diseased. 7. Pulmonary atheroma is met with constantly in mitral stenosis which has occasioned a certain degree of hypertrophy of the right heart; but may also be found with stenosis of the aortic orifice, in cor bovinum and other congenital defects. 8. The disease may occur in young subjects who have never suffered from heart-disease. 9. Atheroma of the pulmonary artery is a frequent cause of hemoptysis, and may also give rise to thrombosis and hemorrhagic infarction. 10. Finally, as regards the cause of atheroma, the author agrees with Martin that it is secondary to arteritis of the vasa vasorum.

Acute Pancreatitis in Childbed.—Dr. R. Haidlen relates the case of a primipara, thirty-three years of age, who had suffered during pregnancy from gastric disturbances and headache, and during the latter part of this period from severe colic and slight symptoms of peritoneal irritation. Owing to weak labor pains delivery was effected with the forceps. During the following three weeks the progress of the case was normal, but at the end of this time there were occasional hemorrhages, and several attacks of pain in the gastric region. The last of these was very severe and accompanied by vomiting. There was no fever, the pulse was 100 and regular. There was great tenderness on pressure over the pit of the stomach. The intellect was unimpaired. The urine was voided normally, but in small quantities; the bowels did not move. Finally, the pain in the epigastrium became very severe, meteorism set in, the extremities became cold, and the patient died. At the autopsy the pancreas was found to be enlarged in all its dimensions and of a brownish-red congestive color, the result of acute inflammation. There was no marked peritonitis, and the other organs were normal.—*Schmidt's Jahrbücher*, January 29, 1885.

Kussmaul's Coma.—The group of symptoms which have been designated by the inexact name of "Kussmaul's coma" consists chiefly of slow and labored respiration, rapid cardiac action, restlessness and pain, apyrexia, glycosuria, and paralytic distention of the stomach. An article, containing a large amount of information on the literature of this subject, has been written recently by Dr. Saundby. There seems to be no doubt that this group of symptoms may be met with in morbid states of the system unaccompanied by glycosuria. That the symptoms are caused by a poisoned condition of the blood seems most probable. It may be well to point out that two of the chief symptoms may be explained on the assumption of paralysis of the vagus nucleus. The slow and labored respiration somewhat resembles that form of dyspnœa which is the result of section of both vagi; the acceleration of the heart's action might be attributed to the more or less complete removal of the inhibitory cardiac functions of the vagus nucleus. Whether damage of the vagus nucleus can determine paralytic distention of the intestines must remain a purely speculative question. Epigastric pain or distressing sensations about the epigastrium have been referred, in epileptic seizures, to central disturbance of the vagus paths. We have not the least bias in favor of the supposition that all the symptoms of so-called Kussmaul's coma are due to interference with the vagus nucleus, though it may be well to consider the claims of such a suggestion. Alkaloids have a selective action on many parts of the nervous system, and there is the bare possibility that Kussmaul's coma may be the work of some alkaloid having a selective action on the vagus centres.—*Lancet*, February 21, 1885.

Spontaneous Fracture.—At a meeting of the Surgical Society of Paris (*Journal de Médecine et de Chirurgie Pratiques*, March, 1885), M. Humbert related the case of a young man, eighteen years of age, who had severe pain in the upper part of the thigh, accompanied by a considerable swelling in that region, and shortly afterward presented all the symptoms of a fracture of the femur. There had been no traumatism. The diagnosis made at the time, by all who saw the patient, was that of osteo-sarcoma with spontaneous fracture. However, some time afterward the swelling began to diminish, union took place, and the patient was able to leave the hospital. M. Humbert then concluded that the case was not one of osteo-sarcoma but of osteomyelitis. M. Verneuil suggested that there might have been an hydatid cyst of the bone, especially as the speaker had said that there was at one time a discharge of fluid from the swollen tissues. M. Duplay said that he had had a case in which spontaneous fracture occurred several times, and each time union took place. Finally the limb was amputated, and the femur was found to be considerably atrophied and to be the seat of numerous hydatid cysts.

Pulmonary Rheumatism.—In a recently published thesis, M. Lebreton presents the results of his studies on the pulmonary manifestations of rheumatism. These may occur, he states, independently of any articular affection, in subjects who have previously suffered from rheumatism, or who come from a rheumatic family. Pulmonary rheumatism occurs under two distinct forms, the pneumonic and the œdematous. The former is not necessarily associated with a cardiac implication, but may occur when the heart is unaffected. The facies in this form is peculiar, and does not at all correspond to that of ordinary acute pneumonia. The face is pale, and it, as well as the entire body, are bathed in profuse acid perspirations. The stethoscopic signs are fugitive, and may be located at the right apex to-day, and to-morrow may be at the left base or may have disappeared entirely. In the œdematous form the symptoms vary greatly in intensity. There is first difficult respiration, the face is pale, the body is covered with perspiration, the chest is filled with râles, indicating a general bronchitis. The heart is normal. Sometimes the symptoms come on so suddenly and with such intensity that the patient may be carried off in a few minutes. In addition to these two distinct types there are frequently pulmonary manifestations of rheumatism under the form of congestion. Of these three clinical varieties are to be noted: 1. Hæmoptysis. In rheumatic subjects there may be frequent and profuse hemorrhages from the lungs without any tubercular trouble. 2. The remittent form. Here we meet with remittent or intermittent attacks of dyspnœa, more severe at night, and due solely to rheumatic congestion of the lungs. 3. The latent form. This is characterized by the single symptom of a peculiar sound, resembling the crepitant râle of pneumonia, heard in inspiration and most frequently in the right axillary line at the junction of the upper and middle third. The treatment of pulmonary rheumatism consists in the administration of salicylate of soda or of iodide of potash for the persistent manifestations, and of sulphate of quinine for the hemorrhagic and remittent forms.—*Revue Médicale*, February 28, 1885.

The Medical Record:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

Published by

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, April 18, 1885.

THE EXTERNAL TUBERCULOUS AFFECTIONS.

Perhaps the greatest achievement of modern pathology is its discovery of the intimate nature and clinical characters of tuberculosis in all its forms. Since 1810 the conception of the tubercle and of tuberculosis has undergone very remarkable changes. Within the last few years, even, there have been contributions made to the subject that have revolutionized again the views concerning it. The tubercle of tuberculosis now is known to be a specific, infective, inflammatory, non-vascular nodule, holding a parasite in its substance. It attacks not only the lungs, but all mucous and serous membranes, while every organ in the body may be affected by it. The tubercle appears either as a focal or a general disease. When limited to foci there is always the possibility of its spreading and involving other parts of the body. This "infective granuloma" tubercle, is, by all odds, the most serious enemy of the human race, not only because of its causing phthisis, but because it slays its thousands and tens of thousands in other ways also. For the discovery of the infectiveness of tubercle and of its diagnostic sign, the bacillus, has shown positively that various diseases of joints and bone (*e.g.*, tumor albus, scrofulous ostitis), cold abscesses, scrofulous swellings, caseous forms of adenitis, ulcerations of mucous membranes, etc., are as truly tubercular as are the processes of pulmonary phthisis.

It will be a great advantage to the profession when it clearly understands that tuberculosis can show itself in such manifold ways, and that there is essential unity in all its manifestations. Dr. Roswell Park, in the "Annals of Surgery," has recently done good service in calling attention to this matter and in giving an excellent summary of the present knowledge regarding tuberculous surgical affections. Before referring further to Dr. Park's article it is well to state at once that the term "surgical tuberculosis," which has lately been much used, tends to confuse the general reader and had best be abandoned by scientific writers. If we have a surgical tuberculosis, there will soon be a medical tuberculosis, which is manifestly absurd. Tuberculosis is tuberculosis wherever it may be. However, when it is accessible to the knife it is at present termed "surgical." Those forms of tuberculosis with which surgeons have to deal are classified by Chavot as follows :

"1. Cutaneous tuberculosis—well-known—lupus being perhaps the best example. 2. Tuberculosis of mucous surfaces; ulcerations of the tongue, mouth, larynx, intestine, anal fistula, etc. 3. Tuberculosis of subcutaneous or intermuscular connective tissues—nodules, cold abscesses, etc. 4. Periosteal tubercular nodes, known as sub-periosteal cold abscesses (Duplay), chronic periostitis (Follin), periostitis externa (Gaujot), and chronic suppurative osteo-periostitis. 5. Various forms of tuberculosis of bone, known commonly as caries, necrosis, chronic ostitis, scrofulous ostitis, etc., which lead to the formation of so-called 'congestive abscesses' and 'wandering abscesses.' 6. Tuberculosis of joints, the common tumor albus, fungous tendo-synovitis or tendo-vaginitis. 7. Tuberculosis of the genito-urinary tract—testis, epididymis, cord, prostate, bladder, uterus, ovaries, etc. 8. Tuberculosis of glands—the various chronic, caseous, or suppurating forms of adenitis."

In the natural history of tubercle, four stages are observed: 1. That of tubercular infiltration; 2, that of caseous or puriform degeneration; 3, that of elimination or absorption of products of degeneration—stage of ulcers, fistulæ, fungosities, etc.; 4, reparative stage. Naturally it is not in all cases that the disease runs through all these stages, and it may indeed be much more advanced in one part of the body than another. Some interesting facts are noted with regard to the first stage, or period of infiltration :

Tuberculosis of mucous surfaces accessible to the surgeon begins by nodosities, in very limited patches and by layers of diffuse infiltration.

Tuberculosis of subcutaneous or other intermuscular connective tissue takes for the most part the circumscribed form of tubercular gummata, well described by Josias and Lannelongue.

Tuberculosis of periosteum commonly occurs in caseous masses, varying in thickness and extent, or in isolated masses of the size of a hemp-seed. They form, for the most part, in the deeper layers, where there is greater vascularity. By pressure they assume a discoid shape.

In the genito-urinary tract, as Cruveilhier long since showed, there are two favorite sites for the formation of tubercle, viz., the prostate and the epididymis, the testis being in the immense majority of cases only secondarily involved. In the cord the process usually goes on more slowly, by preference at the extremities.

In tuberculosis of lymph-glands the initial alteration presents certain peculiarities which make it at first less characteristic, and may thus mask its specific nature. In many cases the gland swells, hardens, and presents on sections gray granulations, which contrast with the reddish lymphatic tissue. When these do not appear so prominently, the tissue, under the microscope, will seem studded with giant-cells and specific follicles; the infiltration will then be less evident to the naked eye than when caseous masses appear.

In bone, where it is most easy to study tuberculous processes from their inception, the lesions are spoken of as the encysted and the infiltrated. The encysted form was first properly recognized. The lesion develops in the osseous—usually the cancellous—tissue grayish granulations, fusing into grayish masses, having fibrous envelopes separating easily from their surroundings, gradually congesting around the periphery. They do not join

at first, but remain some time separated by the osseous trabeculæ. But these partitions rapidly disappear, the tubercles agglutinate together, thus forming masses which are not slow to succumb to caseous degeneration.

The other variety of tuberculosis of bone is the circumscribed infiltration, corresponding to Nélaton's "semi-transparent," or "puriform," or "opaque" infiltration.

Tuberculosis of joints may be primary or secondary. It is primary when it begins in the synovialis and invades in succession the cartilages and the bone; secondary when the infection is by the opening into a joint of a focus in the epiphysis.

Passing over Dr. Park's analysis of the other periods we have only space to refer to the important subject of etiology and treatment. Under the former head we have as predisposing causes:

1. Age.—Tuberculosis certainly is most common in early life; beyond the thirtieth or fortieth year of life it is more rare, but still not exceptional. A so-called "senile scrofula" has been described by some authors, which is nothing else than a tuberculosis of old age. Adenitis and tuberculous gummata, ostitis and tumor albus, are most frequent in childhood; tuberculosis of the genito-urinary tract in adolescence and old age. This is all explained by the order of development of the respective parts affected. 2. Sex.—Scrofulous affections are slightly more common in the female sex. 3. The "lymphatic" temperament. 4. Heredity. 5. Bad hygienic conditions, such as bad air and moisture. Imprisonment exerts no small influence in this direction. In fact, prisons are too often depots for tubercular infection; military barracks are not much better. For a long time military surgeons have noted the progress of cold abscesses among patients in army hospitals.

The two main exciting causes are traumatism and chronic inflammations.

As regards treatment Dr. Park gives this brief summary: "The methods of treatment suitable to the character of the troubles under consideration may be summed up under five headings, brief mention of which must here suffice: 1, Expectancy; 2, destruction of the tuberculous focus by fluid or solid caustics; 3, curetting or scraping out the sinus, abscess, or cavity; 4, extirpation of the tuberculous focus, enucleation, resection; 5, amputation of the limb or organ affected.

"These plans will be pursued in the order above given just in proportion as we learn that surgical tuberculosis is not an incurable affection. That this is a fact many cases of recovery teach us."

GENERAL GRANT'S CONDITION.

During the past week General Grant has suffered from considerable irritation about his throat, and the secretion of mucus has, for the time being, been increased. On two or three occasions he has had attacks of choking, which depended as much on reflex spasm as upon the temporary accumulation of phlegm in the larynx. At no time has he been in imminent danger of suffocation. The local disease has made no progress except to a slight extent along the free border of the right side of the velum. The sloughy exudation in the vault of the pharynx is beginning to disintegrate, and portions have been discharged, exposing a characteristic fungoid granular surface underneath. The chances of the mass, in its separation from the throat surface, temporarily obstructing the larynx, have thus been removed. In consequence of this change, also the local condition has greatly improved.

The glandular swelling has not perceptibly increased, although the surrounding inflammatory changes give rise from time to time to pain on pressure. The pain in swallowing is not so great, but the difficulty in deglutition is sometimes quite marked, owing to the loss of tissue in the velum. The granular infiltrated condition of the palatal curtain still exists, and by the extension of the irritation of its presence the neighboring tissues temporarily become more or less œdematous, explaining the reason for a hemming cough with which the distinguished patient is often very much annoyed.

His general condition is much improved. His food, which is of the most nourishing kind, is well assimilated, and his bodily vigor has of late been but little impaired, considering the number of recent drawbacks he has experienced.

The smallest amount of morphine is given consistent with overcoming pain and inducing needful sleep. During the past few days but six minims of Magendie's solution have been injected hypodermically in the twenty-four hours.

LUSTGARTEN'S BACILLUS OF SYPHILIS.

Some time ago we gave an account of the claims made by Dr. Sigmund Lustgarten to the discovery of a specific micro-organism of syphilis. Dr. Walter Wyman has forwarded to the *Maryland Medical Journal* a translation of a communication made on March 27th to the Imperial Society of Physicians of Vienna, in which Lustgarten gives a description of the methods which he has used in discovering his bacillus. This method is as follows:

"Sections which have been hardened in alcohol are colored in a solution of gentian violet from twelve to twenty-four hours at the ordinary temperature, and then for two hours at a temperature of 104° Fahrenheit.

"The section, in order to be decolorized, is first washed in absolute alcohol for several minutes, and then by means of a glass or platinum needle conveyed into a watch crystal containing about three cubic centimetres of a one and one-half per cent. aqueous solution of permanganate of potash. In this it remains about ten seconds. As a result, a brown, flocculent precipitate of the hyperoxide of manganese is formed in the fluid and also covers the sections. It is then placed in an aqueous solution of chemically pure sulphurous acid, in which it is deprived of the hyperoxide of manganese either instantaneously or in a very short time, dependent on the concentration of the acid. It now appears entirely rid of its coloring matter in some places, while in others it is still deeply colored. It is next washed in distilled water and is again placed in the solution of the permanganate of potash, in which, as in the succeeding repetitions, it remains three or four seconds, and from it is again conveyed to the sulphurous acid.

"When it appears colorless, which as a rule occurs af-

ter this procedure has been gone through with three or four times, it is dehydrated in alcohol, rendered transparent in clove oil, and mounted in Canada balsam (xylol Canada balsam the best).

"This method of decolorization not only permits the micro-organisms of syphilis to be brought to view, but is a characteristic staining reaction for them. The bacilli of syphilis, tuberculosis, and leprosy, are distinguished from all other known bacilli in that they are not decolorized by my method. The bacillus of syphilis is distinguished from that of tuberculosis and of leprosy by the fact that the syphilis bacillus is decolorized by nitric and hydrochloric acid, while the bacilli of the other two are not."

By means of the method described, Lustgarten examined syphilitic lesions in sixteen cases. The bacilli were found to be present in initial lesions, in papules, and in four products of the tertiary stage; in other words, in all the stages of the syphilitic process. On the other hand, in two chancroids examined, the characteristic organism was not found. The bacilli were never free, but always enclosed in cells resembling lymphoid cells, and probably capable of movement. They appear as straight or curved and sometimes irregularly bent rods, which are on an average from three and one-half to four and three-tenths of a micromillimetre thick. With a low power they appear uniformly smooth, presenting here and there a bulbous swelling at their extremities. With a homogeneous immersion lens ($\frac{1}{20}$ inch Reichert) their surface appears irregularly undulatory and slightly notched, yet in a manner that leaves no doubt as to their rod nature. Within them one recognizes, at equal distances from one another, oval, colorless, bright spores, from two to four in every bacillus.

No cultivations or attempts at inoculation have yet been made. The bacillus, therefore, if it is a constant accompaniment of syphilis, has as yet been shown to have only a diagnostic importance. The establishment of Lustgarten's claims will at least serve to close forever the controversy as to dualism and unicism.

IS THERE A SYPHILITIC PHTHISIS?

While it is well known that syphilis may affect the lungs, it is still a question whether a true phthisis, or wasting disease, in which the syphilitic process goes through analogous changes to the tuberculous process, really exists. Hiller (we quote from the *Boston Medical and Surgical Journal*), after a critical study of the literature of the subject and of some cases of his own, comes to the conclusion that there is no scientific proof of the existence of a syphilitic phthisis. The anatomical changes in the lungs traceable to syphilis are scars, gummata, and chronic indurations, while the clinical histories ordinarily obtained from these conditions are those of lung tumors or chronic interstitial pneumonia. This much is granted by Hiller and is generally accepted regarding syphilis of the lungs.

At a recent meeting of the Clinical Society of the Post-graduate School, Dr. William Henry Porter made some radical, and by no means well-substantiated, statements regarding syphilitic phthisis. This affection, he thought, not only exists, but is not uncommon. It was most frequent at the apex; in the early stage it was a pneumonic process, but later formed cavities. The rational signs were often those of ordinary phthisis, but the physical signs were peculiar. The diagnosis was to be based upon the history of a phthisis without much emaciation, upon the presence of a peculiar tenderness over the sternum and tibia, excessive dyspnœa, hæmoptysis, little or no rise of temperature, and upon the effect of treatment.

Dr. F. R. Sturgis, at the same meeting, expressed the view that syphilitic phthisis was not a common affection. When it occurred it could be distinguished from tubercular phthisis by the absence of emaciation and hectic, and by the discovery of diffused dulness in the lower part of the lung, rather than the apex. Dr. Sturgis thought that hæmoptysis rarely occurred, and doubted the value of antisyphilitic treatment as sure proof of the character of the lesion.

To show further the contradictory views as to the clinical characters of syphilis of the lung, we quote from Dr. Hiller again, who says that the diagnosis can never be made with certainty, and that the dyspnœa, cough with scanty expectoration, and other symptoms and signs, are not characteristic. The diagnosis is to be based upon the history of the case, the presence of other recognizable syphilitic lesions, and upon a laryngoscopic examination, which will reveal, in nearly all cases, old lesions of the upper air-passages.

In this connection an interesting observation has recently been made by Henri Gaudichier at the Hôpital St. Louis, service of Professor Fournier.

A man, aged thirty-nine, entered the hospital with well-marked nodes, and a history of syphilis. He had a cough, and had emaciated considerably. Examination showed distinct signs of a good-sized cavity at the apex of the left lung, with dulness and crackling râles on the right side. Fournier pronounced it a case of syphilis with a tuberculous cavity in the lungs. The patient was placed upon an antisyphilitic treatment (℥j. of potas. iodide daily). Two months later the pulmonary lesions had almost entirely disappeared, and the patient was discharged. Eleven months after this he was seen again and was found to be completely cured.

The reporter, therefore, considers that this was a case of gummatous infiltration of the lungs with softening and formation of cavity.

None of the gentlemen whose opinions we have cited appear to have systematically utilized the bacillus test for the purposes of diagnosis. When this has been done, we may be able to get clearer conceptions of syphilitic pulmonary troubles. At present it is only certain that these affections, resembling in many respects tubercular phthisis, are greatly relieved or even positively cured by an antisyphilitic treatment.

THE PARASITIC ORIGIN OF CANCER.

The resemblance in many respects between cancer and tuberculosis has led of late to a renewed interest in the old question as to the infectiousness of cancer. Dr. A. Ledoux-Lebard, in the April number of the *Archives Générales de Médecine*, makes an elaborate plea in favor of the view that cancer is a parasitic disease. Under the

head of clinical and etiological considerations, he shows the analogies between cancer and known chronic infectious diseases, like tuberculosis. Under the head of pathological anatomy, he argues that cancer is a specific inflammation; while, under the head of experimental pathology, he cites the numerous experiments that have been made to determine the inoculability of cancer. The author admits that none of these are demonstrative, while most of them are absolute failures. The best cases are those of Goujon, who successfully inoculated cancerous nodules in a guinea-pig, using a fragment of an epithelial cancer from an animal of the same species. Klenke also is said to have successfully inoculated a horse with melanotic cancer. Dr. Lebard further cites facts which, as he thinks, prove that cancer is auto-inoculable. The natural history of actinomycosis is given as illustrating an infective parasitic disease, allied clinically to cancer, which is undoubtedly not inoculable.

Lebard has himself attempted inoculations of cancer without success. He has also tried, by various staining methods, to discover a characteristic micro-organism. In this, too, he failed, and at present the view that cancer is a parasitic disease continues to rest only upon analogical reasoning.

COMPULSORY MEMBERSHIP IN COUNTY MEDICAL SOCIETIES.

We call the attention of the physicians of this State to the report of the *comitia minora* of the New York County Medical Society as to the question of membership in county medical societies. This report, based upon opinion by the counsel of the Society, says that all practitioners of medicine are obliged by law to become members of a county medical society. No member can resign from such a society unless he at the same time ceases to practise medicine.

Membership may be exacted of every practitioner, under penalty of forfeiture of right to practise upon refusal. It appears from the report that this compulsory membership is due to a statute enacted in 1827, but still in force so far as this particular point is concerned.

A law which has been practically dead for fifty-eight years is not likely to exhibit much vitality now; and the report of the *comitia minora*, except so far as resignations are concerned, raises a matter which is chiefly of historical interest.

MEDICAL MARTYRDOM IN THE SOUTH.

A correspondent in Georgia writes us a curious story regarding the performances of Lulu Hurst, the magnetic girl, who exhibited herself in this city last summer. "This girl," he says, "is having large audiences in our section of the country, and a doctor or any one else dare not utter a word against her supposed 'new force' or *her tricks*. The medical profession here generally indorse her, and I am afraid that a medical friend and myself will be drummed out of the community if we do not get some indorsement of our views. Can you forward by mail or express, or any other way, any thing upon the subject—right away?"

Miss Hurst, he says, claims to be indorsed by the Charleston Medical Faculty, the Smithsonian Institution, and various other responsible bodies.

The methods of Lulu Hurst were thoroughly exposed while she was exhibiting in New York. Indeed, her performances were found to be too transparent and silly to deserve serious scientific scrutiny. We believe it is true that some of the quasi-scientific gentlemen of Washington, whose mental vision has become clouded by excessive measuring of bones, counting of fish scales, and classifying and pickling objects of natural history, have yielded obeisance to Miss Hurst.

But, however this may be, there is not a man of scientific training nor any reputable scientific journal that has given indorsement to the ingenious antics of the Georgia Wonder.

We trust that our correspondent and his friend will not have to suffer for their opinion's sake. Let them content themselves with knowing that they are in the right, and that all intelligent men of science are with them.

News of the Week.

On another page will be found an article by Dr. A. H. Smith on "Valvular Friction Sounds," to which we invite the attention of our readers. This is a new term in the nomenclature of heart affections, and if the conclusions arrived at by Dr. Smith are correct, it will take its place as indicating a very important physical sign.

Cancer-cures.—We are in receipt of a very considerable number of suggestions for the cure of cancer. One physician writes us that he treated a case of uterine cancer with chromic acid, ʒ j.; aquæ, ʒ j., applied with a camel's-hair pencil every other day. As yet there is no return of the disease. Another correspondent asks as to the value of the new Brazilian cancer-cure, "alveloz." Nothing has been established regarding it.

A New Medical Journal.—*Les Nouveaux Remèdes* is the title of a new bi-monthly journal edited by MM. G. Bardet and Delpech, published in Paris.

The Infectiousness and Bacillary Origin of Leprosy are claimed to be established by Drs. R. Melcher and P. Ortmann, of Königsberg. These gentlemen have succeeded in inoculating the disease in rabbits.

"In War Time," by Dr. S. Weir Mitchell, "Charley Kingston's Aunt," by Sir Henry Thompson, and a novel by Dr. Milner Fothergill are the latest contributions to professed fiction by medical men.

Homœopathy in Chicago.—Homœopathy flourishes in Chicago, and members of this ism, with few exceptions, thrive and wax fat. The two great schools of the system have recently graduated large classes. The total number of graduates from all schools of medicine in this city will probably exceed that of last or any preceding year. Hard times appears to increase the number of aspirants for medical honors.—*Philadelphia Medical Times.*

The Philadelphia Water-supply.—The Philadelphia County Medical Society has formally indorsed the statements of Col. Ludlow, regarding the water-supply of Philadelphia, as also the right and wisdom of his making certain disclosures regarding the insalubrious character of said supply.

The Late Professor Louis Elsberg.—The Medical Board of Charity Hospital, at its regular meeting held April 1, 1885, passed the following resolutions:

Whereas, Our late associate, Dr. Louis Elsberg, has been removed from us by death, therefore,

Resolved, That we, the Medical Board of Charity Hospital, express deep regret at the loss of our associate, whose interest in medical subjects and desire to advance medical science, and whose uniformly kind and courteous demeanor toward his patients as well as colleagues, won our esteem and admiration.

Resolved, That we express our appreciation of the services rendered to the hospital by the deceased, and our acknowledgment of his unabated zeal and fidelity in the performance of his hospital duties when failing health and bodily weakness required freedom from professional cares.

Resolved, That the death of Dr. Elsberg deprives this community of one of its most useful citizens, and the branch of medical science which he so successfully cultivated, of one of its most efficient promoters and highest authorities.

Resolved, That a copy of these resolutions be sent to the family of the deceased, and to the medical journals of this city.

J. Ferris Smith, M.D.,
William T. White, M.D.,
Committee.
Fessenden N. Otis, M.D., *President.*
J. Blake White, M.D., *Secretary.*

The Eleventh Annual Meeting of the American Neurological Association will be held in this city on Wednesday, June 17, 1885, and will continue three days.

Cholera and Railway Stations.—Cholera, in this country, being always due to importation, and its spread being, most commonly, by persons travelling from place to place, it follows that railway privies and water-closets are especially exposed to the danger of cholera-infection. In view of these facts, the Illinois State Board of Health has requested that all such places in connection with stations, freight-houses, shops, and round-houses be at once inspected and put in good sanitary condition. Responses have been received from nearly all the roads in the State, and one of the most important lines has already completed the work indicated along the entire extent of the road.

The Danger to Memphis.—The medical press and health authorities of Memphis, Tenn., claim that their city is in danger, because, owing to lack of capacity, several of the sewage mains have had to be tapped, and their contents discharged into the open bayou.

Money for Fighting Cholera.—The Appropriation Committee of the Illinois Legislature has decided to put in the General Appropriation bill a clause for $40,000 for the State Board of Health, as a contingent fund to be used in case of an outbreak of cholera.

Cholera in Spain.—Cholera has appeared to a considerable extent in several localities in Spain.

Ex-Surgeon-General Wales.—A writ of *habeas corpus*, applied for by Surgeon-General Wales, was this week refused by a civil court of the District of Columbia, in General Term. The basis of the refusal was the fact that the applicant was not in confinement or under physical restraint, but only under moral restraint, since he could leave the city if he chose to take the consequences. The court declined to consider the question of the jurisdiction of the court-martial, which is resisted by General Wales on the ground that he is charged with neglect of duty as a bureau officer, and not as an officer of the navy. The question thus raised will now be carried before the Supreme Court.

Death of Dr. Edward T. Ely.—We regret to announce the death, on April 12th, of Dr. Edward T. Ely, formerly of this city, and a well-known associate of Dr. D. B. St. J. Roosa. Dr. Ely was born in Rochester, N. Y., October 2, 1850, and was graduated from the Rochester University in 1871. He received the degree of M.D. from the College of Physicians and Surgeons in this city, in 1874. Dr. Ely, after graduating, was for some time resident physician in the Charity and Presbyterian Hospitals. He became associated with D. B. St. John Roosa in 1875. He made a number of important contributions to ophthalmology and otology. He married in 1882, and spent some time in Europe. His widow and an infant daughter survive him.

Licensing Midwives.—The action of the Buffalo Medical and Surgical Association in appointing a committee to draft a bill for presentation to the Legislature, providing for the licensing of midwives, after due examination by a board of legally qualified physicians, has been supplemented by that of the Medical Society of the County of Erie. This latter society has indorsed the action of the former, adopted the draft of the bill as presented by the committee, and referred it to the Legislature with the recommendation that it be passed.

Dr. Stanford E. Chaille has been appointed by the President to fill the vacancy in the National Board of Health caused by the death of Dr. Bemiss.

The State Medical Society of Arkansas will meet at Little Rock on April 22d.

The Medical Society of the State of Tennessee held its annual meeting at Nashville on April 14th, 15th, and 16th.

The Medical Association of Georgia met at Savannah on April 15th.

The Medical Society of the State of Alabama held its annual session at Greenville, beginning April 14th.

The California State Medical Society met at San Francisco, April 14th, 15th, and 16th.

The Mississippi State Medical Society held its annual session at Greenville during the past week.

The Illinois State Medical Society meets this year at Springfield on May 19th.

For Services During the Cholera Epidemic.—The French Government has given a number of gold, silver, and bronze medals, as a recompense for services rendered during the cholera epidemic. Dr. Ballivet received one of the gold medals; most of the other recipients were priests or sisters.

New York Infant Asylum.—The Board of the New York Infant Asylum has recently appointed by competitive examination Elizabeth Burr-Thelberg, M.D., to the vacancy at the Mount Vernon branch of the institution.

The American Journal of Neurology and Psychiatry has been discontinued.

Dr. Edward T. Reichert has been appointed Lecturer on Physiology in the University of Pennsylvania, to fill the place of Dr. Harrison Allen, resigned.

Medical Colleges.—Jefferson Medical College, at its annual commencement, April 2d, graduated a class of 176. The Cincinnati College of Medicine and Surgery graduated 25 at its annual commencement; Miami College, 27; Ohio Medical College, 58; Columbus Medical College, 18; Sterling Medical College, 30; the Chicago College of Physicians and Surgeons, 60.

If Dr. Gaillard were still alive, the next issue of his journal would probably call attention to the following sentence from page 321 of the *Journal of the American Medical Association:* "The frightened subject pulled on his penis and manipulated it in such a manner as to cause its total passage into the bladder." We hasten to relieve our readers by stating that the context shows it was a foreign body, and not the penis, that thus passed into the bladder.—*Columbus Medical Journal.*

Sir James Paget was recently elected corresponding member of the Académie des Sciences, defeating Sir Joseph Lister, by a vote of 38 to 2.

In Memory of Dr. James L. Little.—At a meeting of the students of the medical class of the University of Vermont, held April 6th, the following resolutions were adopted:

Whereas, It has pleased Almighty God to remove from us our beloved Professor, Dr. James L. Little, and whereas the present class of the Medical Department of the University of Vermont desire to express their feeling of regard and respect for their late instructor, and sorrow for his death; therefore be it

Resolved, That we tender our heartfelt sympathy to his afflicted family.

Resolved, That in his death the medical fraternity has lost one of its most zealous workers, the student a valuable instructor and friend, and the world a noble Christian and benefactor.

Resolved, That a fitting emblem of mourning be placed in the lecture-room of the College, to remain during the remainder of the session.

Resolved, That a copy of these resolutions be forwarded to the afflicted family, the medical faculty of this College, The Medical Record of New York City, and the local press of this city.

M. E. Carmer,
E. M. King,
Emil Bories.
Committee of the Class.

The Medical Association of the District of Columbia elected officers for the ensuing year, on the 7th inst., as follows: Dr. D. C. Patterson, President; Drs. A. F. A. King and J. O. Stanton, Vice-Presidents; Dr. Lachlan Tyler, Secretary; Dr. S. S. Adams, Treasurer.

The Prophylaxis of Erysipelas is the subject at present occupying the attention of the Paris Académie de Médecine. M. Guérin is sure that erysipelas can be prevented by the use of his antiseptic pads. M. Polaillon expresses equal confidence in the liberal use of five per cent. carbolic acid solutions. M. Panas advocates the bichloride of mercury solutions as least dangerous and irritative.

Reviews and Notices.

Manual of Diseases of the Ear. By Thomas Barr, M.D. Pp. 529. Glasgow: James Maclehose & Sons. 1884.

The author has collected an interesting mass of material, rather giving such views from the literature as accord with his own than presenting the subject broadly, and he has been inspired from a German rather than an English point of view. We regret that space will only permit a brief review of the work. On pages 141-147 a very good description of the operation of perforating the mastoid process is given. Quoting the special advocate of this operation, Schwartze, the mortality is stated to be about two per cent.; the subsequent treatment extends from one month to two years, and seventy-five per cent., it is alleged, ultimately recover. The author himself favoring this operation, we have diligently sought for some reliable indications that would warrant the procedure, but it could only be learned that he believes that conclusive evidence of the existence in the mastoid cells of retained pus or secretion rarely exists; that they may be present, with necrosed bone, without subjective or objective symptoms; that inflammatory phenomena, on the other hand, may exist, and yet no purulent accumulation be found. He says that in chronic purulent inflammation of the middle ear, where suspicion of extension to intracranial parts arises and pain in the mastoid exists, without redness or swelling, the results of an operation are uncertain, since the disease may have already extended to vital parts. With no evidence of mastoid inflammation, tenderness on pressure or percussion, and pretty clear evidence that the dura mater or venous channels have become involved, little benefit is to be expected from an operation. The object of the operation is, it is said, to make an opening through the shell of bone forming the outer wall of the antrum mastoideum, in order to secure free drainage from the antrum, tympanic cavity, and external auditory canal, as well as for thorough cleansing. Considering the danger to life attending this operation, the actual harm arising from the wounding of the parts, and the comparatively meagre results claimed to have been attained, it is difficult to accept the assertion of the author, that "in certain cases this operation is one which, in importance, may rank with tracheotomy in diphtheria or with the operation for the relief of strangulated hernia, as an operation for the saving of life." It seems to be true that much unnecessary suffering has been caused to patients by futile operations on the ear, done under the plea of improving drainage and saving life in alarming cases, where it has been thought that energetic measures were alone commensurable with the danger of the situation.

The author queries whether, in obstinate suppurative inflammation of the middle ear, it is not good practice to cut down through healthy tissue and remove a small wedge of bone, one-fourth of an inch in extent, without opening the mastoid cells. Otologists, fortunately, are not unanimous in recommending this pretentious and would-be-impressive procedure, failing to see how it could expedite a cure.

The book possesses literary merit and is a valuable summary of much of the writing done by otologists during

the past ten or fifteen years, and notwithstanding the author's apology, credit to authorities should have been more frequently accorded. The arrangement of the subject matter and the classification of aural diseases is excellent. The cuts are good, the type plain, and there is a commendable absence of the tedious relation of cases.

A Manual of Dissection of the Human Body. By Luther Holden, late President of the Royal College of Surgeons of England; Consulting Surgeon to St. Bartholomew's and the Foundling Hospitals. Fifth Edition. Edited by John Langton, Surgeon to, and Lecturer on Anatomy at, St. Bartholomew's Hospital, etc. 8vo, pp. 886. P. Blakiston, Son & Co. 1885.

No student of anatomy can take up this book without being pleased and instructed. It is arranged differently from any other work of its kind. Its diagrams are original, striking, and suggestive, giving more at a glance than pages of text description. All this is known to those who are already acquainted with this admirable work, but it is simple justice to its value as a work for careful study and reference that these points be emphasized to such as are commencing their studies. The text matches the illustrations in directness of practical application and clearness of detail. The last edition of this work, as a whole, bears evidence of careful revision, while very many valuable additions have been made in the anatomy of the nervous system and the organs of special sense.

Transactions of the Academy of Medicine in Ireland. Vol. II. Edited by William Thomson, M.A., F.R.C.S. 8vo, pp. 504. Dublin: Fannin & Co. 1884.

This handsomely printed and beautifully illustrated volume is the second of a series of the Transactions of the Academy of Medicine of Ireland, and contains a variety of interesting and unique cases in the different departments of medicine, surgery, and obstetrics. The editor has shown rare judgment in his selections, and the short and numerous papers cover a range of rarity and practical applicability such as is seldom comprised in similar volumes. The Academy is evidently a working and progressive body, and does itself and the British profession credit in allowing its lights to shine thus.

Transactions of the College of Physicians of Philadelphia. Vol. VII. 8vo. P. Blakiston & Son. 1884.

This volume fully maintains the reputation of former ones, and contains many notable contributions from many of the distinguished members of the college. Without intending to make any invidious distinction we would predict the widest reading for the papers on Enteric Fever, by Dr. J. C. Wilson; on Nasal Catarrh of Children, and also on the Method of Recording the Motions of the Soft Palate, by Dr. Harrison Allen; Cholecystotomy, by Drs. Musser and Keen; and the admirable and scholarly memoir of Dr. S. D. Gross, by Dr. I. Minis Hays.

Our Bodies; or, How We Live. An Elementary Textbook of Physiology and Hygiene. By Albert F. Blaisdell, M.D. 12mo, pp. 262. Boston: Lee & Shepard. 1885.

This is a physiology for young folks, and will serve its purpose exceedingly well.

Bodily Deformities and their Treatment. A Handbook of Practical Orthopædics. By Henry Albert Reeves, F.R.C.S.E., Surgeon to the Royal Orthopædic Hospital, London, etc. 12mo, pp. 460. Philadelphia: P. Blakiston, Son & Co.

This little volume is presented to the profession by a general surgeon interested in this special domain of surgery. It confines itself to the pathology and treatment of deformities of the limbs and analyzes in a very impartial and straightforward manner the methods, mechanical and operative, which are advocated by different authorities. The particularly valuable part of the work is that referring to osteotomy of the different anchyloses, particularly that of the knee. Although the author leans with partiality toward his own operation, he is conservative and just regarding the merits of others. The chapters on spring-fingers and paralytic dislocations contain much novel and interesting material. Although the work is well printed the wood-cuts are abominable.

One Hundred Years of Publishing, 1785–1885. Pp. 20. Philadelphia: Lea Brothers & Co. 1885.

In our youthful republic, with its varied industries and short avenues to commercial prosperity, the transmission of a business from father to son down through four generations is of very rare occurrence. Yet it has happened in the history of the publishing house above named. The autobiography is gracefully told in the neat little volume just issued and bearing the above title. The founder of the house, Matthew Casey, landed in Philadelphia in 1784. Though scarcely yet entered upon young manhood, he had already passed through many stirring scenes in his native Hibernia. His energy found scope in journalistic and publishing enterprises, which are perpetuated in the house of to-day. The pride of the latter is certainly pardonable, as its members can look back upon a record reaching nearly to the close of the Revolution; particularly so when this record has never been tarnished by the least taint of commercial dishonor. In the words of its well-told tale, "It has ever entertained a high sense of respect for its own imprint, and has felt a just pride in the belief that its name on a title-page was in some sort an indication of the worthiness of the volume in which it appeared."

Révue Bibliographique Universelle des Sciences Médicales.

This is a comparatively new monthly periodical devoted to recording the progress of medical science. An annual alphabetical index is also published. The editor in-chief is Dr. Eugene Martel, No. 6 Place Saint-Michael, Paris.

Proceedings of the Philadelphia County Medical Society. Vol. VI. September, 1883, to June, 1884. Philadelphia, 1884. Edited by the Publication Committee.

A well-printed volume containing many valuable papers.

Medical Journalism in Cuba.—The *Enciclopedia*, a monthly review recently established in Havana, gives in its prospectus a brief history of medical journalism in that island. The first in the field was *El Reportorio Médico*, established in 1840 by Dr. N. J. Gutierrez, and followed three years later by *El Boletin Científico*. From that date to 1854 six other journals saw the light, but most of them died in infancy. During the following decade three more journals appeared on the scene, the *Revista Médica de Cuba*, *El Estímulo*, which in spite of its name received but little encouragement, and *La Emulacion*, which emulated its predecessor in the brevity of its existence. In 1864 the publication was begun of the *Anales de la Real Academia* and is still maintained. The next decade also produced three short-lived papers, and in May, 1875, appeared the *Crónica Médico-Quirúrgica* of Havana, an excellent periodical, which reflects credit upon the medical profession of Cuba. The ten years which have since elapsed have been very prolific, having produced no less than fifteen periodicals devoted to medicine, dentistry, pharmacy and public health, several of which are still published regularly. One would suppose that there would be considerable jealousy of each other among so many publications in a country the size of Cuba, but that a spirit of generous rivalry animates some at least is evidenced by the fact that this prospectus, from which we derive our information, is reprinted in the *Eco Científico de la Villas*, with the best wishes of the editor, Dr. Reyes, for his young contemporary.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 25, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. W. M. CARPENTER presented, in behalf of a candidate, a specimen of *congenital umbilical hernia.*

DR. JAMES B. HUNTER presented, in behalf of a candidate, a specimen of *cyst of the broad ligament.*

DR. H. J. BOLDT presented the

TRACHEA AND LUNGS (DIPHTHERITIC CROUP)

removed from the body of a child, which died of diphtheria sixty-three hours after tracheotomy. The specimens presented the characteristic features which confirmed some of the views recently expressed at previous meetings of the Society, namely, that, as a rule, the lungs of patients who die from asphyxia are more or less anæmic and not congested.

OVARIAN TUMOR—TWISTING OF THE PEDICLE—PERITONITIS—OPERATION—RECOVERY.

DR. JAMES B. HUNTER presented a specimen which had some peculiarities worthy of notice. The patient first came for examination about the middle of last December, when it was doubtful whether the abdominal enlargement was due to a tumor or not. Early in January, however, the examination was repeated, and it was then evident that she had an ovarian tumor, but as there was no pain the patient decided to wait awhile before having an operation performed. A little later in January she reported rather suddenly that she had severe pain, and she was transferred to the hospital at once, with a temperature of 100.5° F., and evidence of beginning peritonitis. After entering the hospital, which was on February 25th, her temperature continued day and night at 101° F., the pulse from 130 to 140. Dr. Hunter decided to operate as soon as possible, and on February 27th performed the usual operation, when he found a cyst covered with large veins; the least prick of the tumor was followed by copious hemorrhage. There were a few recent adhesions. The pedicle was twisted upon itself five times, which produced congestion and strangulation of the tumor. Hemorrhage had occurred between the walls of the tumor to such an extent that clots of blood in places filled the entire interspace, and the fluid contents of the enlarged cyst were partly bloody. After the operation the patient's temperature was 101.5° F., the pulse 140. Ten hours after the operation the temperature was 98° F., the pulse below 100, and the patient from that date progressed favorably to a good recovery.

Dr. Hunter had seen another case in which sudden twisting of the tumor gave rise to alarming symptoms, and he thought that if the operation had been postponed in this case two or three days longer the prognosis would have been very bad.

DR. T. MITCHELL PRUDDEN presented a specimen of

CYST-ADENOMA OF THE OVARY,

for which he was indebted to Dr. Edward J. Ill, of Newark, N. J., by whom it was removed. The tumor was removed from a patient, twenty-eight years of age, who noticed the growth since the birth of her last child seventeen months ago.

At the operation the tumor was found to have originated in the right ovary. The abdominal cavity contained about three pounds of a thick gelatinous substance. (The tumor had not been aspirated.) The peritoneum itself was covered with a thick layer of lymph.

The woman died on the fifth day after the operation, apparently from septicæmia, which it was conjectured might have been due to the breaking down of the fibrin which was in the peritoneal cavity before the operation, as no lesions were observed other than those mentioned and those connected with the operation.

"The tumor, about ten inches in diameter, is a typical *cyst-adenoma* of the *multilocular form*, and the gelatinous ropy fluid which the cysts contain show under the microscope the various cellular elements so often observed in these fluids, cylindrical and flattened epithelium, beaker cells, fatty pus cells, and fatty epithelium, and the so-called 'compound granular corpuscles.'

"At one side of the tumor there is a more solid mass of tissue, about the size of the fist, considerably resembling in its general appearance some of the less vascular malignant tumors. This proves, however, on microscopical examination to be simply an adenomatous mass of tissue in which the cystic transformation has made but little progress. A section from this portion of the tumor is shown under the microscope, in which the enormous papillary outgrowth into the closed cavities is well exhibited. The microscopical specimen also shows very well the various forms of cells as they lie in the still unruptured cysts.

"The case is presented partly because of the complication of the rupture of one of the cysts before the operation, and partly because of the rather unusually typical appearances of the solid parts of the growth as seen in microscopical section."

DR. HUNTER asked if the peritoneum was involved.

DR. PRUDDEN replied that there was no record of anything excepting the inflammatory action attacking the peritoneum; there was no colloid change.

DR. HUNTER remarked that he removed a tumor Monday last, almost the counterpart of the specimen presented by Dr. Prudden. The patient was fifty-one years of age, and the peritoneum was in a condition of colloid degeneration on one side. The tumor itself presented evidences of being carcinomatous.

PECULIAR FORM OF HEMATOIDIN CRYSTALS.

DR. L. WALDSTEIN presented a microscopical slide from a tumor removed from the testicle, which exhibited peculiar hematoidin crystals of which he had been unable to find any description, nor did he remember to have seen this form of crystal before. The usual form of hematoidin crystals is the rhombic in different stages of development. In the present instance the crystals were in the form of small rods collected in the shape of asterisks and in the form of sheaves. There was no evidence of hemorrhage in the tumor. These crystals were found in different parts of the tumor, which was of about the size of a hen's egg. He would not venture to explain why they took this form, but simply called attention to the fact that the size of crystals is said to depend upon the slowness of crystallization and the clearness of the mother liquid. He supposed that there were small hemorrhages from capillary vessels, of which there was no vestige left except these masses of hematoidin.

DR. JANEWAY said he had seen similar crystals in the urine, occurring very rarely, and that Eichhorst, in his work on "Physical Diagnosis," had illustrated this form of hematoidin crystal.

DR. VAN SANTVOORD presented a specimen of

TUBERCULAR LARYNGITIS,

removed from the body of a male, thirty-five years of age. The specimen presented no peculiarities except that it was fresh, and illustrated the lesion very well. There was nothing peculiar concerning the clinical history. The larynx showed the superficial left half of the epiglottis more or less ulcerated, with small ulcerations in the navicular fossa, and a slight amount of ulceration over the arytenoids. There was extensive disease of the lungs, consisting of fibrous induration of the upper lobes with small cavities, and somewhat extensive cheesy foci in different parts of the lungs. There were tubercles in the liver, and also tubercular ulceration of the intestine.

DR. BOLDT asked if there was any pathological lesion in the lungs previous to the laryngeal disease.

DR. VAN SANTVOORD answered that a month before

death the lungs were examined and found in an advanced stage of disease. He thought it probable from what history he could obtain, the patient being a hospital patient, that the lungs were primarily diseased, and that the ulcerative laryngitis was secondary.

PSOAS AND ILIAC ABSCESS OPENING INTO THE DUODENUM.

DR. JANEWAY presented a specimen removed from the body of a woman forty-five years of age, who was admitted to Bellevue Hospital November 29, 1884, with a history of having been sick five weeks with pain in the right lumbar region, down the right thigh, coming on apparently suddenly, followed by flexion of the thigh upon the pelvis and of the leg upon the thigh. These symptoms continued more or less up to the time of death. There was but little fever. The temperature toward the close of life being as low as 95° F. No distinct swelling was detected in the groin, although there was a sensation of deep-seated infiltration, which was explored with a hypodermic needle twice without obtaining pus.

At the autopsy there was found a small ulcer opening into the duodenum just as the descending turns into the transverse portion of the gut. For a time there was diarrhœa during life, but no pus was detected in the stools on inspection with the naked eye. A deep abscess with thick walls was found in the iliac region. There was thrombosis of both iliac arteries.

Dr. Janeway also presented a specimen of

PERFORATING ULCER OF THE ŒSOPHAGUS,

with such lesions as made it quite certain that it was ante- and not post-mortem perforation. The patient had infantile paralysis at one year of age, subsequently aphthous sore mouth following measles, with bronchitis and afterward dysentery. It died comparatively suddenly. At autopsy there was also evidence of recent bronchitis and pleurisy, but there was no history of elevation of temperature. About one inch above the cardiac extremity of the œsophagus on the left lateral wall, inclining toward the anterior wall, was a round ulcer about one-half an inch in diameter, perforating the mucous membrane, and making a smaller opening through the connective tissue and muscular coats. It presented exactly the gross appearance of a round perforating ulcer of the stomach, sometimes called "peptic ulcer." Exactly what was in the centre of this opening before the ulceration took place he was unable to say, but there was no disease of the arteries.

THE PRESIDENT remarked that in all the cases of rupture of the œsophagus on record the opening occurred in this region.

DR. JANEWAY also presented a specimen of

TRACHEAL STENOSIS,

as a result of cheesy enlargement of a gland pressing upon the right side of the trachea, and finally ulcerating into the trachea and producing complete stenosis. The child was two years and a half of age, and died suddenly. There was fibrous induration of the right upper lobe, due to stenosis of the right bronchial tube from surrounding lymphatic glands. A similar case was reported at the London Pathological Society about a month ago. He was indebted to Dr. Jenkins, Deputy Coroner, for the specimen.

DR. AMIDON said that recently he saw, in consultation, a child, about seven years of age, who was suffering from painful paraplegia, and both legs were in the position assumed with psoas abscess, with considerable tumor in the iliac region, which disappeared after the administration of an enema. The stools were not examined. When he saw the patient the temperature was hectic in character, and there was still a painful paraplegic affection, with considerable atrophy, and tendency toward degenerative reaction of the muscles. The tumor in the iliac region had disappeared, and the diagnosis had been made against Pott's disease. On making a careful examination, however, he discovered a knuckle at the junction of the dorsal and lumbar regions of the spine which was irreducible, and he suggested that the tumor in the iliac region was a cold abscess originally, which had ruptured into the rectum and had been discharged, and that the case was originally one of acute Pott's disease.

DR. JANEWAY said that there was no Pott's disease in his case. He had seen a number of cases of psoas abscess independent of tubercular or other trouble affecting the spine. He also remarked that one source of error, to be regarded in examining the stools for pus, was that, when bismuth had been administered, the stools were so blackened that it was difficult to detect pus by examination with the naked eye.

THE PRESIDENT asked Dr. Janeway if he had seen many specimens of ulcer of the stomach from the action of peptic juice.

DR. JANEWAY replied that he had seen a number of such cases.

THE PRESIDENT referred to one case in which death was produced by a gunshot wound, and at the autopsy, at which Dr. Janeway was present, an ulcer was found in the stomach fully an inch in diameter, which was supposed to be a peptic ulcer.

DR. PRUDDEN asked if the tissue just behind the ulcer in the œsophagus had been examined microscopically.

DR. JANEWAY replied that he had examined it slightly, and all that was shown was fatty, broken-down tissue.

DR. AMIDON asked what the immediate cause of death was in the case of stenosis of the trachea.

DR. JANEWAY replied that death was produced by asphyxia from complete obstruction of the trachea, produced by the cheesy gland.

PERITYPHLITIC ABSCESS—CASEOUS FOCUS IN ONE LUNG, WITH MILIARY TUBERCLES IN THE CENTRE.

DR. PEABODY presented the right iliac muscle, the cæcum and the vermiform appendix, removed from the body of a child twelve years of age, who was brought into the New York Hospital about a week ago with the following history: The girl was in good health up to ten days before admission, at which time she was taken with pain in the belly, followed by obstinate diarrhœa, which continued up to the time of admission, but without dysenteric symptoms. Her temperature ranged from 103° to 105° F. on the first day of hospital life, and besides that the pulse was very frequent and irregular. There was marked distention of the entire abdomen, with pain and tenderness in the right iliac region, following the course of the ascending and transverse colon. There was dulness also over the region of the cæcum and ascending and transverse colon, owing to frequent chills, to pain and tenderness in the right iliac region, and to copious fæcal stools, which occurred after giving a free purge, it seemed that suppuration was going on, but had not invaded the peritoneal cavity, and was probably in the region of the cæcum. Exploratory puncture was performed by a surgeon, and a long exploring needle was introduced and moved about pretty freely, but no pus was obtained. It was then suggested that, as the child's condition was very grave, there was no hope except in laparotomy, but the poor condition of the patient prevented the operation.

The autopsy revealed, beneath the cæcum and enclosing the vermiform appendix, an abscess cavity, entirely cut off from the peritoneum, into which he could insert the first two joints of his forefinger, and which was full of pus. The vermiform appendix was covered with lymph, was very soft and friable, but no ulceration had taken place into the interior. The interior of the vermiform appendix contained a mass of hard fæcal matter, three-fourths of an inch long, and as large as the prong of an ordinary dinner fork.

The exploring needle had penetrated the right kidney, also the liver, and there were large blood-clots in the immediate neighborhood of these organs.

There was in the right lung a caseous mass, as large as the tip of his little finger, and in the middle of it a group of miliary tubercles without other pulmonary changes. There were a number of caseous foci in the liver.

The cause of death was exhaustion from prolonged fever and constitutional disturbance. He had examined the abscess cavity and had not found evidence of tubercles elsewhere.

ATHEROMATOUS DEGENERATION OF THE CORONARY ARTERIES—FIBROUS INTERSTITIAL MYOCARDITIS.

Dr. Peabody presented the heart removed from the body of a man sixty years of age, who had led a very active life of excitement and dissipation, and who died very suddenly while in apparent health.

The autopsy showed dilated left ventricle, with atheroma of the aorta, thickening of the attached borders of the aortic cusps, with extensive atheromatous disease of both coronary arteries, which had thickened their walls and narrowed their calibre, also fibrous interstitial myocarditis. There was also found chronic diffuse nephritis.

Dr. Janeway remarked that considerable tumors sometimes formed from simply tympanitic distention of the cæcum, probably preceded by typhlitis. A difficult point in diagnosis was that when perforation of the vermiform appendix existed gaseous distention of the cæcum sometimes occurred from decomposition of the pus below.

The President said that he once operated for Dr. Loomis in a case the chief interest of which centred in the fact that there was an enormous quantity of pus in the region of the cæcum which had not been diagnosticated.

Dr. Janeway referred to the case of a woman who was taken with vomiting, and died suddenly. At the autopsy there was found endarteritis surrounding both coronary arteries, and narrowing one so that it was not larger than a knitting-needle, and the other was about twice that size. There was atheromatous degeneration of the aorta also. Probably death would not have occurred merely from the vomiting except for the condition of things in the aorta and coronary arteries.

Dr. Prudden asked Dr. Peabody if he thought that spasmodic closure had anything to do with occluding the coronary arteries in his case.

Dr. Peabody could hardly imagine that this occurred, because the walls of the arteries were so unyielding. It had occurred to him, also, to find in another case of sudden death the same lesion in the muscular wall of the heart to which he had referred.

Dr. Van Santvoord thought that in connection with this subject the experiments of Cohnheim, performed with reference to the cardiac circulation, were important. He found that, by occluding the coronary arteries, when a certain amount of anæmia was reached, the transition from the moderately well-working ventricle to paralysis was very sudden; the heart, instead of losing its contractile power, contracted normally up to the production of a certain degree of anæmia, when sudden paralysis occurred.

The President said that Cohnheim's experiments also proved that thrombosis of the terminal branches of the coronary artery would produce death in a similar way.

Dr. Janeway referred to a case, that of a gentleman who died suddenly at midnight, with symptoms of angina, and who had had only one other attack, which occurred about three weeks ago. At the autopsy there were found complete thrombosis of one coronary artery and obliteration of about two-thirds of the other. The heart-wall looked very well. He was surprised to find complete occlusion of one coronary artery and about two-thirds of the calibre of the other, and it seemed to him that the occlusion of one was of later date than that of the other.

Dr. Waldstein recalled a case which he saw about three months ago, that of a gentleman who had suffered from angina pectoris for several years. At the autopsy he was surprised to find the heart-muscle changed very extensively, myocarditis in patches, enormous foci of infarction; both coronary arteries were atheromatous, and, on microscopical examination of the myocardium, all the arteries detected in the field showed signs of endarteritis. Around the arteries the muscular fibres showed various degrees of fibrous myocarditis.

This case was interesting, in contradistinction to the one presented by Dr. Peabody, in the fact that this gentleman lived six or seven years, suffered from occasional attacks of angina pectoris, and his death was not sudden. Dr. Waldstein attached more importance to the myocarditis in the heart presented, and also in his own case, than to the atheroma of the coronary arteries.

Dr. Peabody had supposed that interference with the nutrition of the heart was the primary cause of degeneration of the muscular wall of the heart, and that the degeneration of the muscular wall was the cause of sudden death, and that degeneration of the arteries was only secondarily the cause of death.

Dr. Prudden said that in estimating the value of Cohnheim's experiments, it should be borne in mind that the occlusion of the artery was produced in a healthy heart, and was acute occlusion, and that in a considerable number of cases both these conditions must be taken into account, namely, a weakened myocardium and possibly a sudden closure of diseased arteries.

Dr. Janeway remarked that clinically these cases must be discriminated.

Dr. Peabody asked Dr. Janeway if he thought he could be sure of determining the good condition of the muscular tissue of the heart by the naked-eye examination.

Dr. Janeway replied that he could not.

Dr. Peabody stated that he had seen very many cases in which the muscular tissue of the heart was apparently normal, but on microscopical examination extensive change was revealed.

The President suggested that the nutrition of the heart might possibly be affected by disease of the blood-vessels which supplied the central ganglia.

The Society then went into executive session.

PRACTITIONERS' SOCIETY OF THE CITY OF NEW YORK.

Stated Meeting, April 3, 1885.

A. Brayton Ball, M.D., President, in the Chair.

Dr. C. L. Dana reported a case of

BILATERAL CLONIC SPASM OF THE PLATYSMA MYOID MUSCLES

in a man twenty-seven years of age, and by occupation a longshoreman. He had been a healthy man previous to this disease, but had indulged in masturbation to a very great excess, which he had ceased six months before Dr. Dana saw him, when the patient complained of general nervous prostration, weakness, and inability to work, but the main symptoms were clonic spasms affecting both platysma muscles, showing themselves like the jerking and shaking of the skin of a horse when annoyed by flies. These spasms occurred especially when the patient was nervous and excited, and the muscles of the face were affected occasionally on both sides, and occasionally some of the pectoral muscles exhibited the same disorder. In other respects the condition of the patient was very good. On testing him there was found no sensory or other disturbance, and the muscular spasms were not painful. At first sedatives were used, such as bromides with tonics, but without any apparent benefit. They were continued for two or three weeks, when the patient was put upon large and increasing doses of arsenic, and in the course of about six weeks he got well. The entire course of the disease was about three months. Dr. Dana had been unable to find any record of a case of this kind. Cases were on record in which one of the branches of the seventh nerve had been affected more than any

other by such spasms, but clonic spasms of the lower branch of this nerve, so far as he was aware, had not been recorded. He regarded this condition as similar to the convulsive tic of the face, writer's cramp, etc., rather than of a choreic kind.

The points of interest in the case were, first, the cause, prolonged masturbation; second, the fact that it was cured.

Dr. Samuel Sexton related a case of

DESQUAMATIVE INFLAMMATION OF THE EXTERNAL AUDITORY CANAL, ASSOCIATED WITH ACUTE CATARRHAL INFLAMMATION OF THE MIDDLE EAR, AND THE FORMATION OF AN EXTENSIVE SANGUINOLENT TUMOR IN THE CANAL.

The patient was a porter, aged sixty-four, who presented himself recently at the New York Eye and Ear Infirmary for treatment. The notes of the case were taken by my assistant, Dr. Bartlett. The external auditory canals were very large, and protruding from the left meatus was a purplish sacculated tumor with a decidedly corrugated surface. On examination it was found that nearly the whole dermic lining of the external auditory canal was detached as far outwardly as the cartilaginous portion, the denudation including the posterior and superior segment of the drumhead, the latter being limited anteriorly by its attachment to the handle of the malleus. There had been a sudden hemorrhage into the sac thus formed, from the vessels constituting the plexus coming from the canal down along the handle of the malleus. That the sac was large enough to protrude from the meatus externus was owing to the large area laid bare along the superior wall of the canal, and down over the drumhead. A probe could be passed freely under the sac down into the cul-de-sac, but not farther along the superior wall than to the beginning of the osseous portion. The dermic layer on the posterior inferior wall was found to be loosened and easily peeled off. The sac on being punctured partially collapsed, giving vent to bloody serum.

The patient gave the following history: For some time he had had a severe catarrhal attack affecting the upper air tract, and three days before coming his left ear was invaded. The attack came on while he was in bed, with pain and tinnitus; it was so sudden as to wake him from sleep, and he looked around to see where the noise came from. He observed that there was some bloody discharge. He experienced autophonia which increased the distress. He could hear only shouting in the affected ear. A few days subsequently to his coming the sac had not refilled, but had a red fleshy appearance; the exact point to which this mass was attached could not be determined. The canal was found filled with bloody serum, which was removed and the parts dressed with powdered boracic acid. Four days later the mass of skin was much more shrunken, but bled slightly on manipulation; *it was now found to be attached to the handle of the malleus from the short process to the umbo*, and was removed with the snare, the base being afterward trimmed with cutting forceps. The parts soon afterward cleared up and hearing improved, no perforation ever having taken place. A dark cicatrix soon showed itself, anterior to the malleus handle and parallel to it, which gradually moved over the anterior segment of the membrana tympani toward the anterior wall of the canal. Hearing had continued to improve when the patient was last seen, but the middle-ear catarrh proved rather intractable to treatment. It was believed by Dr. Sexton that this case afforded an explanation to the phenomena of hemorrhage sometimes reported in connection with catarrhal inflammation of the middle ear; he had observed many such cases where a slight sanguineous tumor had formed in this way. Dr. Frank Ferguson, who kindly examined the specimen removed by the snare, regarded it simply as a blood-clot. There was no newly formed tissue.

PERITYPHLITIS.

The President, Dr. Ball, reported a case of perityphlitis occurring in a gentleman about fifty-eight years of age, who had always been in good health, but who was attacked on January 20th, while down town, with a pain in the stomach, which he regarded as simple colic, but severe enough to make him desire relief, and he went to a neighboring apothecary, who gave him some simple mixture, the nature of which he did not know. But the pain gradually increased, and on reaching home he sent for Dr. Ball, who was absent from the city, and Dr. Hackley saw the patient, who appeared to be suffering from intestinal colic. In the right groin was a softish protuberance, which had very much the appearance of a femoral hernia, but it had been there for two years, and had remained unchanged. This mass was irreducible, and was not at all sensitive to pressure. There was no special pain on pressure anywhere over the abdomen, but there had been one attack of vomiting. Dr. Hackley was inclined to think that the attack had nothing to do with the apparent hernia, and gave the patient a hypodermic injection of morphine.

On the following morning Dr. Ball found him decidedly more comfortable, there had been no more vomiting and no more morphine had been required, and all that the patient complained of was a sense of discomfort. It was evident, however, that the mischief was not entirely relieved. Being unable to divest himself of the idea that this apparent hernia might have something to do with the attack, Dr. Ball called Dr. H. B. Sands in consultation, who made a very careful examination and reached the conclusion that the man had apparently a femoral hernia, but was unable to see any connection between it and the pain in the right groin. There was no fever. The condition of the patient was such as seemed not to require the administration of medicine, and the result of the consultation was, therefore, a rather expectant plan of treatment. In the evening of the same day there was no apparent change, although the patient still suffered somewhat, and Dr. Ball gave him morphine. On Friday morning the patient was very much better, but for all that there remained a feeling as if there was something wrong in the abdomen, yet nothing amounting to actual pain. He told his patient to be careful for a few days, and if any new developments occurred to let him know at once, as the entire absence of fever and no return of the vomiting, and with the pulse entirely normal from Wednesday noon to that date, warranted him in not continuing his visits regularly.

He was called on the following Monday evening, and found that the patient had been down town that day; that he had felt very well Saturday and Sunday. While down town he began to have more trouble, with return of pain, and when Dr. Ball saw him in the evening there had been one attack of vomiting. At that time there was no fever, no increased frequency of the pulse, and nothing abnormal to be felt in the abdominal cavity except a slight increased resistance in the right iliac fossa, but without any special tenderness.

He put his patient on the opium treatment, however, and Dr. Sands saw him again in consultation on the following morning, when he was suffering rather more pain, and there was some resistance on pressure over the right iliac region, and there could be felt a mass beginning at Poupart's ligament and extending upward for between two and three inches, and situated midway between the anterior superior spinous process of the ilium and the median line, not located where we would expect to find a perityphlitic tumor. The question was, what was this swelling? It was situated directly above the apparent hernia, and yet not in the location ordinarily occupied by perityphlitis. There was no evidence of obstruction of the bowels, as they moved daily. The case was very puzzling. From that time on the patient became steadily worse, the mass increased in size, vomiting developed on Wednesday, of fluid which had more or less stercora-

ceous appearance, but no stercoraceous odor, the irritability of the stomach continued during the remainder of the patient's life, and there was no special change for two or three days except gradually for the worse. During all this time there was no fever whatever, the pulse ranging from seventy to eighty until Thursday, and from Tuesday to Thursday there was no movement of the bowels, which could be readily accounted for by the fact that the patient was taking considerable opium. At about one o'clock on Friday morning the patient was taken with very severe pain in the abdomen, vomited more frequently, and when Dr. Ball saw him at about four o'clock in the morning he was in a condition of collapse, with general tenderness over the abdomen, pulse 130, temperature 103° F., and it was evident that perforation of the bowels had taken place. The patient died early Friday afternoon. No positive diagnosis was made in the case until evidence of perforation occurred.

The autopsy showed that the mass which was supposed to be a femoral hernia consisted of a mass of fat, which was situated directly over the femoral ring, and which had apparently dragged down through the ring the hernial sac, which was found just underneath this mass, but the sac did not contain any intestine. It was evident that the apparent hernial mass had nothing to do whatever with the symptoms which occurred during life.

The mass between the anterior superior spinous process of the ilium and the median line consisted of coils of intestine which were matted together, and it was curious to see how a sensation of hardness could be communicated by the mass of intestines containing air. The coils of intestine had been matted together by inflammatory process, and on pushing this aside and exploring the bottom of the abdominal cavity, the vermiform appendix was found lying much farther toward the left than usual, and in a state of gangrene throughout its distal half; a large portion had sloughed away, and a small, hard mass of fecal matter was found to have escaped from the sloughed appendix.

The history of the case seemed to show that perforation of the vermiform appendix took place on Wednesday afternoon, when he first complained of colic, and when there was a small escape of matter, sufficient to set up a certain amount of irritation, but not sufficient to produce very much pain or febrile disturbances, and an effort had been made by nature to limit this mass by inflammation; but suppuration had slowly taken place and a small abscess had burst into the peritoneal cavity and set up general peritonitis.

The two main points in the history of the case were, first, the fact that it ran its entire course without any fever at all. Dr. Ball had not seen such a case, nor was he aware that such a case had been reported. Second, the situation of the tumor was unique in his experience.

It was evident from the autopsy that an operation would not have been of service.

Dr. Ball asked if it was allowable to operate after perforation had occurred and unmistakable evidence of general peritonitis had developed.

Dr. Weir replied that it was, and that an operation under those circumstances constituted one of the recent advances in surgery.

Dr. Ball asked if an operation had been performed after perforation into the general peritoneal cavity had taken place, and general peritonitis had been established.

Dr. Weir replied that it had, and that it had been regarded as allowable, because the result without an operation was inevitably fatal.

Dr. Ball was aware that an operation had been advocated at the outset of perforation of the vermiform appendix, but he was not aware that it had been performed after general peritonitis had developed.

Dr. Weir replied that it had been performed three times, but only once successfully so far as he was aware.

Dr. Polk remarked that laparotomy for abscess had been performed much oftener.

Dr. Weir remarked with reference to fever, that he could recall one case where there was absence of rise of temperature, and there was resonance over the tumor in the right iliac fossa, which went on to suppuration and was treated by puncture with evacuation. Within the last three months he had seen a case in which the mass was situated close to the umbilicus, very much out of the usual location. Dr. Weir thought that these abscesses were due to the escape of fecal contents into the abdominal cavity much more frequently than at one time was supposed, where they were surrounded by intestines and agglutinated, and bound in by inflammatory process.

Dr. Ball thought that was the case in this instance, and did not think the original escape was into the tissues behind the peritoneum, but was into the peritoneal cavity.

Dr. W. M. Polk then read a paper on

ALEXANDER'S OPERATION OF SHORTENING THE ROUND LIGAMENTS.

Thus far the operation had been performed in fifty cases, but the results had left its value still unsettled.

The operation was originally proposed for cases of retroflexion or retroversion, but there were very many of these cases in which it was practically useless.

The operation should be limited to posterior displacement, in which there were no adhesions, but in which there were symptoms directly referable to the displacement: to cases of ordinary prolapsus, and to cases especially of retroversion accompanied by prolapse of an ovary. The operation should not be the sole one in cases with prolapse of the ovaries.

Are there any special dangers connected with the operation? In one case sloughing of the wound occurred, followed by septic peritonitis and death.

There was one danger belonging solely to the operation itself, namely, separation of the tube from its new attachment, the uterus dropping back and dragging the tube with it into the peritoneal cavity.

The difficulties of the operation were simply those of dissection. The rule which Dr. Polk had adopted was to make the incision directly over the spine of the pubis and reach the conjoined tendon before attempting to locate the ring; by following this method he had not had any difficulty in securing the ligament. It was not always easy to invaginate the labia and reach the round ligament.

It was not easy, also, to distinguish the ends of the round ligament, so that it was simply impossible to grasp it with the forceps, but a mass of fatty tissue vessels could be readily seized and traction made upon it which would bring the ligament to view.

Dr. Polk suggested that the traction be made very slowly, and he would not cut off the ends of the ligament after stitching it down. He would prefer, also, to stitch it to the upper surface of the pubic bone rather than to the column of the ring on either side. After stitching the ligament to the upper face of the pubis with silk, he would stuff the vagina with cotton to hold the uterus up as far as possible, and in dressing it would always put a bone drain down to the bottom of the wound for the reason that suppuration seems specially prone to occur in this tissue.

INCUBATION OF SCARLET FEVER.

The President said that since the publication of the proceedings of the Society with reference to scarlet fever he had received the following communication from Dr. Benjamin F. Miller, of Cincinnati, O., to which he had replied that it seemed to him that the period of incubation of eight weeks was out of the question, nor was it necessary in Dr. Miller's case to suppose that the period of incubation was so long as that. So far as he knew, no

case had been recorded in which the period of incubation was so long as five weeks. While it might be possible, though improbable, that the period of incubation might be as long as five weeks, he had explained the development of scarlet fever in the second boy on the supposition that he was not susceptible to the poison of the disease at first, but afterward became susceptible and took it, and that this susceptibility did not arise during the earlier part of the five weeks, when the older boy first came home, but at a period later, and during all this time the older brother was desquamating freely and the younger brother was with him every day.

Dr. Kinnicutt thought it reasonable to suppose that susceptibility to the poison was at its minimum when the second boy was in contact with it at first, but that later this susceptibility was sufficient to enable him to contract the disease.

Dr. Weir suggested that another probable factor in etiology was the lingering of the infection of the disease about the house or articles of furniture, etc., and referred to the case of a child who had scarlet fever, and a second child contracted the disease one year afterward from a doll with which the first child had played and which afterward had been put away in a box.

POISONING BY MERCURIC BICHLORIDE SOLUTION.

Dr. Kinnicutt wished to call the attention of the members to a single point, *apropos* of a subject of discussion at the last meeting of the Society. He had recently read the report of two cases (by Hofmeier, of Berlin) of toxic enteritis caused by corrosive sublimate injections in obstetrical practice. In both cases renal disease had apparently pre-existed.

Bouchard in 1873 had also reported two cases of mercurial poisoning, in one of which parenchymatous, in the other chronic interstitial nephritis was found to be present at the autopsy.

Any disease or condition, such as renal disease, which interferes with the elimination of mercury may well cause exceptionally severe symptoms during its administration; and it seemed to him of great importance to know whether in the fatal cases recently reported, evidence of pre-existing kidney disease had been found. If so, might it not explain the susceptibility shown in these cases to its influence, and hence in the future prove an important guide to the surgeons in its use?

Dr. Peabody remarked that not having had his attention directed to the possible kidney complications he was unable to speak positively.

Dr. Weir said that he was the first to employ mercuric bichloride solution in this country, and at that time the tendency to affect the kidneys was well known, and made him especially careful with reference to the examination of the urine in all cases, to see whether there were any signals of danger, but it did not seem to make any change in the urine. He would like to interject here recent observations made by Volkmann in the treatment of knee-joint cases, where it appeared that carbolic acid solution of three to five per cent. in washing out wounds in children was much more dangerous than one to one thousand or one to two thousand of the sublimate solution.

Dr. Sexton asked whether the physiological effects of the drug had been observed, as when it is taken into the stomach.

Dr. Peabody said that salivation after the use of bichloride solution was exceedingly rare.

Dr. Hunter had seen three cases of salivation following the use of vaginal injections of bichloride solution of the strength ordinarily used.

The Society then adjourned.

The Fruit of Conium is active—the root not at all; hence the inertness of some conium preparations (Orfila-Lessage).

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE NEW LUNACY BILL—THE DISCUSSION ON CHOLERA AT THE MEDICO-CHIRURGICAL SOCIETY—KLEIN V. KOCH—SPEECHES BY DR. KLEIN AND MR. WATSON CHEYNE.

London, March 27, 1885.

The new Lunacy Bill, which has been so long anticipated, and to which I referred in a former letter, was introduced in the House of Lords yesterday evening by the Lord Chancellor, Lord Selborne. In a lengthy speech Lord Selborne gave an account of the present state of the law, and then enumerated the changes proposed. I will briefly refer to some of the more important of these. No person, not a pauper lunatic, or under the guardianship of the Court of Chancery, is to be received or detained as a lunatic in asylum, licensed house for lunatics, or in any place without an order, under the hand of the judge of the county court, a stipendiary magistrate, or a justice of the peace, having jurisdiction in the place where the lunatic is. As at present, certificates of lunacy from two medical men are to be produced, but it is expressly stipulated that one of these is to be, if possible, from the ordinary medical attendant of the patient, and, if not, the reasons are to be stated. The magistrate can refuse to make the necessary order if he is not satisfied with the evidence of insanity on the certificates laid before him. These clauses will make it practically impossible for interested relatives to imprison a sane person in an asylum. The numerous lunacy trials which have excited so much attention during the last few years, have shown that under the present system, viz., certificates from any two medical men and a formal request in writing from a relative, it has been practicable to incarcerate sane persons for, at any rate, a limited time. Moreover, a further safeguard is now proposed. Within a month after the reception of any patient into any authorized establishment, a report is to be made to the Commissioners of Lunacy, and subsequently a special visit to the newly-received lunatic is to be made by the Commissioner in the district. Every order made is to be limited to three years, and then, if required, it is to be renewed annually. Any interested person can send two medical men to visit a patient, and if they report him sane the Commissioners can discharge him. The bill also tends to discourage private asylums, as provisions are to be made in time, in all public asylums, for the reception of private paying patients. After five years no new license is to be granted for any licensed house without the consent of the Commissioners.

The discussion on cholera at the Medico-Chirurgical Society was opened at the last meeting of that body by the reading of a paper by the President, Dr. George Johnson, F.R.S. Dr. Johnson defended with ability his well-known views on the nature of cholera. Choleraic collapse is, he thinks, due to extreme contraction of the pulmonary arterioles obstructing the circulation through the lungs. He regards the thickening of the blood as the consequence—not the cause—of the impeded circulation. He believes the contagium is ultimately expelled from the system by purging and vomiting. That the excessive discharge of liquids from the system is not the cause of the collapse is, he thinks, shown by the fact that in the most rapidly fatal cases there is rather an inverse than a direct ratio between the degree of collapse and the quantity of liquid discharged.

Dr. Johnson's re-statement of his opinions was received with attention, but it was evident that the audience awaited with greater interest the presentation of the respective views of Drs. Klein and Koch, which was to follow. Dr. Klein appeared in person to represent the views of himself and his colleagues on the British Cholera Commission. Mr. Watson Cheyne appeared as an ad-

vocate for Dr. Koch. Mr. Cheyne is the Research Scholar of the British Medical Association, and has acquired no inconsiderable repute as a patient investigator of bacteriological problems. The Biological Laboratory of the Health Exhibition of last year was conducted under his able superintendence. Mr. Watson Cheyne studied the subject of cholera in Paris during the recent epidemic.

Dr. Klein maintained the direct infectiousness of cholera. He denied the infectious nature of choleraic discharges, and referred to cases where water contaminated with them had not produced the disease; and he also mentioned cases in which the disease had been conveyed by linen which had not been soiled by cholera evacuations, and which had not been worn by a cholera patient. Dr. Klein is at one with many Indian medical officers in his views of the direct infectiousness of cholera. Dr. Klein regards the virus of cholera as not present in, or dependent on, the dejecta of cholera, but considers its formation is due to locality, as Pettenkofer maintains. Remarking that the incubatory period of cholera may be as short as a few hours, or even half an hour, he said it was impossible to believe that in such a short space of time micro-organisms could accomplish the result. Dr. Klein is directly opposed to Koch's view of the specificity of the organisms found in the bodies of cholera patients. He dwelt at some length on the researches of the British Cholera Commission and the results at which they arrived. I referred to this part of the subject at some length in a former communication. Dr. Klein made a great point of the non-specificity of the comma-shaped bacillus, and alluded to Dr. Timothy Lewis's discovery of similar bodies in the saliva of healthy persons. This link in the argument was however somewhat weakened by Dr. Klein's admission, later in the discussion, that he had failed in his attempts to cultivate comma-bacilli from the mouth in the same media in which comma-bacilli from cholera cases could be grown. This point, trivial though it may appear, seems to indicate some slight difference between the bacilli from the two different sources indicated

Mr. Watson Cheyne asked Dr. Klein how he explained the outbreak of cholera on an island immediately after the arrival there of a patient suffering from cholera, seeing that, according to Dr. Klein's view, the dejecta contained merely the products of the action of the virus and none of the infective agency itself. Proceeding, he said it was with the bacterial aspect of the question he wished specially to deal. He adhered to Koch's views. The specificity of an organism did not rest merely on its shape, but on its mode of growth and other characters. Long ago, Koch himself showed that the bacillus of glanders was comma-shaped. Mr. Cheyne even went so far as to say that not even a particular mode of growth proved an organism to be pathogenic; it merely served as a means of recognition of an organism. Mr. Cheyne said that the testimony of most observers was that the bacillus was always found in cases of Asiatic cholera. There were discrepancies as to the numbers and site of the bacilli; the only satisfactory way of estimating the numbers present was by the method of cultivation. Mr. Cheyne maintained that observers had found bacilli in every case of Asiatic cholera which had been examined, whether in India, Egypt, Italy, France, or Spain. He described some cases in which he had succeeded in inoculating animals and found comma-bacilli in the intestines in abundance on post-mortem examination.

THE CONTAGION OF SCARLET FEVER.

To the Editor of The Medical Record.

SIR: I take notice of an article in your valuable number of the 28th ult., page 353, on "Scarlet Fever" communicated by a third healthy person. My experience is this: In January of this year I visited a little daughter of Mr. W. L——, aged five years and six months. She had scarlet fever. My visits were made at 10 A.M., three miles from home. I did not arrive home any day until about 3 P.M., or five hours after my visit on this patient. I ride in an open gig, and everybody knows it froze fearfully. Every day and most of the time up here the wind blew. I always removed my two outer coats at home and hung them three rooms distant from my children, or at times left them to freeze in the horse barn. I put on a coat never worn to visit scarlet-fever patients, and then took upon my shoulder "the little white-haired" lass, eighteen months old, who ran to meet me. She was taken with the fever before I had finished my visits of three weeks on the little girl. My little eighteen-months' child had not been out of doors for two months, no one from an infected house had been near my home, for there were but three families in town who had the disease during the year. I either brought the disease home in my hair (which I believe) or in my pants below the region of the bottom of my overcoat.

Two years since I attended a case. One day I drove about one mile, stopped at a house where was a little girl which I did not approach nearer than ten feet, nor did I sit down. In nine days that child had the scarlet fever. The mother said I brought it.

Again, a few years ago I attended one family four miles from home. In driving I wrapped the robes close about my limbs. A month afterward I took my ten-year old daughter to ride, using same lap-robes. In a few days the daughter came out in full scarlet fever, and subsequently fearful dropsy. These facts are stubborn, and to my mind prove that a third healthy person can carry the contagion of scarlet fever.

Yours, etc.,

W. H. MATHER, M.D.

SUFFIELD, CONN., April 2, 1885.

To the Editor of The Medical Record.

SIR: Dr. Baruch's letter on page 353 of THE RECORD calls to my mind an experience of my own bearing on the question discussed by Dr. Baruch. Several years ago, in the winter season, I had charge of two children, smartly, but not very severely, sick with scarlet fever at a house about five miles from my residence, and visited them once a day for three or four days. As the mother had no assistance in the care of the children it was my custom at my visits to take both children on my lap while she made up the bed in which they slept. After my visits I returned home, usually a little before supper-time. The youngest two of my children—about two and four years old—were convalescing from a moderate attack of measles, and were rather fretful at that time of day, and I used to hold them on my lap to amuse and soothe them. In about a fortnight's time they were both taken with a mild form of scarlet fever. There were no other cases in the village where I then resided, during that winter, either before or after the sickness of my children. The circumstances were certainly in this case favorable to my conveying the contagion. At the house where the sick children were I commonly put on my overcoat and mittens directly after giving the children to the mother to replace in bed, and at my home took my own children in my lap almost as soon as I had laid off my overcoat.

Yours very truly,

WILLIAM MANLIUS SMITH, M.D.

SYRACUSE, N. Y., March 30, 1885.

To The Editor of the Medical Record.

SIR: I have a case of scarlatina to report which may serve to answer in part the question of its communicability by a third healthy party. In September, 1879, I was called by H——, a wood-chopper, to see his children. I found him living in a small house upon the summit of a lofty foot-hill of the Adirondacks, one mile from the main road. On reaching the house I found one child already dead and another delirious from scarlatina. I was not aware that there had been scarlatina in this neighborhood, and the almost complete isolation of the

family, none of whom had been away from home in months, left me in doubt as to the source of the contagion.

By making inquiry, however, I learned there had been a case in a family living about four miles distant, and that an old man who had taken care of it had been in H——'s house, and being fond of the dead child, had taken it on his knees and caressed it. He was at that time in good health, nor had he been sick for years. In view of the fact that he had been with the first case during convalescence, and hence during the period of desquamation, I did not doubt that he was the vehicle by which the scarlet fever had been conveyed.

Very truly yours,

F. B. STREETER, M.D.

GLENS FALLS, March 30, 1885.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: I send the following, and if worthy of publication give it place: At a meeting of the Society of Practitioners in New York, reported in THE MEDICAL RECORD, March 14th, the question is asked whether a physician who is attending a case of scarlet fever ought to take midwifery cases? Dr. Robinson, in the discussion following, said that he did not think there was much danger of either the mother or child taking the fever. In this connection I have an experience to relate. During the spring of 1884 I was attending cases of scarlet fever and early one morning was called to an obstetrical case, a lady in her third confinement. I had visited scarlet-fever cases the day before, and did not change my clothing but disinfected my hands with iodine and carbolic acid. In three or four days the infant took scarlet fever, but the mother escaped. When the stage of desquamation was well advanced it took measles, the father being down with it, and all in one room, simply because they had no other.

Shortly after, the two remaining children were attacked with scarlatina, the eruption being very full and quite red from the head to the feet. About the fourth day of the scarlet eruption the measles eruption appeared, showing darker elevated spots having the crescentic appearance peculiar to measles. I have no recollection of cases occurring where the two eruptive diseases appeared at the same time in the same individual. What do the practitioners say? J. M. WARD, M.D.

CORNELIA, Mo., March 23, 1885.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 20, 1885, to April 4, 1885.

HALL, WILLIAM R., Captain and Assistant Surgeon. Granted leave of absence for twelve months and fifteen days, to take effect when his services can be spared. S. O. 70, A. G. O., March 27, 1885.

GARDINER, JOHN DE B. W., Captain and Assistant Surgeon. Ordered for temporary duty at Fort McHenry, Md. S. O. 63, Department of East, March 28, 1885.

BIART, VICTOR, Captain and Assistant Surgeon. Leave of absence extended six months on surgeon's certificate of disability. S. O. 77, A. G. O., April 4, 1885.

COWDREY, STEVENS G., Captain and Assistant Surgeon. From Department of the East to Department of the Missouri. S. O. 77, A. G. O., April 4, 1885.

DE LOFFRE, AUGUSTUS A., Captain and Assistant Surgeon. From Department of the East to Department of Dakota. S. O. 77, A. G. O., April 4, 1885.

CRAMPTON, LOUIS W., Captain and Assistant Surgeon. From Department of the East to Department of the Platte. S. O. 77, A. G. O., April 4, 1885.

TORNEY, GEORGE H., Captain and Assistant Surgeon. From Department of the Missouri to Department of the East. S. O. 77, A. G. O., April 4, 1885.

ARTHER, WILLIAM H., First Lieutenant and Assistant Surgeon. From Department of the Platte to Department of the East. S. O. 77, A. G. O., April 4, 1885.

WYETH, M. C, First Lieutenant and Assistant Surgeon. From Department of Dakota to Department of the East. S. O. 77, A. G. O., April 4, 1885.

CARTER, E. C., First Lieutenant and Assistant Surgeon. Granted one month's leave with permission to apply for one month's extension, to take effect upon the arrival of another medical officer at his post. S. O. 30, Department of Arizona, March 23, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending April 11, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Smallpox.	Yellow Fever.
Cases.								
April 4, 1885	0	5	106	6	207	77	0	0
April 11, 1885	0	3	75	5	185	63	0	0
Deaths.								
April 4, 1885	0	2	19	6	19	24	0	0
April 11, 1885	0	0	12	3	22	31	0	0

SALT.—Our esteemed contemporary, the *New York Medical Journal*, in a recent editorial article not only praises salt-water bathing, but suggests other possible uses of this agent, and especially its employment as an antiseptic and disinfectant in connection with our sewerage system. By putting a few handfuls of salt daily into the basins and water-closets, the sewer-gas odor is in a measure controlled. In view of the threatened invasion of cholera and the asserted value of salt as a prophylactic agent in this disease, the above suggestions are very timely.

THE RELIGIOUS PRESS AND "QUACK" ADVERTISEMENTS.—The "quack" advertisements which are circulated by professedly Christian journals are among the offences which cause intelligent and reverent men to doubt. A specimen of such advertisements is sent to us (from a religious journal having a very wide circulation), abusing the medical faculty and vaccination, and extolling the "Anti-vaccination Mixture." The whole thing is so absurd that we are almost ashamed to notice it, excepting to regret that a well-meaning contemporary should permit such rubbish to appear even in its advertisement columns.—*Lancet.*

WHERE WE TASTE THE DISGUSTING.—The third and lowest part of the tongue, supplied by the glosso-pharyngeal and throat, is the seat of those peculiar tastes to which was given the names of relishes and disgusts It is here chiefly that we taste animal food, fats, butters, oils, and the richer class of vegetables and made dishes. If we like them, we experience a sensation which may be called a relish, and which induces one to keep rolling the morsel further down the throat till it passes at last beyond the region of our voluntary control. If we don't like them, we get the sensation which may be called a disgust.

THE TANNATE OF THE PROTOXIDE OF MERCURY or hydrargyrum tannicum oxydulatum is a remedy for syphilis, introduced by Lustgevten, and already quite extensively used in Germany. It is given in doses of gr. jss. two or three times daily, an hour after meals. It acts quickly and does not easily disturb digestion or produce salivation.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 17 NEW YORK, APRIL 25, 1885 Whole No. 755

Original Articles.

ENDOMETRITIS FUNGOSA; ITS PATHOLOGY, DIAGNOSIS, AND TREATMENT.[1]

BY JAMES B. HUNTER, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL, NEW YORK: PROFESSOR OF GYNECOLOGY IN THE NEW YORK POLYCLINIC, ETC.

THE disease known to us as endometritis fungosa was described by Robert, a pupil of Récamier (*Bul. Thérapeut.*, 1846, tome 21). Récamier himself wrote on the subject, under the title of "Fongosités Utérines," in 1850 (*Union Méd. de Paris.* tome 1, 1850). In 1848 Robin (*Arch. Gén. de Médicine*, xvii.) said of these fungosities: "They are, from an anatomical standpoint, simple vegetations from the uterine mucous membrane, having therefore the same anatomical composition, and enclosing fibroplastic tissue."

Rouyer ("Thèse de Paris, 1848") says: "The fragments made with a curette are generally from three to five centimetres long; from five to six millimetres wide, and from one to five millimetres thick. Their free surface is smooth, and covered with epithelium; the tissue is very vascular. In this hypertrophied mucous membrane there appear granular forms of three kinds, viz.: 1, Granules which resemble small gooseberry seeds, and are opaque or transparent—these raise up the mucous membrane, and form white spherical, almost sessile, projections; 2, masses of a spongy character, like placental tissue; 3, granules about as large as the head of a pin, which are seen *beneath* the mucous membrane. These may attain the size of a pea, and resemble the forms described, except that they are more numerous and regularly distributed.

Nélaton (*Gazette des Hôpitaux*, 1853, No. 17), states that fungosities have two surfaces—a free surface, which is of a rosy red color, and growths resembling the intestinal villi, and an attached surface, the latter having a deep red shade, and suggesting freshly torn tissue.

Ferrier ("Thèse de Paris, 1853") had an opportunity to observe these growths *in situ*, on several occasions, in the dead-house. He describes them as small, spongy, pulpy masses, red or rose-colored, soft, easily detached with the finger-nail, with or without pedicles.

Goldschmidt ("Thèse de Strasburg, 1859") states that Koeberlé found them fifteen times in the cadaver.

Richet, Robert, and Nélaton all took opportunities to study this condition at autopsies. For the gross pathology of this affection we are indebted largely to early French observers, and some after them recognized its nature quite clearly. The German authorities have investigated more thoroughly the microscopical anatomy of the subject; Olshausen (*Archiv für Gynakologie*, vol. viii., No. 1) having contributed the most important paper.

Among those who have written on the subject are Aran ("Mal. de l'Utérus"); Courty ("Mal. de l'Utérus"); Gallard, Ruge and Veit; Nonat ("Mal. de l'Utérus"); and Winckel, under the title of "Adenoma Papillosum Diffusum Corporis Uteri." The disease does not seem to have been studied or appreciated by the English authorities. In this country it has long been recognized and successfully treated.

[1] Read before the New York Academy of Medicine, April 16, 1885.

There is some confusion as to the term "fungosity." Olshausen writes of "endometritis hyperplastica chronica vel polyposa;" Hegar and Kaltenbach include the condition under "endometritis;" Weber refers to it as "endometritis hemorrhagica;" Slavjansky employs the term "metritis villosa;" Courty treats of granulations and fungosities, and considers fungosities a development of granulations. Throughout his whole chapter on this subject, Courty singularly confounds fungosities of the uterine cavity with erosions, and with hypertrophy of the follicles of the cervix. According to my experience fungosities proper are never found in the canal of the cervix, though often abundant just above the boundary line between the cervix and the body of the uterus. They are certainly never found, as Courty seems to believe, "commencing at the os uteri."

Pathology.—If the lining membrane of a uterus which is the subject of fungosities be gently scraped with a blunt curette there will appear, together with some blood-clots, a number of small, pink, firmly organized bodies, sometimes gelatinous, resembling small polypi, and varying from the size of a pin's head to that of a small pea. I have seldom found them to exceed five millimetres in size, and, as a rule, they are much smaller. They cannot be easily broken down by the finger, and are very easily distinguished from blood-clots when put into water. Neither the size of these growths nor their number is in proportion to the amount of hemorrhage to which they may give rise. The scraping, if carried over the whole surface of the uterus, will generally exhibit a few whole fungosities and a quantity of fragments, mixed with blood-clots. The true fungosity is always of a pale pink color after removal, but is probably congested while attached to the mucous membrane of the uterus, as the structure is highly vascular. Aran divides fungosities into sessile tumors, with broad bases, and pediculated or polypoid masses. Mundé (*Edin. Med. Jour.*, April, 1878) speaks of three varieties, including "uniform hyperplasia of the entire mucous membrane," which, pathologically speaking, is questionable. The difference between sessile and pediculated fungosities is one of form only. All fungosities consist essentially of a hypertrophy of the mucous membrane, in the form of papillary growths having a distinct fibrous basis, and covered by a single layer of cylindrical epithelial cells. I have examined a large number of specimens microscopically, and have often found these characteristics so distinct, and accompanied by so great an increase in the size of follicles, as to offer some ground for considering them new specimens, which might be regarded as adeno-papillomata. The abundant vascular supply of these fungosities has been well described by Olshausen, who also notes the constant presence of numbers of leucocytes, which not only crowd the interstices of the fibrous tissue which forms the bulk of the fungosities, but are also found abundantly in the surrounding mucous membrane. The presence of these white blood-corpuscles in unstained specimens often gives an appearance which it is extremely difficult to distinguish from that of round-celled sarcoma. De Sinéty (Paris, 1879) is the only author who has laid stress upon the close resemblances of fungosities to true granulation tissue. He says: "In other cases the fungosities are specially constituted of embryonic tissue with few blood-vessels. There are only traces of the glands, and some remains of more or less degenerated epithelium. We have then to do with a truly inflammatory tissue, and comparable to

that which remains upon an exposed wound. At certain points there are islands of degenerated elements which are not colored by reagents, and are analogous to those observed in foci producing pus." This statement is important, as showing that we have to deal with something more than simple hypertrophy. Thomas, in using the term "fungous degeneration," does not mean to imply that there is any process akin to degeneration in the development of fungosities, which are really local hypertrophies of the uterine mucous membrane. Fungosities are never friable, and never show evidences of degeneration. They are not homogeneous on section, and contain a good deal of fibrous tissue.

The question naturally arises, why the hemorrhage should be so great, as we know it to be clinically, from a cause apparently so trifling. The amount of hemorrhage will not appear excessive if we consider the extent of surface from which it springs. In normal menstruation the escape of blood occurs because of the fatty degeneration of a portion or of the whole of the epithelial lining of the uterus (Kundrat, Leopold, Engelmann). The epithelial covering of these fungosities probably undergoes the same change as that of the rest of the mucous membrane. In the diagram before you, which is probably not exaggerated as to proportion, the distance from A to B is about six inches. The surface of this fungosity measures ninety-six inches; so that it is evident that the superficial area of the cavity of the uterus may be enormously increased by the existence of a small number of fungous growths. The extreme vascularity of the growths under consideration is not apparent in sections of specimens that have not been injected. The opportunity for obtaining such specimens is very rare. The question of the cause of the prominent symptom, hemorrhage, has been avoided by all the authors I have consulted who have written on this subject.

Microscopic appearances.—The actual appearance of these growths under the microscope has not been satisfactorily described, notwithstanding the vital importance of distinguishing between endometritis fungosa and malignant disease of the uterus. Unaided by the history and clinical features of a given case it is not always possible, by the microscope, from a single small specimen, to make an absolute diagnosis, even for the most experienced microscopists. In a typical case, and under favorable circumstances, there would be little difficulty in doing so. While a diagnosis of sarcoma or epithelioma may often be made from the examination of a single specimen, it may be necessary to examine a number of specimens in order to certainly exclude those diseases and pronounce a diagnosis of an innocent affection.

The papillomatous masses are absolutely characteristic of fungosities, even if there should be no enlarged glands and other appearances characteristic of uterine mucous membrane. This, taken in connection with the amount of fibrous tissue, the glands, etc., will generally suffice for a diagnosis. On staining, the smaller size and irregular distribution of the leucocytes will exclude sarcomatous tissue. In cases where characteristic sections cannot be obtained the diagnosis must be guarded.

According to Olshausen, microscopical examination shows a greatly hypertrophied mucous membrane with increase of all its elements, dilated follicles, enlarged blood-vessels, and great cell-infiltration of all the connective-tissue. There are large dilated blood-vessels, and around them many white blood-corpuscles. Around the follicles are spindle-cells arranged in regular lines. "These," he says, "prove the chronicity of the affection."

I have quite recently had an opportunity of examining, post-mortem, a perfect specimen of fungosities *in situ* that presented the appearance of very small dentritic masses, pale and shrunken, covering the greater part of the anterior wall of the uterus. A number of sections made by Dr. H. C. Coe, through the entire uterine wall of a similar case, including the basis of the growths, showed conclusively that there was no line of demarcation between the normal hypertrophied tissue, but that the uterine mucous membrane was continuous with that covering the fungoid masses. The submucous connective-tissue extended directly into the masses, giving an appearance suggestive of the benign growths in the bladder figured by Thompson as "fibro-papillomata."

Important as the microscope is to enable us to form a diagnosis of this affection, much care and patience is necessary in its use. A hasty examination of a single section, especially a fresh one, is by no means sufficient. Specimens should be examined both fresh, and also hardened in alcohol, and stained. At least a dozen different sections should be looked over carefully and compared with each other, or other specimens and plates. Such an examination, together with the history of the case, will generally enable us to make a positive diagnosis.

Symptoms.—The principal symptom of this form of endometritis is menorrhagia. Rouyer makes the questionable statement that pain is always present, and that it is generally unilateral, radiating from the iliac region to the sacrum and hip of the corresponding side. I have found pain to be rare as a consequence of the existence of fungosities. As a rule, the hemorrhage consequent upon fungous growths is a menorrhagia—that is, it consists in an increase of the quantity of the normal menstrual flow, and especially in a lengthening of the period, which instead of five may last eight or ten days or more. In sarcoma there is generally a metrorrhagia, which occurs independently of the menstrual period, and which often breaks up entirely the menstrual rhythm. A long train of symptoms follow, but they are in nowise different from those common to anæmia from other cases.

In some cases there is in place of hemorrhage a constant discharge of serum, perhaps only tinged with blood. The subjects of such watery discharges lose flesh and strength and become anæmic, as though the loss were of blood.

According to Olshausen the increased flow due to fungosities often comes on suddenly in women previously healthy, and causes an anæmia, as a result of which there is an absence of menstruation for several months. This is directly contrary to my experience.

Lusk reports a case (*Am. Jour. of Obstet.*, January, 1878) which died from progressive cachexia, probably from the existence of fungosities. Dr. M. D. Mann, who examined the uterus, post-mortem, pronounced the case one of "villous degeneration of the uterine mucous membrane." He says of the specimen examined (Trans. Obstet. Soc., *Am. Jour. Obstet.*, January, 1878, p. 133), "it consists histologically of structureless basement substance containing great quantities of small round cells and nuclei, and portions of uterine follicles and vessels."

Etiology.—The growth of fungosities seems to be generally a result of chronic congestion of the uterus. It is commonly found in cases of subinvolution. In unmarried women it is often a consequence of neglected retroversion or retroflexion. In cases of laceration of the cervix, where there is much hypertrophy of tissue, there is commonly an interference with the circulation, which, if sufficiently prolonged, promotes these vascular growths from the endometrium. They seem to result from a moderate amount of congestion, as from a mild form of endometritis, long continued, rather than from the more severe or acute forms of that disease. They have no connection whatever with gonorrhœal or syphilitic infection, as far as I have been able to ascertain. They occur usually during the child-bearing period, but may be found before and after that time. It is some aid in diagnosis to remember that sarcoma, as a rule, does not occur till between thirty-five and forty.

One of the causes of hyperæmia of the uterus is the existence of fibroid tumors in connection with that organ. Hence fungosities are often found associated with fibroid tumors, and in some cases are the chief cause of excessive hemorrhage. They should always be suspected in cases

of fibroids, as their removal may be of great temporary benefit to the patient.

Differential diagnosis.—The conditions with which fungosities are liable to be confounded are :

1. Benign growths, *A.* Submucous polypus; *B.* Adenoma of the uterus; *C.* Benign papillomata; *D.* Villous degeneration of the endometrium; *E.* Placental or decidual remains.

2. Malignant growths, *A.* Carcinoma of the body of the uterus; *B.* Round-celled (or diffuse) sarcoma.

Benign Growths.—A. Fragments of soft myxomatous polypi removed from the uterine cavity sometimes resemble fungosities on gross inspection. Under the microscope the loose fibro-muscular tissue, the enclosing layer of epithelial cells, the enlarged blood-cells, and the free leucocytes give an appearance which might easily be mistaken. A few stained sections of the suspicious masses will bring out the well-marked papillary remains, and clear up the diagnosis. The rare form known as "channelled polypus" is distinguished by the presence of a large number of cavities of a size never seen in true fungosities. Klob describes a vesicular polypus which seems to be of the same character as the variety just named. Polypi are more limited in number, and more localized. They are often found in the cervix, while fungosities are not.

B. Adenoma of the uterus is a rare condition, and the descriptions of it are vague. Savage seems to regard it as not uncommon, but he evidently confounds it with fungosities.

C. True benign papillomata are said to be confined to the cervix, while fungosities are, in the opinion of all authors except Courty, limited to the body of the uterus. The microscopical differentiation of these two conditions would be difficult, if not impossible. It is a question whether some of the large fungoid growths should not be regarded as true morbid growths rather than simple hypertrophies.

D. Goodell refers to a condition which he calls villous degeneration of the endometrium, the same being described by Hirschfeld as "cylindrical cell adenoma," and by Winkel as "adenoma papillosum diffusum corpus uteri." The cases described by Goodell were probably either villous cancer or simple fungosities.

E. The diagnosis of fragments of placental polypi or retained decidual remains is not easy. The embryonic cells of fœtal remains are larger than those covering the fungoid masses. The cells covering fungoid masses are cylindrical, and the connective-tissue basis is firmer and more pronounced than in the chorionic villi. The latter are generally longer and more delicate, and have clubbed rather than accuminate extremities.

Malignant Growths.—A. Epithelial or medullary carcinoma of the body of the uterus is so different in its history, and so different microscopically, that there is little danger of confusion. The cells of an epithelial type, infiltration, excessive degeneration, alveoli, fragments, etc., are sufficient to make the diagnosis of carcinoma easy.

B. Round-celled sarcoma of the uterine mucous membrane is more likely to be mistaken for fungosities than any other condition. Sarcoma of the body of the uterus is not so exceedingly rare as it is stated to be by Dr. Mundé in his article already quoted, in which he says that Schroeder has found only sixteen cases reported in literature. I have seen seven cases in my own practice, and in that of Dr. Thomas, in the Woman's Hospital and elsewhere, I have seen twice as many. Dr. Coe, Pathologist to the Woman's Hospital, has examined six cases, in which there could be no doubt of the diagnosis, within the present year. Mundé believes that localized fibro-sarcoma (the hard variety) is the more frequent. In this my own experience is not in accordance with his. I believe sarcoma is not so very uncommon, but that it is often overlooked; and it should always be suspected in cases where we exclude fungosities and carcinoma. The symptoms of sarcoma may be very similar. Virchow ("Onkologie," vol. ii., p. 350) thinks many innocent hyperplasiæ of the mucous membrane are mistaken for sarcoma, but he gives no differential diagnosis. In sarcoma scraping generally yields a considerable quantity of soft, brain-like material, breaking down readily upon handling, homogeneous on section, frequently showing marked degeneration (pus, etc.). It never appears in distinct formations, but the fragments are always irregular in shape, whatever their size may be. The difference is marked, even to the naked eye, and is rendered very distinct by a lens of low power.

Microscopically sarcomatous tissue is homogeneous in appearance, being entirely made up of round cells with a fine stroma. The cells are mostly somewhat larger than leucocytes and have a large central nucleus. Transitional forms, "alveolar sarcoma," "sarcoma carcinomatodes," may be found in the uterus, the cells assuming an epithelial type, and being arranged in alveoli. These appearances are of course never seen in fungosities. In the examination of fresh and unstained specimens there is a liability of error, because in both cases the field is filled with masses of round cells.

DIFFERENTIAL DIAGNOSIS.

Symptoms.	
Fungosities.	*Sarcoma.*
Little or no pain.	Considerable pain.
Menorrhagia the rule, metrorrhagia the exception.	Menorrhagia and metrorrhagia usual.
Discharge generally odorless.	Discharge often offensive.
Gross Appearances.	
Pale pink color, semi-transparent, sometimes gelatinous.	Grayish white, brain-like.
Distinct formations, of firm consistency; undergo no degeneration.	Soft, friable, amorphous, and prone to degeneration.
Microscopical Appearances.	
Single layer of normal columnar epithelium and irregular groups of leucocytes.	Structure entirely cellular, single nuclei.
Stroma considerable and not intercellular.	Stroma slight and intercellular.
Papillomatous arrangement.	No papillomatous arrangement.
No infiltration of healthy tissue.	Healthy tissue invaded.
Surrounding mucous membrane normal.	Surrounding mucous membrane destroyed.

Clinical differences between fungosities and sarcoma.—The thorough use of the curette in cases of fungosities is followed by little or no hemorrhage. If the case is one of sarcoma, there is apt to be much bleeding for several days after the use of the curette, the condition of the patient is aggravated rather than improved, and there may be considerable pain lasting for several days. In case of simple fungosities, if they are thoroughly removed by the curette, and if the cause of the congestion of the mucous membrane be remedied, the patient is often permanently cured after a few months. In sarcoma similar treatment is of no avail whatever to arrest the tendency to hemorrhage, nor does the patient in the latter case improve much under tonics, food, and general hygienic measures. Fungosities recur after six or eight months if the original cause remains, but for a period the patient is free from hemorrhage, and gains health rapidly. Sarcoma recurs after removal, and after mere scraping with a blunt curette it often assumes a rapid growth.

Treatment.—The disease having been recognized and a positive diagnosis made, the treatment of the existing condition—the fungosities—is very simple and satisfactory. The cure of the condition that gives rise to a hyperæmic condition of the uterus is a very different and much more tedious affair, and must obviously be adapted to each individual case.

It is not usually necessary to dilate the canal of the cervix in order to use the curette. The presence of any growth or body within the uterus tends to cause a patulous condition of the cervical canal. The operation of curetting should be done under the influence of ether. The patient being on the side, a Sims speculum is introduced, and the canal of the uterus is cleansed by the

use of cotton on the ordinary applicators. The whole surface of the uterus is then gently scraped with the blunt curette, the curve of the instrument being changed so as to enable every part of the cavity to be reached. Cotton should again be used to remove the loose fungosities and to cleanse the uterus. An application of the strong tincture of iodine (Churchill's), or of strong carbolic acid, should then be made to the whole surface, a little absorbent cotton placed in the vagina, and the patient put directly to bed, where she should remain for two days, or longer if there be any pain.

The operation may be done without anæsthetics, but it is almost always painful, and it is not likely to be done so thoroughly.

Apart from the effect of the curette on the growths in the cavity of the uterus, it has an excellent effect on the congested uterine mucous membrane, and has been recommended as a means of cure. Dürelius, assistant to Martin, of Berlin, reports sixty cases of pregnancy, occurring in women who had been curetted—forty-nine of them for endometritis.

Dr. Clinton Cushing, of San Francisco (*Western Lancet*, August, 1882, p. 340), recommends the blunt curette in the treatment of hemorrhage from congestion of the uterus, and considers it especially valuable in cases of hyperplasia of the body of the uterus, or subinvolution, its use in such cases being followed by marked improvement.

Patients should be warned not to expect immediate improvement. The first period after curetting is often quite profuse, and it is not till the second or third that there is marked improvement.

If done only in suitable cases, with due preparation, proper regard to cleanliness, and with antiseptic precautions, and if the patient is put in bed immediately afterward, and kept quiet by morphine if there is much pain, I consider the operation of curetting little more hazardous than the passage of the uterine sound, which in certain rare cases has proved exceedingly dangerous.

Contra-indications.—The curette is on no account to be used in case of recent pelvic inflammation or any degree of parametritis. Nor should it be used without thorough preparation in cases where the uterus is so sensitive that it will not tolerate the passage of the smallest probe. Such cases should be prepared by the abundant use of hot water, and should be watched very closely after the operation.

The curette.—A few words in conclusion as to the instrument known as the curette.

Récamier's curette, though not described by him in his article on fungosities in 1850, was doubtless a cutting instrument. It was first a steel scoop, and afterward a loop of flat steel, sharpened on each side. It has recently been claimed in England that Récamier's instrument was blunt, but no evidence is given in support of the statement. Récamier speaks of it himself as the *sonde curette*, and speaks of taking out with it a tablespoonful of fungosities. He refers to the operation as *la cathéterisme utérine*. He speaks of having first used the curette, and then having applied the cautery, and also of having had unpleasant symptoms afterward. He reports the removal of a fibrous polypus by means of his instrument. The introduction of the curette met with much opposition, and Récamier seems inclined either to apologize for it, or to stand on the defensive.

Trousseau (*Gazette des Hôpiteaux*, 1856) says the instrument was so sharp that Récamier perforated the uterus with it on three occasions.

Olshausen condemns Récamier's instrument as dangerous, and recommends that of Sims; he speaks of Récamier as being very harsh in his methods.

Both Sims' and Simon's curettes were of steel, and had sharp cutting edges. About the year 1870 Dr. Thomas devised the blunt curette, and with slight modifications in shape that instrument has been very generally adopted in this country. It has nothing in common with the sharp curette except the name. The name being derived from the French verb *curer*, to cleanse, is more appropriate to this instrument than to one capable of cutting. The introduction of this blunt curette has made the treatment of ordinary fungosities safe and simple.

For general purposes the blunt curette should be of two sizes. The smaller one is an oval loop, one-fourth of an inch wide, outside measurement. This is used chiefly for diagnostic purposes. The larger one is three-eighths of an inch wide. Both are made of copper or soft metal, with a shank that can be adapted to the curve of the uterine canal, the entire handle being nine inches long. For obstetrical purposes they are made larger, and with much longer handles. Many modifications of the blunt curette have been recommended, but the bluntness is the essential feature of Thomas' instrument, and so long as that is preserved the precise shape of the instrument is of little consequence, provided it will reach every portion of the uterine cavity without the use of force. Emmet's curette forceps is a different instrument, and is intended to crush the fungosities without the possibility of danger to the healthy tissue. It was devised to avoid the evils sometimes consequent on even the most careful application of the sharp curette. Those dangers do not belong to the blunt curette, which, as has been said before, with proper care can do no more mischief than the passage of the sound. The therapeutic uses of the blunt curette were fully discussed by Dr. Mundé in a paper published in the *Edinburgh Medical Journal* in 1878. A paper on the same subject was read by Dr. George T. Harrison before the New York State Medical Association, November 19, 1884, and published in the *New York Medical Journal*, December 20, 1884, and is, as far as I know, the latest addition to our scanty literature on this subject.

A NEW HABIT.

By A. G. BROWNING, M.D.,

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UNDER the above head, in THE MEDICAL RECORD of March 14th, you notice an article by Dr. J. E. Clark, in the *Detroit Lancet*, upon the chloroform habit. You quote Dr. Clark as saying "that such a habit is becoming prevalent is scarcely known outside of the profession and the life-insurance companies," and supplement this by saying "that the existence of such a habit is probably unknown to most medical men, and we regret that some facts were not given that would establish solidly Dr. Clark's rather loose assertions."

I do not aim to present the amount of fact necessary to supply this omission, nor to do more than add my feeble support to the assertion that such a habit does exist, and fortify it with the facts at command.

I will premise that this communication was in course of preparation when the article referred to caught my eye, and invested the subject with new interest, since others have observed a matter to me full of mental inquiry and speculation.

If by "habit" we accept the definition "temperament or particular state of body formed by nature or induced by extraneous circumstances," then I have, within a few years, encountered quite a number of instances of chloroform habit, as well defined, peculiar, obstinate, and distressing as that induced by opium, chloral, or other drug.

At the risk of being tedious, I will detail the following:

I was called to a young lady at a large female seminary. The odor of chloroform met me on entering, and the sight of the patient told the rest: she was deeply but not dangerously anæsthetized, and the usual means promptly restored her. Upon retiring she had poured some chloroform upon a napkin for inhalation from a six-ounce bottle, which she loosely corked and placed beneath her pillow. It had flowed away, and in her

helpless intoxication she had followed the fumes to their source, and drawing the clothing tightly about her head, was sleeping her life away when found. It was regarded a first offence by those about; but there was that in her manner and appearance suggesting to me a vice, and her further confidence gave to me this history: She had been, against her will, at this particular school about two years. She acquired with difficulty; study was absolute labor and required "midnight oil," only to be behind in her class at last. Everything became hateful; she grew fidgety, nervous, wakeful; she thought of chloroform, smuggled it, and for more than a year had gone to sleep nightly under its influence without detection till now. She vainly strove to free herself, but without success for even so much as one night; she assured me the days had grown to be weeks long, passed in miserable waiting for the stolen oblivion. She was rapidly becoming a mental and physical wreck. I ruthlessly, perhaps rashly, cut the knot; from that night, in spite of sobs, tears, and entreaties she got no more chloroform. She was removed from school, from all study, and to the country. This of itself did much toward recovery, and with returning will-power the habit was broken after a year or more, the thought even, or the faintest odor of chloroform producing a shudder of disgust.

I had not reached home from my visit to this lady when a messenger asked me to see a gentleman who had taken "too much chloroform." He had "come round" before my arrival, and laughingly remarked upon the "much ado about nothing." But his anxious wife revealed the situation by saying, "he never went to sleep without it," and appealed to me for advice and assistance, graphically putting it "that he was becoming worse than any old drunkard." A few months later he sought me voluntarily, and I then realized the full force of his wife's expression. He looked the drunkard to the life, with his bloated face, jaundiced eyes, inveterate retching, and general collapse. He was just off a chloroform debauch. Five years before, he had sought relief at night from a tormenting neuralgia, by inhalation of chloroform. His remark was that he "took to it as a duck does to water;" odor, effect, everything was just heavenly, and it became a nightly indulgence, varied by an occasional "spree," when for days he would consume incredible quantities, never letting up till his stomach, revolting, would stand no more, and horrible nausea, with vomiting, would make him vainly wish for death in any shape. A staggering convalescence, with temporary loathing for the drug, ended in a sure and early return to it, when the same disgusting routine was gone over again and again. He was just up from this experience, and was ripe for suicide or what not. This man made two desperate attempts upon his life within a year of treatment, during which I had heartlessly interdicted the coveted drug. A year more and I lost sight of him. I don't certainly know whether he ever lapsed into the habit.

A lady had taken arsenic; there was no time to learn more, and this seemed enough. I thought she would have her way, and die; but she didn't, and told me this story: She was one of a company of theatricals, from Chicago. Three years before, she took chloroform for extraction of teeth. She then and there met her fate: she was charmed, fascinated, and would thereafter extemporize or feign ailings or pain demanding its administration, till, in time, throwing off all disguise she adopted the nightly habit, and finally became a confirmed chloroform fiend. Her husband's remonstrances were vain: she was subjugated, and a willing slave. Hoping travel might avail something, he induced her to join with him a strolling company. Short time proved this a mistake; there came the bickerings, jealousies, and other too frequent drawbacks to this kind of life, and what had been only a weakness gravitated into sheer desperation to escape temporary but oft-recurring annoyance. She became, mentally and physically, unfit for the boards, and her husband, pardonably desperate, denied her the drug and stuck to it. With it, he knew she must die; without it, she didn't care to live. She compromised on arsenic, which gave me this little life-story. I approved her husband's course, and she got no more chloroform. She finally grew better, vigilance was relaxed, when one day, six weeks after her arsenic, she was permitted to walk alone. She threw herself into the river, was again rescued from herself, and taken, a maniac, to an asylum. I heard no more of her.

A bright man, an attorney, was up to the regulation standard in all things but one: he would, now and then, infringe some worse man's prerogative and get on a drunk. A week's debauch and his legal stomach, asserting its physiological rights, would have no more of the vile stuff, and he would vomit himself into—not sobriety, but inhalations of chloroform. He revelled in this for a season, till the viscus aforesaid, perceiving the trick, rebelled again, and he began repayment of the old debt with interest compound. And so on till chloroform in time supplanted whiskey; there was a change of masters. Upon the slightest provocation, or just no provocation at all, omitting the ardent, he would go upon a chloroform "spree," and for days and weeks vibrate between pitiful coherence on the one hand, and disgusting stupor on the other. This continued for years, sapping all of value in the man, till one lucky day the inevitable overdose came, bringing him face to face with death, from which he was rescued with difficulty. There was just enough left of him to respond to fright; he did respond, and vigorously. He began to think, and, thinking for the first time in his later years, was generously helped to act. After a long and fearful struggle he mastered the foul craving, resumed his normal status, sought and found the old avenues to popular favor, and died some time since with only sad memories of his chloroform habit.

I have under occasional care a case exciting interest and appealing to sympathy; and as regards the latter, is so far rare. The gentleman is of mature age, intelligent, respectable, as free from current vices as we find men; is heir apparent to, but not yet in possession of dyspepsia, his family having suffered from it through successive generations. In consequence he is easily unbalanced in spirits, going, with no visible motor, from attic to basement at a bound. With an invisible craving for an undefined something, he has thus far escaped the Scylla of drink, only to run into the Charybdis of chloroform. Not daily, as in the other cases; but there are times when the heavens, hung with black, close in upon him, the world grows forbidding and dark, he becomes gloomy, wretched, despairing, and takes to chloroform as the drunkard to his cups. And it is a genuine debauch; he takes it for days, till the stomach revolts, when nausea and vomiting rend him for a time, and the eruption is over. He has this *molimen*, if the term applies, every two or three months, and when present, the impulse to take chloroform is simply irresistible, nor will any known drug supply its place. In the interval the odor of chloroform is nauseating in the extreme, and he couldn't be induced to receive it. He berates himself roundly for his weakness, but claims there are times when experience avails nothing, will-power is in abeyance, the appetite possesses him utterly, and he is helpless to resist. He has been a sufferer for eight or ten years.

I could cite yet other instances, quite as much in point, but these are more than space allows; fewer, however, might not contribute the facts, and these are facts, and I must think pertinent. Brother practitioners have assured me of a like experience, in a degree, and drug clerks can reveal histories of which we know nothing.

Beyond question there is an existing chloroform habit—a something in which deluded men take into their lungs ethereal devils to steal away, not only their brain, but all over which it presides. If not as frequent or general as that of opium or chloral, it is far more so than is suspected, and is becoming a matter for consideration,

restraint, and removal, by moral suasion, medication, legal process, or all combined, so that it be stamped out. It is a habit, too, minus the shallowest plea ever extemporized for the use of alcohol; continued indulgence in which reduces life and its every ennobling impulse and attribute to the lowest semblance even of mimicry. Idiocy is pitiable: confirmed *chloroformism* is lower in the scale, and revolting. There is, in fact, nothing comparable in utter loathsomeness to a chloroform *drunk*, pure and simple. The drivel and dribble inseparable from its administration by the physician, is one thing, and offset by necessities in the case—hallowed even by present suffering, and sanctified by the end in view. The same, wantonly induced, the offspring of a depraved and vicious appetite, without apology or reasonable excuse, and perpetuated through days with superadded vomit and general nastiness, is quite another, and too disgusting for accurate description, too loathsome for endurance. The man maudlin drunk on the meanest whiskey, however revolting, is a prince compared with such! For he *was* jolly once; the chloroform drunkard never!

But it goes further: the process is one of thorough emasculation — death, with geometrical precision, to every function; somatic death with no incidental solemnities, and but a shadow for final sepulture. Every physiological process, without exception, goes down in the wreck. So surely is this so, that were I commissioned to destroy my kind—to sap their morals, dwarf their intellects, wither their physique, and estop reproduction, the habitual use of chloroform, as I have known it practised, would leave nothing to be desired.

I know whereof I speak; do not overdraw, nor can I think my experience wholly exceptional upon a more general comparison of notes.

In this rambling communication I have aimed at nothing but a narration of facts—no attempt at theory or speculation. I will add here that in nearly every instance the chloroform habit has seemed to replace the appetite for drink. I mean that the craze for chloroform has developed, in nearly every case, in individuals who, though strictly temperate themselves, come of a line of drinkers more or less remote. Is this a matter of hereditary descent? another evidence that the "sins of the father are visited upon the children, even to the third and fourth generation?" Temperance reformers may make a note.

March 20, 1885.

DYSPEPSIA SEPTICA AND SCHAFFER'S ASEPTIC TREATMENT OF THE ALIMENTARY TRACT.

By ACHILLES ROSE, M.D.,

NEW YORK.

Our food, mostly composed of organic substances, after entering the alimentary canal, may, under certain conditions, become decomposed in a way differing from proper digestion and physiological assimilation. Fermentation, putrefaction, and kindred processes then occur, and these anomalies are probably almost always caused by invasion of micro-organisms.

There are various ways by which such invasion may occur, a favorite place from which they proceed is the cavity of the mouth. There we find, within carious or between healthy teeth, or on or among the soft parts, great colonies of fungi which, together with the secretion, enter the stomach and further on the intestine, producing their ill effects, reducing gradually even a very resistant constitution, but doing injury especially when nutrition is already impaired, or when constitutional or organic diseases pre-exist.

The cavity of the mouth is only cared for by individuals of the better classes, and it seems to me that too little attention is paid to the teeth and the mouth when we are dealing with patients of the lower walks of life; they should be instructed in this essential of the aseptic treatment.

The pathological conditions of the alimentary tract caused by invasion of micro-organisms may manifest themselves as independent diseases, as, for instance, catarrh of the stomach or intestine, typhus, typhoid fever, dysentery, cholera, etc.

All these affections, though differing in degree, or according to the nature of the invaders, or according to the intensity of the consequences which these invading micro-organisms have produced, form, after all, only one kind of disorder, that is, a septic state, *dyspepsia septica*.

A number of more or less severe disturbances in the alimentary canal form part of nearly every acute or chronic disease, and where the symptoms of the remote affection attract more attention than the accompanying septic process in the alimentary tract, the latter may decide the gravity and the extent of the remote disease.

The modern standpoint, from which one regards certain pathological conditions of the alimentary canal as septic, gives us a better understanding of the therapeutical effects of certain remedies on this organ, and facilitates the selection of the best therapeutical measures.

There are a great many means which aid to render digestion aseptic. The ordinary diet instinctively is based in a great measure on this principle. Extreme temperature of solid or liquid food, ice and ice-cold drinks, or hot liquids (treatment of dyspepsia by hot water), the spices, carbonic acid in mineral waters, etc., are antiseptics.

Looking over the many remedies more or less certain in their antiseptic action, we find the following list: Certain metallic salts, such as bismuth, silver, zinc, the different preparations of iron, several bitters, quinine, nux vomica, the alcoholic preparations of tar, the salts of different alkalies—which latter act not only as antiseptics but also as evacuants—and finally, muriatic acid. From our standpoint we may explain some of the physiological and therapeutic effects of the muriatic acid by the fact that chlorine is one of its constituents. It is most probable also that some other preparations act in the same manner; thus we perceive that persons, after the use of iodide of potash, appear to be in a better state of nutrition. The good effects of bromide of potash in certain gastric troubles may likewise have to be attributed to the fact of its being an antiseptic, instead of finding an explanation under the head of "Nerve Therapeutics."

It has been the erroneous impression that iron, when given as a tonic, was taking part directly in the formation of blood. As a medicine it renders the process of digestion aseptic; the alimentary tract being disinfected, nutrition is improved; iron contained in the different articles of food is assimilated to take part in sufficient quantity in the formation of blood, and anæmia disappears.

Muriatic acid is the natural disinfectant of the stomach, and bile acts similarly in the intestine.

The artificial means employed to render the alimentary canal aseptic, when the natural disinfectants are wanting or inadequate, should not themselves cause any disturbing effect on the chemical act of digestion, or on the system in general. Some remedies may render digestion more or less aseptic; they may relieve some pathological symptoms, but assimilation may, after all, leave a great deal to be desired.

Ever since the year 1872, I prescribed in all cases of chronic catarrh of the stomach, and chronic gastro-enteritis, subcarbonate of bismuth and calcined magnesia combined, generally ten grains of each, to be taken half an hour before each meal, and in most cases I succeeded without employing any other means, without being scrupulous in regard to diet. In many cases my patients were domestics, employees, or such, who had to take their meals in restaurants or boarding-houses, and the scrupulous diet, so much insisted upon in treatises, they could not observe.

Giving bismuth and magnesia, I practised aseptic treatment before I was aware of it, before we had learned by

Kocher's publication of the excellent antiseptic qualities of bismuth.

To-day I am inclined to devote my attention to another antiseptic in the treatment of gastro-enteritic affections, and this is the yellow oxide of mercury, recommended by Schaffer.

Dr. Ludwig Schaffer, surgeon on board of an Austrian man-of-war, with a crew of two hundred and seventy-eight men, traversing the tropics twice within six months, had opportunity to study the influences of high temperature combined with moist atmosphere, which manifested themselves in loss of appetite and derangement of digestion, sometimes with serious complications. The bill of fare for the men, nutritious enough but offering very little variety, and only calculated for young, strong, and healthy stomachs, gave less and less satisfaction every day. The sultry night air interfered with sleep, and the men's state of nutrition became conspicuously impaired. All these cases thus affected improved and were cured by the use of hydrargyrum alone. After this favorable result Dr. Schaffer did not wait until derangements of digestion and nutrition assumed a serious extent, and obliged those affected to report for the sick list; but he held weekly sanitary inspections of the crew, and gave in more than fifty cases, as a prophylactic measure, generally one, and in rare cases two, centigrammes of hydrargyrum oxydatum flavum. The daily dose was about from one to two milligrammes.

The effects in these cases also were uniformly good; appetite and the digestive functions soon improved in a marked manner; many expressed themselves decidedly as having a good, even a ravenous appetite. Within two or three weeks most of the men treated thus looked extremely well-nourished, and had good color. This all happened under circumstances not favorable to such rapid improvement of nutrition.

Ill effects from the administration of these doses of this form of mercury (it was given in over two hundred cases) were not observed in a single instance, not even where, as in cases of severe forms of angina, exceptionally, four to ten centigrammes were given in a few days.

Dr. Schaffer recommends the dose of one to two milligrammes, to which are added one to two grammes of sugar respectively, as a constituent, to be taken daily after a meal consisting of milk, eggs, or similar nitrogenized food, in all acute or chronic derangements of the alimentary tract, in typhoid fever, during the reconvalescence from surgical diseases, in phthisis, and in all cases where nutrition is impaired from any cause. He had occasion to observe a case of severe relapse after dysentery, with abscesses of the liver, in which the final recovery was seriously in question on account of the loss of appetite. The whole list of the stomachic remedies had been tried in vain, until finally the yellow powder caused a return of the appetite and brought about unmistakably decided improvement, a change for the better in the whole pathological process.

Thus, in many cases everything is gained for the patient, if only digestion be improved. According to Schaffer, much can be accomplished with one, two, or three centigrammes of hyd. oxyd., to be given during two or three weeks, and in some instances within a shorter period. Rarely will it be necessary to increase the dose. In chronic affections, pulmonary diseases, for instance, it is advisable to observe long pauses of three to six months before commencing a new term of administration of the remedy.

Schaffer gives the following formula: R. Hydrargyri oxydi flavi, 0.01; sacchari, 10.00. M. et divide in 8 partes æquales; D. et S., one powder daily—and he advises especially this dilution of one part of hydrargyrum with a thousand parts of sugar. I prefer, for convenience' sake, compressed tablets, which are prepared for me, and in which the sugar is added in the same proportion as in Schaffer's formula. Three tablets contain one milligramme of hydrargyrum. Tablets containing one whole milligramme with a whole gramme of sugar would be too large for any one to swallow without difficulty; while tablets containing only 0.0003 have the advantage of being of service in cases of children, for whom they may be pulverized if the little patients cannot swallow tablets.

I have only limited experience as yet with the yellow oxide of mercury, but in those cases of dyspepsia in which I prescribed the drug, especially in a case of pneumo-phthisis, I was very well satisfied that it merits all the praise Dr. Schaffer has bestowed upon it. I shall certainly give it another trial in all cases which I can bring under the heading of septic dyspepsia, or in which I wish to secure an aseptic state of the alimentary tract, be it as a curative or as a prophylactic measure.

Mercury is a means by which failing digestion and nutrition may almost certainly and promptly be improved. In very minute doses it is a most reliable antiseptic. Whatever the explanation of the excellent action of corrosive sublimate in diphtheria may be, one thing, it appears to me, is certain—it has a decidedly good and reliable effect on the septic dyspepsia associated with diphtheria. I have seen the unsurpassed good effects of sublimate given internally in some such cases.

Experience will have to decide whether the yellow oxide of mercury or the corrosive sublimate are to be preferred in the aseptic treatment of the alimentary tract. Perhaps it may matter very little which of the two is chosen, as long as the principle of their employment is established and the proper indications are fully known.

ON PARALYSES OF THE IRITIC MUSCLES—WITH TWO CASES.

By ALFRED HINDE, M.D.,

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CASE I.—*Dropsy of the sheath of the optic nerve—Paralysis of the radiating fibres of the iris of the right eye—Paralysis of the circular fibres of the iris, and the ciliary muscle of the left eye.*—Captain C. H——, late of H.M. 20th Light-Horse Regiment, and who has seen active service in the exciting times of Nana Sahib and the Indian mutiny, carrying now a sabre-wound scar in the left parietal region and a gun-shot scar of the left iliac region. He is fifty-four years of age, and was healthy when he arrived in the United States in 1882. Soon after his arrival he journeyed to the Canadian Northwest, where he stayed one year, on survey of the Canadian Pacific Railroad.

When thus occupied, and on account of the privations peculiar to frontier life, together with exposure to the extreme rigors of a Manitoban winter, he contracted rheumatism, and from this period he dates his present disease.

Patient was first seen January 3, 1884, and was then suffering from an acute bronchitis, engrafted upon emphysematous lungs, together with a displaced and slightly dilated heart.

The right pupil was myotic, diameter 2½ mm.; the left was widely dilated, diameter 6 mm.; both were immovable. The right pupil did not dilate when shaded from the light, neither did the left pupil contract on exposure to a bright light. The eyeball movements were perfect in both eyes, and there was no diplopia nor lateral deviation of the images on the prism test (the test distance was 12″, and the paralysis of accommodation was neutralized with +15 before the left eye).

Both eyeballs of natural appearance. The acuity of vision of the right eye was $\frac{20}{x}$, and rejected the weakest plus lens; read No. I. Snellen at 6″ to 26″, thus showing a normal accommodation and emmetropia. Vision with the left eye was $\frac{20}{x}$, and with +1.48 became $\frac{20}{xx}$; could read only No. V. Snellen at 12″, and with +15 read No I. S. at 12″. Here we had a paralysis of accommodation, with a recession of the far point, due to

a loss of the normal tone of the ciliary muscle of this eye, rather than a true [1] Hm $\frac{1}{14}$.

The left pupil had been steadily dilating for a period of nine months, yet the vision had not been sufficiently disturbed to cause distress, though now he was unable to continue his engineering work from imperfect tracings. Tension of both eye-balls alike and plus normal (?).

Ophthalmoscopic examination.—Left eye: media clear and fundus normal outside of disc; the upper two-thirds of the pupilla are normal, with clean-cut, healthy margin; physiological cup present, and occupies the central third of the disc. The lower part of the pupilla, limited at the margin of the physiological cup by a tolerably straight horizontal line, is occupied by a serous-looking projecting swelling of this portion of the nerve, over which the retinal vessels arch in their course from the retina to the centre of the disc. The adjoining retina retains its normal transparency and is not swollen.

The retinal veins are larger and darker than normal, and the arteria are natural.

The difference between the bottom of the cup and surface of the projecting portion of the disc = $\frac{1}{18}$; that between the normal margin of the disc and the surface of the swollen portion = $\frac{1}{36}$. Thus the lower portion of the disc reached forward $\frac{1}{36}$ beyond the margin of the remaining part.

Through the small right pupil the disc was seen to be normal; same physiological cup but no swelling; veins, if anything, slightly larger than natural.

February 5, 1884.—Has fully recovered from his acute sickness, but the condition of both eyes is the same.

A solution of eserine was instilled into the left eye, which resulted in an aching of the eye-ball, and the pupil contracted in twenty minutes from a diameter of 6 mm. to 2 mm., and his vision with this eye fell off to $\frac{20}{lxxx}$, and required $-9\frac{1}{2}$ to restore it to $\frac{20}{xx}$.

Into the right eye a solution of homatropine was instilled three times at intervals of a few minutes, and twenty minutes later from a diameter of $2\frac{1}{2}$ mm. the pupil had dilated evenly to a diameter of 6 mm., and there were no evidences of a previous iritis.

The general condition of the patient was attended to, and bi-weekly instillations of eserine were more or less irregularly used in the left eye during a period of three succeeding months. On re-testing, the vision of this eye was $\frac{20}{xx}$, and read No. I. Snellen momentarily at 15″ to 19″, and with $+18\frac{1}{2}$ No. I. Snellen steadily at 8″ to 23″. On first using the eserine, the pupil fully dilated in forty-eight hours, but toward the last the action of the remedy lasted three full days; the ocular subjective sensations, at first benumbed, after treatment became natural. The far point was restored to its normal position, and there had been some gain in the accommodative power.

It is now fourteen months since the patient came under observation, and his present status is as follows:

Left eye-ball in appearance and movements same as a year ago, diameter of pupil 6 mm., iris immovable, visual acuity $\frac{20}{xx}$, and reads No. II. Snellen at 20″ to 24″, and with +15 reads No. I. Snellen at $7\frac{1}{2}$″ to $17\frac{1}{2}$″. The slight gain under treatment has been lost, but we may presume that the worst has been reached with this eye, for no other paralyses have occurred. The iris responds to eserine as before.

Right eye-ball perfect in all its movements, the same myosis, diameter of pupil $2\frac{1}{2}$ mm., and the same immobility of the pupil as a year ago, and the iris, though free, does not dilate when shaded. It responds to homatropia as before. The acuity of vision is $\frac{20}{xx}$, and he reads No. I. Snellen at 6″ to 21″ easily, thus showing a normal accommodation.

The right disk has a serous-like projection of its lower portion in all its characters similar to the one already described in the left fundus. This condition was first noticed about six months ago, but then it was only of slight extent, yet advancing, and now it is equal to the swelling in the left pupilla. It would seem that we had reached the full extent of the disease of this eye, for there has not occurred any paralysis of the third nerve-fibres supplied to the sphincter pupillæ, or to the ciliary muscle during the fourteen months' observation.

In this interesting case, therefore, was present a paralysis of the radiating fibres of the right iris, together with a paralysis of the sphincter pupillæ, and the ciliary muscle of the left eye. Owing to the multiplicity of diseased conditions of our patient, it is impossible to justly compute the etiological factor of each in the production of the intra-ocular paralyses.

From the appearance of the discs, we believe that there was a dropsy of the optic nerve-sheath, and that the exudation was insufficient to surround and compress the entire optic nerve. It is also probable that there was a localized rheumatic inflammation of the left optic nerve-sheath when the patient was first seen, that later extended to the right side, resulting there in an exudation into the intervaginal space of sheath of the right optic nerve (there is a case of "Dropsy of the Sheath of the Optic Nerve" reported in *Klinische Monatsblätter für Augenheilkunde*, August, 1865. See reference to same, Royal London Ophthalmic Hospital Reports, vol. v., p. 234).

Our patient was free from all head symptoms of disease. The fact that his first evidence of "catching cold," to which he was prone on the least exposure, was always shown by a profuse watery diarrhœa, followed by watery and bitter-tasting emesis, together with oppressed breathing, would seem to indicate that the entire sympathetic system was easily unstrung, resulting in a dilatation of the blood-vessels and an exudation of their fluid contents. The diarrhœa lasted usually about twenty-four hours, and at this period he, for the first time, would notice evidences of nasal and pharyngeal catarrh.

Of other appearances present, the right palpebral fissure was the smaller, and this appeared to be due to a slight retraction of the right eyeball. The temperature was the same on both sides.

Considering our patient an excellent example for testing the relative influence upon the pupil of mere paralysis of one iritic muscle, and again of paralysis of the same muscle, together with spasm of the opposing muscle, we, after explanation of the details of our wish, were graciously permitted by our intelligent patient to carry out the following investigations:

With a desire to see the influence of spasm of the sphincter of the right pupil upon the diameter of the latter, a drop of a solution of eserine was instilled into the right eye. Aching commenced in five minutes, became extreme, and at the end of thirty minutes the pupil, from a diameter of $2\frac{1}{2}$ mm., had contracted to one of 1 mm., thus demonstrating, in this case at least, that a spastic contraction of the sphincter pupillæ results in a greater degree of myosis than a mere paralysis of the radiating fibres of the iris can alone accomplish.

The acuity of vision = $>\frac{20}{xxx}$ (deciphers $\frac{5}{6}$ of the types), and with -30 V. = $\frac{20}{xx}$. He could now read No. I. Snellen, at 3″. Thus a spasm of the ciliary muscle was associated with a spasm of the sphincter pupilla. The aching was soon overcome by repeated instillations of a solution of homatropine.

To ascertain the effect of spasm of the radiating fibres of the iris upon the diameter of the left pupil, a solution of homatropia was instilled three times at intervals of a few minutes into the left eye. Aching resulted in five minutes, though not severe, and at the end of forty-five minutes the pupil, from a diameter of 6 mm., had dilated to one of 8 mm., thus demonstrating that a spasmodic contraction of the radiating fibres of the iris results in a greater mydriasis than a mere paralysis of the sphincter pupillæ can produce.

The acuity of vision = $\frac{20}{xx}$, and with + 74 was slightly

[1] Donders (p. 600) considers the normal tone of the ciliary muscle of the emmetropic eye equal to Hm $\frac{1}{400}$, developed by atropia-paralysis.

more distinct. He could read only No. X. Snellen with the nearest point at 15″.

If the above be the rule, it would appear that on the one hand we must not expect to find an extreme condition of myosis in uncomplicated paralysis of the radiating fibres of the iris, and, on the other hand, we are not likely to find an extreme mydriasis in simple paralysis of the sphincter of the pupil.

If these conclusions can be safely applied in practice, their bearing on the recognition of cases of paralyses of the iritic muscles will be obvious, especially in bilateral examples of the same.

One more observation on the pupillary diameters may be made from the following: The diameter of the right myotic pupil in a condition of rest was 2½ mm., and under the action of a solution of homatropine (sufficiently strong and used often enough to get the full effect) became dilated to a diameter of 6 mm. In this eye we had a paralysis of the radiating fibres and an irritation of the same, together with a paralysis of the circular fibres of the iris, which did not result in as great a mydriasis as homatropia produced in the left eye where the radiating fibres where normal, and the pupil became a diameter of 8 mm. On account of greater action of the remedy on the left eye, an irritation of the supposed normal radiating fibres may be presumed to be the sole cause of the widely dilated pupil; whereas in the right iris, with the paralysis of the radiating fibres, the remedy failed to exert so marked an influence on their construction, or its paralyzing effect on the sphincter was less pronounced.

Again, the diameter of the left pupil in a condition of quiet was 6 mm., and under the full effect of eserine became one of a diameter of 2 mm. In this eye the paralyzed sphincter could not be made to contract as markedly as the healthy circular fibres of the right eye did under the same conditions, for the right pupil under eserine contracted from a diameter of 2½ mm. to one of 1 mm. Eserine would seem to act solely upon the healthy sphincter pupillæ in this eye (right), and resulted in much more marked contraction than it could possibly produce on the paralytic fibres of the sphincter of the pupil of the left eye.

It has been already demonstrated, in this case at least, that spasm of a healthy iritic muscle results in a greater effect upon the pupil than a mere paralysis of the opposing muscle can alone accomplish. Also, it would appear proven from these later observations that a spasm of a previously paralyzed muscle is very much feebler than a spasmodic contraction of a perfectly healthy muscle. To the physiologists are relegated the above observations for further explanation or correction.

Mr. Jonathan Hutchinson, in a paper entitled '"Clinical Notes on Paralyses of the Ocular Branches of the Cervical Sympathetic Nerve," enumerates the following chief symptoms attending these cases: "1. Contraction of the pupil [the myosis even in a young person is not of such degree as to attract attention, the pupil is of the size which it would naturally be in a good light]; 2, immobility of the pupil [this is almost absolute, the pupil neither dilates when shaded nor contracts much further when exposed to light]; 3, retraction of the globe in the orbit; 4, narrowing of the palpebral aperture; 5, alteration (increase) of temperature in the parts affected; 6, dilatation of arteries; 7, a slight difficulty in vision observed by the patient both for near and distant objects, and especially when the light is bad."

He continues: "The cases which have come under my observation have been very various in respect to their cause and complication. Sometimes it is met with as the only symptom of disease of the nervous system present, at others I have found it in conjunction with paralysis of one or several of the cranial nerves, more especially the third, fifth, or sixth. In other cases it occurs from injuries of the spinal cord or to the roots of the brachial plexus. The symptoms present vary considerably in connection with one or other of these complications. Thus, if there be paralysis of the third nerve at the same time, the pupil will not be contracted, but will be absolutely motionless in a state of moderate dilatation."

"Cases of paralysis of the radiating fibres of the iris are, I feel certain, frequently overlooked, owing to our habitually examining our patients in a good light. When well exposed to light the pupil of the sound eye contracts to the same size as that of the other, and there is no difference to be observed. It is only when the patient is taken into the shade, and the pupil of the sound eye dilates widely, while that of the other remains contracted as before, that our attention is arrested. If we see our patient for the first time in a dull light, the suspicion which crosses the mind first is certain to be that we have to do with a case of paralysis of the third nerve, and mydriasis as the result, but on bringing him to the light we find the supposed mydriasis disappear. I have several times made the two mistakes to which I refer, and have seen them made also by others."

"Inequality of the pupils, the smaller one being the fixed one, is then the cardinal symptom of paralysis of the sympathetic, just as inequality of pupils with the larger one fixed is the cardinal symptom of paralysis of the third, as far as the supply of the iris is concerned."

Among other cases complicated with injuries, syphilis, amaurosis, etc., he records the following case:

"Case I. *Paralysis of radiating fibres of the iris without known cause, and without other complications.*"—Patient, a clerk, aged thirty-four; health good; complained of failing sight in left eye for two months past, together with pain and mistiness; had noticed that right pupil was three times the size of the left: no other ocular paralysis, and he persisted that his left eye was defective; in strong light the right pupil contracted to same size as the other, which was myotic and immovable when shaded; visual acuity, L. E., $\frac{20}{xxx}$; and he could read the smallest type "with some difficulty at 12″, but not either nearer or farther off." "R. E. vision, $\frac{20}{xx}$, and read smallest type easily at 8″ to 14″." With the ophthalmoscope nothing abnormal was detected. "There was no history of syphilis and no other nerve symptom." Iodide of potassium, nux vomica, with vegetable bitters, were given without benefit. No difference of temperature was noticeable on the two sides, and "no proof that any other part of the sympathetic is involved excepting that which supplies the radiating fibres of the iris. I have tried the effects of calabar bean, and, as expected, found that it contracted the myopic pupil very greatly. Under its influence the pupil was reduced to the size of a pin's head, thus affording proof that in spasmodic myosis the contraction is far greater than in the paralytic form."

One year later ("Royal Ophthalmic Hospital Reports," vol. vi., p. 142), Hutchinson, referring to the above case, says: "in which complete paralysis of the radiating fibres of the iris occurred without complication and without any known cause. In that case failure of the function of accommodation gradually supervened and became complete," and fifteen months after the beginning of his disease no other ocular paralysis had occurred, and the other eye was not affected, the patient being in good health. He states that he has further seen two similar cases and records one: A healthy, married man, aged thirty-five, used to office work; no syphilis; could not see clearly with left eye, and had shooting pain in and around it, though not severe; eyeball normal, but pupil immovable in shade while the right dilated; sight good for distance, though objects hazy; could read No. IV. Snellen at 4′, but not nearer; with +15 he read No. I. easily at 12″. "The right eye perfect and its pupil acted well."

Thus was present "paralysis of the radiating fibres of the iris and of the ciliary muscle without apparent cause and without other complication." This patient was very sensitive to weather changes and had neuralgia.

[1] R. O. H. Reports, vol. v., pp. 135–148.

These two cases are different from my own in the fact that in both paralysis of the ciliary muscle followed paralysis of the radiating fibres of the iris, whereas, though I have observed my patient fourteen months, no paralysis of accommodation has resulted in the myopic right eye.

Hutchinson considers treatment of little avail, but writes: "The worst result to be feared is, however, a complete paralysis of the ciliary muscle and of the dilating power of the iris." He further writes (Royal Ophthalmic Hospital Reports, vol. v., p. 138): "The converse of this class of cases is met with in paralytic mydriasis without other complications. Mydriasis without other symptoms of impairment of the third nerve is rare, but good examples do occasionally happen. I have now under observation in the London Hospital an instance of it. The man has neither strabismus, diplopia, ptosis, nor paralysis of accommodation, but simply wide dilatation of the pupil. Mr. Dixon has at present a young woman attending his clinic at Moorfields with a precisely similar state of things."

Donders, at page 592 writes: "Uncomplicated paralysis of accommodation has only one objective symptom; dilatation and immobility of the pupil. The dilatation is not considerable, for even with complete paralysis a wider pupil than the normal in the dark is not to be expected. Nevertheless in complete paralysis not a trace of either accommodation or of reflex movement is to be seen. But I may add that these cases are extremely rare. Further, the connection between paralysis of the pupil and of accommodation cannot be called absolute; once I found satisfactory accommodation still coexistent with absolute immobility of the pupil. In one instance, too, paralysis of accommodation disappeared [1] without a return of the mobility of the pupil, and on the other hand, with perfect or almost perfect loss of accommodation the motion of the pupil may be but little disturbed."

I have no notice of an example of uncomplicated paralytic mydriasis, but in a hurried search the following other instance has been found (Royal London Ophthalmic Hospital Reports, vol. iv., p. 117): "Mydriasis (dependent on general debility?)." The patient, a girl aged sixteen, of weak health and sight, could read with her left eye type No. I. at 4″, and the diameter of the pupil was 3‴ (=7 mm.). Under the action of calabar bean for thirty minutes the near-point approached the eye to 1½″, and the pupil contracted to 1½‴ (=3½ mm.).

In the left eye of my own patient there was a paralysis of the circular fibres of the iris, together with a paralysis of the ciliary muscle, but without further implication of the third nerve. As an example of intraocular paralysis of the third nerve the following case is interesting; the sixth nerve was alone involved in the fellow-eye.

Case II. *Paralysis of the sphincter pupillæ and the ciliary muscle of the left eye—Paralysis of the external rectus muscle of the right eye.*—The above conditions were present and without change for a period of six and one-half years. The patient had worked in "lead works" for three and one-half years previously, and when first attacked the muscles of the right side of the face and of the left side of the body were tremulous and weak, so much so that he could not hold anything with his left hand, from inability to clutch the object, the left lower extremity and left knee-joint were weak, and the temperature of the left side was lower than that of the right. His first symptoms were an obstinate constipation and much colic. Though paralytic, and internal strabismus was present in the right eye, he could read with it No. I. Snellen at 7½″ to 15″ without glasses. The diameter of the right pupil was 3½ mm.—the patient's age was forty-one years, and its small size may be thus accounted for—and it responded readily to direct light and also with the other retina.

With the mydriatic left eye he could read only No. XIII. Snellen at 22″ without glasses, yet with +12 he read readily No. I. Snellen at 12″. The diameter of the left pupil was 8 mm., which, after the instillation of eserine, had a diameter of 3½ mm. in forty-five minutes, and could read No. I. Snellen at 7½″, thus in both the latter conditions this eye had approached that of the normal right eye. The distant vision of the left eye was now reduced to $\frac{20}{cxx}$, and required a −12 lens to bring it up to $\frac{20}{xxx}$. The eye had a normal direction and normal movements. The distant vision of both eyes was alike, viz., $\frac{20}{xl}$, and could not be raised above $\frac{20}{xxx}$ with any glass, but with +7 4 it reached this amount. During the effort at near vision with the mydriatic left eye I observed that the near point of the right eye approached the same, becoming nearer than my previous test showed, and thus was suggested the possibility of voluntary spasm of the right ciliary muscle due to the impulse at near vision with the left eye.

I observed the above case during a period of two months, and though treatment, both local and constitutional, was carried out, no improvement occurred and the patient disappeared.

This patient had previously been under the care of Dr. Kipp, of Newark, N. J., and had been seen by Dr. Knapp, of New York, but he said he had not received any benefit whatever from treatment.

The etiology of these paralyses is undefined, more especially in the apparently uncomplicated cases. Neuralgia is mentioned in one of Hutchinson's cases. Syphilis, though a common cause, is excluded in all the cases referred to in these notes. In one of our own patients rheumatism was an important factor. In the other lead-poisoning was undoubtedly the cause. Donders, when discussing the causation of paralysis of accommodation (at page 596) writes: "Experience shows that in sudden changes of temperature, particularly on exposure to storms or draughts" paralysis occurs. "Such cases are called rheumatic, and are referred by some to an inflammatory affection of the nerve-sheath."

Wells (4th edition, p. 293) writes: "Idiopathic mydriasis is not infrequently due to rheumatic origin, the patient having been exposed to cold and wet, and it is in such cases probably caused by rheumatic inflammation of the nerve-sheaths." Heart disease is frequently an associated affection. In the production of paralysis of the intraocular muscles injuries to, and diseases of, the cerebro-spinal system play, most probably, the most important part.

Treatment, as shown in the foregoing cases, is usually of little avail.

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[1] In our Case I. of these notes the accommodation was more or less completely restored under treatment, though only temporarily so, yet the pupil remained perfectly motionless throughout.

The Prevention of Cholera.—Dr. William M. Smith, Secretary of the Medical Society of the State of New York, has received the following communication from James D. Porter, Assistant Secretary of the Department of State, Washington: "Sir, I have to acknowledge the receipt of your letter of the 18th of February last, transmitting a copy of a resolution adopted at a meeting of the Medical Society of New York, together with certain remarks of S. Oakley Vander Poel, M.D., relating to the adoption of measures to prevent the importation of cholera into the United States. In reply I have to say that prompt measures are being adopted to secure the examination by medical officers of all vessels, passengers, etc., bound for the United States from infected districts, and no effort will be spared to prevent the disease from reaching our shores."

On a Bean in the Trachea.—Referring to curious expressions which get into medical journals, we observe that an English contemporary speaks of "Dr. Ladangi on a Bean in the Trachea." The doctor's position must have been attended with considerable discomfort.

Progress of Medical Science.

Tuberculosis of the Œsophagus.—It has been asserted by some authorities that the œsophagus is never the seat of tubercular lesions, but this is manifestly erroneous, although the affection is certainly very rare. In a study of the subject made by Dr. Luigi Mazzotti, and published in the *Rivista Clinica* for January, 1885, a reprint of which we have received, several cases are reported, three of them being personal observations. The author states that tubercular lesions of the œsophagus are of two kinds. In some cases pulmonary cavities or caseous lymphatic glands open into the œsophagus, forming one or more fistulous openings surrounded by an area of hyperæmia or of simple inflammation of the mucous membrane, or there may be a tuberculous ulceration due to local infection. In other cases there are tuberculous ulcers unassociated with perforation from without, but these never exist in the œsophagus alone, but are always associated with tuberculosis of other organs. They are usually few in number, never exceeding five or six, and are situated most frequently in the lower third of the tube. The ulcers are usually superficial and small, of a regular, somewhat oval shape, and with a smooth reddish base. The surrounding mucous membrane is somewhat hyperæmic, and contains disseminated gray or yellow granules of varying size. In the cases seen by the author, tubercle bacilli were found in considerable numbers. The ulcers, as a rule, give rise to no symptoms, though sometimes there are pains in the sternal region and in the back, and difficulty in deglutition, which latter may even be so marked as to cause death from inanition. In such cases there is a stricture of the canal in addition to the ulcerative process. Whenever, in a tuberculous subject, there is dysphagia and the sound detects a narrowing in the lower portion of the tube, a diagnosis of tubercular ulceration may be safely made. Treatment of this affection narrows itself to an attempt to prevent further contraction of the stricture in case the symptoms of dysphagia become urgent.

Nervous Colic.—Dr. Shershevski reports a number of cases of colic which seemed to be due to a neurasthenia localized in the nervous sphere of the intestinal canal. They were all in intelligent individuals whose work was chiefly with the head. These persons suffer habitually from constipation, with abdominal distention and burning eructations, but without loss of appetite. From time to time, under the influence of prolonged intellectual work or of mental emotions, an aggravation of this condition occurs, with the following symptoms: Excessive meteorism with or without a discharge of gas from the bowel, superficial panting respiration, cyanosis, pains in the neighborhood of the liver or in the umbilical region, or shifting, or feeling of weight in the lower part of the abdomen and severe tenesmus. The attacks subside after some days with the occurrence of copious evacuations. Shortly before their onset the fæces become flattened, as if there were an intestinal stricture. The author attributes these symptoms to a lesion of the nervous system producing an intestinal spasm located in the circular fibres of the muscular coat. This theory of the etiology would seem to Dr. Shershevski to be demonstrated by the action of the remedies employed. For, while purgatives increase the pain and constipation, opium and belladonna reduce the meteorism and cure the attacks.—*Lyon Médical*, March 1, 1885.

Vagus Pneumonia.—The Vienna correspondent of the London *Lancet* (March 7, 1885) writes as follows concerning vagus pneumonia: "The changes in the lungs caused by cutting through the vagus nerves have formed, since the time of Valsalva, the subject of very deep research. All animals whose vagi have been divided in the throat perish sooner or later. Most of them die of broncho-pneumonia. Traube is of opinion that this vagus pneumonia is caused by the penetration of mucus and of food matters into the trachea. Schiff, however, gave the following explanation: The vagus is the nerve which supplies the muscles of the vessels of the lung; if it is severed, paralysis of the muscles with hyperæmia and inflammation occur. In order to decide the controversy, only the branches of the vagus which proceed to the lungs should be cut through, whereas the recurrent laryngeal nerves must remain intact. Dr. Gärtner and Dr. Amrüs have, in Professor Stricker's laboratory, cut through the vagus below the recurrents after two methods. According to the first, they divide the recurrent laryngeal in the neck, and connect it with the vagus at the throat, where it heals up, after which they cut through the vagus below this spot. A dog which was thus operated on on both sides died after sixteen days, and showed no broncho-pneumonia at the autopsy. The second method is more exact. The pleural cavity is opened, and then resection of the vagus is performed under antiseptic precautions. The branches proceeding to the heart and to the larynx remain intact, and only those branches are divided which supply the lung and stomach. A dog in which, on the thirtieth day after the operation, a gastric fistula was produced, perished on the forty-sixth day, obviously owing to the latter operation. At the autopsy no pneumonia could be detected; the lungs were pale, without the slightest infiltration. Consequently the question of vagus pneumonia is definitely settled according to the views of Traube."

Excision of the Cæcum for Epithelioma.—Mr. W. Whitehead reports a case in which he excised the whole of the cæcum for epithelioma. The patient was a man aged thirty-eight, who had suffered, for eighteen weeks before admission into the Manchester Infirmary, from diarrhœa and pain in the right lumbar region. On examination there was found a mass in the right lumbar region, about four and a half inches long by three inches broad. The tumor was freely movable, and the clinical diagnosis made was, a tumor of the colon in the vicinity of the cæcum, probably epithelioma. It was decided to remove the whole disease by an incision along the outer border of the rectus muscle, in preference to that for lumbar colotomy, by this means affording more room for exploratory purposes. The operation was performed most successfully. The whole mass was taken away, entailing the removal of the last two inches of the ileum, the cæcum with the vermiform appendage, and the greater part of the ascending colon. The cut end of the small intestine was stitched to the lower edge of the wound, and the colon was stitched to the upper edge. The remaining portion of the wound was next brought together by strong silver wire passed through the skin, muscle, and peritoneum, the surface of the wound being dressed with iodoform. The patient did very well for about ten days after the operation, but peritonitis then set in, and death took place on the thirteenth day. The author remarks that the patient did not die from the immediate effects of the operation, and the *post-mortem* examination showed that the whole disease was removed. The operation is serious, and should only be undertaken in cases where there is hope of giving permanent relief; but in cases where there is only a chance of relieving symptoms temporarily, the operation of colotomy should be performed.—*British Medical Journal.*

Treatment of Tetanus.—The following is a summary of the treatment advocated by Professor Verneuil for this disease (*Revue Médicale*, February 28, 1885): 1, Complete immobilization of the patient, obtained by fastening him firmly in a large gutter splint for the body and limbs; 2, the maintenance of an elevated and constant temperature, with light diaphoresis, by enveloping the patient in a thick covering of cotton-wool; 3, uninterrupted sleep, obtained by a chloral intoxication, maintained constantly for upward of three weeks.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, April 25, 1885.

ETHICS OF PLACEBOS.

THE physician has a duty, not only to his patient, but to society. He has no right, for example, to prescribe for his patient unlawful things, that he may get well. An invalid saint is better than a healthy villain as a factor in society. This principle, when laid down in a general way, will be freely enough accepted. It would be well if it were brought to bear a little more closely upon everyday work; for the physician is very apt to think that his duty begins and ends with simply treating the illness of his patient.

The doctor also owes something to himself in the matter of morals. He ought to treat his patient in the most skilful way possible; yet he need not to make of himself a liar, or a thief, as a therapeutic "pick-up" for his patient. Something in this direction, to be sure, does have to be indulged in at times. A doctor is in duty bound, upon certain occasions, to tell a lie and deceive his patient, and he is more than justified in so doing. For it is better and more humane to preserve life and happiness than to refrain from telling an inconsequential untruth.

We feel strongly opposed, however, to erecting such a permissive measure into a canonical practice. And this we regret to observe is done by Dr. Cathell in his somewhat worldly-minded book "The Physician Himself." "A placebo or tentative remedy," says this author, "should, as a rule, be small and easy to take. A very good form is prepared thus: Purchase a pound box of No. 35 unmedicated homœopathic globules, which cost but 35 cents, and immerse one-half of them in fluid extract of belladonna, and the other half in compound tincture of iodine for twenty minutes," etc. . . .

"You will not only find that your placebos amuse and satisfy people, but you will often be surprised to hear that some full-of-faith placebo-takers are chanting your praise, and are actually willing to swear that they are cured of one or another awful thing by them; cheated into a feeling of health by globules, or teaspoonful doses of flavored water, or licorice powder, as if by a charm."

"But," continues our casuistical adviser, "never send a patient to the drug store with a prescription for bread pills. It is not right to make any one pay for bogus medicines; besides, if, from among all the articles in the Pharmacopœia you cannot devise some trifling placebo that is more plausible than bread pills, you must have an unusual paucity of resources. Moreover, were a patient to discover that he had been paying for such a thoroughly insipid cheat, he would naturally feel victimized and indignant."

It is hard enough for a physician to withstand the constant temptations to indulge in humbug, which fools set forth to him. So hard is it indeed that an honest physician is probably one of the honestest men in the world. We strongly deprecate, therefore, the adoption of the placebo into everyday practice. It must encourage the physician to indulge in what Dr. Cathell characterizes later as an "insipid cheat;" it must relax a little the moral fibre and inculcate a distrust in the resources of medical art. Prescribing placebos is rarely necessary, if the physician is intelligent enough to get to the bottom of his patient's trouble, mental, or physical, and placebos are the handmaids generally of indecision and therapeutic and diagnostic ignorance. The attempt to draw a line between the morality of writing for a bread pill and that of giving a bottle of sugar-globules direct, brings out one of the finest points in casuistry which has ever been discussed. In the one case the act is an "insipid cheat;" in the other—well the adjective is to be omitted.

We have read Dr. Cathell's work with admiration for the knowledge of human nature which he shows, and in general the tact and good sense displayed in his suggestions. But he gives us a somewhat disheartening picture of the frailties of patients and leaves one with a dismal impression that alertness in recognizing these frailties is rather more important than sturdy honesty, earnest purpose, and hard work. We advocate the three latter principles. They will bring success also, and a more satisfactory if less early one.

THE SIGNS OF DEATH.

THE *Cleveland Leader* gives its editorial endorsement of the story of a boy living in Freeport, O., who to all appearances died, and was in due time prepared for burial. "On the day of the funeral, just before the encoffined boy was to be lowered into his grave, the casket was opened at the urgent request of the mother. A slight moisture attracted the attention of the bystanders, and the body was promptly removed to a house near at hand. An effort was made to produce resuscitation, and after several hours' labor the lad was restored to consciousness, and is now in a fair way to recover." We are somewhat skeptical of the truth of this story and must positively deny the *Leader's* statement that "similar cases are constantly occurring all over the country." With the rarest possible exceptions, death but too strongly and swiftly puts a mark upon his victim.

The *Leader* calls upon medical science to pay more attention to this subject. The fact is that the subject has been studied until the signs of death are multiplied to a degree beyond the capacity of an ordinary memory to retain. They may be classified, however, under nine heads.

First.—The entire and continuous cessation of the heart's action. This is the best and most certain of single tests. Even in cases where vitality is reduced to the very lowest limits, the sounds of the heart can almost always still be detected. In order to detect any action of the heart, there have been several minor tests suggested.

Such are the tying a ligature round the finger, the application of wet cups, the oxidization of brightly polished steel needles thrust into the muscles; the cutting down upon the temporal artery which after death is pale, yellow, and empty, the subcutaneous injection of a little ammonia, which, *ante-mortem*, sets up a port-wine congestion.

Second.—The entire and continuous cessation of breathing. This is tested by holding a cold mirror before the mouth, by suspending a feather near the mouth or nose, and by placing a glass of water or mercury on the chest, and watching for any movement on the surface of the liquid. None of these tests are very absolute, though ordinarily they are sufficient. It is to be remembered also that while the heart may cease to beat for a quarter of an hour or more, and then resume action, respiration may be suspended for a period three or four times as long.

Third.—Insensibility and loss of power to move. This is, of course, a test of minor value, as a condition of insensibility and immobility exists in asphyxia, syncope, apoplexy, trance, and cateleptic states.

Fourth.—Tidy classifies together certain minor signs of death. These are: the application of heat so as to raise a blister. If the fluid in the vesicle is rich in albumen, if the cutis vere underneath is reddened and surrounded by a deeply injected red line, the part is alive.

If a caustic be applied to the skin of a dead person there is no eschar, or else it is yellow and transparent instead of being black or reddish brown. The facies Hippocratica is present in many cases just before and after death, but not in all, and it is absent after sudden death. Carrière's test is a familiar one: If the hand after death be examined by transmitted light, it appears marble-like and opaque, while before death it is transparent and rosy.

Fifth.—Changes in and about the eye. The iris dilates, the light-reflex is lost, and the muscle is flaccid. The cornea loses its sensibility and transparency. The conjunctivæ show gray cloudy discolorations, due to films of mucus; the eyeball loses its tonicity and elasticity; the fundus is of a yellowish white color, and there is a beaded condition of the veins due to the presence of bubbles of the air (pneumatosis of the veins).

Sixth.—Changes in the temperature of the body. After, in some cases, a preliminary rise, the temperature of the body gradually falls on an average at about the rate of 1° F. an hour.

Seventh.—Changes in the muscles of the body. These changes are divided into three stages: that of flaccidity, which commonly lasts about three hours; that of muscular rigidity, or *rigor mortis*, a condition first suggested by Louis as a test of death, and one which lasts in winter from twenty-four to thirty-six hours, and in summer from thirty-six to forty-eight hours. The third stage is that of putrefactive change. The formation of adipocere and the desiccation and mummification of bodies are late signs of death which are of secondary interest and importance.

It is certain from the above that science has supplied a sufficient number of signs of death, and he is a very ignorant and culpable man who does not know enough about them to guard against the possibility of burial alive.

As Tidy says, "Whatever *may* have happened, modern stories of premature burial in England belong to the domain of the novelist rather than the scientist. Further, the signs of death are, for the most part, as certain and as definite after a few hours' suspension of the vital functions as they are after many days."

THE CONDITION OF GENERAL GRANT.

THE physical condition of General Grant has markedly improved during the past week. There is no authority for the statement that his physicians at any time prognosticated speedy death, or did not give the most encouraging reports of the patient's progress. In fact, it has been charged that the physicians were suppressing all reference to graver symptoms.

The bulletins which have been issued at the request of the family of General Grant, and in answer to the incessant demands of the press, have been simply bare statements of the exact conditions at the time, without any theories or comments. The medical attendants are consequently in no sense responsible for the mass of sensational rumors that come from non-professional sources and fill the newspapers.

The medical staff has always maintained that the amount of the general constitutional depression was out of all proportion to the extent of the local disease; that the latter would not of itself be the cause of death unless by the accidental erosion of a large artery, or possible strangulation from the sudden separation of the slough. Both these contingencies were guarded against by every possible precaution which could be taken. In the meantime, as the result of the most careful topical and general treatment, the bodily strength of the patient was nurtured, his pain assuaged, his sleep secured, and in this way his life has been prolonged.

At one time only did death seem imminent from general exhaustion and threatened heart failure, and but for timely assistance would probably have occurred. On no other occasion has there been any cause for alarm. The General has never been in any danger from choking, and the only hemorrhage which occurred was of slight extent and ceased of itself.

General Grant is now stronger, and his physicians are neither dumbfounded nor surprised. It was what might have been expected, and all treatment has been directed to that end. The slough has nearly entirely separated from the throat, and so far a source of immediate danger has been removed, but the throat disease is still there, although for the present it is apparently quiescent. There is certainly nothing in all this to prove any error in diagnosis or prognosis. Nor has there been the slightest disagreement in regard to the management of the case.

The microscopic examination of the specimen removed from General Grant's throat has declared the disease to be epithelioma. The representation of the appearances has been widely published, has challenged every criticism from scientific sources, and not a microscopist in the land has as yet offered a protest to the conclusion. But epithelioma, barring accidents from complications, is not a very rapidly progressive disease. It may continue for months, slowly eating its way into surrounding tissues without of itself killing the patient.

It must not be supposed that General Grant's physicians

have neglected to take into account every possible source of error, and have not treated the case accordingly. Unfortunately the progress of the throat trouble under well-recognized methods of treatment has thus far not been such as would lead them to believe that the microscope was in error in confirming the original diagnosis.

THE PRESENTATION OF DR. BARKER'S PORTRAIT.

The presentation of the portrait of Dr. Fordyce Barker to the New York Academy of Medicine was a graceful recognition of the distinguished services of the honored ex-President of that body. The eloquent address of Dr. Markoe leaves nothing to be said concerning the motives which actuated the donors, or of the due appreciation of the gift by the recipients. The occasion was one long to be remembered in the medical history of New York. Few medical men in this country have won for themselves, by dint of hard, faithful, and conscientious work as high a position in their profession, as has the venerable ex-president; but none, despite much petty opposition, has vindicated his course more consistently or triumphantly. He has been the recipient of many honors both here and abroad, but we venture to say that none bear with them a greater significance in his own home, and among those with whom, for a long and eventful life, he has worked, than this latest tribute. In one sense it is the refinement of the gold after having passed through the fire.

It is well known and widely appreciated, that to the personal efforts of Dr. Barker the Academy of Medicine owes much of its present prosperity. For many years its president, he has labored long and faithfully in its best interests, and his efforts have been crowned with a success as remarkable as it has been gratifying. During all the recent regretful troubles in that body, and often with a sacrifice of personal conviction, he has, in his capacity as presiding officer, generously and impartially calmed heated discussion and carried the Academy dignifiedly through many a stormy debate. Retiring from its highest office with the love of his friends and the respect of those of different opinions, his crowning honor has been a lasting place in the memories of those of his dearly cherished medical household.

RELIGIOUS CONSISTENCY.

Some months ago we took occasion to commend some very sensible words from the editorial pen of the Rev. Dr. Buckley in the *Christian Advocate*. In the article referred to he condemned the American practice of self-medication with patent remedies. He declared the physician to be the one and the only one to be consulted when our physical frames were disordered. Therefore he excluded all advertisements of patent medicines from the columns of his paper. We commended his position, especially because it was a somewhat unique one for the editor of a religious journal to take. We took him into full fellowship, so to speak. Recent events seem to indicate that in so doing we acted prematurely. We should have required him to show the permanency of his faith by the continuance of his works.

In a recent issue of the *Advocate*, in a corner of one of the last pages, are extolled the virtues of a "cough balsam" which "heals irritated throats, relieves the cough, and helps the throat and lungs to resist the influence of climate so severe at this time of year. It is used by the most prominent people. Take no other, you would not be satisfied," etc., etc. On smaller banners in this therapeutic heraldry are emblazoned the virtues of some "sick headache pills," and an "elixir for all aches and pains." *Mirabile dictu.* In the twinkling of an eye is the problem of the ages thus easily solved. The deadly upas poison distilling from the above trio of remedies is, to a certain extent, neutralized by neighboring advertisements. Above, the sweet notes of a church organ remind us of fairer scenes. At one side the siren voice of the elixir is hushed by the awe-inspiring words of Joseph Cook's lectures. It was judicious to place the advertisement where it would do the least harm.

In all seriousness, we are sorry to note this seeming fall from grace on the part of our Methodist brother. We say seeming fall, because there may be extenuating circumstances in the case of the elixir, the pills, and the balsam which do not obtain with other nostrums. We fear that the standard of the *Advocate* has been somewhat relaxed during these hard times, and that the fingers of Mammon are endeavoring to grip themselves upon its advertising columns.

That sick people need a physician—one trained in his art, and not patent remedies is the spirit—of that religious system the *Advocate* defends. Miracles in the olden time bore the impress of Divinity. The healing art of to-day is seen in its highest consummation in the labors of men, fitted by study, rounded and matured by experience, and imbued with that spirit of humanity which knows no distinction between the lowly and the exalted, so far as their claims to assistance are concerned. We regret that into the wheat our good brother has been sowing, tares have crept, and very inferior tares at that. May we not hope that he will be led to see the error of his ways and bring forth fruits meet for repentance?

COMPENSATION FOR CASUAL ATTENDANCE ON RAILROAD INJURIES.

An interesting case on the compensation of physicians for services rendered to an employee of a railroad company, accidentally injured, was recently tried in an Indiana court.

A brakeman on the Terre Haute & Logansport R.R. had his leg crushed by an accident occurring at night, and the conductor of the train asked a surgeon living at Frankfort, the place of the accident, to attend the case. There was no superior officer of the company at Frankfort, but only a resident agent. This agent knew of the employment of the surgeon by the conductor, and although in telegraphic communication with the main office of the company, did not send the officers information.

Upon these facts the railroad company refused to pay the surgeon's bill, on the ground that he had not been employed by the proper officers, and that the action of the conductor was unauthorized. This defence was considered at length by the court and overruled. The verdict for $100 secured by the surgeon was affirmed.

In the course of the opinion the court said: "Suppose the axle of a car to break because of a defect, and a brakeman's leg to be mangled by the derailment consequent upon the breaking of the axle, and that he is in imminent danger of bleeding to death unless surgical aid is summoned at once; and suppose the accident to occur at a point where there is no station, and when no officer superior to the conductor is present, would not the conductor have authority to call a surgeon? Is there not a duty to the mangled man that some one must discharge? And if there be such a duty, who owes it, the employer or a stranger? Humanity and justice unite in affirming that some one owes him this duty, since to assert the contrary is to affirm that upon no one rests the duty of calling aid that may save life."

News of the Week.

Presbyterian Hospital, N. Y.—Dr. F. A. Burrall has resigned his place of attending physician to the Presbyterian Hospital.

Vaccinating for Anthrax in India.—Acting on the suggestion of Mr. J. Mills, the inspector of cattle disease for Madras, the Government of India some time ago decided to test the efficacy of M. Pasteur's "vaccine" for the protection of animals against anthrax, and a set of official papers stating the results has just been published. Ponies, donkeys, cows, bullocks, buffaloes, sheep, and guinea-pigs have all been protected by vaccination from the consequences of inoculation with virus which proved fatal to unvaccinated animals.

Medical Jubilees in Vienna and Prague.—Professor Hyrtl's jubilee has just been celebrated at Vienna, and several graceful addresses were received, including one from the "Verein Deutscher Aerzte zu Prag." Besides the celebrated work on Anatomy, Hyrtl has occupied himself of late years with philological work. In 1879, he published (at Vienna) "Das Arabische und Hebräische in der Medicin," and, in 1880, the "Onomatologia Anatomica." Professor Hyrtl has, says the *British Medical Journal*, taught anatomy to two generations of medical men, and certainly deserves to enjoy his *otium cum dignitate* so well earned. Professor von Jaksch, of Prague, also lately attained his jubilee year as a doctor of medicine, and the occasion was seized for showing the great respect which is felt toward this teacher of clinical medicine, especially as regards methods of physical investigation. Von Jaksch is esteemed for his works on syphilis of the central nervous system, ulcer of the stomach, and the spontaneous cure of heart disease, besides his later labors on acetonæmia, and, finally, the symptomatology of hysterical nervous diseases.

An International Sanitary Conference at Rome.—Proposals have long been on foot for holding another International Sanitary Conference, to discuss the question of quarantine, and, if possible, to draw up international regulations; for various reasons, however, the proposal has never taken practical shape until recently. The Conference which will probably soon assemble had its origin in a proposal made by the Italian to the English Government in August, 1883, to hold an International Conference at Rome; the primary object was to concert a line of action with regard to the regulation of quarantine against cholera. After many delays and much discussion of the grounds upon which Great Britain would be willing to take part, it has been finally arranged, says the *British Medical Journal*, that the Conference shall meet at Rome this or next month, unless any fresh European complications arise in the interval.

Another Convert to Koch.—Dr. Antonio Ceci, of Genoa, as the result of his experiments with pure cultures of the cholera bacillus, comes to the conclusion that it is the specific cause of cholera. He has produced choleraic symptoms by injections of pure cultures of the bacillus into the intestines of rabbits and guinea-pigs.

Increase of Cancer in Baltimore.—Dr. A. R. Carter, Secretary of the Health Department, has compiled a table of the deaths from cancer in Baltimore, for each year, from 1830 to 1885. The list shows a steady increase in the number of deaths from this dread disease. Commencing with seven fatal cases in 1830, the record shows a gradual increase of the figures until, in 1884, the number of deaths reached 182. In 1830 the city contained about 80,000 inhabitants. Therefore, while the population has only grown five times as large, the number of deaths from cancer has increased twenty-six times. Below will be found a statement of the number of deaths from cancer computed by decades: From 1830 to 1840 the cases numbered 81; from 1840 to 1850, 135; from 1850 to 1860, 193; from 1860 to 1870, 389; from 1870 to 1880, 1,051; from 1880 to 1884, inclusive (five years), 848. A striking feature in Dr. Carter's compilation is the remarkable increase during the past ten years, as compared with the forty-five years preceding. From 1830 to 1874, inclusive, the aggregate number of deaths was only 1,116, while for the ten years from 1875 to 1884, inclusive, the mortality foots up 1,581.

Treating the Insane in Tents.—In accordance with recommendations of the Trustees of the Binghamton State Asylum for the Chronic Insane, the State Board of Charities and the State Commissioners of Lunacy have decided to provide tent accommodations for the temporary shelter of two hundred patients for the coming season. The measure was adopted in view of the crowded condition of the asylum, and for the purpose of securing better curative agents in the treatment and care of certain classes of patients. Tents will be erected on the asylum grounds, according to the plan of a well-appointed hospital camp.

Sanitary Precautions.—At a meeting of the State Board of Charities, April 16th, the following resolution was adopted:

Resolved, That the managers and officers of charitable and reformatory institutions throughout the State be, and they are hereby earnestly requested to make a critical examination of the institutions under their charge, for the purpose of determining whether they are in all respects—but especially as to sewerage, plumbing, water supply, and the proper disposal of filth—in the highest possible sanitary condition, to the end that these establishments may, in the emergency contemplated, prove healthful restorative agencies instead of centres for the propagation of disease, as is otherwise possible.

Reports of Societies.

AMERICAN SURGICAL ASSOCIATION.

THE annual session was held in the Library of the Army Medical Museum at Washington, April 21, 22, 23 and 24, 1885.

FIRST DAY—TUESDAY, APRIL 21ST—MORNING SESSION.

The Association was called to order by the President, WILLIAM T. BRIGGS, M.D., of Nashville.

PRESIDENT'S ADDRESS.

After speaking of his appreciation of the honor conferred by his election to the Presidency of the Association, he proceeded to give an extended eulogy of the late Professor S. D. Gross, referring particularly to the fact that the Association owed its existence and, to a great extent, its present vigor to his activity, and this he considered should be an incentive to his successors to increase its efficiency. However, a few suggestions might with propriety be made, the adoption of which would tend to the good of the society. The first that he referred to was the limited number of members. Every reputable surgeon should be included in the ranks of the American Surgical Association, thus each year adding to its strength and vigor. While the election of new members should not be conducted indiscriminately, yet the Society should not have the reputation of a close corporation, for the co-operation of all was required to make it a success. If, in order to carry out this idea, an alteration of the Constitution be necessary, it should be made.

He also suggested that the annual session be held in August or September instead of April or March, as is at present done. This would come at a time when the Fellows would be better able to attend the meetings.

It was also suggested that a certain number of foreign surgeons should be enrolled in the list of honorary members.

The meeting then went into executive session.

On motion the suggestions of the President were referred to the Council.

Volunteer papers being called for,

DR. DAVID PRINCE, of Jacksonville, Ill., presented a paper describing

A DEVICE FOR THE PURIFICATION OF THE AIR OF ROOMS USED FOR OPERATIONS.

The following is a description of such a device :

1. *Basement.*—On the right hand is an entrance ventilator, twenty inches in diameter, in which a steam jet is made to play in order to infiltrate the entering air with very fine globules of water.

2. The air thus moistened passes under a curtain or diaphragm reaching within fifteen inches of the floor. Under this curtain lies an iron pipe with numerous small holes drilled in the upper side, furnishing an interrupted spray under the curtain, and making it necessary for all the moving air to pass through this artificial shower near to the floor and into the next room, warmed by a stove.

3. The air, thus warmed, passes through a filter, composed of shelves of thin muslin, through which water is dripping. The warmed air first passes over the top of a vertical screen to avoid the entrance of cold air, then under another vertical screen, and then back and forth between horizontal screens fifteen inches apart, dripping with water, and finally through the spray which supplies this water.

Thus there are three filtrations of the air, one by steam and two by water.

4. The air, thus filtered three times, emerges through an opening in the floor and goes to the top of the operating room above.

5. *Operating Room.*—The exit ventilation is on the opposite, or right hand side of the room. This is effected by a movable shaft or box, made by tacking muslin upon a frame, so that it can be set up against a window, with the upper sash pulled down to the necessary degree. The shaft can be shifted from one window to another to be free from the pressure of the wind, or on the opposite side, or from the wind. The arrangement thus far is to get an atmosphere more pure than that outside, and through the frequent change of air in the operating room, to get rid, to the greatest possible degree, of the contamination of the air (during the progress of an operation) by the emanations from surgeons, assistants, spectators, and the patient himself. This change is secured by the entrance of filtered air from the basement and the exit, from the floor of the operating room, of the air which has been the longest in the room, having descended gradually from the ceiling where the air is hottest, after having entered from the warming chamber below.

6. The floor of the operating room is made of yellow pine, and filled with paraffin to as great a depth as heated smoothing-irons can drive it. By this means all cracks are filled so as to be non-absorbing. Under this lies a layer of tarred paper upon a common floor upon the joists. Between the joists lies a layer of tarred paper upon the ceiling, the under side of which ceiling is painted, and lined with muslin while the paint is fresh. The muslin is again painted on the under side. The floor thus has seven layers, including the joists.

7. The operating room is free from closets where anything unclean can be hidden, and all wood work is either paraffined or painted.

8. There is no opening into any other room ; about six feet of space intervening between the door of entrance and the nearest wall of the main building.

9. Before the use of the room for an operation involving the opening of a joint or the peritoneal cavity, it is intended that the rooms above and below shall be fumigated by sulphur burning in the basement. An iron pan for this purpose rests over a Bunsen burner for the combustion of sulphur. This is to be done for the destruction of any floating material of an organic character which may have gained entrance while the room may have been out of use.

It is found by trial that when the different sprays of water are going, one can remain very comfortably in the room above while sulphur is burning in the room below ; the fumes, being first absorbed by the steam and having then to pass through the two different showers of water, become thoroughly precipitated.

10. This building is the execution of a theory of combining the best known expedients for securing the best possible atmosphere for surgical operations, by excluding noxious agents and by destroying or expelling those which may have stolen in, or which may be introduced by the patients, or by the surgeon and his assistants and guests. It is supposed that enough air will enter and escape to change the whole volume of the air once in fifteen minutes. The exit draught coming from the floor will carry away most of the floating material.

11. The employment of a spray or douche of carbolic acid of the strength of 4 to 100, or of mercuric bichloride of 1 to 10,000, or other antiseptics, locally applied, though less necessary than in an ordinary room, may yet be resorted to in order not to omit any useful precaution.

12. The employment of solutions of carbolic acid, mercuric bichloride or permanganate of potash with the nail-brush for cleaning the hands should be supplemental to the fixed provisions against septic and pathogenic particulate infection.

13. The bathing of the instruments in carbolized water, while this proceeding is incapable of disinfecting or destroying any germs which may adhere to them, may yet be useful in an antiseptic sense, *i.e.*, by destroying microbes in a developed state or freeing them from the supposed secretion by which they may be surrounded, and which may serve as their weapon of attack by which they digest or destroy the surfaces with which they come directly in contact.

14. A useful precaution on the part of the operator may be a bath and a change of clothing, the hair and head being dampened so that dust will not escape from them; and yet another precaution may be the wearing of gowns which will oblige all dust escaping from the clothing of the operator and his assistants to fall to the floor, whence it may escape with the draught which carries out the lowest stratum of the air.

Adjourned.

Afternoon Session.

Dr. John B. Roberts, of Philadelphia, read an address on

the field and limitation of the operative surgery of the human brain,

in which the following views were advanced:

1. The complexus of symptoms called "compression of the brain," is not due so much to displacing pressure exerted on the brain substance as it is to some form or degree of intracranial inflammation.

2. The conversion of a closed (simple) fracture of the cranium into an open (compound) fracture by incision of the scalp is, with the improved methods of treating wounds, attended with very little increased risk to life.

3. The removal of portions of the cranium by the trephine or other cutting instruments is, if properly done, attended with but little more risk to life than amputation of a finger through the metacarpal bone.

4. In the majority of cranial fractures the inner table is more extensively shattered and splintered than the outer table.

5. Perforation of the cranium is to be adopted as an exploratory measure almost as often as it is demanded for therapeutic reasons.

6. Drainage is more essential in wounds of the brain than in wounds of other structure.

7. Many regions of the cerebral hemispheres of man may be incised and excised with comparative impunity.

8. Accidental or operative injuries to the cerebral membranes, meningeal arteries, or venous sinuses should be treated as are similar lesions of similar structures in other localities.

9. The results of the study of cerebral localization are more necessary to the conscientious surgeon than to the neurologist.

An elaborate table of the proper points for trephining in various cerebral lesions was then given.

These principles of the operative surgery of the brain were then applied to the treatment of

A. *Cranial fractures.*—Closed (simple) fissured fractures: 1, No evident depression, no brain symptoms—no operation; 2, no evident depression, with brain symptoms—incise scalp and trephine; 3, with evident depression, no brain symptoms—incise scalp and possibly trephine;[1] 4, with evident depression, with brain symptoms—incise scalp and trephine. Closed (simple) comminuted fractures: 5, No evident depression, no brain symptoms—incise scalp and probably trephine;[2] 6, no evident depression, with brain symptoms—incise scalp and trephine; 7, with evident depression, no brain symptoms—incise scalp and trephine; 8, with evident depression, with brain symptoms—incise scalp and trephine. Open (compound) fissured fractures: 9, No evident depression, no brain symptoms—no operation, but treat wound; 10, no evident depression, with brain symptoms—trephine; 11, with evident depression, no brain symptoms—possibly trephine;[1] 12, with evident depression, with brain symptoms—trephine. Open (compound) comminuted fractures: 13, no evident depression, no brain symptoms—probably trephine;[2] 14, no evident depression, with brain symptoms—trephine; 15, with evident depression, no brain symptoms—trephine; 16, with evident depression, with brain symptoms—trephine. Punctured and gunshot wounds: 17, in all cases and under all circumstances trephine.

B. *Intracranial hemorrhage.*—Trephine for the removal of clot and arrest of bleeding when the probable seat of hemorrhage is ascertainable, and the clot is believed to be a localized one.

C. *Intracranial Suppuration.*—Trephine and make if necessary exploratory punctures in all cases of abscess.

D. *Epilepsy following cranial injury.*—Remove portion of cranium in selected cases.

E. *Insanity following cranial injury.*—Remove portion of cranium in selected cases.

F. *Cerebral tumor.*—If can localize it, and if it is probably superficial, remove bone; and excise growth if it is found.

Dr. Hunter McGuire thought that the adoption of the rules laid down by Dr. Roberts would carry us back at least one hundred years. Such doctrine he considered most injurious, especially in its influence on the younger members of the profession. No positive rules can be laid down for the treatment of fractures of the skull, every case must be treated on its own merits.

He took exception to the first proposition advanced by Dr. Roberts, claiming that in those cases where the symptoms followed immediately the reception of an injury to the skull they were due to compression from bone. He did not consider the operation of trephining such a simple one. Drainage is an important element in the successful result and he had removed a portion of the scalp in order to the more surely obtain thorough drainage.

He presented the button of bone removed from a case of epilepsy in which, while there was no depression of the external plate, there was marked depression of the internal plate. During the operation a large portion of the cerebro-spinal fluid escaped, but the patient recovered. He also referred to the case of an insane patient who for nine years had not spoken a word. In this case there was a depressed fracture from a blow with a boat-hook. Within a few hours after the operation the man became rational and was able to talk, but had no recollection of the events which had transpired since the receipt of the injury.

Dr. Moses Gunn, of Chicago, stated that three years ago he had presented a paper on the same subject, at that time taking the ground that in fracture of the skull with depression, the bone should be elevated even if the fracture were a simple one. This he considered justifiable on account of the improved methods of treating open wounds. Dr. Gunn agreed with Dr. McGuire in his statement that there were some cases of compression of the brain which could not be explained by the existence of inflammation. The danger in fractures of the skull is not from the mechanical compression produced, but from the secondary irritation and inflammation which is excited.

Dr. Charles B. Nancrede, of Philadelphia, agreed with Dr. Roberts in many points, while in others he could not agree with him. It might have been stated with truth that secondary compression of the brain was due to intracranial inflammation. The conversion of a simple fracture of the skull into a compound one he considered did increase the risks of the patient. Besides this, in the operation of trephining the brain is exposed to certain accidents and complications of a serious nature. Drainage is of much importance.

Speaking of injuries of the sinuses, he said that where he suspected such an injury he always treated the case as though that were really present, and detailed a case of hemorrhage from the superior longitudinal sinus in which the bleeding was controlled by a compress treated with iodoform. The patient recovered.

In reference to the location of the lesion from the symptoms, he thought that the motor centres were pretty

[1] In classes 3 and 11 he would be inclined to trephine if the depression were marked, or the fissures sufficiently multiple to approach the character of a comminuted fracture.

[2] In classes 5 and 13 he would trephine, unless the comminution were found to be inconsiderable.

well established, but that much care must be exercised where the irritation affects the sensory nerves, and cited one case in which a mistake might readily have been made. He divides fractures of the skull into three classes, one which will die no matter what is done, another class in which the patient will recover if the secondary results are prevented, and a third class between these two which requires careful treatment.

He thought that the puffy tumor did not indicate absolutely the presence of pus, but it did indicate osteomyelitis which was frequently associated with inflammation. In those cases where that had been a pure cerebral abscess the temperature was either normal or sub-normal.

In regard to foreign bodies, patients sometimes recover with such bodies within the cranium, but this is less likely to occur and less apt to be permanent than where the foreign body has been removed.

Dr. Washington F. Peck, of Iowa, agreed with many of the opinions expressed by the author of the paper. He thought that the direct pressure of bone was capable of inducing cerebral symptoms. These symptoms more frequently are due to the products of inflammation. He referred to a patient seen by him in which a man had been struck in the temporo-parietal region and immediately exhibited the symptoms of compression. He remained in this condition for twenty-four hours. Trephining was done and the patient gradually regained consciousness. A few days later he had a convulsion, and an incision into the brain evacuated about an ounce of pus. The patient recovered.

In a second case, that of a boy shot a little to the left of the middle of the frontal bone, there was immediate symptoms of compression. The trephine was employed, and a large clot of blood escaped. To encourage free drainage, a poultice was applied. The boy is now perfectly well, although the ball was not removed.

In a third case, a child received a depressed fracture from a blow with a piece of coal. There were no symptoms of compression and he performed no operation, and the child is doing well.

Dr. Theodore F. Prewit, of St. Louis, thought that the propositions laid down should not go out without a thorough discussion. He thought that the first proposition had already been sufficiently discussed. The sign of compression may, however, be due, not only to the presence of depressed bone, but to the formation of a clot. Although the second proposition might be true, still that would not render it advisable to tap in every case. The results of a fracture of the skull are not due so much to the fracture of the bone as to the injury of the brain-structure and meninges. The bone will repair itself without trouble, but the danger is in proportion to the amount of brain injury.

Although with antiseptic precautions we had greater control of inflammation, yet all authorities were not agreed as to the value of antisepsis, some refusing to use it at all. Compound fractures, wherever they may occur, are always more serious than simple fractures. The brain will bear a certain amount of compression from bone without apparent damage, and it is frequently noted that depressed fractures in children may disappear without treatment. Trouble follows in those cases where the brain and membranes are irritated.

In regard to class B, if he thought hemorrhage were going on it would be advisable to trephine, but if the symptoms were not urgent, it would be better to wait, for after a time the blood would be absorbed. In reference to proposition 5, he thought that it allowed a wide margin and that the doctor would not be willing to permit such a wide latitude in his own case.

Dr. Charles T. Parkes could not agree in the first proposition so far as to say that symptoms of compression were entirely due to inflammation. These symptoms often occur immediately and disappear as soon as the cause of depression is removed. Even if the second proposition were admitted to be true, he did not think it right to give the patient even a slight increase of risk without it was necessary. Although drainage is important, yet it is difficult to carry out. He referred to a case under his care in which there had been two or three fractures of the skull. There was a depressed one at the vault which was trephined. The membranes were not injured. A drainage-tube was introduced. There were no symptoms of compression during the next few days. On the fourth day there was the escape of a large amount of cerebro-spinal fluid, which soaked the dressings and pillow. He referred to the rarity of this accident and explained it on the supposition that there was a laceration into the ventricle. This has been found to be the case in an instance recently reported by Mr. Lucas, in "Guy's Hospital Reports."

In regard to injury of the vessels of the brain, in one case which I saw there was free bleeding from an opening in the longitudinal sinus, which, after trying other expedients, I checked by introducing three catgut sutures. The patient recovered.

In regard to the localization of the injury, I have a case bearing on that point. A man was struck with the barrel of a pistol in the upper and outer portion of the parietal bone. There was a large loss of brain-substance. I removed a piece of bone with the trephine, and during the operation still more tissue escaped. On introducing the finger, I found that it passed to the tentorium of the cerebellum, and there I found the sight of the pistol which had been broken off. According to the view expressed by Dr. Roberts, this man should have had almost entire loss of sensation. The Doctor also spoke of the importance of drainage, and cited an illustrative case.

Dr. J. Collins Warren, of Boston, thought that drainage in these cases was difficult on account of the intercranial pressure forcing the tissues up and blocking the opening in the bone. Here there is pressure of the brain on a sharp edge of bone, and this may cause irritation.

The speaker then referred to the difficulties of diagnosis. In one case a child with a depressed fracture of the upper anterior cranial vault presented no brain symptoms, although there was some fever for a week. Then the child became completely deaf. At the autopsy there was found slight depression and pus was found in the fourth ventricle.

In a second case the patient was unconscious and delirious for four weeks before he died. No evidence of brain-lesion could be found at the autopsy, but a considerable quantity of blood-clot was found in the abdominal cavity. He then referred to the fact that cellulitis and periostitis of the tissues at the back of the neck might be accompanied with brain symptoms, and related two cases in which they were seen. Concussion of the brain must also be considered in the diagnosis.

In referring to the subject of the localization of brain-lesions he described a case in which it was thought that there had been hemorrhage at the vault of the cranium, involving the centre of motion for the legs, and that this had gradually gravitated to lower portions of the surface, for there was first paralysis of the leg, then of the arm, and then of the face, and the paralysis recovered in this order.

Dr. L. M. Tiffany agreed with the majority of the previous speakers in reference to the non-advisability of converting a simple into a compound fracture, and in regard to exploratory trephining.

He considered it important to make a distinction between fractures occurring in childhood and the same fractures occurring in adult life. A distinction is also to be made between such injuries in the colored and in the white race. In the former shock is infinitely less and inflammation follows quite a different course from what it does in the white.

In those cases in which there was no depression and no symptoms he could not understand where the trephine should be applied. Frequently the injury is on the opposite side of the brain.

Dr. S. W. Gross, of Philadelphia, thought that there might be such a thing as fracture of the skull without evident depression and without brain symptoms. These were frequently met with in the army. These are cases of linear fracture. In such a case the dura mater may be separated from the bone and the effusion of blood may give rise to symptoms of compression, which, however, come on more gradually than when there is a laceration of the anterior branch of the middle meningeal artery.

He considered a compound fracture of the skull more serious than a simple fracture. It is more difficult to carry out strict antiseptic precautions in such cases. Drainage is more essential in wounds of the skull than in other injuries. The drainage should be as thorough as possible, and reference was made to a case of Dr. Noyes, in which a counter-opening was made at the vault of the skull, a tube passed through and the patient recovered.

In regard to the classes B, C, D, and E, there could be no question. In regard to cerebral tumors, more experience is required. The Doctor then referred to gun-shot injuries of the skull. In such cases the opening should be enlarged and the finger or a suitable probe introduced to determine the direction of the wound and to remove the foreign bodies that may be present.

He deemed it of great importance to apply to the brain the same rules as are applicable to other soft tissues of the body.

He referred to an extraordinary case described recently in the New York Medical Record, in which a case of gun-shot injury was seen by Fleura. It was found that the bullet had passed completely through the brain and impinged on the opposite side. A trephine was applied at this spot and the missile found half an inch below the surface.

Dr. Edward H. Moore, of Rochester, arose, not so much to discuss the paper directly, as to make some remarks to which he was incited by the words of Dr. Gross. He advocated more radical measures in the treatment of gun-shot injuries of the brain than is commonly done. When a ball traverses the brain, it is not usually found at the point where it strikes, but is reflected a little below this point. In his last case he had made a counter-opening and found the missile. He then attempted to carry a drainage-tube through but was not successful. He thought that it would have been better if he had persisted in his effort.

The further discussion was adjourned until 10 A.M. Wednesday. Adjourned.

Second Day—Wednesday, April 22d—Morning Session.

The Association was called to order by the President, after which

THE DISCUSSION OF DR. ROBERTS' PAPER

was resumed.

Dr. David Prince, of Jacksonville, Ill., thought that the use of antiseptics placed trephining among the safest of operations. Where such precautions cannot be taken the result is very different. He described a case of compound comminuted fracture in which he trephined and made the proper antiseptic applications, but the patient refused to allow them to remain and died of septic meningitis. The use of these precautions enables us to make exploratory operations without the fear of doing harm which was formerly experienced.

The paper had not insisted upon what he considered an essential in the treatment of these cases, and that was absolute rest. He thought that the parallel between compound fractures of the skull and compound fractures of the thigh was correct with one difference, and that was that in the skull, the circulation being more active, the cure is more rapid.

Dr. John H. Brinton, of Philadelphia, said that the first thing the surgeon did on being called to a patient suffering with the symptoms of compression was to examine for depressed bone, which produces the symptoms which we desire to relieve by elevation. He described a case of fracture in a boy seventeen years of age, in whom the fracture extended from the external to the internal angular process, the upper portion of the frontal bone overlapping the lower portion. The bone was at once sprung into position by the use of the elevator and almost immediately the patient recovered consciousness and talked rationally.

He believes in the early use of the trephine, but he did not believe that trephining was a trivial operation.

The treatment of most cases of fracture of the skull is clear. Where we have a compound fracture with or without symptoms, and with depression, the treatment is plain. The only cases in which there is doubt is where there is a simple depressed fracture without any, or with only slight symptoms. If we do not operate the man is exposed to many dangers. The treatment can be summed up in few words. The Doctor then read from Gross' "Surgery" several passages advocating operative measures in these cases.

Dr. T. McGraw, of Detroit, referred to a statement made yesterday that the brain would accommodate itself to pressure. This he did not believe and described a case in support of this opinion. A painter fell from a scaffold, producing a cup-like fracture. No operation was performed and he returned to his work with no apparent symptoms of cerebral irritation. Dizziness began to appear, and, a year after the injury, became so marked that he could not pursue his occupation. He then trephined the skull, removing the depressed portion. The internal surface of the button was perfectly smooth, and the dura mater beneath it was healthy. In that case the brain did not become accustomed to the pressure.

Dr. P. S. Conner, of Cincinnati, thought that by taking away the depressed fragments of bone the patient was given a better chance of avoiding the sequela of these injuries. In the case of children, as already pointed out, we could temporize.

He had been surprised at the confidence expressed in the treatment suggested for gun-shot wounds. It is hard to tell where a bullet goes to after it enters the brain, and, if some authorities are to be believed, the presence of a bullet in the brain does no harm. He did not consider it the part of wisdom to scoop out the injured brain substance, and carry drainage-tubes through. If there is a tract through which thorough drainage can be readily made, very well. In such cases as that described by Dr. McGraw, he thought that other conditions, such as blood-clot would usually be found.

Dr. B. A. Watson, of New Jersey, described a case showing that even in the adult, as well as in children, the brain would become accustomed to a certain amount of compression.

In response to the request of the Association, Dr. Briggs took the floor and gave his views on the subject. He said that this was one of the most vexed subjects in surgery. The excellency of the paper was shown by the amount of discussion which it had evoked. There are two classes of injuries which are very distinct. One is a diffused injury, where the trouble is not located in the cranial walls, and where trephining would be of no service. There is a second class in which the injury is localized to the skull. In these cases it is the bone that is doing the damage, and here the use of the trephine is important. In those cases where the immediate symptoms of compression are attributed to depression, I think that trephining is of no use, for the symptoms are due to some disturbance of the circulation, or of the nervous circulation of the brain, or to some other condition which will not be reached by the trephine.

Where there is hemorrhage the operation is indicated, but usually the patient dies. Where compression is due to formation of pus it is to be evacuated on the same principle that we open an abscess in other portions of the body.

In his opinion the principal and only use of the trephine is to remove points of irritation produced by spicules of bone. We resort to the trephine at the earliest possible moment for the prevention of those conditions which cannot be cured if allowed to progress beyond a certain stage. The operation should be limited to that and to that alone.

Dr. Roberts, in closing the discussion, stated that he would not attempt to reply to all the points which had been brought forward. Many of the Fellows had misunderstood the term compression. A depressed fracture of small extent cannot compress the brain, for the brain is so soft and has a communication with the spinal column, so that the pressure is diffused, and it is only by a depression of a large portion of the cranium that compression can be produced. He distinguished between compression and pressure.

In most of the cases cited the symptoms immediately following the injury are to be attributed to laceration, contusion, or the obscure condition called concussion of the brain. The doctor held that inflammation of the brain might develop very rapidly and illustrated it by a reference to injuries of the conjunctiva which in a short time will produce evidence of irritation. In regard to his comparison of the risks of trephining with the risks of amputation through a metacarpal bone he said that statistics had shown that the risks of trephining were three per cent., while the risks in amputation of the metacarpal bones was 4.5 per cent. In regard to the case referred to by Dr. Parkes, he said that it had no bearing on the localization of brain-lesions, for in that case the destruction of tissue was far below the points which he had indicated.

A careful reading of his propositions would show that he did not advocate trephining as had been represented, in all cases.

In two classes it is contra-indicated, in another set it should possibly be done, in another probably, and in another it should always be done.

He thought that in five years the same opposition would not be made to these views as had been made to-day.

The next paper was entitled

NEPHRECTOMY, ITS INDICATIONS AND CONTRA-INDICATIONS,

by Dr. S. W. Gross, of Philadelphia, who presented a number of statistics showing the result of the operation under different circumstances. From these facts the following conclusions were drawn:

1. That primary extirpation of the kidney is indicated, first, in sarcoma of adult subjects; secondly, in the early stage of tubercular disease; thirdly, in rupture of the kidney or of the ureter; and, fourthly, in benign tumors.

2. That nephrectomy should not be resorted to until after the failure of other measures; first, in urinary fistulæ of the kidney or of the ureter; secondly, in protrusion of the kidney through a wound in the loin; thirdly, in recent wounds of the kidney or of the ureter made in the performance of ovariotomy, hysterectomy, or other operations; fourthly, in suppurative lesions; fifthly, in hydronephrosis and cysts; and lastly, in floating kidney.

3. That the operation is absolutely contra-indicated, first, in calculus of an otherwise healthy kidney; secondly, in sarcoma of children; thirdly, in carcinoma at any age, unless the disease can be diagnosticated and removed at an early stage; and, fourthly, in the advanced stage of tubercular disease.

Then followed a paper on

NEPHROLITHOTOMY,

by Dr. L. McLane Tiffany, of Baltimore. The Doctor described the operation as performed in a young man twenty-six years of age. The stone was exceedingly large and it was found necessary to break it up with a spoon and remove by means of a syringe. The débris collected after the operation weighed five hundred and fifty-six grains and was composed chiefly of phosphate of lime. A drainage-tube was introduced and the wound dressed with oakum and iodoform. The patient recovered without trouble and left the hospital twenty-five days after the operation. The wound in the skin healed perfectly. One fact noted during the treatment was that water injected into the wound would escape into the bladder.

In reply to a question, Dr. Tiffany stated that he thought the incision through the cortex of the kidney better than an opening of the pelvis. He would advocate opening that portion of the kidney which was exposed in the operation, displacing the organ as little as possible.

Dr. J. Collins Warren, of Boston, read a paper on

THE HEALING OF ARTERIES AFTER LIGATION.

After an artery is ligated it is invested with a protective layer of new tissue, formed from the periadventitial tissue, which, if well developed, gives great security against hemorrhage until the permanent cicatrix has grown sufficiently strong. This may be likened to the provisional callus of bone. There is also an internal growth of callus formed from several sources, namely, the intima to a slight extent, the media, more largely, and also from cells finding their way from the periadventitia, at a late stage, through the retracted ends of the vessel. From the muscular layer cells project into the thrombus at an early stage. These develop into spindle-cells closely resembling those forming the muscular layer. The thrombus is merely a passive structure, taking no part in the growth, but is protective, and affords an excellent medium in which the new tissue may germinate. When the provisional part of the internal callus has disappeared, we find remaining a cicatrix closely resembling the three coats of the artery, and affording, by virtue of its peculiar structure, an equally effective resistance to the pressure of the blood-column. The ligament which unites the two ends of the vessel represents in part the residue of the external callus, but also a portion of the walls of the vessel which have been absorbed during the inflammatory process. A vessel successfully ligatured in its continuity cannot, therefore, be said to have been "ulcerated" into two separate portions, but must be conceived of as a hollow tube which has solidified into a solid columnar mass of tissue, a considerable portion of which subsequently shrinks into a cord. The closure of the ductus arteriosus was cited as illustrating a muscular cell-growth.

The formation of the muscular cicatrix was especially dwelt upon as affording protection from aneurismal dilatation.

The remarks were illustrated by specimens from the horse at two weeks, one, two, and four months, and also from the human subject.

Dr. P. S. Conner, of Cincinnati, read a paper on

THE ETIOLOGY OF TETANUS.

Cases classed under this general head may be divided into two classes, one in which the spasms first affect the injured part, the other in which the spasms are primarily located in the muscles supplied by the nerves which have their origin in the medulla oblongata. It has not been positively determined in what way the affection is brought about, whether by the nerves, the blood-current, by extension of inflammation, by reflected irritation, by septic changes, or by the presence and development of micro-organisms.

The speaker then took up each of these theories and reviewed the evidence in favor of and against them. Special attention was paid to the septic theory, the speaker considering that the balance of evidence was in favor of this being the origin of tetanus.

The Association then adjourned and the afternoon was devoted to a visit to the Johns Hopkins University, at Baltimore.

(To be continued.)

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 15, 1885.

A. Jacobi, M.D., President, in the Chair.

PRESENTATION OF THE PORTRAIT OF FORDYCE BARKER, M.D., LL.D. (EDIN.).

Dr. Thomas M. Markoe delivered the following address with the presentation of a three-quarter length and handsomely framed oil-painting by Lazarus :

"It is my pleasant duty, on this occasion, on behalf of the generous donor, to present to you, Mr. President and Gentlemen, Fellows of the Academy, this beautiful portrait and admirable likeness of our former president, Dr. Fordyce Barker. My office is a very modest one, and is soon discharged. I am here merely as a representative, an ambassador, if you please, charged with a valuable gift which I am here and now to present to the dignified body over which you, sir, so worthily preside.

"I must acknowledge some little hesitation in appearing before you to-night, lest it might be considered somewhat presumptuous in me, stranger, as I am, to your hall and to your councils; unknown by voice or face to so many of my auditors, to appear at all on your platform. I have accepted the duty as a friend of all parties, and in undertaking it I felt sure I could entirely rely on your courtesy and kindness, and that, while some more familiar voice and some better known figure might have been more acceptable, yet no one could, better than I, appreciate and interpret to you the generous liberality which has inspired the gift we are here to-night to accept; and I am sure none could feel a more heartfelt gratification at the compliment which your acceptance of this portrait will confer on a dear and much-valued friend.

"The gift itself is a costly and valuable one. To us, however, far above its cost, lies its greater value in what it suggests of warm and kindly appreciation, on the part of the great world outside of our profession, of the aims, the motives, and the achievements of the medical science of to-day. This offering means no chance suggestion, or accidental impulse to do a praiseworthy deed for the sake of merely giving pleasure to friends, or to produce a dramatic effect which might afford society a topic of pleasant conversation. It means much more. It means a well-considered and intelligent conviction of the worthiness, and reliability, and ultimate success of our efforts for the relief of human suffering, and a most gratifying assurance that those efforts are, at least in some degree, appreciated by an interested and generous public. In this point of view, it seems to me that this beautiful and appropriate tribute may fairly be accepted as marking a favorable public sentiment, which is as flattering to our professional pride as this testimonial of it is gratifying to our personal feelings. In pleasing ourselves, however, with this general view of the kindly relations which this occasion emphasizes between the profession and the public, we must not for a moment overlook the testimony it bears to the personal regards of the distinguished giver. The same generous hand which has now adorned our gallery with this beautiful portrait, has in years not long gone by enriched our guild with the graceful "loving cup," the token of peace and harmony, in which we drink to concord and enduring friendship among ourselves. I am sure I voice a unanimous sentiment when I offer our heartiest thanks to Mrs. J. J. Astor for this valuable and appropriate gift to the Academy.

"This counterfeit presentment of our eminent associate is now to grace the walls of this assembly room, taking its place among a group of faces which the Academy cherishes, as of those whom it delights to honor. There smile upon us from these walls the faces of many, alas how many! who have gone from us, leaving their noble record as an inheritance, by which we are enriched indeed. There are some who still remain, to lend us their mature counsel, and guide us in our sometimes difficult way. One stands conspicuous, as the only rival of our recent president in the length of time he has served us in the highest office within our gift, whose blameless life and devoted loyalty to the highest standards of professional honor, mark him as the Nestor of our profession. May he be long spared to adorn it.

"Our thoughts to-night, however, are on the present rather than on the past, and on him whom we are about to honor, rather than on those whose loved memories reflect such high honor upon us. This is not the occasion, nor has the time yet arrived, when our esteemed friend's eulogy may be fitly spoken. '*Finis coronat opus.*' May it be long before that coronation day arrives. But this is the place, and this an appropriate time, when we may recall the many happy relations he has borne to us as our presiding officer, through what has certainly been the most anxious and critical period in the history of the Academy. Not hesitating to avow himself a partisan, and even a leading champion of the cause he believed to be right, yet his high sense of honor, a clear appreciation of what was just and fair toward each of the bitter factions into which, unfortunately, our camp was divided, gave him so entirely the confidence of both, that he was able, with a courageous but impartial hand, to mollify the rancor and moderate the excesses of both sides in the arena of debate, and, in my judgment, largely to contribute to the peaceful and final settlement of the burning questions in dispute on the only basis upon which such questions can ever be settled, namely, a willingness to concede sincerity of conviction to those who are opposed to us, and a manly and honest consent to a friendly disagreement, where cordial agreement has become impossible. I feel sure that my audience will concede this much to a man whose personal relations to the struggle were never, for a moment, left in doubt, and whose convictions were so clear as to make him a tower of strength to the side he so warmly espoused, and to which victory was finally awarded. That this estimate of his course and character was substantially that of the whole Academy, subsequent events clearly demonstrated.

"When, in an evil hour, influenced by motives which we do not care to analyze, and urged with a well planned and deliberate purpose, which seemed strongly to savor of bitter personal ill-will, charges were formally brought against our president by a number of fellows who had collected their evidence with infinite pains, both here and abroad, and who, it must be acknowledged, presented their damaging accusations with admirable skill and telling minuteness of detail, it did seem to all of us that a crisis in the affairs of the Academy, and one of a most serious nature, had really come upon us. If the accused, occupying the conspicuous position he held, had really been guilty of deliberate falsification, and had profited for so many years by the results of his gross deception, the question might well be asked, Who, then, can be trusted? With what calm, unimpassioned completeness he met these baseless fabrications, and with what unanswerable documentary evidence he utterly refuted them, must be fresh in the memory of all. That he should have been acquitted—triumphantly acquitted—by a unanimous vote, was due to the plain, convincing, and perfect proof which his own simple narrative afforded, and to the calm good sense of the Academy, which immediately perceived its justice. But the universal and heartfelt applause which followed the announcement of the verdict, the outspoken pleasure at the vindication of a friend, and the warm congratulations expressed on all sides and by all parties, were, and no one could fail to see that they were, testimonials of hearty good-will toward a man, and gratification that one so high in their regard should have emerged so triumphantly from what seemed to them so cruel, so heartless, and so perfectly unnecessary an arraignment. But enough of this. My own feelings have led me, perhaps, too far in dwelling upon these personal considerations, and I forbear.

"The ceremony of the occasion, Mr. President and

Gentlemen, is over. You are now the possessors of this beautiful addition to your already rich collection. It is a worthy admission into a goodly company, and as I look around on these faces, so closely associated with my earliest and best impressions of professional life, I cannot help pleasing myself with the thought that, long years hence, it may be, as our children or grandchildren, curiously scanning the faces of the noble group, ask who was this and who was that, some white-haired relic of this present assembly may say, 'This is the portrait of one of our most eminent and of our best beloved presidents, *Dr. Fordyce Barker*.' "

The chaste, kind, expressive, and yet uncompromising language of the presentation address was listened to with that profound silence which comes only with deep, heartfelt interest in the welfare of a tried friend and brother, and which bursts into spontaneous applause when the spell is broken.

The President accepted, in behalf of the Academy, the beautiful gift as a well-merited homage from the midst of an intelligent and high-minded public interested in the prosperity of the medical profession, and expressed his gratification in the fact that it came from one by whom the material interests of the Academy had heretofore been liberally and kindly advanced. The gift was continued proof that the public take an interest in the medical profession, and when it took an interest in the best of the profession the best interests of the public were very much enhanced.

Dr. Alfred C. Post moved that the thanks of the Academy be presented to the donor for this valuable gift and unusually beautiful work of art. Unanimously carried.

Dr. Heineman moved that the thanks of the Academy be tendered to Professor Markoe for his kind and beautiful presentation address. Unanimously carried.

Dr. James B. Hunter then read a paper (see p. 449) on

ENDOMETRITIS FUNGOSA.

The discussion was opened by Dr. W. Gill Wylie, who could accept the greater part of Dr. Hunter's paper, but especially that which pertained to the pathology of the affection.

With reference to treatment, he had some objections to the recommendations of the author of the paper. He agreed with Dr. Hunter's statement that the use of the curette was seldom followed by hemorrhage of much consequence, and was surprised when he heard him also state that he introduced a light tampon after the operation. If there was no hemorrhage, Dr. Wylie would never use the tampon, because its use under such circumstances was a violation of one of the first rules of surgery, and if there was hemorrhage he preferred to arrest by other methods, as twisting or ligation of the circular artery, if that was injured, or the use of hot or cold water, or styptics, if the hemorrhage came from small vessels. Even if thoroughly aseptic, tampons were objectionable because the external flow of blood being arrested, the fluid might fill the uterus, be forced through the Fallopian tubes into the peritoneal cavity, and there give rise to very serious complications. He would advise the use of tampons in those cases only in which there was the greatest necessity.

He would always dilate the uterine canal to some extent before curetting, and for the purpose of securing perfect drainage. Even when the cervix had been made patulous by the fungous growths, he preferred to dilate somewhat, and by means of a steel dilator, never using tents of any kind.

Concerning the kind of curette to be employed, Dr. Wylie preferred the instrument used by Dr. Sims during the latter years of his life, which was not a sharp curette, and had a universal curve. The dull curette was useless in some forms of fungous degeneration of the endometrium, especially when the growths were a trifle fibrous and tough.

Dr. Paul F. Mundé would like to say, with reference to the quotations concerning the frequency of the occurrence of uterine sarcoma, which Dr. Hunter had made from one of his papers, that doubtless the disease occurred more frequently than was there represented; but it must be borne in mind that since the writing of the paper, seven years ago, the literature of the subject had accumulated very greatly.

With regard to diffuse hyperplasia of the endometrium, however, Dr. Mundé still stood by what he had published on that subject from a clinical standpoint only, as he had no evidence to adduce furnished by the microscope. He believed that different forms of endometritis, with different modes of development, occurred and yet produced the same symptoms and called for the same treatment. Diffuse hyperplasia was one of these forms, that in which diffuse slices, as it were, of hyperplastic tissue could be removed.

There was one class of cases, not mentioned by the author of the paper, namely, that in which the fungous endometritis was a direct sequence of laceration of the cervix; the order of events was clear, and the cases were numerous, and there was nothing more certain in therapeutics when these cases were treated in the inverse order, namely: 1. Scraping out the uterus; 2, restoring the mucous membrane to a healthy condition by local applications of iodine, etc., and 3, uniting the laceration of the cervix.

As regards symptoms of endometritis fungosa, menorrhagia was the universal symptom with only rare exceptions; but Dr. Wylie's mention of its occurrence with amenorrhœa brought to mind one case which he had had in which the patient had irregular menstruation, with menorrhagia at times, and at other times, there was absence of menstruation.

Dr. Mundé regarded the sharp curette as a very dangerous instrument to be used above the internal os, although he had employed it in cases where the dull curette had been insufficient to destroy the diseased mucous membrane. In some cases he thought it was necessary to use the sharp curette, but it was unnecessary to use one with a stiff shank, with which it was possible to scrape through the wall of the uterus.

Whenever the dull curette was used for diagnostic purposes and anything at all was obtained by the scraping, he regarded the cause of the menorrhagia as chronic endometritis, and the therapeutic indication was to treat that condition.

Concerning the danger of curetting and the after-treatment, he disagreed with Dr. Wylie and agreed with Dr. Hunter, as very considerable hemorrhage might follow the operation and require the use of the vaginal tampon. He thought it was unsafe to leave the patient without something to protect her from hemorrhage, and therefore employed the tampon. As a rule, it was unnecessary to dilate before curetting, although dilatation was not specially dangerous.

Having thoroughly cleaned out the uterus with the curette, and then mopped it out, Dr. Mundé takes an applicator wrapped with cotton, soaks the cotton with iodine or persulphate of iron and glycerine, equal parts, passes it up to the fundus and fills the cavity of the uterus thoroughly, then mops out the vagina and introduces a tampon, which is to be removed within forty-eight hours. This local treatment of the endometrium, preferably by the use of iodine, should be continued twice or three times a week, afterward once a week, etc., until three or four perfectly normal menstrual periods have passed, or until the patient is cured temporarily at least.

Dr. C. C. Lee agreed in the main with the author of the paper, both with reference to pathology and treatment. With regard to symptomatology, however, he had not found the disease characterized uniformly by menorrhagia, but by metrorrhagia as well, although in the great minority of cases.

The second point to which Dr. Lee directed attention

was the occurrence of general passive uterine congestion without alteration of the endometrium, without chronic hyperplasia of the uterus, in feeble subjects chiefly, and with which hemorrhage might be a prominent symptom. He always prepared his patients for the operation of curetting, and preferred to perform it with the assistance of ether. He was unhesitatingly on the side of those who discarded the sharp curette, and thought that, except in the most skilful hands, it was an instrument which was likely to do harm; besides, he saw no reason why it should be used. By proper preparation of the patient the liability of the occurrence of secondary hemorrhage was diminished. He had not found it necessary to dilate before using the curette, because the cervical canal had been sufficiently patulous to allow of the use of the curette in any direction.

Before using the blunt curette Dr. Lee washes out the uterus with a weak hot carbolic solution, and also after the curetting has been completed. He then applies to the endometrium the strong tincture of iodine (never iron), to which has been added a small quantity of chromic acid solution (one part of a saturated solution of chromic acid to four parts of a solution containing equal parts of alcohol and strong tincture of iodine), the combination acting much more favorably than either remedy when used alone.

Dr. B. F. Dawson approved of what had been said by Dr. Hunter and supplemented by Dr. Lee with reference to the use of the sharp curette. He had not seen a case in which while curetting he had been obliged to dilate. He had always found the cavity of the uterus and the uterine canal large enough to allow all the manipulation necessary to thoroughly remove all the fungoid growths. He was strongly opposed to what might be called the ferocity of surgeons, and agreed with Dr. Lee that gynecologists should be very careful how they recommend to the profession the use of so dangerous an instrument as the sharp curette.

Dr. Hunter, in closing the discussion, said that by a light tampon he meant simply the introduction of two or three small wads of cotton, to effect drainage and not to prevent it. He had not seen a case where it had been necessary to use a vaginal tampon, such as had been described by Dr. Mundé. With regard to dilatation he had not found it necessary.

Concerning the sharp curette, he had seen Dr. Sims use it many times, and had a set which Dr. Sims selected for him only a few years ago; they were inflexible, were essentially sharp instruments, and with them he could readily scrape off the mucous membrane.

As to laceration of the cervix in etiology of fungoid degeneration of the endometrium, he did not intend in his paper to lay much stress on it, although it was a recognized and an efficient cause.

Dr. Hunter was inclined to the opinion that, where hemorrhage occurred after curetting, all the fungosities had not been removed. For the removal of the usual fungosities he objected to the use of the sharp curette, as the blunt curette was quite sufficient. The return of the fungosities was an important consideration in connection with the after-treatment.

ORGANIZATION OF SECTIONS.

Dr. Putzel reported that the *Section in Neurology* had organized, and that the first meeting would be held at the Academy on Friday evening May 8th.

Dr. Hudson reported that the *Section in Practical Medicine* had organized, with Dr. A. L. Loomis, chairman.

APPOINTMENTS BY THE PRESIDENT.

The President appointed Dr. E. G. Janeway to deliver the *Anniversary Discourse* in November next; Dr. M. H. Henry to read a memoir of Louis Elsberg, M.D.; and Dr. D. B. St. John Roosa to read a memoir of James Lawrence Little, M.D.

The Academy then adjourned.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, April 7, 1885.

W. J. Morton, M.D., President, in the Chair.

THE TREATMENT OF EXOPHTHALMIC GOITRE.

Dr. A. D. Rockwell read a paper on this subject. He had had experience in the treatment of fifteen cases of this disease, of which four had been reported in the New York Medical Record, vol. xvi., No. 14; six in vol. xviii. of the same journal, and one in the *New York Medical Journal* for June, 1881. Under the use of the galvanic current, mainly, six of these cases were either completely or approximately cured, two decidedly improved, one slightly benefited, while in two cases no results followed the most varied and persistent methods of treatment. The four remaining cases had never been reported. Other cases had been seen and treated by the author of the paper, but not with sufficient persistency to render them of statistical value. Dr. Rockwell considered that the prognosis in this condition was far more favorable than it was generally considered, and for this reason, and because the tendency was to reserve for final trial the form of treatment that is of primary importance, he was tempted to again call attention to the subject. Efforts in the management of these cases should be of a threefold nature: 1. Attention to diet and hygiene. 2. Internal medication. 3. Electricity. In some cases he had found that the most rigid and conscientious observance of certain fixed rules in regard to eating and drinking, and the avoidance not only of *excess* in every department of mental and physical hygiene, but the repressing of ordinary and legitimate emotions and passions, became absolutely essential. A bland, milk diet was to be generally recommended. Of all forms of internal medication that had been suggested, there were none that Dr. Rockwell's experience so entirely approved as the formula including iron, zinc, digitalis, and ergot. The therapeutical measure, however, which stands prominent, and to which all other forms of treatment must, as a rule, be but supplementary, is the constant current of electricity.

One of the most satisfactory cases of which he had knowledge, occurred in the person of a young lady aged twenty, referred to him by Dr. A. R. Carman and Dr. Van Santvoord. The eyes were unusually prominent, the goitre large, and the pulse from 140 to 160. The patient was weak, unable to take but little exercise, and the symptoms were in every way of a most aggravated character. The patient was treated from June 11, 1882, to March 29, 1883, a period of nearly ten months, and received in all sixty-nine applications of electricity. The result was a complete dissipation of every symptom, with the exception of a slight prominence of the eyes, which the parents thought might be congenital. Upon examining the case with her physician a short time since, Dr. Rockwell found no trace of the disease. If his results had been more satisfactory than those generally obtained, he would ascribe it to persistency and method. Another of the four remaining cases was sent to him by the late Dr. Sims. The three cardinal symptoms were present to a noticeable degree, the gland being enlarged to about the size of a hen's egg, and similar in shape. The pulse averaged only about 105, although under excitement it went up to 135. Under treatment with the occasional introduction of a needle, the pulse was reduced to the uniform frequency of 80, and the measurement around the neck over the tumor reduced from fifteen to fourteen inches. In a case sent by Dr. J. Chauveau, the benefit obtained, although decided, was much less satisfactory than in the two preceding cases; the pulse has been lowered some fifteen beats, and the goitre very much decreased, but symptoms of an asthmatic character have developed, complicating the case, and rendering the improvement less marked. The fifteenth and last case occurred in the person of a lady aged thirty-seven, and followed childbirth. When first

seen by Dr. Rockwell, the measurement around the neck was fourteen and three-fourths inches, the eyes slightly but distinctly protuberant, and an average pulse of 115. The health of the patient was exceedingly poor in many ways. This patient received fifty-two applications, with results almost equal to those obtained in the case first mentioned. Dr. Rockwell's method of treatment in Basedow's disease is to first place the cathode over the cilio-spinal centre, and the anode in the auriculo-maxillary fossa, gradually drawing the latter, after a few moments of stabile application, along the inner border of the sterno-cleiso-mastoid muscle until the sternum is reached. The second step in the operation consists in placing the cathode over the goitre and the anode in the region of the solar plexus. Variations in the method can be adopted according to the exigencies of individual cases, and the experience of the physician. In one case which resisted the usual method of application, immediate and permanent improvement followed the use of currents that were increased and decreased with exceeding rapidity by means of a rheostat.

Summary of results.—Of the fifteen cases that were persistently and steadily treated by Dr. Rockwell, electricity being the main reliance, nine were either completely or approximately cured, three decidedly improved, one only slightly benefited, while in two cases no appreciable result followed persistent effort.

Dr. Seguin asked why Dr. Rockwell placed the electrodes as described by him.

Dr. Rockwell replied that he placed the negative pole over the goitre because it was generally admitted that any absorptive processes were more energetically performed at the cathode than the anode. Still he did not wish to lay any special stress on this point. The main factor contributing to successful treatment was persistence on the part both of patient and physician.

Dr. Seguin had seen a few cases of Basedow's disease, mostly, however, in consultation. The method advised by him was the same as Dr. Rockwell's. But his results had been much less satisfactory, and in no case did he remember a perfect cure.

In cases of rapid pulse, associated or not with exophthalmos, he had for the past five years employed aconitia with very gratifying results. A progressive, and at length permanent, diminution of the pulse-rate had followed the exhibition of the drug.

One woman, aged fifty-five, who had come to him with a pulse of 160 and slight exophthalmos, had her pulse reduced to 85, after six or eight months' treatment. The subjective sensation of internal heat, and tremors, had at the same time disappeared. He generally gave the drug to the amount of $\frac{1}{100}$ of a grain for the twenty-four hours. The directions being to dissolve this quantity in a tumbler full of water, and take a mouthful of the solution for each dose. After one week the amount was increased to $\frac{1}{60}$ of a grain, taken in the same way. In one case he had given as much as $\frac{3}{100}$ of a grain in the same manner. He had also used the fluid extract in two-drop doses.

Dr. Weber related the case of a woman, fifty years of age at the time of her menopause, who had come under observation with slight exophthalmos and a pulse-rate of 146–160. There were subjective sensations of heat, but no measurable rise of temperature. In a comparatively short time this patient lost about twenty pounds in weight. But at the end of a year all these symptoms disappeared, and during the past four years had not returned.

Dr. Dana believed that there were irregular types of Basedow's disease, and that in many, galvanic treatment produced no marked results. Persistent bed-rest would then act better. He thought the purely neurotic type of the disease was always very difficult to relieve. But there was a second variety that might be called accidental or symptomatic goitre, and which might perhaps be a self-limited affection. It was to be remembered that such simple measures as a milk-diet had been reported to have resulted in a cure of the disease.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE DEBATE ON CHOLERA—CONCLUSION—SIR ANDREW CLARK'S LUMLEIAN LECTURES—MEETING AT THE COLLEGE OF PHYSICIANS.

London, April 7, 1885.

The debate on cholera at the Medical and Chirurgical Society was resumed at the last meeting and brought to an end. No fewer than twelve speakers took part in the adjourned discussion, which included, besides, the reply of the opener of the debate, Dr. George Johnson. Not much interest can be said to have been evoked by the adjourned debate, which, indeed, somewhat resembled the proverbial "wandering round and round Robin Hood's barn."

Dr. Heneage Gibbes defended Klein. Sir Guyer Hunter, of volunteer ambulance fame, maintained that Koch had shown that the comma bacillus stood in the relation of cause and effect to cholera. Dr. Pye-Smith discussed the pathology of the choleraic discharge, and referred to Moreau's experiments on section of the mesenteric nerves. Mr. Macnamara, after laying down that no epidemic is known to have originated outside British India, and stating that Klein's statements with regard to infection are at absolute variance with the conclusions of all previous workers, made the interesting remark that the comma bacillus corresponds to the characters of the cholera contagium as described by Parkes, viz., it is destroyed by acids, its life in water is very brief, and the conditions under which the water is placed must be of a certain kind. Dr. Heron returned to the bacterial aspect of the subject. He said that, from the beginning of the growth of the various comma bacilli, it was possible to distinguish Koch's bacillus from all the others. All the comma bacilli could be distinguished from one another. Koch and Klein, he said, were agreed that there was a comma bacillus peculiar to cholera, which was to be found nowhere else. Lewis's comma bacillus was different. Dr. Thin remarked that many people believed that the comma bacillus of Koch could be found in other diseases than cholera. He thought that Dr. Klein, or those who reported him, were responsible for this impression.

Several gentlemen spoke at some length on treatment. The President was almost alone in supporting the evacuant method, though he actively defended in his reply the views expressed in his opening paper. If mere words count for anything, Dr. George Johnson ought to have convinced all present, for he was prolix to a fault. He was evidently determined not to abandon, without a struggle, the theory which he has been diligently nursing for thirty years. Most of the speakers condemned the evacuant plan of treatment. Opiates, astringents, stimulants, intravenous injections of hot saline solutions, and the administration of nutrients, were all more or less favorably spoken of by the different speakers.

Sir Andrew Clark has lately been discoursing on "dry pleurisies" at the College of Physicians (Lumleian Lectures). He defines a dry pleurisy to be "such an inflammation of the pleura as issues in an exudation of lymph into the substance and upon the surface of the membrane, unaccompanied by an amount of serous effusion sufficient to yield physical signs conclusive of its presence." Sir Andrew Clark remarked that the existence of such pleurisies had been denied by some observers, and that some of the highest authorities in medicine were ranged on either side. Their influence, too, in originating secondary disease of the lung, had been hotly contested. The first lecture was almost entirely occupied in the narration of twelve cases, and as, to quote Sir Andrew's own words, his endeavor had been "to present them in their baldest objective forms," not even his elocutional powers could

succeed in making interesting such a catalogue of signs and symptoms, which therefore fell rather flat upon the audience. His opinion seems to be that "dry pleurisies" are by no means uncommon, but that they may seriously alter and destroy the substance of the lungs.

In his second lecture Sir Andrew made some important statements respecting the anatomy of the lungs. He criticised the accounts given by various anatomists, remarking that Klein's is, on the whole, the simplest and most accurate. Sir Andrew complained of the multiplication of distinctions and the unnecessary use of complex terms by writers on the subject. He then presented a simpler conception. "The primitive type of a lung," he said, "is a cylindrical tube, the sides and end of which are portioned out by delicate membranous septa into shallow cubical spaces, not communicating with each other, but only with the common lumen of the tube round which they are arranged." This idea he proceeded to elaborate in some detail. Those who only know Sir Andrew Clark as the busy physician may be somewhat taken aback at his boldly trenching on anatomical ground, but in pathological anatomy, at any rate, he is no tyro.

Sir Andrew Clark began his career in London as pathologist to the London Hospital. He came from his home to compete for this post, and while he held it was an indefatigable worker in the post-mortem room. He studied the anatomy of the lungs somewhat closely many years ago, and contributed the chapter on this subject to the late Dr. Herbert Davies's work on "The Lungs and Heart."

The meeting at the College of Physicians on Monday last was unusually well attended. A committee was appointed to report on the proposed publication in facsimile of the manuscript notes by Harvey which are now in the British Museum, the subject having been brought forward by Dr. George Johnson. Sir William Jenner delivered an address in which he passed in review the events of the past year which related to the College. He spoke of medical legislation and the failure of the Medical Bill. Referring to the new conjoint scheme of examination entered into by the two London colleges, he went on to speak of the question of a London medical degree. Sir William Jenner said the question was one which might well be entertained in connection with the new board, and he even went so far as to say that he thought the college might institute an inquiry into the best means of acquiring the power to grant degrees. Sir William Jenner, be it remembered, is a graduate of the existing University of London and a member of its senate.

OUR VIENNA LETTER.

(From our Special Correspondent.)

TREATMENT OF THE WOUND AFTER HYPOGASTRIC CYSTOTOMY—THE NEW ANTIPYRETICS.

VIENNA, March 25, 1885.

SUPRA-PUBIC cystotomy is at present the favorite operation among Vienna Surgeons for the removal of foreign bodies, stone, or tumors from the bladder. The method of after treatment is now undergoing discussion here. Professor Dittel, who is the strongest advocate of this method of operating, and has performed the operation the greatest number of times, insists on leaving the wounds in the bladder and abdomen both open and in drainage by means of the side position with the hips raised. In general he says the open treatment gives the best results. In forty-one cases where the bladder wound was sewn up only sixteen recovered. The only advantage of closing up the wound would be, perhaps, to shorten the course of the time of convalescence. This is only a possible advantage, which, even if it were certain, is not worth considering in so important an operation. A great disadvantage is, that in a short time the stitches become incrustated. Usually they ulcerate out before union takes place, and the urine then infiltrates the abdominal tissues with the worst results. Stitches are, therefore, at least entirely superfluous, and in most cases positively do great harm.

Professor Billroth also dresses the wound without closing it. Since he lost a patient, as he says, from stitching together the cut, he has given up entirely the use of sutures in this operation. However, the condition of the urine at the time of operating, and directly after, greatly influences the result. Urine often contains slightly poisonous properties, and there are times when a single drop will set up a phlegmon. Some cases of hypogastric cystotomy get along all right, and others—as far as can be seen exactly similar cases—end badly. He concludes that the bad result in these latter cases was due to some special infectious quality of the urine at that time. He was unable at present to explain it in any other way. Professor Billroth's mortality in this operation has been very high.

Dr. Ultzman usually stitches both wounds. The sutures in the bladder to a certain extent prevent the infiltration of urine into the surrounding structures. The stitches usually hold at least three or four days: union of the bladder wound does not take place primarily. Dr. Ultzman thinks it best to sew the cut surfaces in the bladder together, and leave open the abdominal wound. However, in an operation which I saw him make recently on a ten year old boy, he left both wounds open with the most satisfactory results. In all cases where sutured the interrupted silk sutures are used.

The reduction of temperature in febrile diseases by internal or external means has been the cause of much careful study and work in the Vienna clinics for the last two or three years. The result at which physicians have been aiming for the past quarter of a century, has been almost, if not quite, reached by the extensive and exact experiments and researches of the Vienna school of internal medicine. At least such results have been obtained, that to-day a febrile temperature can be reduced to any degree that is proper, and it can be done easily, rapidly, and without injuring in the slightest the vitality of the patient. The demand of to-day is for powerful antipyretics as internal remedies. They are remedies that do not affect the course of the disease directly, but simply, and solely reduce the temperature. According to Nothnagel they are never to be given under a temperature of 39.5, or in the early stage of a fever, as they will then obscure the diagnosis.

At present only the following drugs are considered here as antipyretics: quinine, thallin, antipyrin, and salicylate of soda. Of the two new remedies, antipyrin has been in use about a year. Thallin was discovered and first used about seven months ago by Dr. von Jaksch of Professor Nothnagel's clinic.

Quinine, says Professor Nothnagel, is the best, or perhaps better said, the oldest antipyretic in general use. He prefers to give it in the form of the bisulphate and in solution. He dislikes gelatine capsules and similar vehicles, as they have been found undissolved in the stomach two days after administration. He also gives the quinine in one large dose, not in divided doses: one and a half to two grammes (1.5–2) is the ordinary dose and is best given at seven or eight o'clock in the evening, so that its action begins at the time a normal fall of temperature usually takes place. Quinine reaches its greatest effect six to eight hours after taking. In some fevers, for instance, pneumonia, typhus, and septic fevers, it has little effect. In Carl Braun's wards, in puerperal fever antipyrin is much preferred to quinine or the other antipyretics. Salicylate of soda, to reduce temperature, is little used. Its antipyretic action is similar to that of quinine, except that the fall of temperature after salicylate of soda is more rapid, and the rise again also comes on sooner and is more rapid. It produces little or no sweating, and must be given in double the dose. Its action in acute articular rheumatism is specific and not

antipyretic. Kairin and resorcin are not used any longer here, probably because of their marked tendency to be followed by collapse.

Prof. Nothnagel says that thallin and antipyrin are very powerful, simple antipyretics, and extraordinarily good ones. Collapse rarely or never follows their use. He has very little choice between the two; the antipyretic effect from thallin seems to last a little longer, and the dose is smaller. Thallin is given in the form of a sulphate, usually in from two to five decigramme doses (2–5). The dose of antipyrin is about one gramme. The temperature begins to fall inside of an hour after giving these drugs. In one case of pneumonia, in the service of Dr. Bamberger, there was a fall from 40.5 to 38.6 within an hour from a quarter of a gramme of thallin. The temperature of pneumonia is especially susceptible to these two remedies, and there is hardly any fever that can resist them.

In the service of Dr. Hutler, where a large number of pneumonia cases have been treated by these antipyretics, the temperature has almost invariably been reduced to nearly normal. The mortality, however, was but slightly lower than when these drugs were not used. Often patients would die with a temperature that had been kept throughout the entire course of the disease below 37.5.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from April 12, 1885, *to April* 18, 1885.

BROWN, HARVEY E., Major and Surgeon. Leave of absence extended two months. S. O. 83, A. G. O., April 11, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending April 18, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
April 11, 1885.....	0	3	75	5	185	63	0	0
April 18, 1885.....	0	6	76	4	178	51	0	0
Deaths.								
April 11, 1885.....	0	0	12	3	22	31	0	0
April 18, 1885.....	0	3	12	3	21	22	0	0

THE LUNATIC ASYLUMS in Austria in 1881 numbered 27, containing 9,694 patients, or 42 per 100,000. Outside of the asylums the number of insane is 20,001, or 91 per 100,000 inhabitants. The per cent. discharged cured from asylums is only 6.7, against about 33 per cent. alleged to be cured in American asylums. The number of cretins in Austria is 15,151, or 69 per 100,000.

THE ACTIVE PRINCIPLES OF CANNABIS INDICA.—Various active principles have been obtained from cannabis indica, but none as yet which represent the entire virtues of the plant. A druggist, Bombelon, has separated three different substances: cannabin purum, cannabinon, and haschisch. Cannabinon is the only one which has given good results. Dr. Richter found in fourteen cases that it was a tolerably good hypnotic.

HOSPITALS IN AUSTRIA.—Austria has 159 public and 375 private hospitals, with a total of 29,167 beds. On an average, 1 out of every 82 of the inhabitants seeks hospital relief.

THE ONE REMEDY FOR AN INTERMITTENT PULSE, says Dr. Richardson, is alcohol. A great many people have felt this to be true before Dr. Richardson discovered it.

THE CLIMATE OF THE BERMUDAS has been recommended for lung diseases by a physician in this city, because, he says, "the onions make the breath so strong!"

HORSE-HAIR BOUGIES.—Dr. E. C. Franklin (*Medical Era*) has relieved an almost impermeable stricture by passing a horse-hair through, following it up with other hairs, and finally with bougies.

ACNE is sometimes due to urethral irritation according to Dr. S. Sherwell, who has relieved two cases with cold sounds.

DR. FORDYCE'S TREATMENT OF FEVER IN 1766.—The doctor commenced to teach medicine in 1766, as physician to St. Thomas' Hospital, London. He believed that all continued fevers, including typhus, typhoid, remittent, and yellow fevers, were irregular or so-called continued intermittents, made so by the intercurrence of some local or general inflammation. The remedies to be employed to convert them into regular tertian fevers were, in the first place, clearing the stomach and intestines from noxious matters contained in them, which were supposed to cause the inflammations and continued fever. He gave a mild emetic of ipecac in the evening and a moderate dose of rhubarb in the morning, and then ordered preparations of antimony, or ipecac, or "such other medicines as tended to produce appearances similar to those which take place in the crisis of intermittent fevers, especially perspiration. These remedies were given every four, five, or six hours, so as to act constantly but mildly on the system, *i.e.*, so as to produce coolness and moisture of the skin, but no nausea, or vomiting. These were continued several days until a perfect, or at least a longer remission, or even intermission, of the fever was produced, if only for six or eight hours. Then cinchona was quickly given in one or two drachm doses every hour, or half hour, or as much in quantity and as frequently as the stomach would bear. If the next exacerbation or paroxysm returned severely, the bark was omitted, and "the medicines producing symptoms similar to those which take place in the crisis of fevers, were recurred to until another intermission had been produced, when the cinchona was given again." Purging, excepting so far as to keep the bowels free from putrescent matters, was regarded as extremely hurtful in continued fever. Antimony was not to be given in doses larger that one-fourth or one-third grain, so as not to produce nausea, nor oftener than once in four hours. Warm drinks were given frequently, the patient was well, but not heavily, covered up in bed, and opium given to aid the action upon the skin, in doses of five or six drops of the tincture. or one-fifth of a grain of the powder, with five grains of aromatic powder to aid in preventing nausea. If the so-called continued intermittent fever withstood this treatment, Dr. Fordyce gave arsenic; or, if there was much diarrhœa, chalk mixture, or oxide of zinc, or acetate of copper. The preparations of iron he thought not as useful at first, as these other mineral remedies, but more useful afterward, when debility and anæmia were great. Iron he thought less useful in preventing the returns of the paroxysms of intermittent fever than arsenic, zinc and copper. He thought bleeding injurious. In Fordyce's time, the streets of London and all other large cities were not well graded, scarcely at all paved or sewered. Intermittents and all malarial diseases were

very common in cities, and typho-malarial diseases not infrequent. The morning remissions and evening exacerbations of all fevers were mistaken for attempts at intermission and the endeavor of nature to convert a continued fever into an intermittent, which should be encouraged and imitated by the judicious doctor. In this view his treatment was not irrational, and, in fact, with the exception of the use of antimony, which is now supplied by aconite, was very similar to that now employed in the treatment of typhoid fever. He even seemed to have some dim notions of the antipyretic action of Peruvian bark.

Psoriasis and Marriage.—The New York Dermatologists are divided on the question whether persons suffering from psoriasis should marry. Most are agreed, however, that if the disease is severe and continuous, it should be a bar to matrimony.

What a Tape Worm can Do.—Dr. B. O. Baker, of Kona. Hawaii. S. I., writes: "Mrs. W——, aged fifty-six, complained of pain that moved about in every part of the abdomen, in short, all the symptoms of a hypochondriac with amnesia and amaurosis. As a placebo, I painted the most painful part with a solution of menthol, ʒ j., Squibb's chloroform, ʒ iij. In a very short time after this a sensation, said to be "like the first motions of a child," was felt just above the bladder, and in the course of a few hours five inches of tape-worm passed away. The patient had been before many doctors in different parts of the world, but had not the slightest idea of tapeworm. Treatment: Chloroform (Squibb's) ʒ j., honey ʒ j. Teaspoonful every other hour (no fasting); then four compound cathartic pills. Result: The worm came away; the pains are all gone; the memory has returned, and sight fast improving.

Tartaric Acid covers the taste of quinine, senna, rhubarb, glauber salts. If bicarbonate of potash in solution be added to tartaric acid, cream-of-tartar will be precipitated; but if tartaric acid be added to a solution of bicarbonate of potash, a perfectly clear solution will remain until complete saturation ensue.

The Crow and the Country Doctor. (A medical fable.)—A flock of crows was much alarmed one day at the sight of a strange object in the midst of a field upon which they customarily fed. They at once called upon an old crow who practised his profession in those parts, and who made a specialty of corns, to give his opinion about the matter. The crow, having examined the object, shook his head, and said that it was a serious case, and that it was lucky he had been summoned so soon, though he should have been called earlier; and he would like the advice of his friend, the owl, who had had the benefit of travel abroad, and who was particularly skilful in cases which called for the steady use of the eyes. He would also like to have the frog, who was spending his summer vacation by a neighboring pool, and who had a wide reputation for his physiological knowledge, to see the case. The crow, the owl, and the frog met, and, having studied the object at a suitable distance, withdrew to the shade of a high wall in order to deliberate. The frog first opened his mouth, and observed that it was a nice case, which reminded him of a very curious experience that he had had with a piece of red flannel two summers before, when he received a severe contusion upon the centre of Goltz. After telling all about this very apposite event, the owl observed that such cases were extremely rare. He had, however, had two very much like them, the details of which he had forgotten. He then related some very humorous obstetrical stories, which much amused the crow. Having received these opinions, the crow thanked his colleagues for the valuable light they had furnished. He had himself been at first disposed to think the trouble a case of *terror corvorum*, or scarecrow; but the advice given reminded him now that the appearance in the cornfield exactly resembled a country doctor whom he occasionally met, and who, after practising medicine for forty years, was at present trying to live on what he had saved. The diagnosis was finally agreed upon, and reported to the anxious crows outside, who were much relieved. Moral: This story shows the profit that is got from consultation, and the lucrative nature of the practice of medicine.—*Boston Medical and Surgical Journal.*

Cocaine in the Opium-Habit.—Dr. Albert S. Adler, of Salmonville, A. T., sends us some extracts from an article by Dr. Wallé in the *Wiener Med. Blätter*, and from one by Richter, of Berlin. Both these writers believe in the efficacy of cocaine in the morphine-habit.

The Bright Tin Test for Sugar.—Dr. Wm. McCollum, of Brooklyn. N. Y., writes us in reference to the test for sugar described in The Record of March 7th, which consists in heating a drop or two of the suspected urine on a bit of bright tin. Our correspondent says: "The bright tin test which I have used for twenty-five years is not a crude test, but a nice one under a practised eye, and one so easily and quickly made. I call attention to the communication to correct an important error in the statement that 'if no sugar be present, it will be as distinctly shown by the characteristic odor of urine and by a bright, smooth, varnish appearance on the tin;' if he had added the words, of a golden color, he would have well stated what is shown when sugar is present in small amount. Any one can verify this statement by treating urine in this manner, containing no sugar, then add a grain or two of sugar to an ounce of urine and repeat the test. The characteristic odor of burnt molasses will only be noticed when considerable sugar is present. The evidence that sugar is present is apparent before the heat has carbonized the sugar. The bright gold-colored varnish upon the tin, noticed before an intense heat has burned the surface brown, is what should be especially noticed as evidence that sugar is present."

The New and Simple Ureaometer.—Dr. William H. Greene, of Philadelphia, Pa., writes: "The 'new and simple apparatus for determining the quantity of urea in the urine,' described by Dr. Charles A. Doremus, at a recent meeting of the New York County Medical Society, is essentially the same as that devised by myself and described in the *Comptes Rendus*, vol. xcvii., p. 1142, November, 1883. The description was republished in several German journals, and in the Philadelphia *Medical Times*, vol. xiv., p. 277. and is figured in the last edition of Da Costa's "Diagnosis." I am glad to see that it is favorably mentioned by Dr. Flint, as it has been manufactured and used in Germany since January, 1884. Dr. Doremus has simply removed the base from my apparatus, and bent the tube itself; but this very modification, as a form that might be home-made, I described before the Philadelphia County Medical Society in October, 1884. Either Dr. Doremus has knowingly claimed as his own an apparatus, to the invention of which I am entitled to unquestionable priority, or he has betrayed a lamentable ignorance of the recent literature of urine analysis."

The Button-Hook as an Eye-Opener and Eye-Holder.—Dr. C. G. Roehr, of Milwaukee, Wis., writes that he has for some time used the ring on a button-hook for the purpose of fixing the eye so as to allow of working at or on the cornea, as in extracting a foreign body lodged there, or even for fixing the eye in operating. By sliding any ring (of about three-fourths inch diameter) under the eyelid, and having a handle so as to press it firmly against the eye, it will hold or fix perfectly the eye, allowing one to work at ease. This device has enabled me to extract any foreign substance from the cornea without the usual difficulty of the patient winking or moving the eye. It might be well to make the ring wide (say a flange above and below) to hold up and down the lids.

International Congress of Hydrology and Climatology.—The study of hydrology, in its relations to practical medicine, and that of climatology, have made considerable advances in recent years, thanks to the progress made in the several sciences upon which these are more or less dependent. And now it is proposed to have an international congress for the encouragement and mutual improvement of those interested in these branches. The congress is to be held at Biarritz from October 1 to 8, 1885, under the presidency of Dr. Durand Fardel. The meeting is to be under the auspices of the Biarritz Association, assisted by the Society of Medical Hydrology of Paris and the French Meteorological Society. At the close of the congress there will be excursions to the various thermal and sanitary stations of the Pyrenees. Every one who makes declaration to that effect, enclosing at the same time a postal money-order for twelve francs ($2.50), will be considered an associate (*adhérent*) of the Congress. Applications for membership, accompanied by the necessary money-order, may be addressed to M. le vicomte de Chasteigner, treasurer of the Biarritz Association, Biarritz, France.

Flies and Cholera.—M. Marpmann has been conducting some observations which tend to show that flies may become carriers of micro-organisms. He found that the insects take in bacteria with what they feed upon, and that the microbes are not destroyed in their passage through the intestinal canal, but are found living in the excrement. This is a hint to the makers of fly-screens.

A New Journal of Pediatrics.—We have received the first numbers of the *Archivos de Medicina y Cirugia de los Niños*, devoted to the diseases of children, and especially to reports of cases treated in the Hospital of the Child Jesus in Madrid. The editor is Dr. Gonzalez Alvarez. The principal article in the first three numbers is on Resection of the Knee in Children, by Dr. Rivera y Sanz. There are, besides, several abstracts from Spanish and foreign journals, and a page or two of news items. A supplement to each number consists of several pages of a work on the Hygiene and Management of Early Infancy, translated from the French of Dr. A. Bourgeois.

Antipyrin.—Dujardin-Beaumetz thinks that antipyrin is a drug not without danger, even in the small dose of half a gramme. He grants that it may be the least dangerous of antipyretics, but says that its use ought to be limited to the phthisical, for, while it has a real action in their fever, it is, if not powerless, at least not trustworthy in other fevers.—*Progrès Médical*, March 7th.

Syncope and the Means of Averting it.—Dr. William J. Notley writes to the *Lancet* that in cases of syncope due to deficient cardiac action the application of heat to the head will prevent the access or revive the patient.

The Spleen becomes Larger in the Secondary Stage of Syphilis, according to recent investigations of Dr. Avanzini, of Innsbrück.

The Late Professor James L. Little, M.D.—At a special meeting of the Medical Board of St. Luke's Hospital, held April 8, 1885, the following preamble and resolutions were unanimously adopted:

Whereas, It has pleased Divine Providence to remove by death our beloved associate, Dr. James Lawrence Little, who was for eighteen years one of the most active members of our staff. Therefore, be it

Resolved, That in his death we mourn the loss of a friend whose personal worth and rare kindliness of feeling have endeared him to his associates in this Board, as well as of a surgeon who has won deserved distinction by enthusiastic devotion to his profession and successful achievements in surgery.

Resolved, That we extend to his family our heartfelt sympathy.

On behalf of the Medical Board,

Robert Abbe, M.D., *Attending Surgeon.*
A. Brayton Ball, M.D., *Attending Physician.*

The Physiological Action of Coca on Hunger, the Result of Anæsthesia.—Dr. Mans R. Vedder, of this city, writes: "Among the remarkable physiological properties ascribed to coca is the power to appease hunger and thirst. As I have not yet met with an explanation of the action of the drug in producing this effect, I venture to present a theory of it which I believe to be borne out by my experiments. These have been performed in greater part upon myself, and cover a period of four years, dating from the spring of 1881, when I received a quantity of the leaves of the plant from a source which left no doubt in my mind as to their genuineness and freedom from adulteration. Shortly after my initial experiments with the drug, I gave a quantity of my supply of leaves to Dr. Townsend and Dr. Chalmers, of the Union League Club; and in a conversation with the latter gentleman, held at the club soon afterward, I remarked to him that I believed coca possessed valuable medicinal properties not yet understood; adding, that it was my opinion it exerted a powerful influence upon the vasomotor system. Following the administration of a dose of the fluid extract, I have observed that thirst is immediately relieved, very much as it is sometimes relieved by putting shot into the mouth, viz., by an abundant flow of saliva. Soon there appears to be a loss of the sense of taste, or at least the mouth desire for food or drink ceases. This result also follows the administration of an infusion of the drug. If a dose of the extract or infusion be taken when the stomach is craving food, all desire for it ceases in a very short time. I have believed from the first that these effects result from a condition of anæsthesia. My belief in this was strengthened by a knowledge of the fact that the drug had been used externally for the relief of pain in rheumatism, neuralgia, and headache. The recent discovery, at Heidelberg, of the power of the active principle of coca to produce local anæsthesia, confirms me in the belief that the physiological property of the drug in arresting or mitigating hunger, is due to this effect alone. My views, briefly stated, are that coca taken internally in any of the ordinary forms, and administered by the mouth, produces by actual contact a degree of anæsthesia in the membranes of the mouth, throat, and stomach, varying with the quantity and strength of the preparation exhibited. The nerves of the mouth, throat, and stomach, naturally excited by hunger, are, by the influence of the drug, lulled, obtunded, or put to sleep; and, until the effect of the dose wears off, are incapable of exercising their ordinary natural perceptions and functions. If food be administered during this anæsthesia of the alimentary tract, there is no repugnance to it, but it excites neither appetite nor relish, and is eaten without desire or gratification; and is probably not even digested until the nerves of the stomach have recovered their normal condition. It is obvious that if this be true coca is not a substitute for food, that is, is not in itself nourishment. Indeed, there are many proofs that it is not. Those addicted to its use are emaciated. Dr. Pöppig, in his travels in Chili and Peru, speaks of the natives of South America who indulge in it as 'the victims of a most pernicious habit;' and likens the intoxication produced by it to that following opium. 'As the indulgence is repeated, the appetite for it [the drug] increases, and the power of resistance diminishes, until at last death relieves the miserable victim.' In an article published in the "Journal of the Royal Geographical Society," 1854, coca is alluded to as a 'poisonous narcotic;' and it is referred to by other writers as occasioning, when taken in excess, 'tremor in the limbs, and even a gloomy sort of mania.' In my own case it produced exaggerated dreams, similar to those induced by haashish.

Fatal Chicken-pox.—Two fatal cases of chicken-pox, one reported by Dr. G. W. Rachel, in the *Archives of Pediatrics* for April, 1884, the second by Dr. J. V. Wichmann, of Copenhagen, in the *Nordiskt Med. Arkiv*, xvi., No. 20, show that varicella is not always the mild disease which is its general characteristic.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 18 NEW YORK, MAY 2, 1885 Whole No. 756

Original Articles.

ATROPIA AS A REMEDY IN ETHER-NARCOSIS.

BY R. W. AMIDON, A.M., M.D.,
NEW YORK.

THE question has often presented itself to my mind, "Are the methods of meeting the alarming effects of anæsthetics sufficiently defined and sure to reflect credit on our science?" In my opinion they are not.

While, among published cases, ether very rarely kills, still every practitioner will, sooner or later, see alarming symptoms occur during its administration.

I think nearly all practitioners will agree with me when I state it as my conviction that sudden death from ether generally occurs in the third stage of anæsthetization, that of ether-narcosis—and also that the cause of death is a combination of asphyxia and syncope; the failure of respiration being more prominent and *primary*, the failure of the heart being less prominent and secondary. Death has been said to occur at the commencement of the inhalation from asphyxia caused by spasm of the glottis and a tetanoid condition of the respiratory muscles, including the diaphragm, but of such extreme rarity are these cases they may be wholly disregarded. Early and sudden death from syncope without premonitory symptoms, such as occurs from chloroform, has been reported but very rarely, and probably it never occurs unless there be organic disease of the heart. With the remote and infrequent consequences of the inhalation of ether—bronchitis, pneumonia, or gastro-enteritis—the present paper has nothing to do.

There are circumstances which render it difficult to limit the effects of the ether. The operation may be unexpectedly prolonged, it may necessitate a position detrimental to free breathing, the vital resistance of the patient may be diminished by vicious habits, exhausting disease, hemorrhage, shock, cold, cardiac or pulmonary lesions. In these, and many other ways, to say nothing of carelessness on the part of the anæsthetizer, more ether than is needed is given, and the stage of ether-narcosis supervenes. The operator notices a deepening color of the blood, which also flows less freely. He stops and finds that the skin has a dusky pallor, and is cool and moist; the pulse is weak and not very fast; the temperature of the body is subnormal, and the respiration is very stertorous or shallow, and almost imperceptible.

Symptoms referable to the	Third stage of asphyxia.	Stage of ether-narcosis.
Skin.	Bluish pallor; cool and moist.	Bluish pallor; cool and moist.
Arterial tension.	Lowered.	Lowered.
Heart.	Very slow and gradually weakening.	Not fast nor very weak.
Temperature.	Subnormal.	Subnormal.
Respiration.	Gasping; deep, slow, and irregular.	Slow and shallow; regular.
Motility.	General relaxation disturbed by general tetanic convulsions.	General relaxation.
Reflexes.	Abolished.	Abolished.
Sensibility.	Abolished.	Abolished.

Ordinarily, a simple withdrawal of the ether with traction on the tongue or lifting the jaw forward will inaugurate free respiratory movements. Sometimes it is not alone a mechanical impediment but a benumbing of the respiratory centre that exists, and a condition of "modified asphyxia" ensues, whose symptoms differ somewhat from those of true asphyxia, because of the effect of the anæsthetic circulating in the blood.

The train of symptoms in asphyxia depends first on the irritating effect of carbonic acid gas on the nervous centres. In this way are produced the initial convulsions, the dyspnœa, and the strong, slow pulse. This irritation is excessive, as the violence of the convulsions and the forced respiratory acts show.

As the respiratory centre becomes exhausted, it is at long intervals only that the CO_2 in the blood can stimulate it to action, hence the respirations are infrequent, irregular, and gasping. The inhibitory centre of the heart is still irritated by the CO_2 and the pulse remains slow. At the same time the muscle of the heart feels the want of oxygenated blood and the pulse gets weaker.

During ether narcosis asphyxia is seldom complete and the anæsthetic deadens the effect of the CO_2 on the respiratory and cardiac centre, hence the respiration, still slow, is shallow and regular, while the stimulating action of the ether on the substance of the heart tends to make the pulse stronger and more rapid than in the corresponding period of pure asphyxia.

If means of resuscitation avail nothing, the skin loses some lividity, may assume an ashen pallor, and is cool and clammy. Respiration, if present, is slow and shallow. Râles are heard in the trachea and large bronchi, while all over the lower and posterior parts of the lungs, finer râles point to the presence, in the smaller bronchi, of mucus or œdematous fluid. The pulse becomes very weak, perhaps imperceptible at the wrist. Involuntary evacuations may have taken place. The respiration becomes slower and shallower and finally stops, while the heart beats on feebly for a short time.

In a person dying thus the chief lesions are: a venous congestion of all the viscera, provided no large hemorrhages have occurred; a fulness of the large venous trunks and distention of the right side of the heart; the trachea and larger bronchi contain reddish fluid, some of which is undoubtedly mucus secreted in the mouth and throat and inspired, while a frothy œdematous infiltration may occupy the base and back of both lungs, or perhaps, in varying degrees, involve the whole of both organs. This is essentially the pathological anatomy of asphyxia and is brought about in the following manner: The vapor inhaled gradually displaces a certain amount of air from the lungs and oxygen from the blood. The capacity of the lungs for holding air, and the consequent oxygenation of the blood, is still further encroached upon by a gradual filling up of the large air-passages with bronchial mucus, the secretion of which is increased by the irritating nature of ether vapor. At first this hypersecretion is coughed up, but soon, through benumbing of the respiratory centre, the secretion fails to excite expulsive efforts and accumulates. This heightens the asphyxia and at the same time removes the compensating factor of dyspnœa. The heart, thus supplied with poorly oxygenated blood, weakens, a passive hyperæmia of the lungs sets in, which may result in a more or less marked pulmonary œdema, which, with the progressively failing heart, rapidly proves fatal.

These deductions, partly theoretical, partly practical, drawn from man, are fortified by similar results obtained by experimentation on animals.

When the animal is fully anæsthetized, an artery is connected with the mercurial manometer of a modified kymograph of Ludwig. By this means can be graphically represented, the blood-pressure, the frequency and force of the heart, and sometimes the respiratory movements. When fully anæsthetized the visible mucus membranes are rather turgid and moist, involuntary evacuations may occur, there is general relaxation, the reflexes and general sensibility are abolished, the respirations are deep, regular, and of about normal frequency, the pulse is fast, full, and strong, and the blood-pressure is about normal.

If the inhalation be continued the respirations soon get slower and shallower, and at once a change, which is the lethal change, commences. It consists of a rapid fall of arterial tension and more delayed indications of a failing heart.

After respiration finally ceases there immediately ensues a rapid and progressive weakening and slowing of the heart and a fall of blood-pressure, so that, in from thirty seconds to two minutes after breathing ceases, the weak and slowly-beating heart stops, the blood-pressure having fallen to a minimum.

The accompanying schedule gives, in tabular form, the results of such an experiment:

	Time.			Arterial pressure in mm. of mercury.	Force of heart in mm. of mercury.	Pulse per minute.
	Hrs.	Min.	Sec.			
	4	1	00	122.0	18.0	160
	0	2	00	122.0	18.5	155
	0	3	00	120.0	19.0	170
	0	4	00	112.5	19.0	165
	0	4	35	104.5	19.0	160
	0	5	00	92.0	16.5	160
*	0	5	42	79.0	14.5	160
	0	5	50	66.5	12.5	150
	0	6	00	60.0	12.0	145
	0	6	10	51.5	10.5	145
	0	6	20	43.0	8.5	140
	0	6	30	37.5	7 5	130
	0	6	40	35.0	6.5	120
	0	6	50	33.5	6.5	110
	0	7	00	32.0	6.5	110
	0	7	10	30.5	5.5	110
	0	7	20	28.0	4.0	110
	0	7	30	25.5	2.5	110
	0	7	40	24.0	1.5	100
	0	7	50	20.0	0.5	100
†	0	8	00	20.0	0	0

* Respiration ceased. † The heart stopped.

In this case it will be seen that the heart continued to beat with diminishing frequency and force, and with constantly falling arterial tension for over *two minutes* after all respiratory movements ceased; and it is my impression (deduced from repeated trial) that, within at least the first ninety-eight seconds, insufflation would have saved life.

The post-mortem appearances of animals so killed resemble those seen in man, viz., venous engorgement of the viscera, over-distention of the venous trunks with dark, semi-fluid blood, culminating in a tremendous distention of the right auricle and ventricle; the left auricle and ventricle are nearly or quite empty, the lungs are somewhat congested, and the bronchi generally contain some frothy, bloody serum. The probable mode of production of these lethal symptoms is as follows:

The fall of blood-pressure is caused by—

1. Exhaustion of the vaso-motor centre by accumulation of CO_2 in the blood.

2. Gradual but almost complete emptying of the left side of the heart and arteries into the veins and right heart.

3. Weakening of the heart.

The weakening of the heart is caused by—

1. Over-distention of the right side of the heart from obstruction of the pulmonary circulation by infrequent and shallow respiratory movements.

2. Malnutrition of the muscular substance of the heart, which is supplied with (*A*) a diminished quantity of blood because of (*a*) the slowness of the beat, (*b*) the low blood-pressure, (*c*) the emptiness of the arteries; (*B*) a poor quality of blood (a large percentage of CO_2).

The slowing of the pulse is caused by—

1. Stimulation of the inhibitory centre by CO_2.

2. Unilateral over-distention of the heart.

3. Probable depression, by ether, of the motor functions of the accelerator centre for the heart.

Taking into consideration the prominence of the failure of respiration, it is remarkable that more attention has not been paid to its re-establishment in the treatment of ether-narcosis. It is true that artificial respiration has for years been held as an almost unfailing remedy, and its reputation has been well deserved. The chief stain on its record is that roundabout ways of maintaining it (as electricity, etc.) have been at various times advocated to the exclusion of simple mechanical means or insufflation.

Wood[1] says: "When artificial respiration is maintained, animals bear an enormous amount of this drug without cardiac failure."

Ringer[2] says: "Ether, therefore, induces very little paralyzing effect on the ventricle. In fifty-minim doses it accelerates and somewhat weakens its action, but, from the great acceleration, the ventricle must perform more work than before the addition of ether."

At the same time, I think clinicians have been apt to under-estimate the respiratory failure and over-estimate the circulatory failure, thus relying on cardiac stimulants to the neglect of artificial respiration. What so common as to see the syringe whipped out and a hypodermic injection of ether, alcohol, or ammonia given.

What more illogical than to suppose that the administration of a cardiac stimulant will excite to contraction an over-distended right heart unless the cause of that over-distention, *i.e.*, the shallow and infrequent respiratory movements, is removed? Again, is it not irrational, when a patient is overwhelmed with one cardiac stimulant, to throw into his circulation, not an antagonist, but a synergist? Bartholow says: "It is, however, very questionable whether the administration of alcohol or one of its derivatives can be useful in a condition of things brought about by an anæsthetic of alcoholic origin. The author believes, indeed, that serious mischief is done by this practice in cases capable of resuscitation."

Of all remedies subcutaneously injected probably alcohol is used most, and no one will deny that ether and alcohol are cardiac stimulants of very great similarity, and that ether-narcosis and the condition known as "dead drunk" are very similar. I am not prepared to deny that restorative effects follow and seem to be due to the administration of these cardiac stimulants, but it is my opinion that the improvement is due *more* to the simultaneous withdrawal of the ether, the admission of more air, and other procedures looking toward improvement in the breathing.

Having in my mind the illogical use of purely cardiac stimulants it seemed to me there was much rather a need of a respiratory stimulant, and I thought that belladonna filled the indications present better than any one drug, it being principally a respiratory stimulant but also in certain doses a cardiac stimulant too. I thought the field thus opened up was new, but on going over the literature of anæsthesia carefully I find that it has attracted some attention before, but for some reason has never been thoroughly studied or put to practical use.

Bartholow, in a prize essay entitled "The Physiological Effects and Therapeutic Uses of Atropia and its Salts,"[3] says: "The subcutaneous use of atropia before the administration of chloroform, lessens the dangers of paralysis of the heart and of respiration." He says nothing of its being similarly used in ether-narcosis, and in his "Materia Medica and Therapeutics," New York, 1884,

[1] H. C. Wood: Therap., Mat. Med., and Tox., 4th edition, p. 288.
[2] Sidney Ringer: The Influence of Anæsthetics on the Frog's Heart, Practitioner, 1881, xxvii., p. 15.
[3] Transactions of the American Medical Association, vol. xv., 1869, p. 672.

he in only one place refers to the remedy he studied so many years before. On p. 714, in the "clinical index," as an antidote to chloroform taken by the stomach, he mentions atropine among other remedies.

In the New York MEDICAL RECORD, 1882, xxii., p. 274, an anonymous writer speaks of giving with good result first .0008 and then .001 of the sulphate of atropia to a patient suffering from the coma and collapse of a combined administration of morphine and ether.

Lister[1] says, when speaking of the toxic effects of chloroform inhalation: "Atropia is a most powerful respiratory and cardiac stimulant, rapid in action, and, by the hypodermic method, readily introduced. Its reaching the nervous centres governing these functions in cases where the circulation is reduced to a minimum must, however, be considered problematical. There is no question that it should be administered if at hand, but its action as a preventive of accident is without doubt more reliable."

Reeve[2] says, when speaking of the dangers attendant upon the administration of ether: "As a preventive of accident atropia is, without doubt, far more reliable than as a means of rescue when it has occured."

The antagonism between ether, with its narcosis and asphyxia, and belladonna or atropia is seen at a glance by referring to the subjoined table:

Symptoms referable to the	Ether-narcosis and asphyxia.	Poisoning by atropine.
Skin.	Bluish or ashen pallor; cool and moist.	Suffused perhaps; scarlet; hot and dry.
Mouth and throat.	Moist or full of mucus.	Very dry.
Intestines.	Relaxed; perhaps involuntary evacuations.	Increased tonicity and peristalsis.
Urine.	Normal amount; perhaps involuntary evacuation.	Diminished in amount; retained.
Arterial tension.	Lowered.	Elevated.
Pulse.	Not very fast; weak.	Very fast; strong.
Temperature.	Subnormal.	Slightly febrile.
Respiration.	Slow and shallow; perhaps stertorous.	Rapid and deep.
Pupil.	Perhaps (?) contracted.	Dilated to a maximum.
Motility.	General relaxation.	Restlessness.
Reflexes.	Abolished.	Normal or heightened.
Sensibility.	Abolished.	Normal or heightened.
Consciousness.	Lost; a condition of profound coma.	Insomnia; excitement or even wild delirium.

To determine whether this antagonism is real or only theoretical, several sets of experiments were necessary; they were performed chiefly on adult healthy cats, which, so far as I know, have no idiosyncrasy to either ether or atropine.

When cats are first atropinized, I have found that they are readily brought under the effects of ether, and that the atropine in nowise detracts from the anæsthetic effect of the ether, but seems to secure the animal considerable immunity from its narcotizing effects. Cats being fortified by a preliminary dose of atropine take more ether, and for a longer time without depressing effects than others. This antagonistic effect is still better demonstrated when the ether is given first, as the accompanying experiment will show.

A cat was fully anæsthetized, and the inhalation was kept up by means of a tracheal tube. Ordinarily a cat will die in from two to seven minutes when treated in this way. When the pulse had been reduced to 120, the respiration to 12, the blood-pressure to 50 mm., and the force of the heart to 8 mm., in short, when the stage of modified asphyxia seemed imminent, .012 sulphate of atropia were given hypodermatically. There followed an immediate slight rise in arterial tension. The administration of concentrated ether vapor was continued uninterruptedly for twenty minutes, when the animal remaining in about the same condition, the ether was removed. The animal showed signs of returning consciousness about fourteen minutes later. It will be seen in this case that concentrated ether vapor was given continuously for half an hour, while usually an administration for five minutes, under like circumstances, proves fatal.

	Profoundly narcotized, atropine .012 given.	Twenty minutes later, ether continued.
Pulse	120	110
Respiration	12	20
Blood-pressure	50 mm.	36 mm.
Strength of heart	8 mm.	6 mm.

From this and many similar experiments it would seem that the asphyxiating effect of ether is almost indefinitely postponed by the timely administration of a large amount of atropia.

The crucial test of the value of atropia depended upon the results of experiments to determine whether atropine, when given after respiration has stopped but the heart was still beating, would initiate respiratory movements and restore life. The following is one of these experiments given in detail:

With a full-grown cat the administration of ether was commenced at 2:45, at 2:50 she was etherized; at 2:55, pulse, 232; respiration, 48, and the animal was connected with the kymograph. At 3:04 the pulse was 246; respiration, 36; blood pressure, 160 mm., and the respiratory curves were well marked. At 3:08 the respiration had stopped entirely, and apparently, finally, the pulse was 234, and the blood-pressure was 140 mm. In twenty seconds there commenced a rapid fall of blood-pressure, reaching at 3:8:33 as low a point as 82 mm., the pulse being 240.

When the blood-pressure had fallen to about 100 mm. an injection of .006 sulphate of atropia was given, and the ether removed. The blood-pressure in a few seconds rose to 134 mm., having fallen as low as 82 mm. Fifty seconds after the injection of atropine respirations commenced, at first shallow, but in ten seconds more they became quite regular and deep and 36 per minute. The blood-pressure was 128 mm., and the pulse 258. At 3:11 the respirations were very deep and 36. Blood-pressure 130 and pulse 246. At 3:15 respirations very deep and 18; blood-pressure, 122; pulse, 258. At 3:21 the animal showed signs of returning consciousness; respiration, 36; pulse, 288; blood pressure. 120. Recovery was perfect, and the animal had to be killed by severing the medulla.

The results of my experiments warrant the assertion that atropine, while it does not impair the anæsthetic power of ether, lessens its asphyxiating tendency in a marked degree; also, that when the stage of asphyxia has commenced, the respiration has ceased, and the heart is failing, a timely large dose of atropia may save life, and we may even hope that, with other means, it may be powerful in the treatment of suspended animation.

In conclusion I will submit my suggestions as to the proper treatment of ether-narcosis as deduced from my experience and experiments. To avoid as much as possible the depressing effects of anæsthetics, which, I claim, are present in varying degrees in all cases, be careful to have the patient, particularly his extremities, warmly protected and, if necessary, warmed by hot bottles.

If alarming symptoms occur it must be remembered that the condition is generally one of depression, and hence stimulating, not depressing, remedies are indicated. For this reason the cold douching and slapping with cold wet towels should be avoided. Hot applications are just as exciting and devoid of danger.

If during the later stages of anæsthetization the respiration becomes embarrassed, the pulse begins to fail, and other alarming symptoms occur, take off the ether, draw the tongue and jaw forward and, if the respiration do not improve *at once*, give hypodermatically .002 of the sulphate of atropia and apply heat to the limbs and over the heart. If improvement does not occur in two minutes repeat the dose.

[1] Holmes' System of Surgery, American edition, vol. iii., article on Anæsthetics by Joseph Lister, Esq., revised by J. C. Reeve, M.D., p. 548.
[2] Loc. cit., p. 556.

If the respiration suddenly or gradually ceases, and neither lifting the jaw forward nor any other simple procedure starts it again, commence *mechanical* artificial respiration *at once*, the method of Sylvester being probably the best; admit fresh air freely. Have .003 of the sulphate of atropia given hypodermatically at once. Order hot applications to the extremities and precordial region. If a faradic battery be handy and in order, one electrode might be placed on the cervical spine and a strong current be applied diffusely over the chest with a wire brush. Even if the pulse disappears attempts at resuscitation should not be abandoned, the artificial respiration being the most important. The dose of atropia may be repeated if signs of recovery do not begin to manifest themselves in a minute.

I am of the opinion that free venesection would be of great service in some cases where the subject be plethoric and no large hemorrhage has taken place. My reasons for so thinking depend first on the fact that, on post-mortem examination of men and animals dying of ether-narcosis, venous engorgement and distention of the right heart is found; and secondly on the fact that I have repeatedly seen the heart in animals apparently dead of ether-narcosis, commence to beat again after a free incision in the liver (from which the venous blood will actually spirt) or a section of some large venous trunk or an incision into the distended right heart itself.

A CASE OF
PRIMARY EPITHELIOMA OF THE LARYNX.

Tracheotomy—Death Ten Months Later—Autopsy—Remarks.

By D. BRYSON DELAVAN, M.D.,

NEW YORK.

Although cancerous disease of the larynx is not of rare occurrence, it is not often that opportunity is given for studying the development of a malignant laryngeal growth of the above variety from its very inception to its final inevitable termination. For the reason that the following history is complete, and because the case presents incidentally several instructive features, it has seemed worth while to place it on record.

John B——; Ireland; aged fifty; married; porter. The patient applied for treatment at the Throat Clinic of the College of Physicians and Surgeons, New York, October 15, 1882, and gave the following account of himself: Had always enjoyed excellent health; was not aware of any heredity; had been strictly temperate in the use of alcoholics, and regular in his habits; was a moderate smoker; gave no evidence whatever of any acquired constitutional taint. During the month of August, 1882, while employed as gatekeeper on the Elevated Railroad, first noticed a slight hoarseness of voice. This increased slowly, and soon began to be attended with a mild laryngeal cough. Soon afterward began to lose strength, appetite, and flesh.

When first examined, two months after the beginning of these symptoms, the patient appeared to be a fairly well-nourished man, of medium height and build, light complexion, and good intelligence.

Laryngoscopic examination, made with some difficulty by reason of a marked hyperæsthesia of the pharynx, revealed a condition which differed little from an ordinary chronic laryngitis. Both vocal bands were congested and thickened, the congestion extending throughout the whole interior of the larynx, but being most pronounced upon the left false cord, which was also slightly enlarged and prominent.

Examination of the chest showed physical signs of phthisis, first stage, at apices of both lungs.

By the middle of December following, the above-mentioned enlargement of the left false cord had progressed decidedly, and its surface, from being smooth and natural, began to be nodulated and uneven. This continued to such an extent that the presence of a new growth in the larynx, long before recognized, and for some weeks suspected to be of a malignant type, could no longer be doubted. From this time it developed with increasing rapidity, extending both above and below the left vocal band, but confining itself to that side of the larynx, while its surface began to break down and to form extensive ulcerations, which, irregular in outline and bathed in grayish yellow pus, presented the appearances characteristic of cancerous disease. Moreover, no beneficial results had been gained from the active internal administration of iodide of potassium, so that the possibility of its being specific was excluded. From the peculiar location of the growth its removal by endo-laryngeal operation was impossible. Meanwhile, with the exception of aphonia and a slight cough, the symptoms common to laryngeal cancer—namely, dysphagia, pain on external pressure, reflex pain in the ears, enlargement of the cervical lymphatic glands—were all wanting.

There was, however, a distinct external enlargement over the region of the left thyroid cartilage. During the next two months the progress of the case was unmarked by anything more than the gradual extension of the tumor, and the progressive deterioration in general condition of the patient. Early in February dyspnœa suddenly developed and soon became so urgent as to call for tracheotomy. The question of a partial extirpation of the larynx had, of course, presented itself. It was deemed prudent, however, to delay decision as to the latter operation until the trachea had become accustomed to the presence of the tube, and until the precise nature of the growth had been determined. The condition of the larynx at this time was as follows: erosion of the epiglottis; extensive ulceration of the left arytenoid prominence; destruction of left false cord and of left vocal band; involvement of the mucous membrane covering the left half of the cricoid cartilage, and of the first two rings of the trachea; while, externally, the region over the left thyroid cartilage was much enlarged. Owing to the inaccessible position of the morbid processes, and the importance of the structures involved, it was impossible to secure a specimen for microscopic examination. From its gross appearance, however, it was apparently epitheliomatous.

It was decided to operate at once, first performing tracheotomy and then continuing with the operation of extirpation should the conditions warrant that course. There were present at the time of the operation Drs. Cleveland, W. T. Bull, Lefferts, Nelson H. Henry, Hitchcock, and Beverley Robinson, of New York, and Dr. John H. Lowman, of Cleveland, O. Tracheotomy was performed as low down as possible, in order to facilitate any future attempt at extirpation. The tracheal rings were extensively ossified, and, on opening the trachea, they were found to be so resistant that a space large enough to admit the tracheal tube was exsected, instead of dependence being placed upon a simple incision into the anterior tracheal wall. Upon opening the trachea it was found that the disease had extended downward as far as the third ring. Its progress, however, seemed absolutely confined to the left side. The thyroid body was large and prominent, its isthmus lying over the lower aspect of the larynx. Had it seemed advisable to extirpate the larynx at a subsequent operation matters would have been greatly facilitated by dividing and tying the thyroid isthmus at the time of the tracheotomy. By a majority of those present it was deemed undesirable to proceed to extirpation of the larynx until the precise histological nature of the growth had been ascertained. Unfortunately, as had been from the first feared, it proved to be a true epithelioma.

The condition of the lungs, too, had become rapidly worse, so that the phthisical process was well advanced on both sides. Immediate present relief was afforded by the introduction of the tube, and recovery from the oper-

ation was rapid and without accident. A marked improvement in the general condition of the patient soon became apparent. He was able to swallow at this time with but little difficulty, and the tube was easily managed and but a slight annoyance. The larynx also underwent a remarkable change for the better, for, through the influence of the rest afforded by the tube, the respiratory movements of the glottis being of course abolished, the tumefaction subsided, the ulcerations ceased to extend and became to a considerable degree healed, and even the external enlargement over the thyroid became smaller and less prominent.

The disease was thus held in abeyance until about the middle of July, when, the weather becoming very warm, the patient began at once to run down. The deterioration in his condition was progressive, although more positive the warmer the weather. On my return to the city in October a laryngoscopic examination showed extensive and deep ulceration of the epiglottis, both arytenoids, and the whole interior of the larynx, and extending downward into the trachea as far as the tube, or, about four rings. The external tumor was but little more prominent than it had been four or five months before. A comparative condition of ease was maintained by the free administration of opium. Dysphagia was severe, but was almost entirely relieved by the use of the small stomach tube. Against this, however, the patient took a violent prejudice, on the ground that he had become too ill to desire to prolong his life by artificial means, so that, after a fair trial, its use was discontinued. Finally, after becoming so weak and exhausted from inanition that it seemed as if life could hardly be sustained from hour to hour, he fell into a state of semi-coma, and having lingered thus for two weeks, finally died.

Autopsy, forty-eight hours after death.—Body emaciated; rigor mortis marked; no œdema; tracheotomy tube *in situ*; old tracheotomy wound immediately above episternal notch. Extending from hyoid bone to tracheal wound, and laterally about two inches on each side of the median line, is a well-defined, hard, and immovable swelling, through which, by palpation, the outline of the larynx is imperceptible. On extending the tracheal wound upward to the lower border of the hyoid bone the whole cavity of the larynx is exposed and found to be distended with a decomposed, pultaceous mass of cancerous matter, which seems to extend upward to the base of the tongue, backward to the œsophagus, which it partly involves, and downward into the trachea to a point indefinitely below the tracheal wound. On careful examination of this mass with the point of a scalpel it is found that the cartilaginous structures of both trachea and larynx have been so extensively disorganized as to be unrecognizable, the rings of the former being represented by an occasional spicule, of bony consistence, while in place of the cartilages of the latter are found two or three thin osseous plates, in no case more than half an inch in diameter, evidently the remnant of the thyroid and cricoid cartilages. To remove the specimen is, under the circumstances, impossible. Thorax: Advanced phthisis in both lungs. Other organs not examined.

In reviewing the above record, the first feature of especial interest is the marked absence of early symptoms of malignant disease of the larynx as generally met with and described. Beginning apparently as a catarrhal laryngitis, and associated with pulmonary phthisis, there were no reasons for regarding the case as unusual until, it was made evident that the laryngeal lesion was unilateral, and even then some time elapsed before appearances suggestive of serious trouble were developed. With regard to the operation of tracheotomy, several advantages arose from opening the windpipe at the lowest point possible: diseased structures were avoided and the wound was made in normal tissue, so that it healed quickly and without accident; the upper part of the trachea was not disfigured, and thus rendered less manageable for the adjustment of an artificial larynx, had extirpation been performed; and, finally, the extension of the growth was not hastened by the irritation caused by too close proximity of the tube. The device of exsecting a portion of the anterior tracheal wall a little larger than the diameter of the canula rendered the re-introduction of the tube much easier, and its presence much less uncomfortable. Division of the thyroid isthmus, as before suggested, would not have been difficult of performance at the time of the tracheotomy, although had extirpation been afterward attempted its size and position would have made it, in all probability, a hindrance and a source of troublesome hemorrhage.

The extraordinary amelioration of the laryngeal condition which followed the tracheotomy was the most striking and perhaps the most useful lesson to be derived from the case. In an able and highly original article on "Ulcerative Phthisical Laryngitis, its Nature, and the Value of Tracheotomy in its Treatment," published in the *American Journal of the Medical Sciences*, April, 1879, the writer, Professor Beverley Robinson, of this city, advocates the propriety of tracheotomy in suitable cases of laryngeal phthisis, for the purpose of securing rest, and has, since that time, had gratifying results in cases similar to those described in his paper. Although prepared by a knowledge of his experience for some improvement in the present case, similar on account of the extensive ulceration which existed, the suspension of the respiratory movement of the glottis and the consequent rest to the diseased parts produced changes for the better which were far greater in duration and degree than could reasonably have been expected.

Extirpation of the larynx in this case was unquestionably contra-indicated; first, because of the almost uniform failure of that operation in epitheliomatous disease of the larynx; and secondly, on account of the advanced condition of pulmonary phthisis which existed. The greatest possible amount of relief to be gained from extirpation could not, as matters resulted, have equalled the fortunate effect of the simple tracheotomy.

Again, the value of the process of feeding by means of a tube of small calibre, introduced a short distance into the œsophagus, as described by the writer in the *Philadelphia Medical News*, June 7, 1884, was clearly demonstrated.

A not unusual feature in these most unhappy cases is the mode of death, by inanition, in which it oftens happens that life is prolonged for days, or even weeks, after the period set by the attendant as its probable extreme limit.

The condition of the larynx found post mortem afforded a remarkable instance of the destructive power of the disease upon every tissue which came in its way.

Finally, the inevitable question presents itself, Is it desirable, in such cases, to prolong the patient's life? In the present instance dyspnœa developed suddenly in February. Had tracheotomy not been performed death must have resulted in a few days. Of course, the duty for its performance was imperative. The patient, however, was a remarkably conscientious, practical, and logical thinker, and he himself decided to enjoy the probable respite likely to be afforded by the operation and take the risk of future consequences. The result of the operation was almost six months of comfortable existence. This, on the other hand, was followed by four months of intense suffering, so great, indeed, that he regretted not having objected to any measure which had been instrumental in drawing out his existence and thus extending his misery.

The progress of the above case is in marked contrast to that of a case of primary epithelioma of the larynx immediately below the vocal band, reported several years ago by the writer in the New York MEDICAL RECORD.

In this, the presence of a tumor so small and so completely concealed by the overhanging vocal band that it could not be detected by the laryngoscope, and in the earliest stages of its development, was sufficient to cause fatal dyspnœa.

1 EAST THIRTY-THIRD STREET.

NOTE ON THE DETECTION OF SUGAR IN URINE.

By GEORGE B. FOWLER, M.D.,

PROFESSOR OF CLINICAL CHEMISTRY IN THE NEW YORK POLYCLINIC, ETC.

In Dr. Satterthwaite's interesting *résumé* of the subject of glycosuria, in this journal of April 11th, there is one statement which is incorrect, and which on account of its practical importance should not be allowed to pass unnoticed. I allude to the sentence, "It may be as well at this point to note that Trommer's and Fehling's methods are thoroughly satisfactory in most cases where sugar is present, though on the whole the latter is less apt to be misinterpreted." The frequency with which I encounter this error has impressed me with the evident confusion which exists regarding the matter of testing for sugar in the urine. Now, Trommer's test for sugar depends upon the property which grape-sugar has of immediately reducing the oxides of copper in a boiling alkaline solution. The fact is, however, that *Trommer's test is not applicable to the urine*, except when applied under certain important conditions.

If any one will take the trouble to prepare a watery solution of honey, and to some of it in a test-tube add three or four drops of a solution of copper sulphate (gr. xxx. to ʒ j.), and then render the whole alkaline by sodic or potassic hydrate (gr. xxx. to ʒ j.), and boil, he will observe the following characteristic changes: When the copper sulphate is added the clear watery fluid simply assumes a greenish hue. When the alkaline solution is added there first appears a light-green precipitate (hydrated cupric oxide) which, on the addition of an excess of the alkali, subsequently clears up, giving place to a perfectly clear and beautiful blue solution. On boiling, the whole turns yellow, or orange, from the precipitation of the insoluble red oxide of copper.

Now make a solution of honey in urine and proceed to apply the test as before. All will go well until the last step; for, on boiling, the mixture simply loses its blue color, changes to a clear, amber-colored fluid, like the original urine, and shows no precipitate save that of the flocculent earthy phosphates thrown down by the boiling alkali; and the color will be darker than the urine on account of the action of the alkali on the sugar. Just compare the two results. These points have long been known, and yet most of our books persistently disregard them.

Certain ingredients of the urine, therefore, probably the coloring matter, interfere with the reaction of Trommer's test, and the custom formerly was, first to filter the suspected urine through animal charcoal, whereby it is deprived of all color, and will then react perfectly well. But this is rather troublesome. So that, with the view of ascertaining the nature of the interference, and, if possible, how easily to avoid it, I some years since directed my attention to the subject, and published a modification of Trommer's test, whereby it can be safely employed in urinary solutions of sugar (*New York Medical Journal*, June, 1874, p. 632), and, although several authors have incorporated it, I beg leave to briefly reiterate the chief points.

The red oxide of copper precipitated from a few drops of copper sulphate solution in a boiling alkaline solution of saccharine urine, is redissolved as fast as formed. But this only occurs when an excess of urine is used. If, on the other hand, we employ an excess of copper sulphate, the conditions will be such as to prevent any interference, and the reaction will be prompt and characteristic. My modification, then, consists in taking about five drops of the suspected urine, and to it adding two or three drops of a strong solution of copper sulphate (ʒ j. to ʒ j.). The alkali is carefully poured in until the clear blue color appears, when, on boiling, if sugar is present in appreciable amount, the red oxide of copper will be thrown down. If boiling changes the mixture to a dark transparent urine color, sufficient copper sulphate has not been used. If, on adding the alkali in excess, the pale-blue precipitate of hydrated cupric oxide does not disappear and give place to a clear blue solution, either too much copper sulphate has been employed, or sugar is not present. When either of the last two results are obtained, the experiment must be repeated with varying proportions of the reagents.

Fehling's liquor is a graduated solution of copper sulphate in liquor potassæ or sodæ, and is intended for volumetric analysis, although it is equally applicable for qualitative tests. Its clear blue color is due to the presence of some organic acid or salt—usually tartaric acid—and being already prepared, it is by far the most convenient and certain test for the physician's use. Taking about a drachm in a test-tube, boiling, and adding the urine drop by drop, the conditions are the same as in my modification of Trommer's. The only precaution necessary with it is always to boil before adding the fluid to be tested, because, on keeping for any length of time, the organic salt or acid which it contains itself reduces the copper sulphate in a manner similar to sugar.

A CASE OF HUMAN BITE FOLLOWED BY SEPTICÆMIA—RECOVERY.

By JAMES STRATTON CARPENTER, A.M., M.D.,

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It is only within a comparatively recent period that the attention of the medical world has been drawn to the possession by human saliva of a virulence, which, under certain conditions, is hardly surpassed by that possessed by the poison of the rattlesnake and others of its class. It was that celebrated investigator Pasteur, to whom we owe so much, who, no earlier than 1881, proclaimed his discovery of "a new disease," from injecting into the subcutaneous connective tissue of a rabbit the saliva obtained from a child that had died of hydrophobia, and the experiments of Dr. Sternberg, U.S.A., subsequently, who employed *normal* human saliva, have furnished sufficient evidence that, however harmless we have been accustomed to regard this secretion of the salivary and other glands, and as potent only for physiological functions, we must henceforth accord to it another and more dangerous quality that brings its study into the realm of pathological inquiry, and forces attention to it on account of the interest it possesses from a surgical point of view.

These experiments of Dr. Sternberg, which have been repeated for the most part by Dr. Claxton (vid. *Medical Times*, vol. xii., No. 380), have fully established the fact that when normal human saliva is injected into the subcutaneous connective tissue of rabbits, death ensues in from twenty-four hours to three weeks. When larger animals were experimented on only local symptoms, in the production of abscesses at the seat of puncture, were obtained. And we are accordingly led to the inference that the potency of the poison diminishes as the size of the animal experimented upon increases in the scale of being—an inference which is not supported by the results of the case here reported.

I have nothing to contribute in the way of experimentation upon this normal secretion of the human economy. All experiments, when entered upon with a view to emphasize the beliefs of the individual who conducts them, are apt to be viewed with distrust, and he is sure to meet with unfavorable comment at the outset if his deductions clash with long-accepted opinions. Particularly are experiments of this character liable to be frowned upon when they are scrutinized by the microscope of German methods, and viewed from the laboratory windows of an imitator of Koch and others of that school. Woe be to him if, in their opinion, at any point a loophole of entrance be discovered where that enemy to profitable medical discussion, the much-abused bacillus or micrococcus, may have crept in unawares!

But I simply desire to record a case which, in the light

of these recent investigations, seems to be possessed of especial interest, and is contributed by me with no other idea than the wish to place on record the results of an introduction into the human system of a small amount of human saliva placed there with no thought of experimentation whatever.

Case.—Owen M——, laborer, aged thirty-five years, while attempting to stop a domestic brawl was himself set upon by the intoxicated head of the household, and, in the scuffle which ensued, was bitten by his assailant on the front and back of the distal phalanx of the third finger of the right hand. The wound on the dorsal aspect of the finger was but a slight scratch in appearance and soon healed; but that anteriorly was of a punctured character, leaving the mark of a single tooth and bled quite freely so as to saturate the rag wrapped about it. The wound was cauterized by the physician first called in, who did not return subsequently, and for nearly four weeks the patient made use of various home remedies, poulticings, salves, etc., until becoming alarmed at the condition of his finger, he sent for me just one month after the infliction of the injury.

The appearance of the hand was as follows: There was great swelling of the third finger, with discoloration, it being three times its natural size, and of a dark purplish hue over its whole extent. The skin on the dorsal aspect of the finger was of a glistening character, due to the tension exerted upon it by infiltration into the tissues; while along its palmar aspect half-a-dozen openings were visible, leading down to the bone and discharging a very unhealthy-looking pus. There were numerous granulations along its whole extent, excepting at the proximal phalanx, which was not deprived of its dermal covering, but was the seat of a purulent collection and a fistulous tract, at the bottom of which dead bone could be detected. The hand was puffy in appearance, but no sign of anything more than œdema of the tissues would present. The patient's general condition was by no means good, and symptoms of hectic had been noticed the past few days. The pulse was rapid and feeble, over 100 per minute, and fever generally set in toward afternoon; sweatings were beginning to bother him; anorexia had existed for some days; there was obstinate constipation; the breath was offensive; the tongue heavily furred; and sleeplessness had began to tell its story in his face, which was pallid and sunken.

Under circumstances such as these I strongly advised immediate sacrifice of the finger, but was obstinately met by the members of the man's family as well as himself, who "did not want it taken off;" so I agreed, under protest, to see what several days' treatment would bring about, allowing them to assume the responsibility of the delay. I laid open the finger by a deep incision anteriorly, established free drainage in the wound, and used aseptic dressings, but all to no purpose, and amputation of the finger at the metacarpo-phalangeal articulation was done March 15th, the only results of the delay being, as I had feared, an increase in the constitutional disturbance before noted.

The subsequent history of the case was but what the constitutional condition of the patient had led me to expect, and only at this date, over five weeks subsequent to the performance of the amputation, has the wound healed and the convalescence of the patient been established. Septicæmia became more and more pronounced, and for some days the issue of the struggle was a very doubtful one. Œdema of the hand and arm occurred extending up to the elbow; on the index and middle fingers of the right hand, several days after removal of the third finger, could be seen several blebs containing a bloody serum, which in twenty-four hours' time had so extended that both fingers became suppurating sores, and, on being freely incised discharged an ichorous pus, and for nearly ten days were in this condition, which fortunately went no further. A dark-colored swelling appeared on the posterior aspect of the arm, just above the wrist, which I feared might be the precursor of a similar outbreak there to that noted in the two fingers, but it gradually disappeared without further trouble. Pain was felt from the hand up to the axilla, and there was at one time a slight enlargement of the axillary glands. The wound assumed a most unhealthy appearance; a whitish-gray deposit, diphtheritic in character, lined the bottom and sides of the incision, which was thickened and of a dusky-red color along its edges, the blush extending over a considerable portion of the dorsum of the hand. A slight discharge of unhealthy pus kept up for several weeks from the wound, and, as it showed no disposition to heal, all tension was removed, and granulation favored by use of carbolized and iodoform dressings in conjunction with the oxide of zinc ointment.

To keep pace with the local outburst the patient's constitutional symptoms became more alarming each day. There was great physical prostration, the febrile symptoms assumed those of a continued type, and the frequency of the pulse was increased to 130 to 140 per minute. There were colliquative sweats day and night, drenching the bedding and causing great exhaustion. But the absence of well-defined rigors—only chilliness being at any time complained of—the ability of the patient to take nourishment freely, and, in spite of the large doses of quinine and iron, the absence of any gastric irritability, these conditions led me to believe that the struggle would not be a hopeless one.

The treatment was tonic and supportive in character, the usual dose of quinine and iron at first employed being increased, subsequently to grs. xxiv. quiniæ sulph., and gtts. cxx. tr. ferri chlor., every twenty-four hours, which he took continuously for three weeks, the only effect subjectively on the patient of so much quinine being to cause a slight "singing" in his ears. Only one day, when I had ordered grs. xxx. of quinine to be given, was deafness produced, and the extra capsule was omitted afterward. Since April 18th he has been taking grs. xx. *per diem*, and the amount of iron has also been reduced to gtts. lxxx. daily.

To overcome the obstinate constipation, after a whole box of aperient powders had failed to move the bowels, I ordered:

℞. Ext. colocynth. c..... ʒ ss.
Ext. nucis vomicæ..... grs. iij.
Aloin..... grs. v.
M. ft. pil., no. xx. S.—One three times a day.

For the colliquative sweats I ordered a pill containing grs. iv. zinci oxidi, gr. one-fourth ext. bellad., and gr. one-third ext. nucis vomicæ, to be taken at bedtime, and repeated during the night if necessary. This greatly, though not entirely, relieved the patient, and I latterly prescribed a pill containing grs. iij. acidi gallici and gr. one-fourth ext. bellad., two of these being taken at bedtime, and with good effect. Singularly enough, what perspirations he now has are entirely limited to the right arm.

Brandy was freely given in the form of egg-nogg, which proved a very acceptable drink to the patient; nearly two quarts of milk were consumed daily, with broths and soups in addition; yet only at present writing, April 19th, five weeks after the amputation of the finger, and nine weeks subsequent to the date of the original injury, has convalescence been secured.

Comparing the results obtained by experiment on the lower animals, and those which are furnished by the study of this case of human bite, what do we observe?

1. As to the nature of the disease produced by saliva. It is unquestionably septicæmia, which, though not fatal in the case reported, as with lower animals experimented on, was of so serious a character that recovery was by no means an assured thing until many weeks of danger had passed by.

2. *The pathological appearances*, which experiment determined to "consist of a diffuse inflammatory œdema

or cellulitis situated about and extending from the seat of inoculation," in the case here reported, will be seen to conform exactly, so far as it goes, to the description above quoted.

3. What constitutes the difference in the virulence of the saliva of different individuals? The theory that nicotine destroys the septic micrococcus, affirmed to be the constituent of saliva capable of producing disease, may experimentally be true; but in the case reported the man's assailant was an inveterate user of tobacco, which did not, apparently, influence the results in the case in the direction named.

4. What factor in human saliva is it that produces the results described? Dr. Sternberg defines it as "a micrococcus which multiplies in the subcutaneous connective tissue, and also in the blood, shortly before or after death." And the progress of symptoms in the case seem to bear out this statement, as there was a period of incubation preceding the invasion of the disease, occupied by the micrococcus in multiplying itself, followed by the production of "the diffuse inflammatory cellulitis situated about the seat of inoculation and extending from it," and finally producing systemic infection, which was so nearly fatal to the patient.

Progress of Medical Science.

The Thermo-Cautery in Enlargement of the Thyroid Body.—The method of Dr. Weiss consists in touching the skin over the tumor with a small Paquelin's cautery, held like a pen. Touches with this instrument are made in horizontal rows, the rows being about one centimetre apart, and the touches in each row being close together. If the cautery be at a white heat, the procedure causes very little pain. Anæsthesia, general or local, is quite superfluous, and so is all after-treatment, but a little cotton-wool may be laid upon the site to prevent friction by the clothes. A thin dry scab falls from each spot after about six days. After seven or eight days the procedure may be repeated, and so on for six, eight, or a dozen times, according to the extent of the original enlargement. It is most valuable in the purely hypertrophic variety, but in the cystic also is of great advantage if the cysts be punctured with a Pravaz's syringe. In obstinate cases, the above method is rendered somewhat more severe by applying vaseline directly after the use of the cautery. The effect is to cause the premature separation of the small scabs, which is followed by a slight suppuration for a few days. The explanation of the good effects of Paquelin's cautery, so applied, is presumably this: Weiss believes that the irritation brought to bear on the nerve-endings in the skin causes constriction, more or less persistent, of the arterial muscular coats, which induces defective nutrition of the hypertrophic gland-substance, and its gradual disappearance.—*Berliner klinische Wochenschrift*, No. 2, 1885.

The Varieties of Gastric Disease.—Riegel believes that the stomach must always be washed out in accordance with Leube's plan before an accurate diagnosis can be made. A healthy stomach has perfectly finished the digestion of an ordinary meal in seven hours, and Riegel confirms this. But, conversely, the fact that the stomach is empty after such period does not necessarily prove the absence of disease, as both in gastric ulcer and in Leube's "nervous dyspepsia," digestion is not delayed. In most gastric diseases, however, there is delay, and the next question is—its cause. To this end, the gastric juice must be examined. Riegel rejects Leube's method of cold-water injection, and endeavored to procure the contents of the stomach as undiluted as possible; these he afterward examined for acids and pepsine. The best reagent for free hydrochloric acid was found to be methyl-anilin-violet, and for the separation of lactic and butyric acids from the former, Uffelman's test of carbolate and chloride of iron (*Archiv für klin. Med.*). The amount of pepsine was estimated from the time required for the complete digestion of a very small quantity of albumen. As a result, cases of gastric diseases are divided into three groups. 1. Cases characterized by the absence of free hydrochloric acid, and the presence of lactic and butyric acids; pepsine being almost or entirely absent. This condition was found mainly in cancer, and in dilatation from cancerous constriction of the pylorus. The hydrochloric acid is regarded as normally secreted, but it is destroyed by the cancer, according to Professor Riegel. 2. Cases presenting a sour fermenting liquid, containing much lactic and butyric acid, also free hydrochloric acid; the digestion test indicating a fairly normal amount of pepsine. To this category belong the cases of gastric disorder from fermentation, well described by Naunyn. Methodical washing out is of the greatest value in these cases. 3. Cases in which the digestion is considerably prolonged; hydrochloric acid is abundantly present, organic acids are absent or nearly so, and the digesting power of the gastric juice is normal. It is shown that the further addition of hydrochloric acid does not quicken, but rather hinders digestion. An excess of organic acids, with excess of hydrochloric acid, hinders digestion, and acid fermentation is induced. Practically speaking, hydrochloric acid should only be given when there is a deficiency of acid in the gastric contents during digestion, as shown on examination.—*Archiv für klinische Medizin.*

Observations on the Cutaneous and Deep Reflexes.—Dr. P. C. Knapp, of Boston, records, in the April number of *The American Journal of the Medical Sciences*, a series of observations, upon the cutaneous and deep reflexes of 239 persons, from which he draws the following conclusions: 1. Absence of the plantar or cremaster reflex is usually pathological, depending upon a direct lesion of the reflex arc, or some cerebral disturbance. 2. Absence of the other cutaneous reflexes is not necessarily pathological. 3. Absence of the patellar reflex may be due to cerebral disturbance, especially in alcoholic subjects. 4. Ankle and patellar clonus are pathological. 5. The deep reflexes of the upper extremity are of frequent occurrence, and have no special pathological significance. 6. The costal reflex is found in the majority of cases without general exaggeration of the reflexes, and with no signs of phthisis, incipient or advanced. 7. When the reflexes differ on the two sides, though it usually signifies some unilateral disease of the nervous system, it is not always pathological. Finally his observations have led him to emphasize the value of testing all the reflexes, cutaneous and deep, in the upper extremity as well as in the lower, and on the two sides of the body, in examining patients with nervous diseases.

A Contribution to the Pathology of Malarial Fever.—Drs. W. T. Councilman and A. C. Abbott, of Baltimore, report, in the April number of *The American Journal of the Medical Sciences*, two cases of malarial coma, with post-mortem examination, of especial interest in connection with which was the presence of small hyaline masses in the brain and elsewhere. The authors fully consider the arguments pertaining to the supposition that these hyaline bodies are living organisms, without being able to arrive at any definite conclusion. With a view of shedding some light on the subject of lower organisms in malaria, they made a careful search for the bacilli of Klebs and Tomasi-Crudeli, and for any other lower organisms in all of the cases of malarial fever which came under their observation on the post-mortem table. In no case were any bacilli, bacteria, or micrococci found. Only in the two comatose cases, which they have fully derscribed, were the singular hyaline bodies found. This is an argument against the probability of these hyaline bodies being micro-organisms. They cannot suppose the comatose form of malarial poisoning to be a special disease, and were a lower organism found in this, it should also be found in other cases.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, May 2, 1885.

THE AMERICAN MEDICAL ASSOCIATION.

THE meeting of the American Medical Association, held during the past week in New Orleans, as will be seen by our telegraphic reports, was a fairly successful one. The attendance was good, and much interest was manifested in the work of the general sessions as well as in the papers read before the principal sections. The subjects selected were for the most part of practical interest and elicited considerable discussion.

The work of the council was well done in disposing of many of the vexed questions which are liable to be ventilated in open session, thus saving much time and avoiding undignified and angry debate. It was, however, apparently necessary to understand the inward workings of the Committee on Organization of the International Medical Congress, as much dissatisfaction has been shown in different parts of the country regarding the appointments made. In some respects there was reason for this.

The discussion which was seemingly necessary to get at the points in dispute, ventilated a great deal of the intolerant spirit against the New-Code advocates, which every fair-minded and peace-loving medical man will be sorry to note. The American Medical Association is in some respects a representative body, but it can hardly arrogate to itself the right to control absolutely the still more widely representative character of the International Medical Congress, at least so far as the election of the entire membership to the latter body is concerned. It is a matter for congratulation that, after calling the committee to account for transcending its authority, the whole matter was amicably and impartially settled. The election of Dr. William Brodie, of Detroit, to the presidential chair was a fitting compliment to the man and a retroactive honor to the Association.

TO ABOLISH VACCINATION.

PROBABLY few things could more decidedly advance the material interests of practising physicians than the abolition of vaccination, and the rehabilitation of small-pox among us. Only on the ground of humanity and right do we continue to plead for the universal use of Jenner's discovery, despite the constant assaults with opprobrious epithets by a small but ever-sizzling section of hebetudinous crankdom.

Recently Mr. Alfred R. Wallace, LL.D., a gentleman of scientific reputation in some directions, has furnished us with another array of statistics showing, as he believes the utter inutility and even positive danger of vaccination. These statistics are taken from the Registrar-General's returns, and show the number of deaths per million in London, and in England and Wales, yearly, from 1838 to 1882. A diagrammatic table is given by which it is seen that the average diminution of small-pox mortality from the first to the second half of the period (1838–1882) is fifty-seven deaths per million (in London), while that from typhus and typhoid fevers is three hundred and eighty-two per million, or six times as much as that from small-pox. The fact, however, that the other zymotic diseases, taken as a whole, in London, have not diminished proportionally so much as has small-pox, is passed over by the distinguished and ingenuous author. The lines of his diagrams appear also to go directly against the lines of his reasoning, when applied to the relative decrease in small-pox and the other zymotic diseases in England and Wales.

Professor Wallace marshals other figures in order to prove that vaccination does not mitigate the severity of the attack of small-pox. And his selected figures do show that before vaccination the average mortality was 18.8 per cent., now it is 18.5 per cent.

An elaborate analysis of the small-pox death-rate in the army and navy is given. In these services vaccination is rigidly enforced, but the result is that there is still an average annual mortality of .0083 per cent. (!) in the army and .0157 per cent. in the navy, which it is claimed is only a little better than the rates in the civil adult population (.0176 per cent.).

Professor Wallace puts forward a large number of other figures to prove a large number of other points. The more these figures and the accompanying explanations are examined, however, the more apparent is it that whatever Mr. Wallace is as a naturalist, he is both shallow and silly on the subject of vaccination. Apart from the fact that he does not dare to compare pre-vaccination and post-vaccination periods, or use the statistics of other countries, the unbiassed study of the very diagrams which he parades disprove the points he would make.

THE GEOGRAPHICAL DISTRIBUTION AND THE DIAGNOSIS OF IDIOPATHIC ANÆMIA.

DR. J. H. MUSSER, of Philadelphia, has reported certain cases of idiopathic pernicious anæmia, and has collected, in tabulated form, all the cases so far recorded in this country. Of these cases, thirty-nine in number, fifteen were observed in Philadelphia, thirteen in Canada, eight in Boston, and the remaining three in separate localities. The perniciously anæmic centres in this country, therefore, are apparently the three places above mentioned. Dr. Musser, however, disclaims any endemic inference, and ascribes the peculiar distribution to the fact that clinical observation has been more awakened toward this disease in the localities named. Another possible explanation, however, is that this same observation has been more critical in some of the non-anæmic centres, and has refused to accept the diagnosis of idiopathic anæmia so readily as is sometimes done. Excluding nine cases in which lesions of the bone marrow were found on autopsy, there are remaining thirty cases in Dr. Musser's table. Of these, five are reported cured, or about six-

teen per cent., and five improved. Of those that died, there were no autopsies held in nine cases. It appears then, that in one-third of this thirty the anæmia was not progressively pernicious, and that in another third (nine cases), organic disease cannot be excluded. In five cases, also, evidence of emaciation is noted, a symptom supposed not to characterize the idiopathic form of the disease.

The diagnosis in two-thirds of the cases, therefore, must have been based upon the clinical history alone. It has yet to be decided that such kind of evidence is sufficient, if we exclude the most characteristic feature of the disease, viz., its progressiveness. Dr. Musser, however, modifies the definition of idiopathic anæmia, giving it sufficient elasticity to include the thirty-nine. The disease is, he says, only "generally progressive," and "too often pernicious," while, in addition, it is characterized by diminution in number and change in the appearance of the red blood-cells, by retinal and other hemorrhages, by occasional fever, and by the absence of emaciation.

There is as yet no pathognomonic sign of idiopathic anæmia, provisionally so called. A case cannot be positively diagnosticated until it has passed through a most careful ante-mortem and post-mortem examination. At the same time we can quite readily admit that there is an anæmia having more or less of a clinical individuality, which physicians can sometimes recognize as probably distinct from simple or symptomatic anæmia. If such a case ends fatally, and autopsy reveals no cause of the symptoms, the diagnosis of idiopathic anæmia is confirmed, but as yet it is only by such an untoward *finale* that the clinician's conclusions can be affirmed.

News of the Week.

Death in the Dentist's Chair.—The daily papers give an account of a young woman of Chicago, who died under the influence of chloroform while in a dentist's chair, April 27th. The dentist, Dr. N. W. Day, administered chloroform at the lady's own request.

Death of a Medical Centenarian.—Dr. Oliver Swaim Taylor, of Auburn, N. Y., doctor and clergyman, died recently at the age of one hundred years. He was born in New Ipswich, N. H., December 17, 1784. He graduated from Dartmouth College in 1809, and graduated in medicine in 1813. Finding teaching more congenial than the practice of his profession, he gave little attention to medicine, but taught many men who have since become famous.

Dr. Barber's Article on "Alcoholic Hyperæsthesia."—The article on the above subject was incorrectly attributed to Dr. Barker, instead of to Dr. C. F. Barber, of Fort Hamilton.

Erratum.—Dr. Hamilton, whose article appeared in The Record of April 4th, requests us to make the following corrections: Francke H. Bosworth, instead of J. H. Browne (p. 365), Exner instead of Lyner (p. 365) and Ixner (p. 366); *succedaneum* instead of *succideum* (p. 368).

Protesting against Color-test Examinations.—The Delaware & Hudson Canal Company have adopted the plan of requiring employees to submit to color-test examinations as well as to tests of visual activity and hearing. It is stated that the Brotherhood of Locomotive Engineers have resolved not to submit to such a test. The men are willing to undergo any examination when the code of signals, etc., in use on the road is used, but claim that it is unjust to ask them to submit to an examination where colored yarns instead of lights are used. The company's regulation says: "Imperfections of sight or hearing or inability to nicely distinguish shades of color shall not be regarded as sufficient grounds for removal. Only absolute inability to distinguish red or green, nearsightedness, or deafness shall incapacitate an employee and be regarded sufficient cause for removal." The company's requirement is only just, and is in the interests of its passengers.

The First Cremation in England.—On April 6th the crematory which was erected at St. John's, Woking, Surrey, was made use of for the first time for a human cremation, and the body reduced to ashes was that of Mrs. Pickersgill, of London. It had previously been subjected to an autopsy. The deceased lady was well known in literary and scientific circles, and expressly stipulated in her will that her body should be cremated after death.

An Epidemic of Typhoid or Malarial Fever.—Plymouth, Penn., a town of about 8,000 inhabitants, has been suffering from a severe epidemic of typhoid and malarial fevers. Some seven or eight hundred persons have been taken ill, and from five to twelve deaths a day are reported. The cause is said to be the absence of proper drainage. Refuse matter has been allowed to accumulate around the houses or was put into cesspools. These cesspools were never emptied, but when one was full another was dug beside it. This soil, saturated with filth, was pierced by the shallow wells from which the inhabitants take the water which they drink and use in cooking. As there had been at last reports (April 28th) only twenty-five deaths, it is evident that the most of the cases are not typhoid.

The Bridgeport (Conn.) Hospital has just received the sum of $5,000 from the estate of the late Mr. Frederic Marquand.

The Cholera Bacillus War.—At a meeting of the Münich Medical Society, April 1st, another notable discussion upon the cholera bacillus took place. Professor von Pettenkofer renewed the expression of his well-known "localist" views. Dr. Emmerich came forward with fresh arguments and experiments to prove that his "Naples-bacterium," and not Koch's bacillus, is the true cause of cholera. Emmerich claimed to have successfully inoculated thirty guinea-pigs, four dogs, six cats, and one monkey. Emmerich's bacterium is found, as he claims, not only in the intestines, but in the blood and tissues. We learn from the *Berliner Klinische Wochenschrift* that Koch will take the opportunity soon at a coming cholera conference, to disprove "in a striking manner" the views of the Münich school.

Professor Leyden is to succeed the late Professor Frerichs in the Berlin University Medical Faculty.

THE COLLEGE OF PHYSICIANS of Philadelphia, says the Boston *Medical and Surgical Journal*, has finally secured sufficient funds to place a third story upon the well-known structure at Thirteenth and Locust Streets. The work will begin next month. The improvements are estimated to cost nearly thirty thousand dollars, most of which was subscribed by Fellows of the College.

ORGANIZATION OF A MEDICAL SERVICE FOR THE RIEL REBELLION.—A staff of medical officers has been appointed for the purpose of organizing a medical service in the half-breed rebellion.

Reports of Societies.

American Medical Association.

Thirty-sixth Annual Session, held at New Orleans, La., April 28, 29, and 30, and May 1, 1885.

(By Telegraph to THE MEDICAL RECORD.)

TUESDAY, APRIL 28TH—FIRST DAY.

THE Association met this morning, and was called to order at eleven o'clock by DR. SAMUEL LOGAN, of New Orleans, Chairman of the Committee of Arrangements.

A prayer was offered by the Rev. B. M. Palmer, D.D.

DR. LOGAN then introduced the President, Dr. Henry F. Campbell, of Augusta, Ga., and afterward delivered

THE ADDRESS OF WELCOME,

which was timely and well received.

THE PRESIDENT invited the ex-Presidents to take seats on the platform, and Drs. T. G. Richardson, of New Orleans, N. S. Davis, of Chicago, and J. M. Toner, of Washington, responded.

DR. CAMPBELL then delivered the

ANNUAL ADDRESS OF THE PRESIDENT,

in which he made a graceful recognition of the honor conferred upon not only himself, but the great Southern State he represented. He eulogized the long list of illustrious men who had guided the deliberations of this national body, from the noble Chapman to the beloved Flint, and made special reference to Drs. Gross and Sims, expressing the hope that the contemplation of the present and our dreams of the future might be as bright as the golden history of the past. He then paid glowing compliment to those living who had labored zealously, and were mighty and invulnerable in the promulgation of the truth, and with a soul-stirring tribute of respect to the father of the Association for his watchfulness over its interests, his tenacity for its honor, and increasing labor for its advancement, he closed his sketch of the past and the present illustrated with pictures of dead and living men.

The President then spoke of New Orleans and the International Exposition, and compared them with the American Medical Association and the International Medical Congress, all of which were representative bodies with broad constituencies.

From his predecessors had emanated suggestions which had been formulated and had become fundamental parts of this national scientific body, and notable instances were the assured and satisfactory success of the *Journal of the Association*, and the organization of the Ninth International Medical Congress.

He asked early and systematic attention to the problem of forensic medicine, including the medical witness, the medical expert, and the medical defender, and suggested that a new section be formed to which all discussions, papers, and reports concerning

THE RELATIONS OF MEDICAL MEN TO TRIBUNALS OF LAW

could be referred.

On motion of DR. BRODIE, of Detroit, a vote of thanks was tendered to the President, and the address was referred to the Committee on Publication.

On motion by DR. QUINBY, of Jersey City, it was agreed that that part of the President's address relating to forensic medicine be referred to a committee of five, to be appointed by the Chair, and to report within the present meeting.

The report of the Special Committee, Dr. Austin Flint, Sr., of New York, Chairman, on

THE DEATH OF SAMUEL D. GROSS,

was read by DR. T. G. RICHARDSON, of New Orleans, and referred to the Committee on Publication.

DR. JOHN BILLINGS, U.S.A., in the absence of Austin Flint, Sr., reported the success of the Special Committee in securing an appropriation from Congress for the erection of a

FIRE-PROOF BUILDING FOR THE ARMY MEDICAL MUSEUM AND LIBRARY AT WASHINGTON,

and, in behalf of the Medical Department of the Army, returned thanks to the Association for the tokens of confidence and approval manifested in the institutions represented by the Library and Museum. The report was accepted, and referred to the Committee on Publication.

Dr. Billings reported the action which had been taken concerning the next International Medical Congress by the Executive Committee, in conformity with resolutions adopted at the last annual meeting of the Association, which has received publication in the medical journals throughout the United States.

On motion of DR. KELLER, of Arkansas, the report was made the special order for Wednesday at 12 noon.

The report of Dr. A. L. Gihon, on the subject of the

ERECTION OF THE MONUMENT TO DR. BENJAMIN RUSH

was presented, and on motion by DR. TONER, of Washington, made the special order for Friday morning.

SEVERAL PAPERS WERE READ BY TITLE

and referred to the Chairman of the Section on Surgery, having been received too late to enter the printed programme.

The following gentlemen were made

INVITED GUESTS:

Drs. Edward Jones, A. B. Miles, and C. J. Bickham, of New Orleans; A. E. Forte, of Philadelphia; J. J. Gauthereaux, of St. James, La.; and James R. Scarborough, of Clinton, Ky.

A communication from the Medical Association of South Carolina on

THE DISCOVERY OF THE ANÆSTHETIC PROPERTIES OF SULPHURIC ETHER

was presented by Dr. R. A. Kinloch, of Charleston, and on motion by DR. BEVERLEY COLE, of San Francisco, was referred to the Section on Practice of Medicine and Materia Medica, with the request that it consider the subject and report to the Association.

The Association then adjourned, to meet on Wednesday morning at ten o'clock.

WEDNESDAY, APRIL 29TH—SECOND DAY.

The Association was called to order at 10 A.M. by the PRESIDENT and prayer was offered by the REV. J. K. GUTHEIM, D.D.

DR. LOGAN, Chairman of the Committee of Arrangements, announced the reception of a telegram from W. O. Baldwin, of Montgomery, Ala., regretting his inability to be in attendance.

The Secretary announced the following

COMMITTEE ON NOMINATIONS:

John Cochrane, Alabama; R. A. Kinloch, South Carolina; L. P. Gibson, Arkansas; R. B. Cole, California; H. O. Walker, Michigan; C. C. Wyckoff, New York; William Pierson, New Jersey; W. H. Phillips, Ohio; R. S. Sutton, Pennsylvania; D. W. Krouse, Iowa; J. A. White, Virginia; J. H. Murphy, Minnesota; N. T. Nelson, Illinois; T. G. Richardson, Louisiana; C. H. Shackford, Massachusetts; Job W. Smith, Florida; J. B. Robertson, Texas; S. S. Riddel, Wisconsin; E. F. Upham, Vermont; A. Y. P. Garnett, District of Columbia; L. D. Waterman, Indiana; G. W. Baldwin, Kansas; B. F. Coleman, Kentucky; S. C. Gordon, Maine; R. J. Nunn, Georgia; J. McAchran, Wyoming: Joseph R. Smith, U. S. Army; George Peck, U. S. Navy; John Godfrey, U. S. Marine Hospital Service; D. T. Nelson, Illinois; John S. Lynch, Maryland; G. M. Taylor, Mississippi; Le Grand Atwood, Missouri; R. C. Moore, Nebraska; W. E. Anthony, Rhode Island; D. J. Roberts, Tennessee; J. H. Pipes, West Virginia; C. J. O'Hagan, North Carolina.

The next order of business was

THE ADDRESS OF THE CHAIRMAN OF THE SECTION IN PRACTICAL MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY,

by DR. H. D. DIDAMA, of Syracuse, N. Y., who said that a literal compliance with the requirement of the by-laws, that a summary of the progress made in these departments during the past year, would subject the Association to a wearisome recital of facts which had already been gathered and widely scattered again through the medium of medical journals. Special attention was directed to only two topics which had most recently engaged the observation of the profession, namely

THE COMMA BACILLUS

and the hydrochlorate of cocaine. The speaker then reviewed the present aspect of the question of the relation which cholera and the comma bacillus sustain to each other, and then referred somewhat extensively to the general subject of bacteriology and to the little help which it had given to the art of healing. But this negative result, so far as treatment was concerned, did not detract in the least from the value of the discoveries and the spirit of inquiry should not suffer thereby. Let us labor and wait and in the meantime direct a little more attention toward prophylaxis and therapeutics. Dr. Didama then reviewed the views of the neurologists who claim that a large proportion of diseases have their origin in disturbance of the nervous centres and regard fever, rheumatism, etc., as neuroses. He alluded to humoral pathology, in which derangements of the blood were essential factors in etiology, and to the solidists who pin their faith to cellular pathology. Neither view was absolutely true and neither wholly false. Each might be a factor in the origin of disease and each the last in the circle of etiological causes. The chairman closed his address with a study of the reparative power when disease has invaded and of the resisting power to the invasion.

On motion the address was referred to the Committee on Publication.

THE ADDRESS OF THE CHAIRMAN OF THE SECTION IN OBSTETRICS AND DISEASES OF WOMEN

was delivered by DR. R. S. SUTTON, of Pittsburgh, Pa. The subject of the address was

ON OVARIOTOMY.

The first part of it was devoted to the history of the conditions surrounding McDowell's first case. The deviations from McDowell's method of performing the operation were then carefully traced up to the present day, and the conclusion reached was, that the operation, as left by McDowell, was almost as complete as at the present time. Two essential improvements were the introduction of the cautery by Baker Brown, and the cutting off of the long ends of the ligature by Nathan R. Smith. Dr. Sutton then showed that from McDowell's operation nearly all the intra-abdominal operations in surgery had sprung, and noted carefully the lectures and papers delivered on the subject during the last twelve months. He insisted, as in all former papers, upon greater care in the surroundings of all intra-abdominal operations, and in further proof of his position, pointed to the admirable results obtained by John Homans, of Boston, and Robert Battey, of Rome, Ga., both of whom used the carbolic spray. He stated that for himself he did not use the spray, but looked upon cleanliness and Listerism as linked so closely together that they might be said to be inseparable, for

LISTERISM IS THE GOSPEL OF CLEANLINESS.

Mr. Lawson Tait had said to him: "I have sold all my right, title, and interest in Listerism with my tea-kettle to Battey." At the close of his address, Dr. Sutton referred to Dr. J. Marion Sims as one whose name was synonymous with the surgery of women, beloved of his own countrymen and honored by the entire surgical world.

On motion by DR. W. W. POTTER, of Buffalo, N. Y., the thanks of the Association were tendered to Dr. Sutton for his address, and the address was referred to the Committee on Publication.

DR. W. C. VAN BIEBER, of Baltimore, then delivered an address containing suggestions in regard to

THE CONSTRUCTION OF A HEALTH CITY IN FLORIDA, OR PENINSULAR AND SUB-PENINSULAR AIR AND CLIMATE,

and urged that change of air sometimes permanently arrests pulmonary disease in its first stage, and that the most favorable climate for yielding such a result was one where the temperature ranged from between 70° and 80° F., provided it is good, healthy air. Such a climate can be obtained on the Gulf Coast of the Peninsula of Florida, and if medical, social, and scientific interests would unite at once in the erection of a health city in the locality, it could be made so as to have no equal elsewhere.

The hour for the special order having arrived, the reading of Dr. Van Bibber's paper was discontinued.

DR. SHOEMAKER, of Philadelphia, then took the floor, and protested

AGAINST THE REPORT OF THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS,

on the ground that the Committee had exceeded its authority; that it had yielded to the threat made by the New Code men at Copenhagen, that unless they were recognized they would use their influence to prevent the Congress from coming to the United States; that a bargain was made and that men from his own city who had declared the Medical Association to be

A "LOG-ROLLING, WIRE-PULLING ORGANIZATION"

had been lifted to exalted positions in the proposed official list of the next Congress.

DR. F. E. DANIEL, of Texas, offered the following preamble and resolution:

Whereas, At the last meeting of the American Medical Association a committee of seven was appointed to confer with the International Medical Congress, to be held in Copenhagen, with the view to securing the next meeting of that body in 1887, in Washington, D. C., and for the purpose of arranging for said meeting, and

Whereas, That Committee, after having accomplished said object, have proceeded, without authority from this body, to appoint the several officers of sections and

committees, which appointments have been published and thus acquired the color and aspect of an official action of this body, and

Whereas, This Association recognizes said Committee as a Committee of Arrangement only, it declines to recognize or accept the said appointments which it has made. Therefore be it

Resolved, That the Committee on Nominations be instructed to select and present to this body nominees for the office of president and all the other officers of the approaching International Medical Congress.

Dr. J. S. Billings, of Washington, said that all which had been said concerning a threat or a bargain at Copenhagen between the Committee and the New Code men was totally and absolutely untrue, that the Committee had enlarged itself and had performed the work it had done fully believing that it was in conformity with the resolution passed at the last meeting of the American Medical Association, which gave the Executive Committee full power in case the invitation was accepted to fix the time and to make all special and necessary arrangements for the meeting of the Congress, solicit funds, etc. The Committee as enlarged and as originally constituted was composed of men whose honesty of purpose and motives could not, with propriety, be questioned, and if any mistake had been made or any authority had been overreached, as there might be room for honest difference of opinion concerning the exact power of the Committee, it had been unintentional, and did not deserve an unqualified condemnation.

Speaking as a member of the American Medical Association he thought it unwise to condemn absolutely the work which had already been performed by the Committee, thereby suggesting that the work of organizing the International Medical Congress could be done by the Committee on Nominations in a single afternoon or at a single meeting.

Dr. Gabriel, of Ohio, was a delegate to Copenhagen, was consulted while there, and thought that the delegates should not have been ignored by the Committee.

Dr. Quinby, of New Jersey, thought that the Committee had entirely overstepped its authority, not intentionally, only in head and in heart.

Dr. Keller, of Arkansas, regarded the Committee as a creation of this Association, to which it should report as successive steps are taken. He offered the following as a substitute for Dr. Daniel's resolution:

Resolved, That the Committee appointed by the American Medical Association to arrange for the meeting of the International Medical Congress in 1887 be enlarged by the addition of members from this Association, one from each State and Territory, and from the Army and Navy, and Marine Hospital Service, and the District of Columbia, to be appointed by the present presiding officer, Dr. J. S. Lynch, of Baltimore, First Vice-President, and that this Committee thus enlarged shall proceed to review, alter, and amend the action of the present Committee as they may deem best.

Dr. Keller spoke against placing men in official positions in the organization of the Congress who were in direct opposition to the American Medical Association.

Dr. Cole, of California, said that while the Committee had erred, he would not accuse them of having done so deliberately in violation of their judgment. The fact that they had been reverenced had made them arrogant. He would simply have the enlarged Committee, if Dr. Keller's substitute should be adopted, cull the appointments, purify them, and place none in official positions who were not recognized as loyal to the Code of Ethics under which this Association was bound.

Dr. King, of Missouri, believed that while no one should doubt the honesty of the Committee, the conclusion could not be avoided that it had exceeded its authority. From the work which it had done it would seem that there was no West, no South, and only North and East. Besides, the Committee had gone outside and appointed gentlemen who are not members of this Association. He concluded by saying:

THE SPECIALISTS OF THE NEW CODE PERSUASION SHOULD BE TAKEN BY THE TOP OF THE HEAD AND THEIR THROATS CUT AT ONCE.

Dr. Shoemaker repeated that the delegates from this Association to the International Medical Congress were ignored by the Committee at Copenhagen, that the New Code men demanded a representation, that they had received recognition, and that they had been ignored.

Dr. Daniel thought that it was not right that the empire of Texas should be ignored as it had.

Dr. Sanders, of Tennessee, said that the Committee had placed its construction upon the instructions given by the Association, and that the proposition now was to almost absolutely ignore their honest efforts and adopt a resolution which would emasculate the entire work.

He offered as a substitute for Dr. Keller's substitute a resolution that the Association approves of the action of the Committee so far as it has been done,

PROVIDED THAT THE NAMES OF NEW CODE MEN ARE LEFT OUT.

Dr. Roberts, of Philadelphia, thought if the Committee had exceeded its power, it had been through error, that it was not the duty of the Committee to consult the delegates at Copenhagen, and that dissensions and a new order of publication at this state of the arrangements would seriously jeopardize the success of the next Congress.

Dr. Ghent, of Texas, said that it looked as though there was

"A BUG IN THE SHIP SOMEWHERE."

He favored Dr. Keller's resolution.

A MOTION TO ADJOURN WAS LOST

—ayes 44, nays 360, and a vote was called for on Dr. Sanders' resolution.

Dr. Toner, of Washington, suggested that a contingency should not be entertained. A division was taken, and resulted—ayes 88, nays 129.

Dr. Keller's resolution being in order, Dr. D. E. Bird, of Arkansas, offered an amendment that the States here represented collect through their representatives the additional members of the Committee, and the present presiding officer

APPOINT FOR THOSE STATES AND BODIES NOT REPRESENTED.

Dr. Keller accepted the amendment and, thus amended, his substitute for Dr. Daniels' resolution was adopted without dissent.

The Association adjourned to meet on Thursday at 10 A.M.

Thursday, April 30th—Third Day.

Association called to order by The President.

Prayer was offered by the Rev. W. H. Waters, D.D.

Dr. W. W. Potter, of Buffalo, N. Y., called up an

AMENDMENT TO THE BY-LAWS

offered last year by Dr. Foster Pratt, of Michigan, empowering each section to elect its own officers, on which discussion took place, and was followed by a motion that it be laid over for consideration next year, which was carried.

Dr. N. S. Davis, from the Standing Committee on

METEOROLOGICAL CONDITIONS AND THEIR RELATION TO PREVALENCE OF DISEASES,

reported and incorporated within the Report that of Professor K. H. Long, of the Northwestern University.

The report was accepted and the Committee continued.

Dr. Davis further reported concerning the subject of the

COLLECTIVE INVESTIGATION OF DISEASE

in co-operation with the Committee of the British Medical Association and the Committee of the International Medical Congress. The work has now so extended that a large number of nations have undertaken to perform it regularly, and the Committee recommended that work be extended to and performed, as far as possible, by State Medical Societies, and the details of investigation be carried out by means of cards obtained of the Central Committee.

The Report was adopted and referred for publication.

Dr. N. S. Davis, Chairman of the Committee appointed last year to make some

DECLARATIVE INTERPRETATION OF CERTAIN POINTS IN THE CODE OF ETHICS,

submitted the following report in the form of a preamble and resolutions :

Whereas, Persistent misrepresentations have been and still are being made concerning certain provisions of the Code of Ethics of this Association, by which many in the community, some in the ranks of the profession, are led to believe its provisions exclude persons from professional recognition simply because of difference of opinion or doctrine ; therefore be it

Resolved, That Clause 1, Article IV., in the National Code of Medical Ethics, is not to be interpreted as excluding from professional fellowship, on the ground of difference in doctrine or belief, those who in other respects are entitled to be members of the regular medical profession, neither is there any other article or clause in said Code of Ethics that interferes with the exercise of the most perfect liberality of individual opinion and practice.

Resolved, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper to assume a name indicating to the public a sectarian and exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

Resolved, That there is no provision in the National Code of Medical Ethics in any wise inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is pressing or immediate need of them ; on the contrary, to promptly meet the emergencies occasioned by disease or accident, and to give the helping hand of assistance without unnecessary delay is a duty fully enjoined on every member of the profession, both by the letter and spirit of the entire Code, but no such emergencies or circumstances can make it necessary or proper to enter into professional consultation with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution.

(Signed) N. S. Davis, Chicago.
A. Y. P. Garnett, Washington.
H. F. Campbell, Augusta, Ga.
Austin Flint, Sr., New York.
J. B. Murdoch, Pittsburgh.

This report was adopted unanimously as an interpretation of certain clauses in the Code.

THE ADDRESS OF THE CHAIRMAN OF THE SECTION ON SURGERY AND ANATOMY

was then delivered by Dr. Duncan Eve, of Nashville, Tenn.

The first part of the address contained a rhetorical reference to surgery before anatomy was understood, and to what it had accomplished from the days of the ancients down to the present time, Special mention was then made to some of the noteworthy contributions which had been published during the past year, as "Internal Œsophagotomy," by Dr. H. B. Sands, of New York ; "Colotomy," by Dr. J. H. Packard, of Philadelphia ; "New Method of Treating Bone Cavities in Lower Part of Femur," by Dr. F. Lange, of New York ; "Cholecystotomy," by Dr. J. H. Mussey and W. W. Keen ; "Impacted Calculi in Ureter," by Dr. Henry Morris ; "Woven Wire Corset," by Dr. S. W. Smith, of New York ; "Successful Reduction of Dislocation of Sixth Cervical Vertebra," by Dr. J. Weed ; "Treatment of Wounds," by Dr. L. S. Pilcher, of Brooklyn ; and of surgical literature special reference was made to the last two volumes of

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY,

Van Buren's "Lectures," edited by L. A. Stimson ; Dr. T. M. Markoe on "Sarcoma of Synovial Sheaths ;" Dr. Moses Gunn on "Philosophy of Reduction of Dislocations," and Dr. Walton, on "Antiseptic Surgery in Private Practice." The address closed with a beautiful tribute to the memory of the late Dr. Samuel D. Gross.

The address of the Chairman of the Section on State Medicine by Dr. E. W. Schauffer, of Missouri, was read by title and referred to the Committee on Publication.

The report of the Treasurer showed a balance in the treasury of $932.11, and an addition of one hundred and twenty-five members.

According to the new method adopted last year, the Librarian was authorized to send a report directly to the editor of the *Journal*.

Dr. J. M. Toner read the

REPORT OF THE COMMITTEE ON PUBLICATION

which included the report of the Board of Trustees of the *Journal*, in which it appeared that at the close of the second year

THE JOURNAL IS FREE FROM DEBT,

and that it commands an income which, if not diverted elsewhere, will enable the editor, with his corps of assistants, to make it one of the foremost journals in the land. The total income for the second year was $21,000, and the total expense, except editorial salary, twelve thousand odd dollars.

THE PUBLICATION OF THE JOURNAL WILL BE CONTINUED IN CHICAGO.

Dr. Davis will remain editor, having withdrawn his resignation at the earnest and unanimous request of the Board of Trustees.

In response to repeated calls, Dr. Davis addressed the Association and spoke at some length concerning the requirements to be met and the obstacles to be overcome in making a first-class medical journal, all of which could be accomplished by prudence and perseverance.

Dr. N. H. Reed, of Mansfield, O., offered the following resolution, which was adopted :

Whereas, There is no stimulus for original research at present in the Association,

Resolved, That a

FIRST AND SECOND HONOR PRIZE

be offered for the best and second-best paper in each Section at the next meeting of the Association and that three judges be appointed, no two of which shall be from any one State ; and said papers shall not occupy more than thirty minutes.

The following resolution, offered by Dr. J. B. Roberts, of Philadelphia, adopted by the Section in State Medicine, and referred to the Association, was read and laid upon the table temporarily :

Resolved, That the Section in State Medicine earnestly advocates establishing in every State and Territory

BOARDS OF MEDICAL EXAMINERS,

who shall examine all practitioners, and whose license shall be the only license to practice medicine.

On motion by Dr. J. M. Toner, of Washington,

THE REPORT OF THE COMMITTEE ON ERECTING A STATUE OF BENJAMIN RUSH

was taken from the table and read by the Secretary. The report closed with the following resolution, which was adopted, and the following committee appointed: Drs. A. L. Gihon, of Washington; Henry Smith, of Philadelphia; R. A. Kinloch, of Charleston; S. C. Gordon, of Maine; J. H. Murphy, of Tennessee; M. H. Henry, of New York.

Resolved, That this Association undertake to erect a statue in the city of Washington by members of the profession in the United States, and that the necessary funds be obtained by

SUBSCRIPTIONS LIMITED TO ONE DOLLAR,

and by voluntary donations from such others as may be interested in the matter.

The Secretary announced the following Committee on that Part of the President's Address relating to Forensic Medicine: Drs. I. N. Quinby, of New Jersey; C. Scott, of Cleveland, O.; W. W. Dawson, of Cincinnati, O.; F. E. Daniel, of Texas; J. V. Shoemaker, of Pennsylvania; Eugene Foster and H. F. Campbell, of Augusta, Ga.

Dr. R. A. Kinloch, Chairman, read the following

REPORT OF THE COMMITTEE ON NOMINATIONS,

which was adopted:

President—Dr. William Brodie, Detroit, Mich.

Vice-Presidents—Drs. Samuel Logan, New Orleans; A. Y. P. Garnett, Washington; Charles Alexander, Wisconsin; W. F. Peck, Iowa.

Permanent Secretary—W. B. Atkinson, Philadelphia.

Treasurer—Richard J. Dunglison, Philadelphia.

Librarian—C. H. A. Kleinschmidt, Washington, D. C.

Officers of Sections: Practice of Medicine—James T. Whittaker, Cincinnati, Chairman; B. L. Coleman, Kentucky, Secretary. *Section on Obstetrics*—S. C. Gordon, Maine, Chairman; J. F. Y. Paine, Texas, Secretary. *Section on Surgery and Anatomy*—Dr. N. Senn, Milwaukee, Wis., Chairman; H. H. Munn, Missouri, Secretary. *Ophthalmology, Otology, Laryngology*—Dr. Eugene Smith, Detroit, Mich., Chairman; J. Fulton, Minnesota, Secretary. *Diseases of Children*—Dr. W. D. Haggard, Tennessee, Chairman; Dr. W. B. Lawrence, Kansas, Secretary. *Dental and Oral Surgery*—Dr. J. H. Marshall, Illinois, Chairman; Dr. J. E. Baldwin, Illinois, Secretary. *Committee on State Medicine*—Dr. J. S. Rauch, Illinois, Chairman; Dr. F. E. Daniel, Texas, Secretary. *Committee on Necrology*—Dr. J. M. Toner, Washington, Chairman.

Judicial Council—Dr. R. A. Kinloch, South Carolina; D. D. Sanders, Tennessee; T. G. Richardson, Louisiana; D. A. Ketchum, Alabama; George Beard, West Virginia; J. M. Toner, District of Columbia; A. M. Pollak, Pennsylvania.

Place of Meeting—St. Louis, Mo., on the first Tuesday in May, 1886.

The following members were

ADDED TO COMMITTEE ON INTERNATIONAL CONGRESS:

Drs. D. A. Linthicum, Arkansas; George A. Ketchum, Alabama; A. R. Smart, Michigan; J. V. Shoemaker, Pennsylvania; F. A. Sim, Tennessee; J. W. McLaughlin, Texas; A. Y. P. Garnett, District of Columbia; S. C. Gordon, Maine; John S. Lynch, Maryland; Ellsworth Eliot, New York; X. C. Scott, Ohio; W. C. Dabney, Virginia; Nicholas Senn, Wisconsin; Robert Battey, Georgia; J. W. Dupree, Louisiana; W. E. Anthony, Rhode Island; R. D. Murray, Florida; E. P. Cook, Illinois; J. B. Hamilton, Marine Hospital Service; R. B. Cole, California; Charles Denison, Colorado; F. W. Beard, Indiana; D. W. Stromont, Kansas; L. P. Bush, Delaware; A. H. Wilson, Massachusetts; William Pierson, New Jersey; R. A. Kinloch, South Carolina; W. H. Watson, Kentucky; S. C. Gordon, Maine; E. French, Minnesota; N. F. Essig, Missouri; R. C. Moore, Nebraska; G. Baird, West Virginia; Surgeon-General Murray, U.S. Army; Surgeon-General Gunnell, U. S. Navy.

Dr. Quinby, of Jersey City, offered the following resolution, which was adopted:

Resolved, That the Committee appointed in pursuance of a resolution adopted by this Association, April 30, 1885, to constitute an addition to the original committee of seven, previously appointed, to invite and make arrangements for the meeting of the International Medical Congress, to be held in Washington, D.C., 1887, be and the said Committee is hereby authorized and empowered to select a Chairman and Secretary, and to fill all vacancies that may occur by death or inability to attend on the Committee, and to appoint the officers of the Congress.

The Committee met immediately to make preliminary organization.

Dr. Brodie resigned from the Judicial Council. Resignation accepted and referred to Committee on Nominations.

SECTION ON PRACTICE OF MEDICINE.

TUESDAY, APRIL 28TH—FIRST DAY.

Dr. Didama, of Syracuse, N. Y., Chairman, called the Section to order.

Dr. Bulkley, of New York, read a paper

ON CARBUNCLE.

He objected to incision, because of the danger from pus being absorbed, which does not occur when the carbuncle is allowed to open naturally. He was opposed to poultices, and gave calcium sulphite in quarter-grain doses in gelatine-coated pills every two hours, magnesia sulphate in laxative doses three times a day, and tonic doses of sulphate of iron; and an application of solid extract of ergot two drachms; oxide of zinc, one drachm; rose-water ointment, two ounces, upon lint, to the carbuncle, which reduces pain and cuts short the disease.

Dr. Hebbard, of Indianapolis, found that oleate of morphia, applied every two hours, cuts short carbuncle to a few days' duration. He did not incise.

Dr. Lynch, of Baltimore, indorsed Dr. Bulkley's plan, but applied dilute citrine ointment.

Dr. Shoemaker, of Philadelphia, did not incise carbuncle, unless there was a considerable quantity of pus. He indorsed Dr. Bulkley's treatment and did not get good results from oleates.

Dr. Savage, of Tennessee, painted a ring of collodion aronnd the carbuncle with good results.

Dr. A. F. Patte, of Boston, Mass., read a paper upon

THE PERCUTEUR: ITS USES IN DISEASES OF THE NERVOUS SYSTEM,

and exhibited an instrument.

Dr. N. Harvey Reed, of Mansfield, O., read a paper on

HYDATID TUMORS.

Dr. Jakins, of Iowa, in the discussion thought it strange that the hydatids should have occurred in the brain and not in the liver, and was inclined to doubt the correctness of the diagnosis.

Dr. Whitaker, of Cincinnati, thought the microscopic examinations should have been more complete before a diagnosis was made.

Dr. Whitaker, of Cincinnati, then read a paper entitled

AN ATTEMPT AT RADICAL TREATMENT OF TUBERCULOSIS.

He had in five cases injected one-eighth of a grain of bichloride of mercury into the consolidated portion of the lung daily, in five cases, but without favorable result.

The Section then adjourned.

WEDNESDAY, APRIL 29TH—SECOND DAY.

The first paper was on

THE HYPODERMATIC INJECTION OF OIL,

by DR. JOHN V. SHOEMAKER, of Philadelphia. Experimental and clinical observations have taught us that oils that cannot be swallowed, or are rejected by the stomach, can be absorbed by inunction and subcutaneous injection. Not only has the rapid and good purgative result of oil used hypodermatically been demonstrated, but its nutritive action when thus applied, has been shown to be valuable in debility, dyspepsia, scrofula, tuberculosis, and in certain diseases of the skin and nervous system. It is the quickest and best method of introducing oil into the system. It is an invaluable means of combating disease, particularly where more nutrition is required and also for those patients who are either unable to swallow oil, or who cannot absorb or assimilate it by the alimentary canal. Oil can be used subcutaneously alone or combined with other suitable agents that can be easily dissolved in it. It is a valuable menstruum for suspending in it other drugs for hypodermatic use. It can be given in connection with a suitable diet, and even with other medication by the mouth, or it can be used alone for alimentation. Oil deposited in this way in the tissues is absorbed, and is no doubt assimilated, and will alone keep up the nutrition of the body. For a purgative action one or two injections of a drachm or two of castor oil usually suffices, but for a nutritive effect the same quantity of one of the bland nourishing oils—*e.g.*, cod-liver or olive oil—should be administered two or three times daily.

In the event that alimentation is depending solely upon the injections they should be given about every two hours. For the purpose of giving oil hypodermatically, a large syringe provided with a needle of good calibre should be used and the instrument should have a capacity of from two to eight drachms. The injections can be made in almost any part of the body well provided with subcutaneous cellular tissue, into which the oil should always be thoroughly deposited. The points usually selected for the injections are the superior and inferior scapular and sacral regions, on account of the subcutaneous cellular tissue being especially abundant there. Injections can also be made in the arms, the chest front laterally, and back, the buttocks, and the legs. There is more or less irritation at the point of puncture of the skin, about the same as will be seen from the use of almost any other hypodermatic injection; sometimes there will also be some attending smarting, with redness and swelling and the formation of a nodular elevation, which usually disappears in from twelve to forty-eight hours, no induration or inflammation follows the injections provided the usual precautions are observed in using the hypodermic syringe properly, and the tissues in the person receiving it are in the normal condition.

SECTION ON SURGERY.

TUESDAY, APRIL 28TH—FIRST DAY.

The Section was called to order by DR. DUNCAN EVE, of Tennessee, Chairman, and Dr. Henry I. Reynolds, of Chicago, was elected Secretary, *pro tem.*

DR. JOHN B. ROBERTS, of Philadelphia, read a paper on

FALSE DOCTRINES IN THE TREATMENT OF FRACTURES,

referring first to errors by the invariable use of the primary bandage and by the use of passive motion too late or too early. He said splints were often left on too long; there was more damage done by letting it alone than by exploring in fractures of the skull. He also referred to fractures of the nose, clavicle, humerus, and elbow-joint. The use of the interosseous pad in the forearm he maintained did not do what was claimed for it. He believed that as a diagnostic point measurement was not of as much value in the lower extremities as was generally supposed.

The paper was discussed by Drs. Peck, of Iowa; Quinby, of New Jersey; Budd, of Missouri; Murphy, of Minnesota; Bird and Cook, of Illinois; Elliott, of Georgia, and Francis V. White of New York.

The next paper was by DR. VERITY, of Illinois, and entitled

THE TREATMENT OF COMPOUND FRACTURES BY FREE DRAINAGE AND WIRING OF BONES.

He claimed that no fragments should be removed unless they were sources of irritation, that all should be wired together and free drainage established. He related several very interesting cases, which he illustrated with drawings.

The discussion of the paper was postponed till the next session. The Section then adjourned until Wednesday.

WEDNESDAY, APRIL 29TH—SECOND DAY.

The meeting was called to order by the Chairman, DR. EVE, of Tennessee.

DR. P. E. ARCHINARD, of Louisiana, was elected Secretary *pro tem.*

DR. H. O. MARCY, of Massachusetts, read a paper entitled

DO WE FIND FROM MICRO-ORGANISMS IN ENCLOSED CAVITIES A HITHERTO UNSUSPECTED DANGER TO SURGICAL LESIONS?

He reported several interesting cases in which micro-organisms were found in ovarian fluids.

The paper was discussed by Drs. Byrd, of Illinois, Peck, of Iowa, and Hurst, of Illinois.

DR. SENN, of Milwaukee, Wis., then read

A PAPER ON THE SURGICAL TREATMENT OF CYSTS OF THE PANCREAS.

The paper was summarized in conclusion as follows: 1. Cysts of the pancreas are true retention cysts. 2. Cicatricial contraction, or obliteration of the common duct or its branches, and impacted calculi, are the most frequent causes of cysts of the pancreas. 3. A positive diagnosis of a cyst of the pancreas is impossible. A probable diagnosis between it and some other kind of cysts amenable to the same surgical treatment is adequate for all practical purposes. 4. The formation of a pancreatic fistula under antiseptic precautions recommends itself as the safest and most expedient operation in the treatment of cysts of the pancreas.

The next paper was by DR. RANSOHOFF, of Cincinnati, O., entitled

TWO OVARIOTOMIES ON THE SAME PATIENT.

It was discussed by Dr. Reid, of Ohio, and Dr. J. H. Warren, of Massachusetts.

The next paper was on

GIANT GROWTH OF THE LOWER EXTREMITIES.

DR. R. H. JENKINS, of Georgia, then read a paper entitled "Report of a Case of Necrosis of Tibia and Fibula of Ten Years' Duration—Operation and Recovery."

THURSDAY, APRIL 30TH—THIRD DAY.

The Section was called to order by THE CHAIRMAN, and DR. HENRY J. REYNOLDS, of Chicago, Ill., was elected Secretary, *pro tem.*

The first paper was by Dr. A. Y. GARNETT, of Washington, D. C., entitled

COLO-PROCTITIS TREATED BY HOT-WATER DOUCHE AND STRETCHING OR DIVISION OF SPHINCTER ANI.

It was discussed by Drs. Dawson, of Ohio, Ransohoff, of Ohio, Peck, of Iowa, and Byrd, of Illinois.

A paper by Dr. H. L. Getz, of Iowa, on

A NEW COMBINED TROCAR AND CANULA, AND ASPIRATING NEEDLE,

was referred to the Committee on Publication, as the writer was not present.

A case of fibroma of the scalp was presented by Dr. Owens, and discussed by Drs. Dawson, Kinloch, and Warren.

The Section then adjourned.

SECTION ON OBSTETRICS.

Tuesday, April 28th—First Day.

The Section was called to order, Dr. R. S. Sutton, of Pittsburg, Pa., Chairman.

Dr. William H. Wather, of Louisville, Ky., read a paper on

THE TREATMENT OF THE SECUNDINES IN ABORTION AND LABOR.

He referred first to the membranes of abortion during the first month, then to those of premature labor, then to those of labor at term. During the first and second months of fœtal life the fœtus and membranes are so closely connected that one cannot be expelled without the other. If the membranes can be removed from the vagina with the finger immediately, this should be done, but if necessary to go inside of the uterus they should be turned over for a time to nature. The dangers of the third stage are greatest of all.

Medical literature contains many instances of death from retained placenta and membranes.

Dilatation can be made with metallic or rubber dilators and the membranes should be removed by curette or forceps. A curette can be improvised if not at hand. If the uterus does not expel the placenta in thirty minutes, we should assist it by manipulation. If we forcibly remove the placenta sooner than fifteen minutes after the birth of the child, there is danger of coagulation not being completed.

Dr. Chadwick, of Boston, said that he always asked concerning the previous history of the woman, if she was a bleeder, or if she had gone through other abortions with no serious results. If a bleeder, he usually made active interference, fearing hemorrhage, otherwise he waited. In the later months, dilatation by the finger was the best.

Dr. Green spoke confirming Dr. Wather's experience.

Dr. Sinclair, of Boston, favored dilatation by the fingers. He explained the method which he inaugurated several years ago. He inserts one finger, and holds it quiet till the fibres of the uterus are exhausted, then inserts another and then another, occupying in the whole procedure half an hour.

Dr. Carroll, of Covington, Ky., thought the finger not only a good dilator but a good indicator.

Dr. Wather heartily approved of dilatation by the fingers in the latter months. In the first months he advised instruments.

Dr. W. W. Potter, of Buffalo, read a paper

ON PARAMETRIC ABSCESS,

and related a case in which there was the rapid formation of a large abscess, attended with improvement under the use of iodoform. He maintained that the expectant treatment of yesterday gave place to evacuation to-day, and that delay was always dangerous.

Dr. C. Fenger, of Chicago, read a paper on

CHRONIC PERI-UTERINE ABSCESS; ITS TREATMENT BY LAPAROTOMY.

If the abscess is deep or behind the uterus, laparotomy is often necessary. He used the thermo-cautery to make the incision. The antiseptic precaution should be employed. He preferred iodoform externally and boracic acid for injections. The advantage of laparotomy over vaginal operation was manifested by the fact that the former gave a better opportunity for reaching the seat of the trouble.

Dr. Geo. J. Engelmann, of St. Louis, spoke of the frequency of the cases and the necessity of recognizing them early, and then using active measures promptly. He thought temporizing

CAUSED MUCH EVIL.

Dr. Gordon, of Maine, thought prophylaxis all-important; half or two-thirds of the cases he believed the profession responsible for, especially the young doctors were too free with the uterine sound and nitrate of silver.

Dr. G. C. Reeve, of Dayton, O., reported a number of cases. He thought the young physician not always at fault. If he did suggest the knife he was discharged and another called in.

Dr. Potts said that the best way to evacuate was to dilate along the track of the needle. He agreed with Dr. Gordon in the harm done by the uterine sound.

Dr. Jaggard, of Chicago, spoke of the plan of Dr. Byford to dilate the anus and drain the abscess.

Dr. Sutton reported one case of laparotomy for pelvic abscess with good recovery.

Dr. George French, of Minneapolis, read a paper on

HOW SOON AFTER EXPOSURE TO SEPSIS MAY THE ACCOUCHEUR RESUME PRACTICE.

He dwelt on the crime of carrying the poison to a patient, and read a number of letters from authorities in England and on the Continent, some asserting time to be essential, others that a thorough cleansing and antisepsis was the desideratum.

Dr. Robert Battey, of Rome, Ga., thought a consciousness of the danger of carrying septic matter was one of the greatest safeguards. He believed time or ventilation had something to do with it.

Dr. Hoppler, of Vermont, thought cleanliness godliness itself in obstetrics.

Dr. French believed time salutary, but disinfection more important.

Dr. J. A. Y. Payne, of Galveston, Tex., reported a case of

ABDOMINAL TUMOR,

of the hard fibroid variety, of enormous dimensions. The following were the measurements when the case came to him: Epigastric, 50 inches; umbilical, 51 inches; hypogastric, 51½ inches. Ten days later the tumor had increased half an inch. One year later the measurements were 26¼ inches, 20½ inches, and 22 inches respectively. He used ergot, giving as much as ten grains hypodermically twice a day.

The Section then adjourned.

Wednesday, April 29th—Second Day.

Dr. N. J. Nunn, of Savannah, Ga., read a paper on

THE MULTIPLE SPECULUM UTERI AND AN IMPROVED DRESSING FORCEPS.

The speculum had five blades, and filled all the requirements of a Cusco, a Graves, and a Sims. The speculum and dressing forceps were exhibited.

Dr. G. Otto, of Arkansas, exhibited a speculum. It was first intended to be used only in the Sims position. He had found, however, that it answered equally as well in the dorsal. The connecting medium was entirely out of view.

Dr. J. Engelmann, of St. Louis, spoke concerning

THE IMPROVED TECHNIQUE IN GYNECOLOGICAL OPERATIONS, MINOR AND MAJOR,

and said, his manner of operating was similar in many ways to the European, though in some points original.

It was entirely different from the American way of operating. He claimed for it asepsis, or cleanliness, simplicity, and rapidity. The plan is to make operations on the vaginal tract under the hot vaginal douche, and use no sponge whatever. He has used no sponges for years. He showed a new Simon speculum, quite large and broad, stout and convex, which widens the vagina and draws it down by pressure in the perineum. He recommended asepsis in major and minor operations, and careful attention to details.

Dr. T. M. Healy, of Cumberland, Md., showed a speculum, the object of which was to do away with an assistant, which was very desirable in country practice.

Dr. Henry O. Marcy, of Boston, read a paper on the subject of "Speculi," which was not discussed.

Dr. Henry O. Marcy also read a paper on

THE RÔLE OF BACTERIA.

He had a number of years ago maintained in the Boston Medical Society that

DELIVERY SHOULD BE CARRIED ON WITH AS MUCH ANTISEPTIC PRECAUTION AS AN EXTENSIVE SURGICAL OPERATION.

He found then no supporters; now a number of leading schools taught that antiseptic injection should be made in every case as routine practice. In the majority of normal labors there is a solution of continuity, cervical, vaginal, or perineal. The physiological state is so distorted that it was akin to a pathological one. In his own practice he treats the womb as an infecting, suppurating wound.

Dr. French, of Minneapolis, was so entirely in consonance with the views of the writer that he could not criticise.

Dr. Hull, of Arkansas, did not think the essayist correct in considering the uterus as a subcutaneous wound. He thought the state of affairs quite different.

Dr. M. Gordon, of Portland, Me., said that

NO MAN WAS FIT TO PRACTICE MEDICINE WHO WAS NOT CLEAN.

He thought every man better off with a bath a day. Hot water was all that was necessary. You can find reports of as many deaths from carbolic acid and bichloride poisoning as you can from sepsis in the same time.

Dr. R. Beverley Cole, of San Francisco, Cal., spoke against the ideas expressed in the paper in the strongest terms. He defied anyone to show better results in midwifery since the introduction of antisepsis than before.

Dr. Kane, of St. Louis, and Dr. Stone, of Virginia, spoke in favor of antiseptic midwifery.

Dr. A. Reeves Jackson, of Chicago, read a paper on

VAGINAL HYSTERECTOMY FOR CANCER.

He quoted largely from authorities and tables, and drew the deduction that the mortality was so enormous that the relief gained from the operation was nil, and therefore he thought the operation was unjustifiable and should be abandoned.

As no one present had performed a vaginal hysterectomy for cancer the paper was not discussed.

The Section then adjourned.

Thursday, April 30th—Third Day.

Dr. E. Zink, of Cincinnati, read a paper entitled

EMMET'S OPERATION—WHEN SHALL IT AND WHEN SHALL IT NOT BE PERFORMED?

The Doctor went to great labor to compile a paper which treated of the subject in a most thorough and classic manner. He addressed a letter to twenty-five prominent gynecologists in this country and abroad, asking them twelve questions on the subject.

The sum of their answers he presented in tabular form. The number of cases reported operated upon was 4,945, and from the answers to the letters addressed to these gynecologists, from study, reading, and thought on the subject, together with his own experience, he drew a series of conclusions numbering in all twelve. No. 4 was, the operation should never be performed, *eo ipso* in cases of simple fissures or lacerations of first or second degree.

Dr. Harvey, of Indiana, opened the discussion. He thought that in many instances the pain was greater in slight tears than in large ones. Large tears eventually cicatrize and do not pain, small tears fissure and become very painful and tender. He likened them to fissure of the anus, and, contrary to Dr. Zink, thought they should be opened and cauterized.

Dr. Watson, of Louisville, said the doctor had omitted to state the fact that it was sometimes necessary to operate immediately.

Every case is an individual one. He thought operation contra-indicated if the case improved under treatment, and contrariwise if sterility or disposition to abortion persisted.

Dr. Gordon, of Maine, said that Dr. Emmet stated that he had never seen a case of epithelioma cervicis without laceration. Dr. Gordon thought every laceration should be operated upon, fearing epithelioma.

Dr. King, of St. Louis, confirmed Dr. Harvey's statement concerning small lacerations, which were more liable to develop cancer than the large ones. He thought Dr. Emmet very inconsistent in regard to operating on small lacerations and regarding the occurrence of epithelioma.

Dr. Aldrich, of Pennsylvania, thought every case should be operated upon. He had seen scratches on the cervix cause much trouble.

Dr. Hale, of Illinois, held the conservative doctrine, yet it was not always the little laceration which should be let alone.

Dr. Healy said that triviai lacerations do not skin over as had been affirmed.

Dr. Lewis, of New Orleans, had once thought every laceration should be operated upon. With greater experience he has become more conservative.

Dr. H. O. Marcy, of Boston, was glad to hear from gentlemen from all parts of this land that they were able to diagnose cervical lacerations. Our "masters" across the water are not so expert. He was more conservative now than five years ago.

Dr. Reid, of Ohio, said it had been claimed by the gentlemen that every woman who had had a child had a lacerated cervix. He had seen hundreds of women who had children and no laceration of the cervix.

Dr. Battey, of Rome, Ga., was not in favor of operating on every case.

Dr. Sutton, of Pittsburg, closed the discussion, Dr. Zink being obliged to go.

Dr. Gordon, of Maine, read a paper entitled

REASONS FOR AND RESULTS OF SOME CASES OF TAIT'S OPERATION.

He recounted a discussion he heard at Copenhagen, in which Sir Spencer Wells criticised the paper of Koeberle, of Strasburg, saying no woman should have her ovaries removed from symptoms alone, and not unless we could prove disease by the toueh. He gave the history of seven cases on which he had operated for symptoms alone, and found the disease and relieved the symptoms.

Dr. B. G. Heard, of San Antonio, Tex., read a paper on

INTRA-PERITONEAL ADHESIONS IN RELATION TO TAIT'S OR BATTEY'S OPERATION.

He thought that in many cases when Battey's operation was performed, it was only necessary to open the abdomen and remove the adhesions.

Dr. Battey, in discussing Dr. Gordon's paper, said many considered the field for his operation a very lim-

ited one. Sir Spencer Wells had used it but twice, Dr. Duncan but once.

The discussion was continued by Drs. Sutton, Gordon, Wather, Hedra, and Harvey.

Dr. Horatio Bigelow, of Washington, D. C., being absent in Europe, a paper by him entitled

NOTES ON SURGICAL GYNECOLOGY IN THE BERLIN CLINICS,

was read by Dr. Sutton. The gentleman being absent, the paper was not discussed.

Dr. W. A. Jaggard, of Chicago, read a paper entitled

THE RING OF BANDL.

The paper was a very elaborate one, with numerous anatomical photographs. He concluded as follows: "The state of our knowledge is not at present such as to warrant us in a positive decision, but the weight of testimony is in favor of the existence of the ring of Bandl."

Dr. T. A. Reamy, of Cincinnati, being absent, his paper on "Treatment of the Pedicle," was not read.

The Section then adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 27, 1885.

Daniel Lewis, M.D., President, in the Chair.

THE INFLUENCE OF SEA-VOYAGING UPON THE GENITO-UTERINE FUNCTIONS.

Dr. J. A. Irwin read the paper, which was based upon a number of years' experience as surgeon on board ships plying between the ports of America and Europe, and also between Europe, India, Africa, and Australia. He had also studied carefully the literature of the subject.

The importance of the subject of the influence of sea-voyaging upon the genito-uterine functions was evident from the fact that it had long been observed that serious disturbances often attended such a change, and from the fact that transatlantic travel was becoming yearly more enhanced. It was, therefore, rather surprising that the subject had not been more carefully investigated. The observations of one surgeon, however great, could go but a short distance in establishing rules with regard to the influence of sea-voyaging upon the genito-uterine functions; but the author hoped that, on reading the record of his observations, other physicians would be led to supplement them by their own experience.

While on shipboard Dr. Irwin had made records of 104 pregnancies, 11 parturitions, 3 miscarriages, and 451 menstruations or misperiods among women in whom the function was usually regular.

THE EFFECT OF SEA-VOYAGING UPON THE MENSTRUAL FUNCTION.

In order that the value of the figures regarding the menstrual function might not be overrated, the author said that 288 of the 451 observations were based upon the inquiries of the stewardess among the passengers under her charge. They were thought to be reasonably reliable. Of the 288 women included in her returns, all of whom were supposed to be non-pregnant and menstruated normally previous to the voyage, 21 passed the period while on board without menstruating; 43 menstruated before the period, and 224 menstruated at the proper period, while 23 complained of pain, and in a few instances of increased or diminished flow, while 201 noticed absolutely nothing unusual which could be attributed to the voyage.

Turning to his own 163 observations, 13 of the women passed the period on board without menstruating, of whom 11 experienced more or less molimen; 51 menstruated before the usual period, 99 at the proper period. Of these 47 complained of unusual discomfort, accompanied in 37 instances with increased and prolonged flow, and in 2 with diminished discharge. Of the 13 who passed the period, 3 were on board at the second period; in 1 of the 3 menstruation was almost normal; in the second the result not known, and in the third the process was increased and prolonged, but at the two subsequent periods she had complete amenorrhœa. Thus, of the 163 cases observed by himself only about thirty-one per cent. performed the function of menstruation as normally as on land. These women were usually of a more refined class than those observed by the stewardess.

In one of the cases the patient was a resident of New York, who had kept an accurate observation of her menstrual periods for fourteen years, during twelve of which she was a widow. With the exception of four periods, the only ones which occurred at sea, and another, which might otherwise be accounted for, she always menstruated with perfect regularity. Every flow which took place on shipboard departed from the normal standard.

It was a more difficult task to explain facts observed, and to deduce from them principles applicable to practice. This difficulty was increased by our ignorance and conflicting opinions regarding the real nature of menstruation. The special conditions of an ocean voyage which might be supposed to exercise an influence upon female habit might be classed under three heads: Psychical, dependent upon the novelty of the situation and the apprehension of danger; aërial, dependent upon some special quality of the sea air; and, lastly, motional, as a direct result of the movements of the vessel.

There could be no question as to the effect of strong mental impression upon menstruation. It was perfectly tenable to suppose that mental influence occasionally played some part in the disturbances under consideration, especially in those cases, by no means frequent, of the sudden arrest of the flow in women who had embarked while actually menstruating. It could not, however, be regarded as a principal cause, since women who suffer much at this time often have not a particle of fear, and would thoroughly enjoy sea-life but for its unpleasant effect in this direction.

However acquired, sea-air has some extraordinary hygienic potency, which has been recognized in every age of medicine. It held a distinguished rank among the remedies of antiquity.

It was also clear that the motion on board a ship disturbed in some way the established habits of the economy, and the author thought the credit of having demonstrated the true pathology of sea-sickness, or rather of motion sickness, had now been pretty generally conceded to him, his views having been published in 1881. The ordinary form of sea-sickness, or that form caused by the easy gyrations of a large ocean steamer, was essentially a disturbance of equilibration, the initial lesion being in the semicircular canal. This soon led to dizziness, followed by nausea and vomiting.

Some authors claimed that the motion of the ship exercised a peculiar influence upon the ganglionic system of nerves, and produced certain other effects, but by far the more striking of these effects was that which formed the subject of the essay. It was Dr. Irwin's conviction that menstrual disturbances on shipboard were almost entirely due to the motion of the vessel, and that the constant tendency of this motion was to increase the blood-supply to the pelvic organs. The result differed in degree from a slight and sometimes beneficial circulatory stimulus to a positive and dangerous engorgement, but under all circumstances the primary influence is unquestionably toward congestion.

It would be seen that a sea-voyage might disturb the menstrual habit in almost every conceivable direction—in its periodicity, duration, amount of excretion, and discomfort. The particular effect most constant in each

case was determined by the constitutional habit of the individual, the relation of the last period to the date of embarkation, the length of the voyage, and fortuitous conditions.

Regarding periodicity, a premature return of the flow was far the most frequent effect. There may be a return of the sanguineous discharge at any time during the intra-menstrual epoch, but it is more liable to return if the voyage be undertaken during the first ten days following normal menstruation. On the other hand, complete and passive amenorrhœa for one or more periods after landing is a frequent result of the Atlantic transit.

Of the various effects of sea motion upon menstruation it was unfortunate that none was more universal than an aggravation of whatever discomfort is ordinarily associated with this process. In some women painful menstruation is experienced for the first time at sea. In the author's opinion the statement may be accepted as universally true that in every type of dysmenorrhœa the discomfort experienced is increased, certainly at the first, and usually at subsequent menstruations during the voyage. If there were any exception to this rule it must be in certain neurotic states. Dr. Irwin offered some explanations for this phenomenon, based upon prevalent theoretic views concerning menstruation, ovulation, etc.

A sea-voyage was likely to hasten puberty or the first menstrual flow. Some women who were undergoing the climacteric epoch also had a return of the flow during a sea-voyage.

The aphrodisiac influence of a sea-voyage was generally accepted, and it was easy to understand that an increased blood supply to the genito-uterine system, should excite the sexual instinct. But there might be other conditions than the mere influence of the voyage at sea itself which would tend to produce this result.

An ocean-voyage should be regarded as a potent emmenagogue, having, in addition to the special influence mentioned, a well-marked tonic, alterative, and sedative influence. With these characters it is entitled to head the list of therapeutic agents of similar effect, and should no longer be prescribed empirically, but with a definite object in view. There are many cases in which this local and perhaps constitutional influence was indicated.

In the conditions included under the term chloro-anæmia with amenorrhœa and retarded sexual maturity, certain forms of leucorrhœa and uterine hysteria, in undeveloped school girls, a typical case of which class had been described by Dr. Emmet, in this class of cases a sea-voyage would be indicated.

Again, there were many conditions of the genital organs, which, if not positively interdicting a sea-voyage, demanded special prophylaxis and skilful attention while on board the vessel. Almost every form of uterine and ovarian disease became worse while at sea. Uterine displacements were unfavorably affected during the voyage.

The treatment of uterine troubles during ocean transit should be conducted upon general principles.

The influence of sea-voyage upon utero-gestation was sometimes to produce abortion or early delivery. The vomiting attending sea-sickness was more violent than that of morning sickness, and was more likely to produce miscarriage. There was no uniformity of opinion upon this point, but it was the author's opinion that pregnancy, especially during the latter months, predisposed to, and always aggravated, the most distressing features of sea-sickness.

Sea-sickness invariably perverts or suspends lactation.

Dr. C. C. Lee said his experience regarding the influence of a voyage at sea upon genito-uterine disorders was limited. He agreed in the main with everything which Dr. Irwin advanced. In the first place, concerning congestion, he had not known an exception to the general rule that sea-sickness, or the derangement of innervation attending sea-sickness, increased pelvic congestion and the tendency to metrorrhagia and menorrhagia. He had not known of a case which had come under his observation in which a voyage at sea had caused miscarriage. He had never seen women or girls suffering from chlorosis or amenorrhœa benefited in the slightest degree by a sea-voyage. On the contrary, delicate chlorotic women were on the sea in crossing the Atlantic only a short time, and during that time being all the while sick, their condition seemed to be made worse rather than better. But there might be other conditions of ill-health in which a change of climate or conditions attending a voyage at sea would be of benefit. A long sea-voyage might be of greater benefit to the patient suffering from amenorrhœa or chlorosis, while it might prove injurious to women of plethoric habits, or who, either from displacements of the uterus or from previous peri-metritis or uterine tumors, or from habit, have been subjected to metrorrhagia or menorrhagic flow.

Dr. B. F. Dawson had seen one case of dangerous increase of the menstrual flow in a woman who had gone to sea while mourning the loss of an only daughter. He had also seen three cases of amenorrhœa produced by a sea-voyage, the cause being the mental impression produced by the sea-voyage, and not by sea-sickness.

Dr. O'Dwyer had been surgeon on board sailing vessels about thirty years ago, and had had opportunity to witness the effect of a long voyage upon the genito-uterine functions. It was not uncommon for mothers on the voyage to come to him with the statement that their young daughters did not menstruate, and Dr. O'Dwyer found little benefit from treatment in bringing about the flow. He had recently also gone as surgeon on one trip of an Atlantic vessel, and had made special inquiry as to the influence of the voyage on the sexual instinct, and almost invariably it was found to be enhanced.

Dr. Jacobus mentioned instances of amenorrhœa resulting from a sea-voyage becoming manifest after the passengers had come to land. No treatment in his experience had been of benefit, but the flow would return in the course of from three or four months to nine months.

Dr. McLaury had observed the same fact, and the women who thus suffered from amenorrhœa after a sea-voyage attributed it to the voyage.

Dr. Baruch had also observed the same fact, and had derived the greatest benefit in this form of amenorrhœa from permanganate of potassium.

Dr. Laurence Johnson had observed this form of amenorrhœa in persons who had landed in this country from Europe, and said it had been the custom at the Demilt Dispensary to call it marine amenorrhœa. It was painless, and always disappeared in the course of some months.

Dr. Bracklow had derived benefit from apiol in the amenorrhœa following a sea-voyage.

Dr. G. H. Butler mentioned an instance in which the patient menstruated normally only while at the sea-side, and it was her custom, therefore, to make her visit at the salt-water resorts as long as possible.

Dr. Irwin closed the discussion, thanking the gentlemen for the kind attention given to a lengthy paper, and for the corroborative evidence which the discussion lent in support of the truthfulness of the observation and inferences drawn therefrom recorded in the paper.

The Society then adjourned.

Night-sweats.—Professor DaCosta says that in the treatment of the night-sweats of phthisis ergot is preferable to atropine, being more permanent in its effects, and has the additional merit of not producing the dryness of the throat which so frequently follows the administration of atropine. He would give gr. ij. of ergotin ter die, the last dose given at bedtime.—*College and Clinical Record.*

Boiling Milk for Five Minutes destroys the tubercle bacilli if any are present, according to Prof. G. Sormani.

AMERICAN SURGICAL ASSOCIATION.

Annual Session, held at Washington, D. C., April 21, 22, 23, and 24, 1885.

(Concluded from page 468.)

THIRD DAY—THURSDAY, APRIL 23D—MORNING SESSION.

THE following officers were elected:

President—Dr. Moses Gunn, of Chicago.

Vice-Presidents—Drs. Christopher Johnson, of Baltimore, Md., and Thomas P. Russell, of Baltimore, Md.

Secretary—Dr. J. R. Weist, of Richmond, Ind.

Recorder—Dr. J. Ewing Mears, of Philadelphia, Pa.

Treasurer—Dr. J. H. Brinton, of Philadelphia, Pa.

Dr. L. McLane Tiffany, of Baltimore, was added to the Council.

The next meeting is to be held at Washington, on the Wednesday preceding the meeting of the American Medical Association. Chairman of the Committee of Arrangements—Dr. J. S. Billings, of Washington, D. C.

Members elected: Drs. J. Edwin Michael, of Maryland; Roswell Park, of Buffalo, N. Y.; W. H. Carmal, of Connecticut; J. Ford Thompson, of Washington, D. C.; Theodore R. Varick, of Jersey City, N. J.

The following Honorary Members were elected: Sir James Paget; Mr. John Eric Erichsen; Sir Joseph Lister; Professors Thomas Annandale, of Edinburgh; Frederic Esmarch, of Kiel; Von Langenbeck, of Berlin; Volkmann, of Halle; Czerny, of Heidelberg; Billroth, of Vienna; Von Nussbaum, of Munich; Verneuil, of Paris; Ollier, of Lyons.

DISCUSSION ON DR. WARREN'S PAPER.

DR. SENN thought that the external callus in the specimen shown was due largely to the injury produced by ligation and by septic changes; in reference to presence of muscular tissues in cicatrices, he considered it against analogy, and thought they might be due to displacement of pre-existing cells.

DR. WARREN, in reply, said that the amount of injury had much to do with the amount of external callus, but it had been observed there was the least amount of injury, where antiseptic precautions had been employed. In reply to another question he said that the thrombosis took no part in the cicatrization, but it served as a protection while the healing process was going on. It might be called the provisional callus, or the first stage of the internal protective callus.

The paper was further discussed by Drs. Gunn, Moore, and Prewit.

DR. J. W. S. GOULEY read a paper which considered: 1, The determination by physical exploration of the size of the hypertrophied prostate, and the character of the obstruction to urination; 2, the circumstances under which medicinal treatment possesses value; 3, the selection of catheters; 4, certain accidents of catheterism, especially false routes; 5, evacuative catheterism, its good effects, and its dangers; 6, vesical irrigations to combat cystitis, their use and abuse; 7, prostatotomy and prostaectomy, their indications and contra-indications.

DRS. GROSS and PREWIT fully indorsed the views of Dr. Gouley in regard to the management of retention of urine from obstruction due to enlarged prostate.

DR. E. M. MOORE stated that he had employed with much success, in those cases where there was contraction and much irritability of the bladder, what he called the moral treatment. This consisted in directing the patient to resist the desire to urinate, as long as possible. In this way the time between each urination might be prolonged to four hours.

DRS. MOSES GUNN and GOULEY had also employed this method. The Society then adjourned.

AFTERNOON SESSION.

DR. ERNST, of Boston, gave a demonstration of a number of culture-tubes containing micrococci from perinephretic abscess, erysipelas, pyæmia, and so on. These experiments had been made to confirm those of Rosenbach. The doctor claimed no originality in their performance. A microscopical exhibition of the bacilli of a number of diseases were made. He said that he should continue these experiments, and intended to perform a number of inoculations.

DR. WARREN referred to the clinical aspects of some of the cases from which the micrococci exhibited by Dr. Ernst had been obtained.

DR. GROSS moved that Dr. Ernst be invited to prepare a paper, giving the results of his experiments, to be read at the next meeting of the American Surgical Association.

The next paper was entitled

AN EXPERIMENTAL AND CLINICAL STUDY OF AIR EMBOLISM.

A paper on this subject was read by DR. N. SENN, of Milwaukee, Wis., in which the following points were touched upon:

1. The presence of adventitious air in the vascular system during life gives rise to air embolism.

2. Each air embolus constitutes a mechanical source of partial or complete obstruction to the flow of blood in the vessel in which it is located.

3. Aspiration during the inspiratory movements of the chest is the direct or exciting cause of the ingress of air into a wounded vein or sinus.

4. Elevation of the head is the sole predisposing cause of the entrance of air in wounds of the superior longitudinal sinus.

5. In veins the predisposing causes consist in (*a*) elevation of the part wounded; (*b*) pathological or anatomical conditions which prevent collapse of the vein when it is wounded.

6. Insufflation of a fatal quantity of air into a vein produces death by (*a*) mechanical over-distention of the right ventricle of the heart and paralysis of the diastole; (*b*) asphyxia from obstruction to the pulmonary circulation consequent upon embolism of the pulmonary artery.

7. Insufflation of the same quantity of air into arteries is less dangerous than when introduced into veins. When death is produced in this manner, it results from (*a*) acute cerebral ischæmia; (*b*) secondary venous air embolism; (*c*) intense collateral engorgement of the vessels of the brain and spinal cord, the manner of death being determined by the amount of air injected and the direction in which the injection is thrown, as well as the time which has elapsed between the operation and the fatal termination.

8. Air injected into arteries is readily forced through the systemic capillaries into the venous circulation and right side of the heart by the powerful contractions of the left ventricle.

9. An air embolus of the pulmonary artery is relieved in a comparatively short time, provided the contractions of the right ventricle continue unimpaired for a sufficient length of time to force the air through the pulmonary capillaries into the general circulation.

10. The prophylactic treatment consists in proximal or double compression or ligation of the vein which is endangered by the operation.

11. The indirect treatment has for its objects (*a*) prevention of the admission of air; (*b*) administration by inhalation or hypodermatic injection of cardiac stimulants; (*c*) venesection.

12. The direct or operative treatment by (*a*) puncture and aspiration of the right ventricle; (*b*) catheterization and aspiration of right auricle, which is proposed to obviate the direct cause of death by the removal of air and spumous blood, thus relieving directly the over-distention of the right ventricle, and at the same time to guard against a fatal embolism of the pulmonary artery.

13. The results obtained by experiments on animals

warrant the adoption of the operative treatment of air embolism in practice, as a last resort, in all cases where the indirect treatment has proved inadequate to meet the urgent indications.

The Association then went into executive session.

FOURTH DAY—FRIDAY, APRIL 24TH—MORNING SESSION.

ASPIRATION OF LARGE ABSCESS.

DR. GORDON, of Portland, Me., was introduced by Dr. Moore, and described a case which he had seen a short time ago. In a case of pelvic abscess he had twice aspirated, removing a large quantity of pus. Aspiration was again required. The apparatus employed was one which could be used either for aspirating or for condensing, according to the manner of attaching the tube. The assistant, who was not familiar with the working of the instrument, attached the tube to it so as to condense the air in the bottle. The needle was introduced into the abscess cavity, the connection made, and a large amount of air escaped into the cavity. The patient gave a scream and in a minute was dead. It had proved impossible to secure a post-mortem examination, but the speaker thought that there could be no doubt as to the nature of the accident.

DR. NANCREDE said that it had been noted that in the horse large quantities of air were required to produce a fatal result. This had been ascribed to the greater power of the right ventricle. In his opinion it was better explained by the larger size of the pulmonary capillaries allowing the spumous blood to pass through them. Death he thought was not a simple matter in these cases. In the instances cited by Dr. Senn, where a large amount of air had been injected, the heart was no doubt paralyzed by the distention. But in surgical practice the accident does not occur under such circumstances. A small quantity of air enters a vein and suddenly altering the specific gravity of the blood, interferes with its passage through the pulmonary capillaries and leads to ischæmia of the brain and want of blood in the respiratory centres.

In operating in regions where there was danger of the entrance of air into veins, he adopted certain precautions, as ligating or applying pressure to the vessels, and in the removal of tumors in such situations he was always careful to compress or tie the veins before dividing the last attachments of the growth.

In regard to direct treatment of the accident, he recommended artificial respiration in the recumbent position, with the ordinary measures of the inhalation of ammonia and the hypodermic injection of ether. In addition to these, he recommended the hypodermic use of sulphate of atropia, which stimulates the respiratory centres, and as a secondary action causes dilatation of the pulmonary capillaries, thus favoring the circulation of the altered blood.

DR. SENN being absent was given permission to have his remarks printed with the Transactions.

DR. P. S. CONNER, of Cincinnati, read a paper on

THE ETIOLOGY OF TETANUS.

In opening his paper, the speaker referred to the great desirability of a more thorough knowledge of this disease as bearing on its more successful treatment. Two classes of cases are embraced under the general head of tetanus. In one class the spasms first affect the injured part, while in the second, the spasms primarily involve muscles whose nerves arise in the medulla oblongata. There can be little doubt that the seat of the disease is in the medulla oblongata. It has not been determined whether the disease is brought about by the nerve, by the blood current, by extension of inflammation, by reflected irritation, by septic changes, or by the presence and development of micro-organisms. These different views were taken up and discussed at some length, and the probabilities were considered to be in favor of the view that attributes the disease to the absorption of septic matters from the wound.

During the reading of the paper the doctor made the interesting statement that in 16,000 foot injuries occurring during the late war, there were only 57 cases of tetanus, while in 12,000 hand injuries there was not one case of tetanus reported.

In conclusion, the speaker stated that the object of his paper was not to advance any particular theory, but simply to elicit discussion which might serve to throw some light upon this obscure affection.

DR. MOORE asked if the reason for the frequent occurrence of tetanus had been investigated.

DR. CONNER had considered these cases, but he had attributed them to the character of the wound leading to retention of the discharges, and not to any peculiarity in the powder employed.

DR. PREWIT referred to the fact that in some cases the disease ran a mild course, and he described two cases in which the affection had appeared some time after the accident. Both of these cases were treated with bromides and chloral, with the administration of Fowler's solution in five-drop doses repeated every three hours and continued for two weeks. These cases seemed to exhibit a marked tolerance for this remedy. Both of these patients recovered, although one, a man who had been wounded on the right arm, suffered with paralysis of the flexor muscles of the left foot. He was inclined to accept the view that the disease was due to a micro-organism.

DR. MEARS referred to cases coming under his observation where the disease had followed injuries of the hand and foot, and one case in which it followed amputation of the arm, in which the median nerve had been ligated.

DR. WEIST described one case of tetanus following gunshot injury of the hand which he had seen while in the army. In private practice he had within the past two years seen three fatal cases of tetanus following injuries of the hand.

DR. TIFFANY referred to the great fatality following injuries produced by the toy pistol, and stated that he had had the explosive carefully examined by a chemist, but with negative results. The black race, he said, were very prone to the occurrence of tetanus, and this fact, he thought, was against the idea that tetanus was due entirely to reflex nervous disturbance. He thought that something more was needed.

DR. MEARS had also had the fulminate examined, with the same result as obtained by Dr. Tiffany. He had come to the conclusion that the explanation was to be found in the cartilage, which was broken to pieces and imbedded in the wound.

DR. NANCREDE stated that most of the cases which he had seen had been cases of trivial injury, and he enumerated a number of accidents after which tetanus had appeared. He had seen only two cases of acute traumatic tetanus recover. Many plans of treatment had been employed without avail. Marked relief was afforded in one case by nitrate of amyl.

DR. GUNN could recall but three recoveries in cases coming under his notice. In two cases recovery followed nerve-stretching, in the third case it followed amputation and the use of calabar bean. It had been frequently noted, he said, that if cases lived until the tenth day they usually recovered. This might be formulated thus: The fatality will be in direct ratio with the acuteness of the attack.

DR. BRIGGS stated that, in his opinion, predisposition was an important element in the etiology of this affection, and described a case illustrating this point.

DR. CONNER said that all that he had heard had tended to confirm the humeral theory. He thought that a strong point against predisposition playing an important part in the causation of tetanus was the fact that many of those

who were afflicted with the disease had, on previous occasions, received severe injuries without the appearance of any indications of tetanus.

"The Immediate Cure of Fistula in Ano," by Dr. Stephen Smith, of New York, was read by title.

A paper entitled

A CASE OF CHOLECYSTOTOMY,

by Dr. C. T. Parkes, of Chicago, was read by Dr. Moses Gunn.

The patient, a lady, twenty-nine years of age, had long suffered with symptoms of obstruction of the common bile-duct. All forms of medicinal treatment had been employed without benefit. An operation was recommended and acceded to. An incision was made over the position of the distended gall-bladder, and the organ was brought into the wound and aspirated. This removed a quantity of mucoid fluid tinged with bile. The gall-bladder was then secured to the external incision and opened freely. The finger was introduced, but no calculi could be found. The wound was dressed antiseptically and not disturbed for four days, the patient doing well. When the dressing was made, a probe passed into the gall-bladder detected a stone. Two were removed on this occasion, and a few days later five more were found. They were all small, averaging about a grain in weight. The patient rapidly recovered from the operation, and was relieved of the pain and other symptoms complained of, but the bile did not escape into the intestine. A second operation was therefore performed, four weeks after the first. The external incision was extended downward, and the attempt to pass a small bougie through the common duct was made without success. A No. 10 (Frère, French) sound was then carried through the cystic duct into the duodenum. From this time the bile escaped freely into the bowel, and the fistulous opening rapidly healed.

Dr. Mears spoke of the difficulties of diagnosis in some of these cases, and of the necessity for the surgeon of carefully studying this subject. He then spoke of other conditions, such as inflammatory affections of the lining of the duct, causing obstruction, tumors, malignant disease of neighboring parts pressing on the duct, abscess of the gall-bladder, and impacted calculi, in which the operation is indicated.

Dr. Prewit described two cases in which the distended gall-bladder could be distinctly outlined. One was the case of a man, seventy years of age, who had never exhibited any signs of gall-stones, who was suddenly attacked with pain and collapse. Palpation showed that the gall-bladder was distended and filled with calculi. The patient did not rally, but died in collapse. At the autopsy a large number of gall-stones were found.

In another case of what has been termed dropsy of the gall-bladder, the gall-bladder extended to the level of the umbilicus. It was tapped, and a pint of mucoid fluid with very little trace of bile was removed. Operation was proposed, but refused.

A paper on

PHOSPHOROUS NECROSIS OF THE JAWS

was read by Dr. J. Ewing Mears, of Philadelphia.

After an elaborate review of the whole subject of phosphorous necrosis, the speaker reported sixteen cases which had been under his care and presented the specimens removed.

The following conclusions were reached:

1. That phosphorous necrosis of the jaws is a local expression of the constitutional condition produced by the inhalation of the vapor of phosphorus and by particles of the agent taken into the system with the food by operatives in match factories, who do not give proper attention to cleanliness of the hands.

2. That the introduction of the agent into the system is, as a rule, very gradual, and in such small quantities as to avoid the production of symptoms of acute poisoning. That in this way the chronic toxic condition of the system is induced, characterized chiefly by disintegration of the red blood-corpuscles and fatty degeneration of the arterial coats.

3. That the toxic condition precedes the development is shown by the fact that the disease does not attack operatives recently exposed to the action of the agent, but those who have been exposed for a period of years.

4. That examinations of teeth of operatives have shown that many who have a condition of caries, and that many who have returned to work immediately after the extraction of teeth, have enjoyed immunity from the disease, showing that the agent has not attacked the periosteal tissue thus exposed. (In one case, the disease did not appear until three months after labor in the factory had ceased.)

5. That individuals vary in their susceptibility to the action of the poison; for this reason many suffer immediately with symptoms of acute toxic conditions, such as nausea, vomiting, etc., and are compelled to abandon work in the factories.

6. That the conditions under which experiments have been made on animals to prove the absence of the disease until exposure of the periosteum and peri-alveolar tissue was affected, were not similar to those to which operatives in match factories are subjected.

7. That treatment of the disease in the primary stage in the manner outlined is efficient and prevents its progress.

8. That the antidotal powers of turpentine have been established, both in neutralizing the effects of the poison upon operatives during their work, and also in the treatment of the early stage of the disease.

9. That the disease is to be prevented among operatives by the adoption of thorough methods of ventilation, stringent rules with regard to cleanliness, and the free disengagement of the vapor of turpentine in all the apartments of factories in which the fumes of phosphorus escape.

The discussion was participated in by Drs. Moore, Nancrede, and Mears.

In a paper read by Dr. J. Ewing Mears, of Philadelphia, on an

APPARATUS FOR RAPID ANÆSTHESIA,

a device consisting of three parts was described. This had been devised and used by Dr. Mears in August, 1884. It consists of a bottle to contain the ether, a metallic mask to cover the mouth and nose, and a rubber tube connecting the two. The bottle of ether is placed in warm water, and the vapor of the ether passes in a concentrated form to the mouth-piece. Its flow is regulated by a stopcock. In this way it was claimed anæsthesia had been produced in less than one minute. The apparatus could be used in another way, by attaching the bottle directly to the inhaler. In this way the supply of ether could be kept up without the necessity of removing the inhaler from the face.

The Committee on Publication were authorized to have the vignette of the late Professor S. D. Gross attached to the seal of the Association.

The thanks of the Association were tendered the retiring officers and the Committee of Arrangements.

Brief remarks were then made by the President-elect and by the retiring President.

The Association then adjourned.

For Leucorrhœa.—The oil of erigeron possesses other very valuable properties—it is a most excellent remedy for leucorrhœa; indeed, I should place it next to iron, the most valuable of all our remedies for this trouble. There are many cases of leucorrhœa associated with plethora—here iron is contra-indicated, and the oil of erigeron is the most suitable remedy, though in anæmic cases it is equally effective.—*J. K. Shirk, M.D.*

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

COMPARATIVE ANATOMY AT THE PATHOLOGICAL SOCIETY —THE POISONS BILL—THE SOCIETY FOR THE STUDY OF INEBRIETY—SANITATION IN EGYPT—MEDICAL MISSIONS—HEALTH IN AFRICA—DEATH OF DR. SIDNEY COMBER.

London, April 14, 1885.

At the last meeting of the Pathological Society comparative pathology was again to the front. Dr. Norman Moore showed tuberculous kidneys from an ox. Bacilli had been found in abundance in both kidneys, and they agreed in form, size, and method of staining with those found in tubercle in man. The tuberculous part of the kidneys was nowhere broken down, but showed many zones of calcification. Dr. Dickinson described an epidemic of renal disease which had occurred in a herd of short-horn oxen on a farm in Oxfordshire. About half of the oxen were attacked, and the disease was fatal in almost all the cases. The urine was loaded with blood, and there were enormous casts. He had examined the kidney of one ox which had survived the attack of renal disease; it was in a state of typical interstitial nephritis.

The Poisons Bill is being actively opposed by the trade journals and other agencies.

The Society for the Study and Cure of Inebriety now has two hundred and seventy-nine members. Its members are not necessarily abstainers. A large number of medical men in this country are now total abstainers. The total number is variously estimated, but I think one thousand is not far from the mark. The profession now numbers twenty-five thousand registered members in Great Britain and Ireland, so this shows a proportion of about four per cent. Temperance men claim that a tenth (three millions) of the entire population are teetotallers.

Mr. Ernest Hart's letters in the *British Medical Journal* are throwing some light on the unsanitary sanitary legislation in Egypt, and the miserable condition of the medical school in Cairo. The dissecting-room he characterizes as "a loathsome farce," and he remarks, with scathing contempt, that the students learn by rote from antiquated Arabic books like school board children. Mr. Ernest Hart has the reputation of being able to smell out a rat as quickly as any one. He attracted some attention at the beginning of his career as a journalist by the vigorous onslaught he made on the abuses practised under the Poor-Law Board.

Medical missions have hardly received their due share of attention at the hands of the profession. Many of our societies now try to give their missionaries some medical training, especially when going to break new ground where civilization has not yet extended. Qualified medical men are also always acceptable as missionaries. I believe one society sends medical men only. I do not think the subject has been as much before the profession as it might be. I do not mean by this that medical men should become missionaries. A man naturally wishes to pursue the profession for which he has been educated, and medical men who are suitable for the work and are willing to go to the mission field, are not likely to be found in numbers. But many young doctors not yet settled in life might be willing to go abroad for a few years as the "medical officers" of the missionary society. They would be simply required to perform the duties of their own profession. A personal friend, now home from the Congo, who has travelled all through that region during the past eight years, frequently meeting Stanley in his explorations, tells me that the field for practice is enormous and that large surgery can be had *ad libitum*. Of course, I refer to the natives, who usually flock to the stations to be treated for "all the ills flesh is heir to.' The opportunities of studying botany and natural history, too, are not to be despised. I understand that the proposal to employ paid medical officers is about to be laid before one of our leading missionary societies, now actively engaged in Central Africa, and may perhaps lead to something. Of course, only a small salary could be paid, but there are many young men now eating out their hearts waiting for practice which cometh not, who would be only too willing to join a missionary party and form part of the advanced guard of civilization for a year or two. Hardships would have to be endured and the native fevers gone through, but I do not know that these would be worse than the spears of the Soudanese or the cannon of the Russians. Our surgeons have faced the first; they will be equally ready to confront the second if necessary.

At a meeting of the Royal Geographical Society, held last evening at the University of London, I had the opportunity of hearing some statements respecting health in the Congo region from recent explorers in that district. A few lines may perhaps interest your readers. The seacoast of the Congo region is, it appears, fairly healthy, and Europeans may with safety live much the same as in Europe. The Upper Congo is even more healthy, and few have fallen victims to tropical diseases. The intermediate region is the most deadly, viz., that between the coast and Stanley Pool. In this division about two hundred Europeans are at present living, viz., missionaries, merchants, and others. Of these about fifty have succumbed to the climate. The opinion was freely expressed at the meeting last evening that this heavy mortality was largely due to the privations endured. This view is corroborated by the fact that among mission workers the death-rate has been even higher. The reader of the paper last evening at the "Geographical" (the Rev. T. J. Comber, Medical Missionary to the Baptist Missionary Society) has told me that one-half of those sent by his own Society have died. He also regards the exceptional mortality of the intermediate or "cataractous" region of the Congo as in a great measure due to the hardships which have to be gone through. I may add that medical aid is greatly needed, as I have already mentioned.

While on this subject, I would briefly mention one of our profession, who has lately died on the banks of the Congo. Dr. Sidney Comber is a loss not only to the the Missionary Society whose representative he was, but to the medical profession. Educated for commerce, he determined in early manhood to follow his brother in mission work, and resolved before doing so to become a fully qualified medical man. He had many difficulties in his path, but he succeeded in going to Edinburgh and obtaining his degree with credit amid the most adverse circumstances. Although quite a young man, he gave great promise.

While at Edinburgh he invented a most useful light portable boat, made of wood and canvas, which has since proved very useful in Africa. It may be described as a modification of the "Berthon" boat—only the latter is clumsy in comparison. As one who knew his worth and his many scientific and other attainments, I may be permitted to give this scanty tribute to his memory, and would add, in conclusion, that for several items in some of my previous letters I have been indebted to his accurate memory and ready friendship.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE EPIDEMIC OF TYPHOID FEVER AND CHOLERA AS IT PREVAILED IN PARIS—INSUFFICIENT WATER SUPPLY—INFLUENCE OF THE ANTISEPTIC METHOD IN PREVENTING THE SPREAD OF ERYSIPELAS.

Paris, April 8, 1885.

M. Durand-Clave, a civil engineer and a well-known hygienist, who was lately awarded a prize by the Paris Academy of Sciences, for his work on the "Epidemic of

Typhoid Fever in 1882," presented a series of very interesting charts at the last meeting of the Academy of Medicine on the epidemic of typhoid fever and of cholera which prevailed in Paris during the last few years. The charts are colored and marked with carved lines which show the degrees of intensity of each epidemic in each quarter of Paris, the influence of the winds, of the temperature, of the rain, and of the drinking-water, as elements in the etiology of these affections. The conclusions of the author may be summarized as follows: The epidemic of cholera which reigned at Paris in 1884 caused less than half the number of deaths than that determined by typhoid fever during the same period. There has always been a great irregularity in the distribution of deaths caused by these same epidemics in different quarters of this city. It is, however, worthy of remark that the quarters which were the most seriously affected by typhoid fever, were precisely those which suffered most from the cholera. As these quarters are the most insalubrious of the capital, it may be inferred that the same general causes of insalubrity have an action equally disastrous on the development of the two epidemics in question. Among the circumstances which appeared to have had a certain influence on the outbreak, and on the course of these epidemics, it may be mentioned that the typhoid fever succeeded heavy falls of rain, coinciding with a high atmospheric temperature. The epidemic reached its maximum at the moment when the rainy season had ceased, the temperature still remaining high.

The appearance of cholera coincided with the strong southerly winds, which determined an exceptional increase of temperature, particularly if the month in which the outbreak took place be considered, that is, the month of November. The cessation of the epidemic coincided with the appearance of the strong northerly winds. The density of the population of the quarters affected does not appear to have had a great influence on the appearance of the epidemic, as the latter raged in the poorer quarters, where the houses are more scattered and the population less numerous. Matters are different when houses are crowded with occupants. The mortality was much greater in thickly populated houses than in those less so. As regards the water of Paris, M. Durand-Claye states that it is not the general supply that is deficient; there is water enough, but it is the quantity that is distributed to the houses that is insufficient. The fault, then, rests with the proprietors, who are unwilling to go to the expense. As to the quality, the water of Paris is not so bad as it is generally represented to be. There is, however, one exception, viz., the water supplied from the Ourcq canal, which is notoriously of a bad quality on account of the number of bargemen (fifteen hundred), who dwell on it. Moreover, the canal is a thoroughfare for the boats which convey the filth of Paris to the forest of Bondy, which is a short distance from the town. The statistics show that the mortality from typhoid fever and from cholera was proportional to the quantity of the canal water consumed by the inhabitants of that quarter. In each quarter the mortality appears to have been less where the sewers were in greater number. Finally, it was also less in the quarters where the privies were provided with movable tubs, which are, consequently, more frequently cleared out than cesspools. If the mortality from cholera at Paris be compared with that of the larger cities, where the disease prevailed, the following was the proportion established: At Toulon, the mortality was 75.0 per 1,000; at Marseilles, it was 18.0 per 1,000; at Naples, it was 100.0 per 1,000. As for Paris, the mortality was insignificant in proportion to that of the other towns. I may here observe that in the annual report just issued from the Office of the Prefecture of the Seine, the number of deaths from cholera at Paris, from the commencement of the epidemic in November last, to the end of December, 1884, was 986, of whom 600 were treated in the hospitals. M. Durand-Claye, not being a medical man, did not wish to express an opinion as to the etiological value of the statements he brought forward in his paper, but he submitted the latter as a simple document to be consulted by more competent authorities.

The debate opened by Professor Verneuil, at the Academy of Medicine, and which was referred to in my last—on the influence of the antiseptic method in preventing the spread of erysipelas—was resumed at the following meeting, when Dr. Le Fort declared that the diminution of erysipelas in the hospital wards was due not so much to the so-called Listerism as to the improved methods of treating traumatism, medically as well as surgically. He found that all the methods were good provided they were intelligently carried out and fulfilled certain indications, such as the prevention of the irritation of wounds, the stagnation of pus, and the avoidance of frequent examinations, particularly of wounds of the head, which are so frequently followed by erysipelas, as are also those made by the knife in comparison with those produced by caustics or the thermo-cautery. And this is the reason why the dressings according to Lister, the open antiseptic dressing by Verneuil, the alcoholic by Gosselin, and the cotton-wool dressing by Alphonse Guérin, have all produced more or less favorable results, as they all responded to the same indications. These principles Dr. Le Fort himself carried out without adhering to any particular method, and for the last seventeen years that he has been hospital surgeon he has had only seventeen deaths from erysipelas, five of which occurred during a rather severe epidemic of that affection. Dr. Le Fort, however, admits that the antiseptic method of Lister may, if carried out strictly according to the principles laid down by that eminent surgeon, contribute in a great measure to diminish the number of cases of erysipelas, and to exterminate pyæmia and septicæmia from the surgical and obstetrical wards of the hospitals.

OUR VIENNA LETTER.

(From our Special Correspondent.)

THE TREATMENT OF FUNCTIONAL IMPOTENCE—ON ŒSOPHAGOTOMY—INTERNAL EXAMINATION OF THE ABDOMINAL ORGANS IN THE LIVING SUBJECT.

VIENNA, March 22, 1885.

FUNCTIONAL impotence in the male (*potentia coëundi*) is a subject which Dr. Ultzman has lectured upon in the last semester in a most thorough and exhaustive manner. Every physician in his ordinary practice is constantly having under his charge cases of this affection, and must quite often confess his inability to obtain satisfactory results after long and careful treatment.

Dr. Ultzman divides impotence in the male into four general classes: 1. Organic, a variety which comes rarely to the general practitioner for treatment. Here the trouble is due to a malformation or deformity of the genital organ or the surrounding parts, and these cases are properly referred to the specialist. 2. Paralytic impotence, usually one of the symptoms of a general paralytic affection, and the treatment being that of the primary trouble. 3, 4. Psychical impotence, and impotence due to too early ejaculation of the seminal fluid. These are the two forms which present themselves most frequently, and also the two which yield most readily to the proper treatment. They occur usually in strong, healthy young men who are otherwise in normal health.

According to Dr. Ultzman internal remedies, with the exception of iron and quinine, which are used as tonics in the less common class of cases where the patients are not in good health, are completely useless and do more harm than good. The treatment should be always principally local. The disturbance is a functional one, and consists in the incapability of having a normal erection. Since the capacity of exciting erections resides in the prostate this is the point to which the therapy is to be directed. This is of several varieties; the simplest of all is the sound treatment.

The Charière sounds, beginning with No. 20 French, and continued up to No. 30 French, are introduced daily into the bladder, the patient being in the horizontal position, that being the only proper position in passing urethral instruments. At each insertion the sound is left in from five to ten minutes. It is found to be of benefit after the sound is in the bladder to slightly depress the handle in order to increase the pressure and distention in the prostatic urethra. By this method the metallic pressure alone acts upon the prostate, and usually in a few days powerful erections are excited. In some cases even after a few minutes, while the sound is still in the urethra, normal erections have taken place.

Another method of treatment is with the use of the cool sound (Kühlensonde), the psychrophor. This is a thick metal catheter, closed at the vesical end and divided into two compartments by a partition running the length of the catheter. These two compartments open into each other at the vesical end. At the upper end they form two separate tubes, to which are attached rubber tubes, one carrying the water to the catheter down one side and back the other, and to an empty vessel by means of the second rubber tube, thus having a continuous flow through the catheter, the water coming from a vessel at a slightly higher level than the patient. In this case both the pressure of the catheter, or rather double tubular sound, and the temperature of the water act at the same time upon the prostate. The sound is passed as before until it is into the bladder, daily, but left in a somewhat longer time.

The temperature of the water is usually from 9° to 10° R. Some patients have a urethra which will not bear this temperature; in that case it can be raised 14° to 16° R. In some cases warm water is of value. It is especially to be tried where no result is observed from the use of cold.

Water of a temperature of 30° R., or above, can be used. This, in some cases, has effected a very rapid cure. The thermometric excitation of the prostatic urethra by means of the cool sound, Dr. Ultzman has found of remarkable service.

The use of astringents upon the prostatic portion is a third method of treatment. Small suppositories are carried in, and applied exactly at this location by means of the *porte remède*. Tannin is commonly used and is a good remedy. For the first applications .05, later .10, in a two centimetre long suppository is applied. Urine is not to be passed for half an hour after the insertion. These are to be inserted every day, and continued not less than once in two days until normal erections are excited.

Still another method consists in dropping three or four drops of a five per cent. solution of sil. nit., by means of the deep urethral dropper-syringe of Ultzman, upon the prostatic urethra. This remedy is applied once in three or four days. In impotence, with premature ejaculation, the above remedies are of special value as auxiliary means to the usual treatment of quinine, iron, cold baths, change of climate, etc.

In the paralytic form the above means are always to be tried with faradization. In the use of electricity, one pole is to be inserted into the rectum, the other placed along the raphe of the perineum. The prognosis is, however, very unfavorable.

Two interesting operations for foreign bodies in the œsophagus and stomach were recently made in the clinic of Professor Billroth. The first case was a patient of forty years of age, who, four days before, had swallowed her false teeth with plate. Attempts to get it out immediately after the accident failed. It could be easily felt with a bougie, but in trying to release it the instrument itself was so firmly caught that only after a half hour's work was this released. The patient had a gangrenous odor in the breath, and a painful swelling on the left side of the neck just above the clavicle. Œsophagotomy was immediately performed, and the plate removed with some slight difficulty. The opening, about two inches long, was not closed, and a drainage-tube of about half an inch calibre was introduced through the wound into the stomach, and left there. The wound was then packed with iodoform gauze and a layer of the gauze over it—the patient being fed, of course, through the tube. The tube and gauze were left undisturbed for eight days and then removed. The wound closed by granulation without a bad symptom. At present, three weeks after the operation, no signs of stricture can be made out with a bougie, and the patient was discharged cured.

A few days after this patient entered the hospital, a second almost similar case presented. A girl, nineteen years of age, swallowed in her sleep her false teeth with plate. She immediately made strong attempts to swallow, and the foreign body was carried down to the cardiac orifice of the stomach. Endeavors to get it out not succeeding, she came to the clinic. A bougie could be passed now directly into the stomach without meeting any obstruction. Professor Billroth said that bodies of this size and shape could with difficulty pass the cardiac orifice, but he knew of no case where they had passed the pylorus. The patient complained of a slight tenderness on pressure in the gastric region, otherwise she had no pain. Nothing was felt by the bougie or by external examination. The assertions of the patient were quite positive, however, and Professor Billroth decided to open the stomach. He made a cut, two fingers' breadth, below the edge of the ribs and to the left of the median line, about an inch long, and tried with forceps to grasp and extract the body, but none could be found. The cut was enlarged, and the stomach-wall drawn well forward and out of the opening, but nothing was found. Turning to the audience, Professor Billroth said he had never before had such an opportunity to examine thoroughly the abdominal organs in the living being, and the temptation to do so was too strong to be resisted. The cut was then still more enlarged and he then introduced his hand and part of the arm into the abdominal cavity, talking about the organs as he examined them. He said it was surprising how very soft the liver felt, it was hardly to be distinguished from the intestines. The gall-bladder was well distended. The kidneys were both remarkably movable; slight pressure pushed them downward at least an inch. The bladder was tensely distended. The uterus and both ovaries felt hard and firm. The foreign body was not found. He now introduced his hand into the stomach, and in the upper and backward part grasped and removed the false teeth-plate. The examination was slightly difficult, because of traction caused by the ligamentum gastro-linelis. The wound was then completely closed up with silk stitches and dressed with iodoform gauze. Professor Billroth said that he had discovered what he had not before known, that in drawing the stomach forward and out the portion attached to the diaphragm prevents its being entirely brought forward, and forms a pocket which completely conceals anything lying in it.

About two weeks later the patient was reported in good condition, the wound had closed up as usual when the dressing was first removed after eight days, and she was convalescent. The examination, Professor Billroth stated, had not been in the least injurious to her.

Granular Effervescent Tea.—Dr. Samuel W. Francis suggests that some responsible firm manufacture a superior quality of granular effervescent tea, to be sold by the trade in small twenty-five cent bottles, and in larger ones for one dollar. This would enable persons who are feeble, or tired, or cold, to put one teaspoonful in a tumbler or cup of hot or cold water, and, in a few seconds, enjoy the comfort of a refreshing cup of tea, which is all ready-made, as it could be mixed with milk, sugar, or its equivalent. For those who travel it would prove of great value and become very popular. A handsome income is open to any enterprising company.

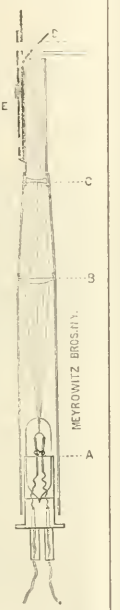
New Instruments.

AN ELECTRIC OPHTHALMOSCOPE.

By WILLIAM T. DENNETT, M.D.,

NEW YORK.

I HAVE had in use for several days an ophthalmoscope which has worked so satisfactorily that I feel justified in bringing it before the profession. It differs from the universally adopted "Loring," in having a much smaller mirror fixed in the usual place and turned at an angle of forty-five degrees, so as to reflect the light from a very small incandescent electric lamp which is concealed in the handle.



A, electric light; B, convex lens of a one-inch focus; C, convex lens of a half-inch focus; D, plane mirror; E, lens-bearing disk.

Every one who is in the habit of using an ophthalmoscope occasionally will appreciate the convenience of such an arrangement when attention is called to the fact that the principal obstacle to the successful exploration of the interior of the eye is due to the difficulty of co-ordinating the various movements of observed and observer in such a manner that the latter may come within seeing distance of the fundus without cutting off the light and so interfering entirely with the examination.

Students always, and experts often, expend more time and trouble in managing the illumination than in all the rest of the process, and an instrument so arranged as to carry its own light to whatever part it is directed, irrespective of the relative position and necessary adjustment of gas, mirror, lens, and other external objects, is certainly a desideratum.

The mirror used in this instrument was less than five millimetres in diameter. The light was about three-quarters of a candle; and light and mirror were ten centimetres apart and in the conjugate foci of a condensing lens about one centimetre in diameter. A few cells of most any constant current battery can be used. The battery which I had could be carried about in the pocket, and was loaned me for the purpose by Mr. Meyrowitz, of Messrs. Meyrowitz Brothers, opticians, to whom I am indebted also for the lamp, and for materials and suggestions of use in construction of the instrument.

Above is a cut of that at present in process of manufacture, it differs from that above described only in the addition of the half-inch lens so arranged that the rays of light are rendered parallel before falling upon the mirror.

105 WEST FORTY-SECOND STREET, NEW YORK.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from April 19, 1885, to April 25, 1885.

MCPARLIN, T. A., Lieutenant-Colonel and Assistant Medical Purveyor. Sick leave extended three months, on surgeon's certificate of disability. S. O. 88, A. G. O., April 17, 1885.

SMITH, JOSEPH R., Lieutenant-Colonel and Surgeon. Detailed to represent Medical Department of the Army at Annual Meeting of American Medical Association, to be held at New Orleans, La., April 28, 1885. S. O. 91, A. G. O., April 21, 1885.

BILLINGS, JOHN S., Major and Surgeon. Detailed to represent Medical Department of the Army at Annual Meeting of American Medical Association, to be held at New Orleans, La., April 28, 1885. S. O. 91, A. G. O., April 21, 1885.

MCELDERRY, HENRY, Major and Surgeon. Detailed to represent Medical Department of the Army at Annual Meeting of American Medical Association, to be held at New Orleans, La., April 28, 1885. S. O. 91, A. G. O., April 21, 1885.

CRAMPTON, L. W., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon, Fort Bridger, Wyo. Ter. S. O. 33, Department of the Platte, April 22, 1885.

BORDEN, WILLIAM C., First Lieutenant and Assistant Surgeon. Ordered for duty at Fort Douglas, Utah Ter. S. O. 33, Department of the Platte, April 22, 1885.

ROBERTSON, R. L., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month. S. O. 43, Department of Texas, April 16, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending April 25, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
April 18, 1885	0	6	76	4	178	51	0	0
April 25, 1885	0	11	79	4	173	45	0	0
Deaths.								
April 18, 1885	0	3	12	3	21	22	0	0
April 25, 1885	0	3	22	2	24	26	0	0

THE LATE PROFESSOR JAMES L. LITTLE, M.D., NEW YORK.—*Whereas*, The Northwestern Medical and Surgical Society has since its last meeting lost by death one of its most valued members, James Lawrence Little, M.D., formerly President of the Society—a man who was endeared to every member by his upright character, personal amiability, professional acquirements, and genial manners; therefore be it

Resolved, That in the death of Dr. Little this Society deplores the loss of a most honored and valued colleague—one who by his experience and knowledge contributed largely to the interest of every meeting, and enriched each reunion by his sound sense and practical views.

Resolved, That in our intimate relations with him we learned to respect the able surgeon, the patriotic citizen, the devoted husband, father and friend, the good and charitable physician, and the honest man; striving steadily, perseveringly, and successfully to elevate himself and all coming under his influence unto a higher and nobler sphere of thought and action.

Resolved, That while deeply deploring our own loss we offer our sincerest sympathy and condolence to Mrs. Little and her family; and in thus recording our love and regard for the departed—divide with them the sorrow for his too early demise.

Resolved, That an authenticated copy of these resolutions be sent to the bereaved widow and family, and to THE (New York) MEDICAL RECORD and New York *Medical Journal*, and that they be entered upon the minutes.

MARK BLUMENTHAL,
ED. A. HARWOOD,
EDWIN F. WARD,
Committee.

THOS. H. BURCHARD, *President.*
J. HENRY FRUITNIGHT, *Secretary.*

What is the Cause of Pain in the Shoulder?—Dr. A. H. Smith, of this city, writes: "Mrs. B——, aged about thirty-five, a large, fleshy woman with good muscular development, suffered some twenty years ago, for a year or more, with swelling and severe pain at the top of the right shoulder-blade. The arm was almost useless, any movement which was communicated to the scapula causing intense suffering. The only position in which she was measurably free from pain was with the hand behind the back, and the elbow flexed at a right angle. After a year or more, during which many remedies were employed without benefit, the swelling and pain gradually disappeared, and the movements of the scapula became as free as ever. But there remained, and is still present, a singular condition at the upper and inner angle of the scapula, at which point a loud crunching sound is developed whenever the blade is made to move upon the wall of the thorax. This sound is loud enough to be heard at a distance of two or three feet, and gives the idea of friction between large, rough, bony surfaces firmly pressed together. A crunching vibration is also perceived by the touch. The condition is not accompanied by pain or other unpleasant sensation. The contour of the shoulder is not different from that of the other, nor is the freedom of motion in the least impaired. It is an interesting question what is the condition of the parts which gives rise to this symptom. Under the name of "Scapularkrachen," Albert gives a description of a rubbing sound which he attributes to contact of the scapula with the ribs, brought about by atrophy of the intervening muscles, and which occurs especially in cases of narrowing of the thorax after pleuritis ("Lehrbuch der Chirurgie," Bd. ii., p. 276). But in this case the general muscular development is remarkably perfect, and there is no flattening of the shoulder or impaired action of the arm, such as would result from muscular atrophy. The most probable explanation seems to be that there is a projection, probably in the form of an exostosis, either from one of the ribs or from the under surface of the scapula, which has worked its way through the muscles and affords a point of osseous contact, or that an enchondroma exists in the muscular structure. It is a fact that may have some significance as pointing to a constitutional cause that a pain has lately developed at the lower angle of the left scapula, which resembles in character the pain felt on the right side twenty years ago, and that a son of the patient has an enchondroma springing from one of the costal cartilages."

The "New and Simple Expedient" for the Treatment of Strangulated Hernia.—Dr. A. J. Rosenberry, of Peshtigo, Wis., writes: "I wish to say that I have treated two cases of strangulated hernia by the 'simple expedient,' first mentioned by Dr. C. A. Stewart, of Chicago, and again referred to by Dr. S. H. Hurd in the issue of March 21st, page 319. My experience coincides with that of Dr. Hurd, that much more force than 'gentle pressure' is required to rupture the constriction; in fact, I exerted all the power of my index finger before the resisting structures yielded. The result in both cases was eminently satisfactory, the hernia being at once easily reduced. These cases occurred before the publication of Dr. Stewart's article. The method is that of Dr. Suetin, of Brussels, and is described on page 526, vol. ii., Gross' Surgery Edition of 1882, which, of course, settles the question of priority of discovery raised by Dr. Hurd."

In the Treatment of Amenorrhœa, I should like to call attention to an old but very much neglected remedy. I refer to the common smartweed or water-pepper, botanically termed polygonum hydropiper. Many years ago Eberle, in his work on "Materia Medica," pronounced it the most certain of all emmenagogues, but for some reason or other it is at present very seldom employed. This remedy has a special affinity for the female reproductive organs. I base this assertion on two facts: 1. It restores suppressed menstruation without producing any disturbance or alteration of the general system. 2. It acts as a decided tonic in cases of chronic disease of the uterus and ovaries and relieves many of the subjective sensations due to these disorders. The special virtue of smartweed in chronic uterine disease was discovered for me by a patient who had been suffering from suppressed menstruation in connection with many other symptoms due to a diseased uterus. After the menses were restored, this lady continued the extract of smartweed for several months without my knowledge, but with a very favorable effect. The best and most convenient preparation of smartweed is the fluid extract. This may be given in the dose of a teaspoonful three or four times daily, commencing its use a week before the time for the return of the following period.—*J. K. Shirk.*

Comment and Epigram.—"Nervous exhaustion vaccinates the system against febrile and inflammatory diseases." "Disease itself is the most powerful of doctors." "Syphilis is undoubtedly growing milder with civilization." "What patients confidently expect to happen will be very likely to happen." "'Every man is a rascal as soon as he is sick'—so Dr. Johnson remarks." "Sick headache, some suppose, is related to epilepsy; but experience shows that it saves from epilepsy, just as it saves us from many other diseases; it is a safety-valve through which, if confined, might result epilepsy, paralysis, insanity, or some other disease more fatal, if not more distressing, than sick headache itself." "Lithæmia or uricæmia, like the terms phosphuria or oxaluria, express incidents rather than causes."—*Beard.*

Rapid Dilatation of Cervical Canal with the Urethral Sounds.—Dr. J. K. Shirk, of Lancaster, Pa., finds that the cervical canal can be dilated by means of ordinary conical steel bougies, such as are used in treating diseases of the male urethra. "One would naturally think," he says, "that the sharp curve of these instruments would be a great hindrance to their introduction into the womb; but practically this is of very little moment, since the finger in the vagina can easily change the position of the womb so as to adapt it to the curve of the instrument."

A Remedy for Endocervicitis.—Dr. J. K. Shirk writes in *The Practitioner*: "There is one condition of the cervix uteri which resists all ordinary methods of treatment. I refer to that obstinate form of endocervicitis, in which a discharge quite similar to the white of an egg is poured out in great quantities. In all forms of cervical catarrh this secretion is produced more or less, but in the form I refer to the glands are remarkably active and produce immense quantities of this discharge. As said before, the ordinary forms of astringent and caustic applications will not cure this condition. I have found but one remedy that will cure these cases, namely, an aqueous solution of chromic acid (℥j. to aqua ℥j.). Four or five applications of this remedy at intervals of a week usually suffice." Another mode of treatment is to curette the glands.

Warning against an Impostor.—A correspondent writes: "A man, about thirty-five years of age, of Jewish type, rather good-looking, with short black hair, high-colored cheeks, of slender build, the left first incisor missing in the upper jaw, shabbily clad, visits physicians and proposes to sell them instruments or books, or find good purchasers for books they want to dispose of. In this way he has obtained both books and cash from me, and the addresses of his residence and business place have proved to be fictitious, wherefore I warn others not to allow themselves to be cheated by this dangerous individual."

Stretching the External Nasal Nerve for Glaucoma.—This new operation has been three times performed in this city with good success. Dr. W. O. Moore recently exhibited a case illustrating its efficacy.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 19 NEW YORK, MAY 9, 1885 Whole No. 757

Original Articles.

THE PHYSICAL EXAMINATION OF WEAK CHESTS AND DIFFERENTIAL DIAGNOSIS OF THE SEVERAL FORMS OF EARLY PHTHISIS.

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OUR system of physical examination of the chest, as developed by Avenbrugger, Laennec, and Piorry, has received numerous emendations and additions from a host of investigators and teachers in Europe and America. The more prominent of those abroad are Skoda, Allison, Gairdner, and Walshe; and not less valuable and original are the contributions, in our own country, of Flint, Loomis, Leaming, Cammann, and Clark.

The profession has come to regard physical diagnosis, in the hands of experts, as affording exact knowledge of the conditions of the intrathoracic organs. It is accepted as a fact fully established that, by the application of acoustic laws, certain combinations of physical signs lead to an immediate and correct diagnosis in most cases of pulmonary disease.

But the interpretation of physical signs can never be dissociated from some theory of the nature of the existing disease, a conception of its pathogenesis, and a knowledge of its gross and minute pathology, as well as of the pathological processes which determine its consecutive steps or stages, and its periods of transition from one to another form.

The conclusions of Piorry in percussion and of Laennec in auscultation were interpreted, therefore, so far as regards pulmonary phthisis, upon the basis of the pathology of Bayle and Louis, the unity of pulmonary phthisis, and the tubercular nature, *ab initio*, of each and every case.

This view of the specific nature of all phthisis, and its transmission solely by heredity, had not been questioned for nearly fifty years.

But the last twenty years have witnessed almost a revolution of opinion as to the prominence, or causative relation, of miliary tubercle in phthisis. It may at least be affirmed that, while division of opinion still exists on this question, a majority of all investigators and of the profession have come to acknowledge the three forms of phthisis—the catarrhal, fibroid, and tubercular—as so clearly presented by Sir Andrew Clark abroad and Professor Loomis in our country.

But there is also reason to believe, not only that pulmonary phthisis presents these three distinct types—the catarrhal or bronchial, the fibroid or interstitial, the tubercular or constitutional—but also that, in very many cases, it exists in a mixed form. A vertical section of many phthisical lungs presents, in irregular distribution, areas of bronchial catarrh, thickened bronchus, peribronchial infiltration, bronchiectasis, interstitial fibroid infiltration, caseation, softening, antrum, and inflammatory changes in the investing pleura, not infrequently extending to the parietal pleura, with intervening intrapleural adhesions. It is not desirable to be diverted from the subject of our consideration, the physical diagnosis, to consider the many unsettled points as to the relative influence of bronchial, interstitial, and pleuritic inflammations in developing this mixed pathological result.

But I am satisfied that in consideration of the different methods of origin, and the complex nature of a large proportion of cases of phthisis, our physical exploration is incomplete if we discover only the presence of cavities and softening, or the evidences of local consolidation. An exact diagnosis should include, *in extenso*, an exact knowledge of the condition of each portion of the respiratory apparatus, including the air-passages, vesicles, interstitial tissue, and pleura.

Under these circumstances it is evident that the chapter on physical examination of the chest, if by any regarded as closed, must be reopened, to admit new facts and new interpretations of the old acoustic laws, in the light of a broader and changing pathological view.

The views which I present relate to the methods of examination most useful in studying weak chests with tendencies to phthisis, in detecting the times of transition from danger to disease, and in differentiating the early forms of phthisis. They include no new theory as to the disease, nor are they the product of speculation, but represent the opinions and convictions which I have reached, first as a faithful student and observer of our several authorities on the subject, and, concurrently, by independent observation in private practice during the past eighteen years, and in my clinics during the past twelve years at the Woman's Medical College, the New York Polyclinic, and my wards in Bellevue Hospital.

I recognize with Simon, of London, that struma or the lymphatic temperament supplies a ready soil for phthisis; with Niemeyer, Rindfleisch, and the Germans of the past twenty years, that the lymphatic capillary tissue of the lungs is essentially the channel of infection for tubercular cases, whether by vitiated air and food, by toxic substances, or absorption of liquefied cheesy products of inflammation. But observation has made me a firm believer in the agency of inflammation as the chief factor in developing pulmonary phthisis, whether in those predisposed by heredity or those free from such predisposition: the latter class I believe to include the great majority of cases. That inflammation, in intercurrent attacks, is the most prominent feature of the progress of phthisis from stage to stage is quite generally recognized.

In our conception of phthisis it will be of advantage to defer the study of the disease in its mixed and complex forms until the essential evidences of the definite types are reviewed. Virchow has exerted a powerful influence in favor of keeping close to anatomical and physiological purposes of parts in the study of their morbid changes, calling attention to the fact that in most organs disease is primarily of its functional structure, or of its interstitial vascularized parenchyma, or of its cortex and investing capsule. It is so with the meninges of the brain and cord, the nerve-substance and connective-tissue. So also in the liver and in the kidneys. Glomerular nephritis, tubular nephritis, and interstitial nephritis start independently, but ultimately become more or less associated in the same organ.

In the thorax, with reference to the respiratory organs, this is especially true. The larger bronchi having a set of afferent and efferent nutritive vessels essentially separate from those of the infundibuli and air-sacs: the latter, while receiving in a limited degree the blood of intervening bronchial arterioles, are possessed of a circulation of their own, the circulation of the parietal pleura being wholly independent of either. We are prepared, therefore, in advance of actual search, to find diseases dis-

tinctly originated in these differently vascularized tissues and regions.

An epitomized statement of the essential physical signs of early phthisis, as generally held, may be included under two heads:

1. That the existence of an area of dulness on percussion, of absent or enfeebled vesicular murmur, with increased conduction and raised pitch of respiratory, voice, and tussal sounds, indicates parenchymatous infiltration, whether of tubercular or inflammatory origin, the air-sacs either collapsed or engorged with catarrhal products—in fact, a consolidation existing which tends ultimately to caseation, softening, and cavity. Local subcrepitus in such an area is regarded as evidence of collateral hyperæmia, or of the existence of a local catarrhal process, tending to further interstitial deposit and further occlusion of air-vesicles. The history of the case influences the diagnosis as to the tubercular or catarrhal nature of the case.

2. That an area of notable dulness or flatness on percussion and of deficient conduction of sounds points to fibroid phthisis. This deficiency of sounds may range from enfeebled sounds, through masked, distant, indefinite sounds, to silence, or, with deficiency of conduction of the breath, voice, and cough, may also be associated diagnostic adventitious sounds, as of emphysema, bronchial constriction, or cavity.

In addition to the above recognized distinction, I believe that many careful students of chest acoustics have come to a recognition of the differentiation of the forms of fibroid consolidation, whether starting from the bronchi, or centric and diffuse, or, again, distinctly of pleural origin. Thus,

a. When over a definite area the percussion note is pronouncedly flat or high-pitched, with relatively but a slight conduction of the normal sounds, unchanged in pitch and quality, and when the sounds, though discernible, are feeble and distant, the fibroid is likely to be peripheral, starting from the pleura, the product of an imperfectly resolved pleuro-pneumonia or of a local plastic pleurisy, leading to underlying hyperæmia and subsequent hyperplastic fibroid.

b. When the union of flatness on percussion and obscuration of respiratory and voice-sounds is pronounced, especially if bilateral and attended with great reduction of respiratory motion on both sides, the fibroid is likely to be more generally and diffusely interstitial. Such is the condition found in advanced cases of gouty diathesis, in brown induration or interstitial results of long-standing cardiac incompetency, and in syphilitic phthisis. The same conditions existing in but one lung cannot be inferred with equal certainty.

c. When the percussion note, relatively, is but slightly raised in pitch, being rather deficient in duration and devoid of pulmonary quality, and there co-exists a general enfeeblement of respiration, a general absence of volume in respiration, the fibroid is likely to have started from the bronchi. The presence of exaggerated tubular quality of inspiratory sound, with slight increase of pitch, of retarded tubular expiration, with or without râles, will further determine whether the case is more specially one of peribronchitis, or bronchial thickening, or bronchial rigidity and dilatation.

The first point which I desire to discuss, with reference to efficient and correct chest exploration, is the importance of examining all parts of the chest. Too often the front of the chest is cursorily examined, with reference chiefly to the condition of the apices. The chest should be divested of clothing, or, in the case of ladies, covered only with a thin merino shirt or dressing sacque, which may be raised in parts as required for inspection of the chest-wall. The chest should be examined from apex to base of lungs—front, side, and back. Two areas, almost wholly passed over by most examiners, often afford most valuable information. These are, first, the high axillary region, and, secondly, the interscapular spaces. The examination in the axillary line high up, with the arm carried over the head, should be made in all cases. It must have come to the notice of very many physicians in private practice, but more often in the grouped cases in general hospitals, that in the course of cases of irregular pleuro-pneumonia, or low and indefinite forms of pneumonia, the product of squalor, dissipation, malaria, or secondary to phthisis, the area of pneumonic consolidation, as evidenced by bronchial breathing, has been found only in the axilla.

The importance of the interscapular exploration is such as to warrant a full consideration. It is here that we have the larger bronchial trunks and the hilus of each lung close to the posterior wall of the thorax. But in the ordinary postures, with the head erect and arms hanging by the side, or even with the arms loosely folded in front, the interscapular spaces are relatively valueless for physical diagnosis. The scapula, on either side, covers the chest from the first to the eighth rib, and comes within an inch of the processes of the vertebræ. This intervening space on each side is filled in by the rhomboideus, minor and major, which span it obliquely from the vertebræ to the scapulæ, and, to complete the muscular envelopment, the trapezius extends from its median origins, at the occiput, the ligamentum nuchæ, the cervical and twelve dorsal vertebræ, in converging bands, over the interscapular space and scapular blade, to its attachment on the spine of the scapula. The value of the upper half of the back for percussion is therefore slight over these thick, flaccid muscles and interposed bony plate. Most physicians recognize this condition, and obviate it, in a measure, by directing the patient to fold the arms. By a forward motion of the arms, the claviculo-scapular union, being essentially fixed, serves as a point of rotation, while the tension of the deltoid on the spine of the scapula directly antagonizes the trapezius and draws the scapula laterally with slight rotation. Dr. Corson, more than any other person, has emphasized the importance of taking advantage of the great mobility of the scapulæ as a means of increasing the interscapular area.

If the arms be crossed in front, each upward at an angle of forty-five degrees, and the hand on either side is made to grasp the convexity of the shoulder, the clavicular attachments and the deltoid so elevate, rotate, and draw outward the scapulæ, that the interscapular space is increased more than twofold, and the previously flaccid and thick muscles are rendered tense and thin, lying firmly on the ribs, and interposing no obstacle to percussion and auscultation of the bronchi, and of the upper inner borders of the lungs. Each interscapular area, before a rectangle of one inch width, extending from the first to the eighth rib, is converted into a trapezoid whose upper truncated apex is fully two inches wide, and whose base is between three and four inches broad. The lower angle of the scapula is elevated to the seventh rib. This great gain in space, however, is not more important than is the advantage from the thinning out of the trapezius and rhomboidei. Finally, if the head be bowed and the neck forcibly incurvated forward, the tension of the levator anguli scapulæ is added; it increases the elevation of the scapulæ by half an inch, and adds to the general tension of the dorsal muscles. The scapulæ have not only been moved laterally, but the thin plates, as located, are firmly held between tense muscles, and interpose a greatly diminished obstruction to conduction of sounds. I would urge the resort to this position as greatly facilitating the study of chronic bronchitis, peribronchial, fibroid, and, indeed, all forms of bronchial and pulmonary disease.

In treatises on the systematic exploration of the chest, "inspection" is, by all authors, placed first; but a variable and limited value is ascribed to it. I am, however, convinced that in a large proportion of chest cases, and in a large number of phthisical ones, an approximate diagnosis can be made by inspection alone.

The second consideration of this paper, therefore, is the diagnostic importance of inspection, and the desirability of extending it, in detail, to all the structures of the thoracic wall. It is customary, with all, to observe certain general features, as the breadth of the shoulders, the equal or unequal volume, the symmetry or asymmetry of the two sides, the relative height of the shoulders, the comparative fulness of respiratory expansion, areas of bulging or retraction, and the relative prominence of the sternum and costo-cartilaginous unions. But three other points, in inspection, of much value, may be briefly discussed.

The first is the direction of the clavicle. Broad shoulders and a nearly horizontal inner half of the clavicle give promise of fully developed lungs. The clavicle in some persons is horizontal in its inner half, though more often it is deflected upward from five to ten degrees, when it curves, going more obliquely upward and backward in its second half, to its scapular attachment. The upward angle of the line of the clavicle, as a whole, is therefore, in healthy chests, within the range of ten to fifteen or twenty degrees. But when the clavicle is deflected upward, and backward, at an angle of thirty, thirty-five, or forty-five degrees, the chest development has manifestly been most defective during a long term of years, and the presumption is in favor of the existence of lungs, undeveloped at their apices, which have never fully occupied the supraclavicular and clavicular areas.

The second point is with reference to the relation which slight lateral curvatures of the spine bear to the condition of the respiratory organs.

An inquiry into the history of a considerable number of cases of lateral curvature will elicit the fact, that its appearance has been subsequent to the occurrence of a pronounced attack of pleuritis or pleuro-pneumonia, or a period of long-continued unilateral thoracic pain with associated cough. It is further found in many of these cases that the deflection is toward the side of the chest possessing most respiratory expansion, and that the concavity of the primary curve, and the convexities of the compensatory curves are toward the side presenting slight or notable diminution of respiratory motion. And further exploration, by means of percussion and auscultation, establishes the fact that the curved section of the spine lies within a zone of the chest, affording evidences of thickened pleura, fibroid phthisis, or peribronchial consolidation. Where this combination of conditions exists, it is reasonable to conclude that the intrathoracic changes of one side, diminish the respiratory action of the overlying muscles, and that an unequal traction on the spine, by the antagonizing muscles of the two sides of the back has resulted in the curvature to the side of greater respiratory action and stronger muscles. I do not mean to imply that any proportion of lateral spinal curvatures are a sequence of pulmonary disease, but to emphasize the fact that this is the case sufficiently often to warrant inspection of the spine in all cases. Barwell has called attention to this fact in so far as it relates to the etiology of the spinal disease. Reversely, it may be noted that pronounced lateral and even angular curvature, originating through dyscrasia or malnutrition, and of long duration, does not materially cripple the contained lungs. From the examination of a considerable number of chests, seriously distorted by spinal disease, I have been surprised to find how generally the lungs and heart have adapted themselves to their changed accommodations. They are often exceptionally healthy, and when otherwise, instead of inflammatory changes or phthisical deposits, we find emphysema alone has been developed as the result of the chest asymmetry.

The third and final consideration which I present, under inspection, as pertaining to early phthisis, is the importance of closely observing and interpreting, with their full significance, the changes in the individual intercostal spaces and also in the supraclavicular space, suprasternal notch, and epigastrium.

A pronounced depression above and below the clavicle, associated with narrow shoulders and marked deviation of the clavicles upward and backward, may exist over feebly developed apices, which, however, are not diseased. But such depression, in a person possessing ordinary breadth of the shoulders, and whose clavicles are but slightly deflected upward, is indicative of consolidation of the apex, whether by tuberculization or inflammatory infiltration. In both cases little respiratory movement will be observed, but percussion and auscultation at once determine which of these two states exists. The sinking in of the infraclavicular space, or of special intercostal spaces, synchronous with the inspirations, and notably in chests which as a whole retain their full expansion, points definitely to the existence of a peripheral fibroid of the lung, originated by plastic pleuritis or pleuro-pneumonia, and suggests adhesion of the opposed pleuræ beneath the points of depression.

When, however, the chest expansion is visibly diminished or suspended, the bony thorax being in a state of fixation, inspiration becomes essentially diaphragmatic. Under these circumstances, sinking of the suprasternal notch, the supra- and infra-clavicular and intercostal spaces, and of the epigastrium, synchronous with inspiration, points to a more diffuse and deeper fibroid, shooting from periphery to centre of the lungs, and drawing not only upon the interspaces of the chest-wall, but also drawing upon the walls of the bronchi, and developing bronchiectasis. Again, resort to percussion and auscultation will verify these conclusions. These fibroid areas and bronchial distortions cannot be dissociated from the study of phthisis; they form a part of it, since they determine the recurring hyperæmia and catarrhal processes, which terminate in inflammatory infiltration and ultimate caseation.

One further phenomenon of the intercostal spaces, of exceptional occurrence, deserves mention. It occasionally happens, in an emaciated chest, that the cardiac impulse, instead of presenting only the usual apex-beat, perceptible in the fifth intercostal space, is equally distinct in the fourth, third, and second intercostal spaces. These interspaces to the left of the sternum are seen to rise and fall, synchronous with the action of the heart. The inference is plain, atrophy and retraction of the thin borders of the left lung, which usually overlaps the heart, have taken place. This condition, as a rule, signifies the existence of advanced phthisis of the lung above and adjacent to the heart; often there is a large antrum and collapsed lung; but I have once found it where fibroid contraction only existed in the adjacent lung. The diagnosis of this condition is confirmed by percussion, since the normally small triangle of superficial cardiac flatness is increased to a large circular or irregular area; and by auscultation, since all respiratory and conduction sounds are wholly removed from this area. I am not prepared to say, from the limited number of cases I have seen, whether this cardiac motion, visible in all four intercostal spaces of the præcordial area, warrants an inference of pleuro-pericardial adhesions. The cases I have seen, have given no history of previous pericarditis, nor of local pleurisy. The retraction of an atrophied, cirrhosed lung establishes direct contiguity of the anterior cardiac surface and the chest-wall. The interposition of pericardial, or even of intrapleural, bands is not essential to the production of this disseminated heart-impulse, and none such are required to transmit the localized normal apex-beat.

Before dismissing the subject of chest inspection, I desire to state my views as to the causative relation of the non-development of the chest-wall and its movements to phthisis. It is well known that the apices of the lungs are the most frequent site of early phthisis. Yet nothing peculiar in the anatomical structure of the apices or in their function explains their greater liability to disease. Women are more prone to phthisis than are men, yet women have a greater development of upper costal respiration or apex expansion than do men. I

believe that phthisis attacks the apices preferably, because:

1. The apices are so frequently enfeebled by contraction of the upper part of the bony thorax, whether by want of muscular activity and development or by rounded shoulders, through carelessness and indolence, or through confining work at desk or trade.

2. That the apex region, in this enfeebled condition, is soonest reached and most easily invaded by the frequent recurring catarrhal inflammations, descending from the larynx and trachea.

3. Because the apices, when invaded by hyperæmia or catarrhal processes, are not favorably affected by the energetic force of cough.

Cough is essentially a diaphragmatic act. It expends its force upon the lower two-thirds of the lungs, tending to clear the lower bronchi of contained mucus, and by compression to remove their hyperæmic conditions. But this benefit is not extended to the bronchi and parenchyma of the apices. It is a fact that in cough, the glottis being in a measure constricted, the forcible currents of air driven upward from the lower portions of the lungs by diaphragmatic force are not permitted to wholly escape through the larynx, but are deflected into the bronchi and vesicles of the upper lobes. When this process continues too long, as in pertussis or chronic cough from any cause, emphysema of the apices or upper lobes (obstructive emphysema) results. In the same manner I believe that cough, by pneumatic pressure, frequently detains or compacts catarrhal products in the tubes and vesicles of the apices, and renders them especially the seat of phthisis.

I shall not dwell on mensuration, since its essential features are established, and it affords but little diagnostic information. Asymmetry of the two sides of the chest, or a marked diminution of respiratory expansion, are to be interpreted by resort to percussion and auscultation.

Palpation as a method of examination, while presenting many special details, is particularly valuable as relates to the subject of fremitus. Fremitus is especially instructive for negative diagnosis, often indicating the normal chest by a vibration communicated to the hands which they cannot misinterpret. But fremitus may be feeble or almost absent in healthy but indifferently developed chests, especially if the voice be treble. It may be weakened by rigidity of the bronchi. Fibroid areas may remove it in whole or in part. Thickened pleura may remove it, or rarely increase it by conduction, depending upon the condition of the bronchi and pulmonary tissues. Finally, the possibility of fremitus under these and all conditions depends largely upon the elasticity of the ribs. When by any cause, whether by senile calcification, or by the inspiratory fixation of emphysema, the ribs are held tense and rigid, fremitus ceases, no matter what the condition of the contained organs. Palpation, therefore, of itself does not afford valuable diagnostic information as to the state of phthisical lungs.

Although most authors and teachers of physical diagnosis recognize the composite nature of the pulmonary percussion sound, and the several factors which unite to produce it, yet the impression prevails that it is essentially the exponent of the underlying lung. It would be undesirable to detract, in the slightest degree, from the diagnostic value of percussion. But its exclusively pulmonary origin is easily disproved. This is most easily accomplished by a brief reference to the percussion note of emphysema. If, in emphysema, the percussion note were to correspond to the volume of air within the coalesced air-vesicles, and in the stretched infundibuli and dilated terminal bronchi, we should obtain, by percussion, the prolonged, low-pitched, tympanitic sound which the novice in physical diagnosis is always prepared to hear. To his surprise the sound, although possessed of some tympanitic quality, is curtailed in duration, and in its initial portion, at least, is raised in pitch. The explanation is simple. The emphysematous lung is an aggregation of fused air-vesicles and distended terminal air-passages; it is a dilated lung, with much of its elastic tissue absorbed, and deprived of its expiratory contractibility. The overlying bony thorax is, therefore, in a state of inspiratory fixation, and so tense or rigid that it does not vibrate. Hence the contact of the percussing finger-tips with a rigid thorax elicits a sound high in pitch and devoid of vibration or duration. I will mention one further fact bearing upon this question. The middle and lower sternal regions overlie the anterior mediastinum, which contains the great vessels, and also cover the body of the heart. Yet, in some elastic chests percussion over the sternum—the keystone of the elastic respiratory arch—elicits, not flatness, but a sound essentially of pulmonary quality. The elasticity of the chest-wall is undoubtedly an essential factor of the percussion-note.

However, it may be affirmed that raised pitch of the percussion-note, especially at the apices, indicates lung condensation—either tubercularization or inflammatory infiltration. It may also mean thickening of the underlying pleura. But when the chest-wall is poorly expanded, whether by disuse and enfeeblement of upper respiratory muscles or when fibroid or bronchial rigidity have transferred respiratory action to the diaphragm, then the motion of the ribs lessens, and the disused ribs become more or less fixed. Under these conditions percussion over the entire chest frequently elicits only an unsatisfactory and negative sound, devoid of diagnostic features.

Reversely, in many cases thickening of the pleura, of recent or remote development, may cause such absolute percussion flatness as to warrant the inference of a solidified, phthisical lung. We may conclude, therefore, that in contracted chests and in the mixed forms of early phthisis, percussion leads to no positive diagnosis, until supplemented by auscultation.

But there is yet another physical sign, or differential test, to which I must call special attention. It may be regarded as a product of mediate percussion. It is in nowise connected with chest acoustics, but rather pertains to the subject of the thoracic innervation and the influence of pulmonary tissue-waste upon the spinal centre. I refer to a special cutaneous reflex which characterizes many, perhaps most, phthisical cases. It is so frequently present at the periods when caseation and secondary inflammations mark a case hitherto uncertain as one of phthisis that it may be regarded as pathognomonic. As early as 1830, in the "Dublin Hospital Reports," vol. v., p. 70, Graves and Stokes described certain muscle tumors which appeared following direct percussion upon the chest "in incipient phthisis, chiefly over the seat of irritation." Dr. Lawson Tait, in 1871, in the *Dublin Journal of Medical Science*, vol. lii., p. 316, described this phenomenon, and designated it more classically as "myoidema." Professor Gairdner and Dr. Finlayson also allude to the diagnostic value of the sign, and properly add that "myoidema" and "muscle tumor" are misnomers, since this reflex is of the skin alone; that it is best produced by a quick stroke of two or more finger-tips upon the costal cartilages, where no underlying muscle exists, and is much less marked over the muscles of the intercostal spaces. I should hesitate to call attention anew to a point advanced so long since by Graves and Stokes, and which presumably had long since passed to oblivion because tried and found devoid of significance, were it not that I have first, and for a long time, carefully studied it upon several hundred chests at Bellevue Hospital and the Polyclinic. Being skeptical of its special relations to phthisis only, I have at the outset asked myself, as most of my students in physical diagnosis have asked me, if it was not present in all cases of emaciation, wasting disease, and slow convalescence. Hence I have sought to find it in the chests of convalescents from protracted and depressing typhoid

in advanced cirrhosis, in abscess of the liver, in hemiplegics and paraplegics, and wherever disease had produced tissue-waste. The result of my observations was: First, that it is usually present in established phthisis, where the long-standing and progressive intrathoracic disease has wasted the body; second, that it frequently exists in incipient phthisis; third, that it is only exceptionally present in any other disease, and its presence justifies a suspicion of phthisis. In but one case, a convalescent typhoid, did it seem pronounced, and so exceptional was this case that, though chest disease was not demonstrable, I felt that its early manifestations might soon appear. Again, in cases of chronic bronchitis, bronchial dilatation, and bronchiectasis it does not appear, nor again in cases of thickened pleura, however extended; but when fibroid is developed, whether of bronchial, interstitial, or pleural origin, so as to contract the chest and to cripple the lungs for respiratory service and lessen the nutrition of the body, it begins to appear. It is most pronounced when elevation of temperature, colliquative sweating, and bodily debility indicate pulmonary tissue-waste and caseation. In advanced cases, with softening, cavity, and excessive muco-purulent sputa, it reaches its maximum. I usually percuss with a quick, firm blow, with two or three finger-tips of the right hand, upon the costal cartilages of either side. Instantly two or three little conoidal tumefactions appear, rising to a variable height in different cases, ranging from one-sixteenth to one-eighth or, rarely, one-fourth of an inch. Remaining fixed for a variable period, rarely so brief as a second, more often two or three seconds, they undergo a subsidence more gradual than the elevation, a vibratile, vacillating, interrupted recession. Finlayson speaks of it as "a peculiar momentary starting and elevation of the skin." Over the intercostal muscles, in some instances, it also can be produced. I have sometimes seen an associated reflex muscle-wave, which floated away toward the shoulder until lost. In some well-pronounced cases of phthisis I have been able to develop myoidema behind in the supra-scapular space, but especially in the interscapular space when broadened by Carson's shoulder position. Myoidema, then, is a cutaneous reflex peculiar to phthisis. "Reflex hyperkinesis," we are told by Ross, "is caused by disease which increases the irritability, and consequently decreases the specific resistance, of the reflex arc in any part of its course," etc. I have therefore, so far as I have studied myoidema, come to regard it as of diagnostic value. I regard it as a corroborative sign of existing phthisis, and as indicating the arrival of a case of phthisis at a point where the nervous system has become weakened, the vitality depressed beyond the point of resistance, and as marking the case as one tending toward an unfavorable result. If found in a case upon which I had hitherto looked hopefully, it would lead me to renew my examination for evidence of infiltration and caseation. I would ask observers of the chest to habitually apply this test and add their contributions as to its value or uselessness. At present I am disposed to regard it as worthy to be added to the associated signs of pulmonary phthisis.

We come finally to the auscultatory evidences of pulmonary phthisis. Enfeeblement of the vesicular murmur and its entire absence have long been regarded as evidences of condensation of lung tissue, even when conduction sounds have not been raised in pitch; and when to absence of vesicular murmur are added bronchial breathing and broncophony no doubt is left of the existence of an underlying area of infiltration. Were all phthisis either *ab initio* or even ultimately, tuberculization, or even disseminated interstitial infiltration, we might need no further combination of physical signs. But every practitioner, and every expert and teacher in auscultation, has frequently been confronted with cases where he found nothing definite, or a most obscure combination of auscultatory signs, rendering the above tests most unsatisfactory. This is explained by the fact that, in mixed phthisis, a combination of peribronchial exudation, of fibroid emanating from the bronchi or the periphery, and of pleural thickening exists to make up the structures upon which the development of the sounds depends, and which are also the media of their conduction. With reference to vesicular murmur, I am not at all sure that the majority of ears can dissociate it during active respiration, on the one hand, from the finer tubular friction sounds, nor, on the other hand, from the sussurus of the thoracic muscles. I am almost certain that the vesicular murmur, or true respiratory murmur, as claimed to be heard during suspended breathing, or the holding of the breath at the height of forced inspiration—the suspension having in view to remove the tubular or friction elements of inspiratory sound—is often confounded with or masked by the muscular sussurus, which is, like respiratory murmur, so characteristically low-pitched, multitudinous, and diffused.

The absence or modification of the vesicular murmur has always, and properly, been regarded as a first warning of phthisis. But the presence or absence, fulness of development, or the enfeeblement of the vesicular murmur, are not of so great value in differentiating the three forms of phthisis, and especially the relative proportion of each in mixed phthisis. The crippling lesions often have so contracted the chest, diminished its expansion, lowered the velocity and force of the incoming inspiratory currents, that but little respiratory sound is developed to be conducted. Under these embarrassments, however, the phonated voice supplies us with a sound produced quite independent of diminished expansion and enfeebled air-currents. And thus, when considerable areas of pulmonary change exist, the voice as it reaches the ear, by its pitch and quality, and degree of dissemination, tells of the media which have transmitted it. Thus the voice is high-pitched, when conducted through tubercular areas, in proportion to the extent and density of consolidation; or it is rendered masked and distant by transmission through moderate thickening of the pleura; it is faint or absent in exceptional cases of very thick pleura, though, *per contra*, in rare instances, a pleura of one-half or three-fourths inch thickness may conduct the voice-sound with raised pitch. But the vibration of the bronchi, the lung parenchyma, and chest-wall by the full voice often gives no indication of the presence of lesser lesions of early phthisis. The pronounced words, especially of a low-pitched voice, are reverberated and resonated in the bronchi unchanged in quality, and are brought to the ear scarcely modified in pitch. Such is the case in slight infiltration, a peribronchial thickening, or limited fibroid; nor will slight thickening of pleura always modify the conducted voice, though its existence may be evidenced by dulness on percussion. In such chests, then, we still need, for conduction, a sound produced independent of the enfeebled chest expansion and slowed air-currents, but more delicate than the voice. This we have in the whisper. I have for a long time come to regard the study of the conducted whisper as of equal or greater value than the study of changed vesicular murmur and conducted voice, and of far wider application in determining and differentiating the early stages of the three forms, and the many mixed cases of phthisis. The patient, directed by the physician, may utter a quiet, almost inaudible, low-pitched whisper, which, in quality and volume, supplies the place of conducted tubular and vesicular sound, and which latter are absent in contracted chests; or he may whisper clearly and audibly; or, again, he may utter a short, abrupt, forcible, high-pitched, aspirated whisper, deficient in volume and duration, but of great intensity, a sound which preserves its characteristics unchanged by slight changes of tissue density, and capable of transmission through bronchial thickening and fibroid areas when the feebler forms of whisper, like the vesicular murmur, would be unconducted and unheard. At the apex, the low pitched whisper, changed by transmission through the pulmonary media to a high pitched sound, is diagnostic of incipient infiltration. The non-

conduction of such a low-pitched whisper—silence only—or the distant transmission of a high-pitched whisper, when associated with transmission of the voice unchanged in quality and pitch, point to peribronchial thickening or centric fibroid of limited extent. But the non-conduction of both the low- and high-pitched whispers, and a distant feeble conduction of the voice, point to a fibroid nearer the surface or progressing inward from a thickened pleura.

Finally, the ear, applied over the chest, often cannot detect differences in small adjacent areas, as in lobular consolidation. By the substitution of the smaller tube of the stethoscope and uttering the incisive, high-pitched whisper, close comparison of adjacent limited areas can be made to great advantage. Chest vibration—an objectionable element, diffusing and disseminating sounds—is excluded, and very direct conduction, by each underlying area, is secured.

I also especially value the whisper tests, for so I have come to regard and call them, in distinguishing a healthy lung from one slightly diseased—a question so often forced upon us by the existence only of failing health and narrowed chest. The low-pitched whisper possesses too little force to vibrate the healthy lung, or, reversely stated, the healthy lung is such a poor conductor of sound, that the ordinary low-pitched whisper sound is dispersed in the aerated lung, and does not reach the chest-wall and ear, or but feebly. As a negative sign, therefore, in examination of weak chests, it is of greatest value, and will rank, as does absence of expiratory sound, as an indication of healthy lung.

The diagnostic significance of conduction of the tubular element of respiratory sound, high-pitched in inspiration, and prolonged and high-pitched in expiration, needs no elucidation. When marked it is diagnostic. But when it is not marked, when, as already stated—by reason of defective chest expansion—no bronchial tubular sound is developed, or it is developed but feebly, the whisper still remains, adaptable for each case and each form of phthisis, and is diagnostic. I have not alluded to the coexistence of cavernous breathing, retarded, blowing, expiratory sounds, the presence of dry or moist râles, and the many other associated signs by which diagnosis is facilitated and confirmed, as I have not aimed to discuss the entire question of chest acoustics as applied to phthisis, but rather the methods which I regard most essential, including methods that are too little discussed and practised. A detailed examination in the light of our present knowledge of the pathology of phthisis, and by the systematic steps of inspection, palpation, percussion, and auscultation, even when supplemented by the family and personal history and the existing symptoms, will, combined, in many cases fail to lead up to final diagnosis. Renewed and patient examinations will be necessary, from time to time, under new circumstances of changing symptoms and pathology. The occurrence of a hæmoptysis is often the occasion of a first examination of a hitherto unsuspected or a long-neglected chest. The physical signs are widely different during the first hours, or the days, succeeding an hæmoptysis. At the time of its occurrence gurgles and râles mark the site of the gravitated blood, or possibly the area from which it escaped. Within a few hours, arrest of hemorrhage and coagulation of the blood may remove these râles. Possibly a local area of muffling of all sounds, with or without dull percussion note, may mark the area of hyperæmia. In twenty-four or forty-eight hours the development of râles may give evidence of a local catarrhal process, or we may find the crepitus of a local pneumonic process. Finally, in some cases no physical signs exist, the hemorrhage having acted to relieve a hyperæmic area.

One further and final point. In the study of incipient phthisis and weak lungs, no more important problem presents, in exploration of the chest, than the interpretation of local areas of subcrepitus, especially if coexistent with dulness on percussion and bronchial breathing, bronchial whisper, and bronchophony. It was one of the errors of the past to interpret subcrepitus, in consumptive lungs, as indicative of the process of softening. We can pretty safely say that there are no auscultatory evidences of softening, except those grosser and manifest sounds, the changeable râles and gurgles associated with forming cavity. Subcrepitus is often associated with softening, but is not in any sense the result of the action of respiratory currents on softening, cheesy matter. Subcrepitus, when local over phthisical areas, if low-pitched and remote from the ear, denotes local capillary bronchitis, or more often hyperæmia and bronchorrhœa—a transudation of serum or sero-mucus into ultimate bronchial tubes. It is, then, a result of obstructed circulation and collateral hyperæmia. If, however, the subcrepitus be high-pitched, brilliant, explosive, and manifestly directly under the ear, it is plainly interpleural. It then denotes that the infiltration of the lung has reached the surface, and given rise to secondary pleurisy, or that the patient from exposure has contracted a local plastic pleuritis.

In all diseases the effort of the physician should be specially directed to arriving at an early and accurate diagnosis. Prognosis and treatment cannot be of value except they be preceded by a correct conception of the pathogenesis of the malady, and the departure from normal conditions which the affected structures have undergone. This proposition is regarded as especially true of systemic diseases, the product of specific infection and sepsis. Yet these diseases often have a period of self-limitation, and progress by stages toward recovery, or are thrown off by an eliminative effort of the system, or can be successfully combated by specific agents, or rendered harmless, until their force is spent, by antipyretics and antiseptics.

But with reference to pulmonary phthisis, it may truly be said that the usefulness of the physician is greatest in the care and restoration of the enfeebled chest, and in the management of chests already invaded by one or other of the wasting processes.

The fully developed consumption is so difficult to combat that it is an *opprobrium medicinæ* that so little can be done. While, then, we are divided as to the pathogenesis—whether phthisis is disseminated through the lungs by the lymphatic capillaries, whether it is of inflammatory origin with subsequent sepsis by softened cheesy matter, or is specifically produced by colonies of bacteria—we may all agree that the suspected and involved areas should early be studied and differentiated.

Bullet-Wounds of the Heart.—Dr. H. L. Harrington, of Monmouth, Ill., writes: "In your issue of April 4th, under the title, 'Is Death Necessarily Instantaneous after Bullet-Wounds of Heart?' you relate a very interesting case. Let me detail another very remarkable case, which came under my observation while House Physician in Cook County Hospital, Chicago, in the year 1875. One evening at dusk, a man, aged about thirty years, was brought in an express wagon, rapidly driven over rough pavements a distance of over a mile, with a bullet-wound of the left side; he was in a condition of profound shock, and was treated accordingly, by means of heat externally applied, stimulants and morphia internally. Reaction ensued, and progressed sufficiently to admit of his moving about in bed, and talking in a loud voice, when he suddenly died, three hours after receiving the wound. An autopsy made by me the next morning revealed the fact that the bullet had perforated the apex of the heart, traversed the entire length of the left ventricle and auricle, and, after passing upward through the right lung, had become imbedded in the right shoulder. The case seems to me to be of enough importance to warrant this intrusion upon your time and space."

"Love thy Neighbor as Thyself," does not apply to the medical man whose patient rings the bell that belongs to another doctor's sign.

THE SEVERAL FRACTURES AND INJURIES OF THE NECK OF THE FEMUR AND THEIR TREATMENT.

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The aim of surgical teaching for the past twenty years has been largely in the direction of refinements in diagnosis. So anxious is the modern practitioner to make a correct diagnosis that he sometimes loses sight of the fact that the methods of examination may be positively harmful to the patient, defeating the object for which he was called, viz., to advise and direct the injured one to the best possible recovery under the circumstances. The indifference and brutality with which American students have become familiar in the German schools, coupled with the zeal for absolute accuracy in diagnosis inspired by German teachers, have been largely to blame for this blot on American surgery.

An American student who had lately graduated in this country, writes me from one of the German medical centres that "he had listened to a very instructive lecture on the drainage of pulmonary abscesses at Professor Blank's clinic, and that the professor percussed his patient's chest as though he intended to knock the abscess out of it." He also wrote, "death closed the scene."

In no class of injuries are the futile and harmful effects of rude and reckless examinations more manifest than the cases of injury to the neck of the femur and the hip-joint of old persons. The old lady slips and falls on the frozen ground or floor, she tries to get up and fails; a doctor is called; he finds her stunned and suffering pain in the back, hip, or thigh. The foot is in normal position, the length of limb what it should be in health. Friends inquire, is the hip broken? is it out of joint? He cannot say; when he gets the patient home he will examine and see. Then he manipulates the limb, flexes thigh on abdomen, rotates the limb outward and inward, and may or may not get crepitus. If he does, she has a fracture. If he does not, she has intracapsular fracture.

The point I desire to submit is this: What good can come to the patient from the determination of a distinction of that kind? Surely none at all. You may say that it makes a great difference in the treatment. So far as treatment based on that distinction is concerned, diagnosis is immaterial. You do best with these cases of suspected fracture when you use no restraining apparatus. Is it strange that the old lady before mentioned should turn out to have an ununited fracture or absorption of the head of the femur after the manipulations her injury was subjected to, then with weeks of confinement in apparatus to restrain the movements of the joint, to have the bedsores, and broken general health? No harm can come to the patient from an examination which consists in a careful interpretation of the impaired mobility and abnormal position of the limb, the length, flexion, extension, abduction, adduction, inversion, eversion, relatively of the injured member to its sound fellow. But beyond this the respecter of good surgery will not go. Take almost any case of ununited fracture of the femoral neck and inquiry will show that the patient submitted to a deal of manipulation for purposes of diagnosis and adjustment of apparatus at or about the time the injury was received. Any case of injury to the same part which has resulted in good union and useful limb, was treated on the let-alone principle, *i.e.*, making the patient as comfortable as possible with the limb in the position where the automatic action of the muscles of thigh and hip places it. My own experience embraces not a few of these injuries, and I can say that I have found cases of suspected and known fracture of the femoral neck to do best when the patient was kept in the sitting posture, the tuberosities of the ischia resting on a hard seat, the feet side by side, and the legs bound loosely together. A hard seat is essential, for a soft cushion permits the tuberosities to sink so that the weight of the trunk and upper extremities is carried on the soft parts of the gluteal region, comprising the sciatic nerves and giving rise to severe pain. Non-union is not a common result of fracture of the surgical or anatomical neck of the femur, no matter what age the patient may be, when this plan of treatment is followed.

RAPID DILATATION OF THE UTERINE CANAL.

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The practice of rapid dilatation of the uterine canal has not yet become sufficiently general to divest it of novelty or to detract from its seeming barbarity. Though its efficiency for the correction of uterine flexion and cervical stenosis is generally acknowledged, the means and methods to be employed are still matters of discussion. So much of crudeness and apparently unwarranted violence attaches to the operation, that the inexperienced shrink from its adoption with instinctive dread. And no wonder, for to him who has seen a violent peritonitis and probably death follow the introduction of the uterine sound; has witnessed the anguish caused by the admission of a few drops of fluid into the uterine cavity; or has had the usual unhappy experience incident to the use of sponge-tents, the practice of rapid dilatation appears at first sight little less than sheer brutality. It is, nevertheless, a hopeful indication that its strongest advocates are found among those who have had the largest experience with it. It is also a significant fact that the use of tents and soft dilators, formerly so much in vogue, has become practically obsolete. This abandonment is the result of a growing conviction of their inefficiency, in so far as dilatation thus effected does not permanently improve the flexion or render the canal more patulous. Then it becomes more and more evident to him who uses the tents that they are not devoid of danger—that, in fact, despite precaution, accidents will happen, so that the practice is embittered by many failures and not a few tragedies.

Thus it is that the more thoughtful and conscientious have been constrained to limit their application more and more, until now, for some time, the use of tents has been practically abandoned.

Having now for some years used rapid dilatation in lieu of tents, I am satisfied that it is much safer and incomparably more efficient. It is more efficient because, as I believe, in rapid dilatation carried to the extent herein recommended, we have a breaking up of the submucous tissues, which forever destroys the integrity of malformed parts and renders impossible that spastic condition so generally found associated therewith, by reason of fretted and overtaxed nerves. Where this is not accomplished, no permanent good is likely to ensue. As illustrative of this fact, instance the patulousness of the cervical canal, immediately following the menstrual effort, even in cases characterized by the most pronounced dysmenorrhœa. Here is dilatation apparently as effectual as need be, and yet the trouble recurs at each succeeding menstruation with invariable certitude. Now, the dilatation effected by tents is similar to that accompanying the menstrual effort, and, barring the chance of inciting to nutritive changes, no more efficient. The tents, moreover, by their long sojourn fret and irritate the tissues beyond all endurance, and by preventing drainage conduce to septic and inflammatory troubles. As in rapid dilatation we seek to lacerate the unnatural bridges and bands of muscular and connective-tissue, which if done without producing a surface breach usually heal kindly and with facility, it follows that a comparatively narrow blade is more efficient than a broader one, and hence the expanding dilator is preferable to the sound.

The means of rapid dilatation resolve themselves into

two classes, *i.e.*, sounds and diverging blades. The sounds are made of hard rubber or steel, and are slightly conical or olive-shaped, and of graduated sizes. These dilate by being forced into the uterine canal one after another consecutively according to size. There is something fascinating in the use of sounds; as the ease of manipulation, the equable expansion at all points, and the beautiful circular enlargement of the canal comport with one's ideas of an ideal dilatation.

In using the sounds the patient may be placed either on the back or in the Sims position. If on the back a Nott's speculum will be found most advantageous. The cervix now being fixed by a strong tenaculum, one of the smaller dilators is introduced. In performing this manœuvre care should be taken to direct its course in conformity to the trend of the canal as previously ascertained by the uterine probe. If there be much difficulty in passing the internal os, the probe may again be introduced, and will then act as a guide to the dilator. In such cases it is always better to place the patient in the Sims position, and use the Sims speculum. To one not accustomed to the use of the Sims method for the purpose in question, the facility of introduction secured by it will be something surprising. The operator must bear in mind that the cervix is very extensible, and under the opposing forces exerted by the tenaculum and the dilator often becomes much elongated. This may prove misleading, inasmuch as he may think that he has passed the internal os, when in reality it has been pushed before the point of the dilator. He will know when he has passed it by the freedom with which the instrument can be advanced into the uterine cavity, the latitude of motion which can be communicated to it, and by its remaining *in situ* when left to itself. If, on the other hand, it has not passed, it will rebound when the pressure is removed. One after another of the graduated dilators is introduced successively, allowing a few minutes' sojourn for each until a degree of dilatation commensurate with the needs of the case has been attained. Unfortunately, as ordinarily made, these dilators do not run above No. 18 American scale for sounds, and are inadequate for permanent good.

A dilatation, in order to be effective and permanent in its good effects, should give a circle of at least one-half to three-fourths of an inch in diameter. Such a dilatation once accomplished will seldom need repetition, and will in most cases permanently relieve the angularity or stenosis upon which may depend the sterility or dysmenorrhœa. For full dilatation the patient should always be thoroughly anæsthetized, and it is a good plan to follow the example of Professor Goodell, by exhibiting a rectal suppository containing a grain of the aq. ext. of opium before beginning. I am becoming more and more convinced that the principle of the use of sounds is faulty, in that the cervix is elongated by counter-forces at the time of dilatation, whereas it should be shortened in proportion to the degree of lateral expansion. Then, again, on account of the circular outline of the sound, submucous malformations are less easily broken than with the expanding blades, and lastly, the repeated introduction and withdrawal of the successive sizes cannot but prove more or less detrimental. Several mishaps, in the form of pelvic peritonitis, long since admonished me to greater circumspection in their use. In the use of expanding dilators I have finally adopted the Ellinger. This has the advantage of a fulcrum support not far removed from the beak, a great degree of expansion, and a parallel action of the blades. This latter I deem of much importance in all cases of extensive dilatation, as there is much less liability to injure the uterine structures than when the blades diverge like those of a pair of scissors. There is, however, something of a tendency of the blades to slip, and unless care be exercised the cervix may be torn by an accident of this kind. The instrument being introduced with the blades closed, in the same manner and with the same precautions described above, the blades are separated by a gradually increasing pressure on the handles. I do not intermit the pressure as advised by some, but push the dilatation steadily and as rapidly as a feeling of safety for the general integrity of the cervix will permit. As a true divulsion is the object in view, there should be no mincing, but a steady, inexorable advance, so that the tissues may be quickly and effectually overawed and subjugated. As a rule the dilatation should be carried to the full capacity of the instrument, which making allowance for the spring of the blades, will be about an inch. Exceptionally one will have to deal with an undeveloped cervix, or one so brittle that he will not feel safe in proceeding so far. In these cases he will content himself with less radical measures, but will usually find that a repetition becomes necessary if he would benefit his patient. After the lapse of some weeks he will not infrequently be gratified to find evidences of development in the hitherto immature cervix, and may now be able to perfect his work. Occasionally several séances will be necessary before full dilatation is accomplished, but these should always be at intervals of several weeks, in order to give time for the completion of the nutritive changes inaugurated thereby.

Since becoming familiar with the use of the Ellinger instrument, I seldom use the sounds except in a supplementary way. When there is difficulty in effecting introduction, one of the smaller sounds will frequently open the way more advantageously than any thing else, and I sometimes follow the Ellinger with one of the larger sounds, which by its uniform pressure at all points conduces to those nutritive changes by which absorption and reposition are effected and the uterine canal finally straightened and enlarged. It has become the fashion among operators to reverse the instrument after full dilatation, so as to make its curve antagonize that of the uterine canal, and thus to bend the womb in the opposite direction. This I seldom resort to, feeling that the risk of injury to the uterine structures by the beak of the instrument more than counterbalances the advantages sought. Dilatation having been accomplished, the dilator is allowed to remain in place for some moments, when, being withdrawn, a solution of bichloride of mercury, one to one thousand, is applied to the canal. I sometimes use iodoform in its stead, which I throw into the cervical canal by means of an insufflator. I never use the uterine plug, from a distrust of its safety and for the reason that a perfect dilatation will in time work its own changes. I am aware that some of our best gynecologists are partial to the use of plugs of glass or hard rubber, grooved or perforated for facilitating drainage, yet as with more thorough dilatation the risk is less, and results equally good, I see no reason to abandon my present practice. The oculist of to-day seldom resorts to the stile for the correction of stenosis of the nasal duct, and we are all aware of how thoroughly certain spastic conditions of the urethra and anus are removed by one thorough dilatation. Is not the same principle applicable to the uterine canal? I may add that for some time past I have dispensed with the vaginal plug in the treatment of vaginismus, and rely entirely on forcible dilatation under ether, followed by a long period of absolute non-interference. My success has been unexceptional. It would be easy to multiply instances illustrative of the principle here involved, but they are sufficient to shield it from the implication of novelty. I have no fixed rule as to the length of time my patients are kept in bed after the operation, being governed entirely by the indications. So long as any tenderness of the pelvic region manifests, I enjoin quietude irrespective of the lapse of time. If much pain or febrile reaction declare at any time, I resort to the use of opium and push it to the extent necessary to abolish all sense of discomfort. This is maintained so long as there is any evidence of inflammatory trouble, and is backed by the use of poultices or fomentations to the hypogastrium. In the use of antiseptics and other means to combat sequences one should be governed by

general principles. In some cases there will not ensue the slightest disturbance, and such patients need not be confined but a few days, but should always be warned to keep comparatively quiet for at least two weeks.

AUTOPHONIA,

BEING AN ABSTRACT FROM THE LECTURES ON OTOLOGY DELIVERED AT THE NEW YORK EYE AND EAR INFIRMARY, BY SAMUEL SEXTON, M.D.

FROM THE NOTES OF ROBERT BARCLAY, M.D.,

ASSISTANT SURGEON.

AUTOPHONIA in this connection refers to the perception by audition of entogenetic vibrations occurring in the head and ears from the performance of the physiological functions of phonation, respiration, circulation, mastication, and deglutition. The phenomena of autophonia were until quite recently believed to depend mainly upon lesions somewhat vaguely referred to the terminal distribution of the auditory nerve in the inner ear. A case occurring in the practice of Dr. Sexton eleven years ago drew his attention to the transmitting mechanism of the ear as the probable seat of disturbance giving rise to such phenomena, and other cases observed a year or two later seemed to confirm this view fully, since slight pathological changes in this mechanism were found to be capable of producing the symptoms of autophonia, tinnitus, etc. Thus by clinical observations in the field of aural disease, rather than on a basis of preconceived physical or physiological theories, should one base the hypothesis that *the phenomena of autophonia are due to a disturbance of the normal equilibrium of tension of the transmitting mechanism of the ear.*

It is well known that vibrations from the vocal cords or from any musical instrument played in contact with any part of the head, as, for example, the cornet or violin, reach the ear by two distinct routes: one being through the circumambient air to the external auditory canal, the other route being through the tissues of the neck and head—muscle, bone, etc.—to the drumhead, the directness of their course depending on the conductivity of the various tissues which intervene. The vibrations of the latter route are not heard in the normal condition of the ear as distinguishable from the former, otherwise interference would result, but, together with vibrations from the circulation of blood or other subjective sources, pass outward unperceived.

In nearly all the diseases of the external or middle ear, and perhaps in some inner ear affections which in any way disturb auditory tension, the phenomena of autophonia are almost invariably met. Two distinct anomalies of the transmitting mechanism, however, most frequently contribute to this, and they may occur in both acute and chronic affections, though most frequently in the latter—they are dislocation of the malleo-incudal joint and alteration in the tension of the membrana tympani, usually due to manometric restoration.

In respect to the former, it is well known that the peculiar construction of the malleo-incudal joint permits of disarticulation in such a way that the transmitting mechanism fails to respond normally to sound-waves arriving through the meatus externus, while those propagated by phonation, respiration, circulation, etc., are now effective upon the incus and stapes irrespective of the malleus and membrana tympani.

Perception of vibrations by tissue conduction varies inversely as that by normal aërial transmission, of the significance of which we may avail ourselves in recommending acoustic devices intended to aid the defective sense of hearing. Thus in totally or partially deaf persons who can hear their own voice, the use of the mouth-trumpet or otacoustic fan may be persisted in for conversational purposes or in instruction.

A knowledge of the modus operandi of sound transmission is of assistance in differential diagnosis of aural diseases; thus the tuning-fork in middle-ear disease is better heard through the tissues proportionately to an increasing defect in aërial transmission, while, even if the perceptive apparatus be alone affected, the tuning-fork is best heard by aërial conduction, if heard at all.

In outward dislocation of the malleo-incudal joint, in consequence of disease, a variable increase of intensity of approaching sound-waves is necessary to effective oscillation, since the membrana tympani must be forced inward far enough to re-establish auditory tension through coaptation of the articular surfaces. Increased impact is likewise required in the relaxed state of the membrana tympani in cicatricial reproduction of the parts.

The thought suggests itself here that it is possible for very intense sound to traverse the membrana tympani secundaria, giving rise to interference of hearing, or even of concussion, as when a horn is blown or a voice is shouted close to the external meatus.

Defectiveness in the transmitting mechanism, as above mentioned, is very often due to the profound changes brought about by the catarrhal inflammation of the tympanum, especially that which accompanies consumption, diabetes, etc. These changes produce characteristic symptoms, which manifest themselves on slight movements, as change in the pose of the head, coughing, blowing the nose, yawning, swallowing, or eructation—all of which acts may alter auditory tension and produce corresponding alteration in the character of audition. This state of the hearing organ is exceedingly distressing, and the patient often experiences alarm quite disproportionate to the actual danger impending. In some instances the interference of subjective sounds prevents perception of external vibratory impressions. Confusion and uncertainty of audition, and consequent mental distress are increased when both ears are differently affected, and a marked phenomenon is double hearing.

Persons in positions requiring the prompt use of their special perceptive functions and voice lose confidence in themselves, not hearing well nor feeling able to converse readily. This is of still more serious moment in those who earn their living as singers, speakers, and performers on certain musical instruments, since, not hearing their own voice or instrument naturally, they are unable to speak, sing, or play correctly, especially in concert. Sometimes the fault is not believed to lie in their own hearing organs, and they fancy that others do not sing or play in tune.

The trouble, however, is not limited to those who can distinguish harmony from discord; indeed, all persons are liable, under similar aural conditions, to discordant sensorial impressions. During the more quiet moments the patient may be annoyed by seemingly unnatural or obtund sounds produced by respiratory or circulatory vibrations. These he likens to sounds with which he is familiar, and, although usually annoying, they are sometimes contemplated with pleasure. The resemblances suggested by the patient's fancy vary according to temperament, musical and acoustical experience and education; thus one may fancy that he hears the music of a band, or a church organ, the "singing" of a tea-kettle, escaping steam, the rumbling of thunder, the voice of a deceased relative, the warble of a bird, the chirrup of a cricket, a distant whistle, the ringing of a bell, bees "a-humming," the roar of a waterfall, or any other familiar continuous sound.

Variations in the degree of auditory tension from time to time produce alternate perception of entogenetic and ectogenetic vibrations, and consequent indecision and error in respect to their subjective or objective nature, a significant fact of which the physician himself should not be unmindful when practising auscultation, since he then closes his own external auditory meatus and must of necessity perceive, at the same moment, subjective vibrations propagated from within his own head as well as the

objective sounds given forth from the patient. The sounds thus heard subjectively, unless recognized and differentiated, will lead to serious confusion and grave errors in diagnosis.

Where nervousness, worry, or mental weakness is associated with such auditory defectiveness, various aural hallucinations are liable to be experienced and may even become veritable delusions, a significant fact to alienists, for our asylums for the insane furnish many cases where the auricle is wounded, a foreign body introduced into the external auditory canal, etc., by patients suffering from aural delusions due to the autophonia of diseases of the ear. It is likewise worthy of note that the marked vertiginous symptoms sometimes associated with autophonia render the descent of stairs or crossing of crowded streets a hazardous undertaking.

Patients with false hearing, who cannot sing in tune, are apt to suspect the vocal organs as the seat of disease, especially if there are present auro-neuroses, such as tickling or fulness in the throat, desire to swallow frequently, or ear-cough. Treatment directed against the throat or nervous system in such cases is, of course, unavailing, and relief can only be obtained by attention to the hearing organ.

The prognosis in autophonia, under proper treatment, is favorable, complete cure being the rule in acute cases, while great relief may be afforded in the more chronic ones.

Clinical Department.

A CASE SHOWING THE ANTIDOTAL EFFECT OF ATROPIA OVER MORPHIA.

Dr. John M. Clarke, of Burlington, Vt., writes: "A man, forty years of age, in good health, took thirty grains sulph. morphine in about four hours. When found he was in a narcotic sleep, with all the symptoms of opium-poisoning. The usual methods of treatment were adopted. Active exercise as possible, cold water to head, strong coffee, etc. Electricity was not given and stomach was not evacuated. I immediately gave by subcutaneous injection $\frac{1}{150}$ grain of sulph. atropia. After half an hour I repeated this dose. Again, in half an hour I gave the same dose and waited the effect. This was all that could be desired. The pupils dilated, articulation returned, and a general improvement began. In five or six hours from the last dose he was comfortable, and went on to recovery, which was completed in about two days."

TREATMENT FOR OXYURIS VERMICULARIS.

A correspondent, "S. S. W.," writes: "If your correspondent who asks for a remedy for *oxyuris vermicularis* will thoroughly and persistently use injections of a solution of boracic acid and borax, say ℥j. of the former, and ℥ij. of the latter, to a pint of hot water (to be cooled to about 110° F. before using), twelve to sixteen ounces of the solution to be thrown into the rectum immediately after the morning stool, and repeated at bedtime, he will probably have success. Each injection should be retained from five to ten minutes, and occasionally it will be necessary to bring the vermin down from the cæcum and upper colon by saline cathartics. Hunyadi water acts well. Santonin and calomel are efficient, but objectionable on account of not always being harmless. The oil of erigeron Canadensis, in five- to ten-drop doses, in glycerine or castor-oil has acted well in some of my cases; but always in conjunction with the injections. I think I have tried all the remedies usually cited, as turpentine, quassia, vinegar, aloes, carbolic acid, salt, iodoform; but in obstinate cases the foregoing has been more efficient than any of them."

Regarding this same subject Dr. F. A. Gordon writes: "I have used with success, the fluid extract cuscura segrada, one-half teaspoonful each night, for some two or three weeks. I prescribed it for constipation, and cured a case of seat-worms of long standing, in a patient sixty-five years of age. I have used the same remedy since in children with success."

Dr. K. F. Purdy, of Elkader, Ia., writes: "Referring to your correspondent who asks for a remedy for seat-worms, I will say that a three-grain suppository of mercurial ointment, repeated every second night until three have been used, will destroy seat-worms root and branch."

A SUCCESSFUL CASE OF TRACHEOTOMY FOR DIPHTHERIA IN A YOUNG CHILD.

As illustrating the good results from early tracheotomy, even in an unpromising case, Dr. H. H. Lee, of West Stewartstown, N. H., sends the following notes:

L. K——, two and one-fourth years of age, previously healthy, was attacked with diphtheria and diarrhœa about November 7th, the tonsils and posterior pharynx being then covered with a false membrane. Breathing was slightly stridulous. Dr. Ward, who first saw the case, gave calomel, ipecac, brandy, and limewater inhalations with concentrated nourishment.

Condition November 8th: Temp., 101°; pulse, 120, feeble; crowing respiration, slight episternal and considerable abdominal retraction during inspiration; hoarse laryngeal cough, no bronchitis; tonsils and post pharynx coated with a thick grayish membrane; profuse diarrhœa accompanied with considerable abdominal pain and distention. Child persistently refused nourishment. No relief from remedies.

We had no tracheotomy tubes, and residing in a "remote country district," could not get one until the following morning. I, however, at once telegraphed for tubes, and, advising continuation of treatment, returned home.

Dr. W. saw patient at 11 P.M. No relief from remedies, stenosis persistent and gradually increasing. Has taken no nourishment and but very little brandy since morning.

At 3 A.M., November 9th, we found the patient decidedly worse; there was marked episternal and abdominal retraction, pulse was becoming quite feeble, and it was only at considerable intervals that she could be induced to take small quantities of diluted brandy from a teaspoon, so great was her preoccupation in struggling for breath, while the peculiar anxious expression of the eye and pallor of the cheek denoted the onset of carbonic oxide poisoning, and the imperativeness of an early operation.

In the morning, as soon as it was sufficiently light, the patient was anæsthetized, chloroform being first used and the effect continued with ether.

The operation was slowly and deliberately performed in the usual way, and was completed with the loss of less than a drachm of blood.

Having no tube to insert, a silver wire was passed through each border of the tracheal wound and the edges separated at first by an assistant, afterward by uniting wires at back of neck, thus making traction on edges of wound.

When the operation was almost completed, just before the trachea was opened, the child was apparently in a moribund condition, no radial pulse, and respiration had ceased; the inrush of air as soon as the trachea was opened excited an expiratory effort, and the patient rallied under hypodermic injections of ether and brandy, artificial respiration, and the application of dry heat.

As soon as the breathing would permit, a flat sponge wrung out of hot water was placed over the tracheal opening, and the child placed under a croup-tent extemporized by lashing an upright to each side of the child's crib and spreading an ordinary flannel blanket over them; into this was directed a current of steam and lime-water spray.

In a short time the patient, who had, since first taken, steadily refused nourishment, would swallow with avidity all the milk, brandy, egg-nog, etc., that was offered it.

The tube came in the morning's mail and was inserted at 2 P.M.

The child was confined to the tent but a few hours, as it was soon found that fresh air moderately laden with steam had a much more beneficial effect. This was secured by leaving a window open at the top, the room being kept at a temperature of about 70° by the heat of an old-fashioned wood fireplace, a steam atomizer furnishing the moisture. Extreme restlessness was allayed by one-sixteenth grain morphine, hypodermically. During the next two days the patient was in a critical condition, but she then rapidly improved and made a good recovery.

HYDROBROMATE OF COCAINE.

Dr. A. B. Lyons, of Detroit, Mich., has succeeded in producing a new salt of cocaine, the hydrobromate, which he predicts will in the future hold the first rank among the compounds of this drug. The two requisites of a salt of cocaine are that it should exist in a crystalline form, and that it should not be readily deliquescent. These requirements are met by the hydrobromate. "It crystallizes in slender prisms of snowy whiteness, which are readily soluble in water, yielding a perfectly colorless solution." The writer thinks, also, that this salt may perhaps possess some trifling advantage over the others, gaining something in sedative power from the bromine entering into its composition. He has, however, as yet had no opportunity to experiment with it clinically in order to determine its especial value in this respect.

THE EFFICACY OF LACTIC ACID IN THE DESTRUCTION OF NEW GROWTHS.

Dr. A. Rose, of this city, writes calling attention to the value of lactic acid in the treatment of caries fungosa, lupus, epithelioma, and other new growths. As stated by von Mosetig-Moorhof, it destroys, when applied in concentrated form, the proliferating neoplasm, while leaving unaffected any little islets of sound tissue that may be present. This preservation of the healthy tissue within the diseased parts gives lactic acid a preeminence over caustics, which destroy both friend and foe alike. The acid has been used with excellent results in cases of epithelioma, which could not be operated upon or which had returned after operation.

PUERPERAL ECLAMPSIA—RECOVERY.

Dr. W. A. Hulse, of Bay Shore, N. Y., relates the following case of puerperal eclampsia successfully treated: Mrs. R——, aged twenty-eight, was found, two months before delivery, to be suffering from general anasarca and some symptoms of uræmic poisoning. The urine was albuminous, and contained granular casts and renal epithelium. She was put upon digitalis and acetate of potash, with relief to most of the symptoms, but albumen was always present. The labor was a difficult one, with strong but ineffectual pains, due partly to the fact that the cervix pointed upward and backward into Douglas' cul-de-sac, so that the pains were spending their force on the anterior wall of the uterus. An attempt was made to rectify the faulty position of the cervix by traction with the middle and index fingers, and was followed almost immediately by a convulsion. Assistance was sent for and arrived at the end of half an hour, after two convulsions had occurred. A hypodermic injection of pilocarpine one-half grain and morphine one-eighth was at once given, and the patient was brought under the influence of chloroform. At the expiration of thirty minutes more the woman was delivered of a girl by means of the forceps. The child was cyanosed and apparently dead, but was revived by artificial respiration. The patient in the meanwhile had two more convulsions, and was in a comatose condition, with stertorous and jerking respiration, and a thready and very rapid pulse. At the end of two hours she could be revived sufficiently to swallow two drops of croton oil, and from that time received ten grains of chloral and twenty grains of bromide of potassium with brandy every four hours. Several hours later the croton oil was repeated, the first dose not having had the desired effect. This was followed by several free watery evacuations, the kidneys acted freely from the pilocarpine, though there was but slight effect upon the skin. The patient had more convulsions and made a good recovery, and now both mother and child are doing well.

COMPLETE COMPOUND DISLOCATION OF THE TIBIA WITH FRACTURE OF THE FIBULA—RECOVERY WITH NEARLY PERFECT USE OF THE JOINT.

Dr. A. D. Binkerd, of Cincinnati, sends us a report of the following interesting and instructive case: A man forty-five years of age, of vigorous health and temperate habits, in jumping from a swiftly going wagon, was caught by the foot between two sticks of timber and fell outward. This violent strain resulted in a transverse fissure of the skin and soft parts across the internal malleolus; the deltoid ligament was torn from its attachments to the tarsal bones, bringing with it fragments from the scaphoid, astragalus, and calcaneum. The fibula was fractured at a point about two and a half inches above its lower extremity, and the foot was everted to a right angle with the axis of the leg, forming a complete luxation, with the internal malleolus protruding through the fissure in the integument, and the synovial sac exposed to the air. Within forty minutes after the accident the patient was seen by Dr. Binkerd. In order to effect a reduction, it was necessary to incise the lower border of the wound, so as to allow the internal malleolus to return. The hand being thoroughly cleansed in warm carbolized water, the interior of the joint was explored with the index finger and found to be free from any foreign body. The osseous fragments were snipped off from the deltoid ligament with the scissors, and the parts were restored as nearly as possible to their normal position. The edges of the T-shaped wound were approximated by several sutures, and a loose starch bandage applied, room being left for the anticipated swelling. This was accomplished in a reasonably short time without the use of an anæsthetic. The patient was now put to bed, pain being controlled by hypodermic injections of morphine. Ample drainage of the wound was provided for, and the parts were kept constantly moistened with lead and opium wash. The condition of the kidneys and bowels was closely watched, and the patient received ten grains of quinine once a day, and tincture of the chloride of iron in full dose after meals. The patient was allowed to partake of a great variety of nutritious food and in as great quantity as could be digested. The temperature scarcely rose above the normal during the entire course of the treatment. No inflammatory action took place within the joint, and the patient did so well that he was allowed to return to his home in the country at the end of eighteen days. Convalescence went on without interruption and without the occurrence of a single untoward symptom. From a letter recently received from the patient, more than seven years after the accident, Dr. Binkerd learns that walking with the aid of a staff was begun about four months after the receipt of the injury. From this time, strength and motion in the joint increased steadily, until now, "while the wounded foot is not as strong as the other, the motion is more than half as great, I may say two-thirds as great, as that of the other foot."

Progress of Medical Science.

Virchow on Croup and Diphtheria.—In a recent address made at the Berlin Medical Society, Professor Virchow restated the views he haslong held upon the pathological dissimilarity of croup and diphtheria. He briefly reminded his hearers that the term croup, originally a clinical phrase expressive of a prominent symptom of acute laryngeal affections, was first applied in a pathological sense by Rokitansky to all pseudo-membranous affections of mucous membranes, and extended by him to visceral inflammations characterized by fibrinous exudation. In 1847, Virchow, in the first volume of his *Archiv*, pointed out the anatomical distinctions between a croupous and a diphtheritic inflammation of mucous membranes, the former being an exudation upon the surface of the membrane, the latter a necrotic process, in which the false membrane is composed of the exfoliated tissue. At that time he knew nothing of micro-organisms in connection with diphtheria, but he had observed masses of granules, as he then supposed of albuminous nature, in the substance of the diphtheritic membrane, which were never present in the croupous exudate. Nor has he ever been enabled to admit that all cases of fibrinous laryngitis and tracheitis are due to diphtherial poisoning, and he had preparations in which there was not the least evidence of diphtheria. His contention was that the diphtheritic process invariably led to destruction of the mucous membrane, and this recognition of an anatomical difference between croup and diphtheria was, he thought, of prime importance in regard to prognosis after tracheotomy, for in the one case the detachment of the false membrane did not, as in the other, leave any ulcerative lesions behind. In support of this he showed preparations of diphtheritic laryngitis and tracheitis with ulceration.—*London Lancet*, March 14, 1885.

The Spleen in Syphilis.—The view advocated by Mr. Jonathan Hutchinson, that syphilis may be regarded as an acute specific fever in which the various stages are much more prolonged than in the ordinary acute specific fevers, is one which cannot fail to keep the mind open to the possibility of the occurrence of those phenomena which are most usually associated with specific fevers. Facts dealing with the occurrence of alterations in the size of the spleen in syphilis are, of course, familiar to all, but the enlargement of the organ in the early stages of acquired syphilis still remains a debatable question in the minds of some clinical observers. Dr. Avanzini contends that the spleen undergoes demonstrable enlargement just prior to or in that stage of syphilis when the skin and mucous membrane are the seat of the ordinary secondary manifestations. He has also observed that after treatment diminution in size of the spleen, sufficient to cause the disappearance of the cutaneous and lymphatic lesions, does not take place.—London *Lancet*, March 21, 1885.

Alcoholic Paralysis.—Of late years the paralysis which results from the abuse of alcohol has been accurately described by numerous observers, and the attempt has been made to discover the lesion of the nervous system which is associated with this form of paralysis. Two cases, which are reported by Dr. Henry Hun, of Albany, in *The American Journal of the Medical Sciences* for April, 1885, are typical examples of this disease, and may contribute to a better understanding of it. Dr. Hun has also collected the recorded cases of alcoholic paralysis, and from their study he holds that we are justified in regarding it as a special form of disease with the following symptoms: After a number of cerebral and gastric disturbances, due to the alcoholic poisoning, the symptoms of the disease proper commence with neuralgic pains and paræsthesiæ in the legs, which gradually extend to the upper extremity, and which are accompanied at first by hyperæsthesia, later by anæsthesia, and in severe cases by retardation of the conduction of pain. Along with these symptoms appears a muscular weakness which steadily increases to an extreme degree of paralysis, and is accompanied by rapid atrophy, and by great sensitiveness of the muscles to pressure and to passive motion. Both the sensory and the motor disturbances are symmetrically distributed, and the paralysis attacks especially the extensor muscles. In addition to these motor and sensory symptoms there is also a decided degree of ataxia. The tendon reflexes are abolished, and vaso-motor symptoms, such as œdema, congestion, etc., are usually present. Symptoms of mental disturbance are always present in the form of loss of memory, and in transient delirium. The lesion is, in all probability, a degeneration of the peripheral nerve-fibres and of the nerve-cells in the cerebral cortex, together with a chronic congestion or inflammation of the pia mater. This lesion explains well the symptoms, although it is certainly curious that alcohol should not attack the spinal cord, but only the highest and lowest part of the nervous system, if one may so call the cortex of the brain and the terminal branches of the peripheral nerves.

Writer's Cramp and its Treatment.—In *The American Journal of the Medical Sciences*, April, 1885, Dr. R. P. Robins, of Philadelphia, records three cases of writer's cramp, and gives a careful clinical study of the disease. As regards treatment he finds absolute rest is essential. If there be atrophy of the muscles, stimulating lotions, with rapid friction, may be employed; and he has seen good results follow alternate douching with hot and cold water. Finally, in electricity we have a most important factor. As regards artificial aids, Dr. Robins recommends that of Von Nussbaum as possessing, to a greater degree than any of those proposed, the advantages of lightness and simplicity. One of Dr. Robin's patients has derived much benefit by alternating with the ordinary penholder a little apparatus which was made of an ordinary solid rubber ball; this was perforated at about one-third of its circumference and a penholder was thrust through. The ball was held in the hand, and the penholder passed up between the first and second fingers.

The Diagnostic Value of the Bacilli of Tuberculosis.—Dr. Müller, of Würzburg, examined the expectoration of fifty-two patients suffering from measles, whooping-cough, croupous and catarrhal pneumonia, pulmonary infarction, heart-disease with pulmonary and bronchial catarrh, etc.; but, though all the preparations were carefully treated by Ehrlich's method, in not one were red-stained bacilli discovered, and their absence was also ascertained after the most searching examination of the sputa in cases of bronchiectasis and fetid bronchitis, in which other micro-organisms of all kinds abound. On the other hand, the examination of the sputa of seventy-two phthisical patients led to their detection in sixty-seven; in a few incipient cases, however, not until after several trials. The five in which they were not observed were of this class, and four of them left the hospital too soon to give any satisfactory result. But in five others the diagnosis, made solely on the strength of the fact that bacilli were present, was subsequently confirmed by the development of physical signs. In striking contrast with these was a case of chronic pneumonia, with wasting fever and consolidation of the apices, in which bacilli were sought for in vain until a few days before death, when they suddenly appeared in considerable numbers. The pneumonically infiltrated apices were found after death thickly studded with gray tubercles, a few of which had recently broken down and become confluent. In several cases, the symptoms of which closely resembled those of phthisis, the continued absence of bacilli led to the diagnosis of bronchiectasis, etc., confirmed by the further course of the disease; while in others the tubercular nature of the affection was early indicated by the appearance of bacilli and verified post

mortem. Müller considers that from a diagnostic point of view the presence of bacilli in the expectoration is of far greater value than that of elastic fibres, since these will be found in any destructive process, tubercular or non-tubercular. In six cases of more or less chronic pleurisy, a tubercular origin was negatived by the absence of bacilli from the expectoration, and absorption was ultimately effected; whereas, of six others in which they were present, in three of these, before any physical signs of tuberculisation could be made out, the unfavorable prognosis was justified by the result. On the other hand, so long as there was no direct communication between the seat of the tubercular process and the serous cavities, the search for bacilli in exudations was invariably fruitless. It was so in nine cases of pleuritic effusion, serous or purulent, though in four of these they were abundant in the expectoration, and in two of peritoneal effusion, in which there was a strong suspicion of tubercle. But they were found in the purulent and in the serous fluid from two cases of pneumothorax, in one of which a minute communication between a pulmonary cavity and the pleural space was detected after death. The second case presented two remarkable features, viz., that in a second sample of the fluid, drawn off three weeks later, only three bacilli were found in sixteen preparations; and that after the establishment of the pneumothorax the scanty expectoration contained notably fewer than before, the patient's general condition being at the same time greatly improved. From these facts, Dr. Müller infers that the pleuritic exudation does not present a favorable medium for the cultivation of the bacilli, and that the compression of the lung-tissue by the pneumothorax checks the activity of the tubercular process. The examination of the fæces in the case of phthisical patients suffering from diarrhœa was not conclusive as regards the diagnosis of intestinal tubercle, since the bacilli might have been swallowed with the sputa; and the same applies, *mutatis mutandis*, to the diagnosis of tubercular laryngitis. Müller failed entirely to detect bacilli in the breath of palpably tubercular patients, whatever method he employed for their arrest. This negative experience agrees with the position maintained by Nägeli, that micro-organisms are not liberated from fluid media, and with the failure of Günther and Harms to infect rabbits by means of the breath of tubercular men or animals. As a general rule, the rapidity of the course of the disease and the intensity of the febrile disturbance are directly proportioned to the number of the bacilli in the expectoration, and this affords an important indication in prognosis. The exceptions to this rule, frequent though they be, are easily explained on anatomical considerations. When in acute febrile cases bacilli are not numerous, it will usually be found that there is extensive gelatinous infiltration, that there has been but a scanty formation of cheesy nodules, and that the cavities are few and small. On the other hand, when the bacilli are out of all proportion to the fever, etc., the probability is that one or more cavities of considerable size communicate freely with the bronchi, and that the secretion is abundant. The inner walls of cavities are the chief seats of the development of the bacilli, whereas in the surrounding inflammatory and infiltrated zone they are few, or even altogether absent. They abound also in the caseous masses and necrosed portions of the lung; but, if these are circumscribed by inflammatory infiltration, their extension is limited and their escape is checked. As regards the size of the bacilli, they are least in minute tubercles of basilar meningitis and of miliary tuberculosis, as well as in the early stages of peribronchial deposit, while in lung-cavities they are found of every size, from the least to the greatest. —*The London Medical Record*, March 15, 1885.

Spontaneous Rupture of the Membranes at Full Term.—Dr. G. W. H. Kemper, of Muncie, Ind., in the April issue of *The American Journal of the Medical Sciences*, offers a study of 50 cases of spontaneous rupture of the membranes, occurring in his first 700 obstetrical cases, and he finds that: 1. The spontaneous rupture of the membranes at full term of gestation, and preceding the beginning of labor-pains, is an event of common occurrence, averaging about once in every fourteen labors. 2. When the membranes are broken, as a rule, labor supervenes at once, or within the next four hours, but may be delayed several hours, days, or even weeks. 3. When such an accident occurs, the duration of the labor is not necessarily prolonged, nor rendered more painful. 4. The mortality of the mothers is not augmented, and the ratio of stillborn children, if at all, is so slightly increased as to amount to a minimum. 5. The causes are not well defined. The repetition of the accident in certain women shows that with some a tendency is inherent. A possibility of atmospheric influences, especially a low temperature, as an exciting cause is admissible. Smellie considered obesity a cause. His observations have not confirmed this statement. 6. It is probable that the duration of labor is shorter in cases where the appearance of pains is delayed for some time after the membranes are ruptured. 7. The proper plan of treatment, as given by Smellie, McClintock, Bard, Denman, and Dewees, and corroborated by Dr. Kemper's experience, is rest, if necessary in a recumbent posture, and patience. All efforts to excite labor-pains are hurtful, meddlesome, and mischievous. Wait for pains, and treat the case on general principles! 8. Finally, that the fear of delay and danger in this class of cases—the classical "dry labor"—promulgated by our early obstetrical fathers, and indorsed by successive authors generally, is based on a merest spark of truth, and is one of those medical traditions that experience shows to be over-estimated and to a large degree apocryphal.

Measurement of Refraction by the Shadow-Test, or Retinoscopy.—In an article in the April number of *The American Journal of the Medical Sciences*, Dr. Edward Jackson, of Philadelphia, traces the history of the shadow-test from its introduction ten years ago, by Cuignet, of Lille, to the present time. He describes the optical basis of the test, and considers its application in the various states of refraction. It may be looked upon as the union and evolution of two modes of examination almost as old as the ophthalmoscope itself, namely, the twirling of the mirror to detect conical cornea, and the examination of the myopic eye by the indirect method without the intervention of an object lens. Its advantages are that it is most widely applicable, has the certainty of an objective method, the accuracy of trials with test-lenses, and the rapidity of the optometer. It is applicable in the cases of young children, the amblyopic and malingerers, in which subjective tests cannot be used; and in cases where restlessness, nystagmus, hazy media, or the loss of the other eye, renders accurate examination in the erect image by a refraction ophthalmoscope, difficult or impossible. In certainty, when the patient retains the power of accommodation, it seems inferior to the "direct method" as a means of discovering and measuring latent hypermetropia. But it is superior to the direct method in the detection and estimation of astigmatism. In accuracy, the test very nearly equals the subjective test with trial lenses for patients who have good vision, good intelligence, and honesty; for patients lacking in any of these requisites for subjective testing, it is markedly more accurate than any other method. In all cases where the state of refraction is to be measured accurately, it effects a saving of time; in the stupid or sluggish this saving is very great.

A New Treatment for Pelvic Hæmatocele.—Dr. L. B. Couch, of Nyack-on-Hudson, believes that he has devised a successful and simple treatment for arresting hemorrhage in pelvic hæmatocele. It consists simply in raising the foot of the bed till the patient lies at an angle of sixty degrees. Dr. Couch reports a case in which hemorrhage ceased, and life was apparently saved by this measure.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, May 9, 1885.

THE INTERNATIONAL MEDICAL CONGRESS AND THE RECENT ACTION OF THE AMERICAN MEDICAL ASSOCIATION.

THE right should prevail, and its prevalence should secure harmony. The truth concerning the relation which exists between these two bodies centres in the power given to the Committee elected by the Association in 1884 to invite the Congress to hold its next meeting in this country in 1887. If that Committee, with whose work the medical profession, not only here but abroad, is now familiar, was empowered by the Association to enlarge its membership and to complete the organization of the Congress, then the so-called additional Committee, elected in 1885 at New Orleans, has no right to an existence or to recognition, and whatever work it may perform must necessarily be of no avail.

If, on the other hand, the Committee elected in 1885 constitutes the only one empowered to complete the organization of the Congress, then that which has been done by the Committee elected in 1884 is of no account, unless it be endorsed as an act of courtesy.

This incongruous state of affairs, however, can be settled very readily. In 1884 the Association elected a Committee of seven, whose duty it should be to invite, in behalf of the American medical profession, the International Medical Congress to hold its meeting in Washington, D. C., in 1887, and the Association further resolved that the Committee should have power to elect its own officers, and, in case the invitation was accepted, to act as an Executive Committee to make all necessary and special arrangements for the meeting. In other words, the Committee was elected with full power to complete the organization of the Congress if the invitation to meet in this country was accepted, and at the time it was created it was clothed with this power because the opinion was unanimous that time was an exceedingly important factor in the immense preliminary work.

The language of the resolution is as follows: "That the Committee shall elect its own officers, and that, in case the invitation is accepted, it shall proceed to act as an executive committee, with full power to fix the time and to make all necessary and special arrangements for the meeting of such Congress, and to solicit funds for this purpose." . . . "That it shall have power to add to its membership, and to perfect its organization, and that to meet the preliminary expenses of printing, postage, etc., the Chairman of this Committee is authorized to draw upon the Treasurer of this Association for an amount not exceeding four hundred dollars."

The original Committee of seven consisted of Austin Flint, of New York, I. Minis Hays, of Pennsylvania, C. Johnson, of Maryland, G. J. Engelman, of Missouri, J. M. Browne, of United States Navy, J. S. Billings, of United States Army, and H. F. Campbell, of Georgia, President-elect, and added by special vote of the Association.

It being true, then, that the committee of invitation was made an executive committee and was clothed with full power by the Association, the organization of the International Medical Congress as it now stands is entirely independent of the American Medical Association, and is *the* body which is to represent the American Medical profession in international Congress assembled in Washington in 1887.

The recent action taken by the American Medical Association is, therefore, no more effective than would be a pope's bull against a comet, and was an untimely and over-zealous effort to undo what had been placed in charge of a committee previously elected to discharge without restriction a special duty. The resolution which created the Committee does not ask it to report, thus showing clearly that it was the intention of the Association to give it full executive power. The work which it has performed should be accepted without special dissent by all who have any interest in the forthcoming meeting of the International Medical Congress, as its success depends upon its remaining undisturbed. The grievances which were presented at New Orleans are too trivial to require serious comment. The sources from which they came, and which coaxed the Association into performing a meaningless act, give no guarantee that the work can be any more satisfactorily performed than it has already been.

But cannot the Association revise the work of a committee which it created? No; when that committee was elected with full executive power. Certainly it cannot elect a second committee to revise the labor of a committee so constructed. The only point at issue is, Did the Association elect the original committee as an executive as well as inviting committee? The language of the resolution is too plain to receive any other interpretation than that it did, and therefore its work should stand.

THE TREATMENT OF CANCER IN THE LAST HUNDRED YEARS.

IN some of the recent numbers of the *Deutsche Medizinal-Zeitung* Dr. H. Helmkampff has contributed a series of articles upon carcinoma and its treatment in the past hundred years. After reviewing the pathology of the subject, he discusses cancer from a surgical standpoint, and shows, what is already well-established, that the knife has done the most for the relief of this disease.

Some facts with regard to medical and dietetic treatment are then given, and they may be briefly summarized here. The use of arsenic internally in cancer is an old one. Recently it has been energetically revived by several Southern physicians. These latter, however, are only doing what has already been carefully tried in Es-

march's clinic at Kiel. After operations, and in cases in which operations are impossible, Fowler's solution is given in increasing doses to the point of tolerance. Esmarch is also in the habit of spreading upon the wound daily a half-teaspoonful of the following solution: ℞. Acid. arsenios., morphiæ muriat., āā gr. iv.; calomel, gr. xxx.; gum arabic, ʒ iij. M. Beneke's diet is strenuously enforced. In the belief that in some cases cancer develops in a syphilitic or scrofulous dyscrasia, iodine and iodoform have been prescribed by Esmarch, Nussbaum, Panthel, and others.

Nedopil reports fifteen cases in which cancer of the tongue developed from psoriasis syphilitica.

The utility of silicum in cancer was put forward by Dr. R. F. Battage, of London, in 1874 (*Edinburgh Medical Journal*, November, 1874), and again in 1880. About ten grains are given morning and evening. The progress of the disease is delayed from two to ten years. Chian turpentine appears to have had its day. It was tried by Macleod, Morris, Tait, and others without good results. Nevertheless, Dr. John Clay, before his death, reiterated his views as to its value in the early stages of cancer.

Professor Luton, of Rheims (*Schmidt's Jahrb.*, No. 2, 1881), obtained good effects from the use of eucalyptus globulus in cancer of the stomach and uterus. He gave two and a half drachms of the tincture for a month.

A drug which has been highly endorsed for its specific properties is guaco, a South American plant, of which tinctures have been prepared by a Parisian pharmacist. Although its utility has been recognized by such men as Ricord and Maisonneuve, of Paris, Heyfelder, Weinberg, Medan, and Arsenieff, of Russia, the drug seems to be little known. Confidence in it was doubtless lost through the researches of Guibourt, who found that the true *Mikania guaco* was inert, and that the drug ordinarily so called was a mixture of uncertain character.

The history of cundurango is quite well known, and there is no credence placed in its anti-carcinomatous powers by the profession in America. Of late, however, several Swiss and Russian physicians have taken it up and claim for it some remedial value.

CHEAP DISINFECTANTS.

We have received a copy of the preliminary report on disinfectants and disinfection made by the Committee of the American Public Health Association. It is in the form of a popular tract, and is an admirable presentation of the latest conclusions of science on the subject of deodorizers, antiseptics, and disinfectants. It contains also formulæ for the preparation of cheap and efficient disinfectants. We believe it will be of great service to our readers to give the main features of this report, as it will enable practising physicians to tell their families how to kill germs easily and at a low cost. It is quite time, indeed, that the profession cease to think that good disinfectants must be paid for at the rate of a dollar a bottle.

Practical sanitation is based on the view that all infectious diseases are caused by a specific infectious substance, presumably a living germ. Disinfection is perfectly secured only when this germ is destroyed, and a disinfectant is therefore, strictly speaking, a germicide.

There is a class of agents which arrest putrefactive decomposition, and these are known as antiseptics; but a substance may arrest putrefaction without destroying the infective disease-germ. An antiseptic, therefore, is not necessarily a disinfectant. There is another class of substances which destroy odors. These may neither arrest putrefaction nor kill disease-germs. Hence deodorizers are the least efficient for the arrest of infectious disease agents.

Recent researches, says the report, have demonstrated that many of the agents which have been found useful as deodorizers, or as antiseptics, are entirely without value for the destruction of disease-germs. This is true, for example, as regards the sulphate of iron or copperas, a salt which has been extensively used with the idea that it is a valuable disinfectant. As a matter of fact, sulphate of iron in saturated solution does not destroy the vitality of disease-germs or the infecting power of material containing them.

The following points are emphasized by the Committee, and deserve quotation here:

1. Antiseptic agents exercise a restraining influence upon the development of disease-germs, and their use during epidemics is to be recommended, when masses of organic material in the vicinity of human habitations cannot be completely destroyed, or removed, or disinfected.

2. In the sick-room we have disease-germs at an advantage, for we know where to find them as well as how to kill them.

Among disinfectants, chloride of lime, as we have before stated, is believed to rank one of the first. With it may be placed corrosive sublimate and permanganate of potassium.

The following solutions can be readily made and are to be recommended for ordinary use in infectious fevers:

Solution No. 1: Dissolve chloride of lime of the best quality in soft water, in the proportion of four ounces to the gallon.

Use one pint of this solution for the disinfection of each discharge in cholera, typhoid fever, etc. Mix well and leave in vessel for at least ten minutes before throwing into privy-vault or water-closet. The same directions apply for the disinfection of vomited matters. Infected sputum should be discharged directly into a cup half full of the solution.

Solution No. 2: Dissolve corrosive sublimate and permanganate of potash in soft water, in the proportion of two drachms of each salt to the gallon.

This second solution is equally effective, but must be left a longer time in contact with the infected material. It has the advantage of being odorless, but it is highly poisonous, and will injure lead pipes if passed in considerable quantity through them.

Solution No. 3 consists of one part of liquor sodæ chlorinated and five parts of soft water. It is more expensive than No. 1, and has no especial advantage over it, except in case of prescription.

A formula for a powder which may be used in the disinfection of privy-vaults, excreta, etc., is as follows:

Chloride of lime, one pound; corrosive sublimate, one ounce; plaster of Paris, nine pounds. The sublimate is to be pulverized and thoroughly mixed with the plaster of Paris.

For the disinfection of clothing, solution No. 1 diluted with nine parts of water may be used, the clothes being kept immersed for two hours. Or the following solution (solution No. 4): corrosive sublimate, four ounces; water, one gallon; permanganate of potassium, one drachm, may be employed, using one fluid ounce of it diluted with a gallon of water.

Boiling for half an hour will also destroy the activity of all known disease-germs. If clothes cannot be treated with the above solutions or by boiling, they may be disinfected by exposing them to a dry heat of 230° F. for three or four hours. This dry heat of 230° F. does not destroy spores, but it is effectual for the destruction of all disease-germs which do not form spores; and there is good reason, says the Committee, to believe that this list includes small-pox, cholera, yellow fever, diphtheria, erysipelas, puerperal fever, and scarlet-fever (?). Moist heat is more effective than dry; and ten minutes exposure to steam at a temperature of 230° F. will destroy all known disease-germs as well as the most refractory spores.

It is impracticable to disinfect an occupied apartment, but when an apartment that has been occupied by a person suffering from an infectious disease is vacated, it should be disinfected as follows:

All surfaces should be thoroughly washed with a solution of corrosive sublimate of the strength of one part in 1,000 parts of water, which may be conveniently made by adding four ounces of Standard Solution No. 4 to the gallon, or one pint to four gallons of water. The walls and ceiling, if plastered, should be whitewashed with a lime wash containing the same proportion of corrosive sublimate, or they may be brushed over with the aqueous solution. Especial care must be taken to wash away all dust from window-ledges and other places where it may have settled, and to thoroughly cleanse crevices and out-of-the-way places. After this application of the disinfecting solution, and an interval of twenty-four hours or longer for free ventilation, the floors and wood-work should be well scrubbed with soap and hot water, and this should be followed by a second more prolonged exposure to fresh air, admitted through open doors and windows.

If it is desired, in addition or in place of this method, to use fumigation, it will be necessary "to close the apartment to be disinfected as completely as possible by stopping all apertures through which the gas might escape, and to burn not less than three pounds of sulphur for each thousand cubic feet of air-space in the room."

AUTOPHONIA.

Dr. Samuel Sexton's work of special investigation in an important department of otology, an abstract of which is elsewhere reported in this issue of The Record, is a valuable contribution to general medicine, as well as to the special field in which it was made. Of the many practical papers from Dr. Sexton's pen with which medical readers are familiar, the suggestions in respect to autophonia are, perhaps, of wider application than almost any other. Thus, with a knowledge of the significance of the phenomenon under consideration, it would seem that much assistance may be afforded where doubt exists in the diagnosis of ear diseases, especially in differentiation as to the region of the organ affected. This knowledge may likewise serve when the hearing sense is disturbed in mental and other diseases.

Dr. Sexton draws attention, also, to the liability to auscultatory errors, even when the examiner's ears are normal, and where abnormalities exist their avoidance would seem to be difficult. In certain aural neuroses, it is stated, the throat may be wrongly suspected of being at fault when the seat of the trouble lies in the ear; thus, in "singing out of tune," it would be useless to treat the throat for a supposed defect in vocalization when the trouble depended on the autophonia of aural disease. The steps taken, as shown in the paper under discussion, and also in previous contributions, notably in "Des hallucinations de l'ouïe et de la fausse audition, chez les musiciens et les chanteurs, due à l'autophonie, dans les maladies de l'oreille," in *Rev. Mensuelle de Laryngologie, d'Otologie et de Rhinologie* for November, 1884, by means of which Dr. Sexton has traced out the *modus operandi* of the aural anomalies giving rise to the phenomena of autophonia, are of much interest, showing as they do that painstaking observation is necessary in the discovery of scientific facts.

THE CONDITION OF GENERAL GRANT.

During the past week General Grant's bodily health has much improved, and he has been enabled to enjoy short drives in Central Park, to walk short distances out of doors, and to do a considerable amount of literary work on his forthcoming memoirs. His appetite is better, he has relish for his food, and his swallowing is not attended with much pain.

Locally, his disease shows a slight tendency to progress. The sloughy exudation has disappeared, exposing exuberant fungoid granulations in its place. This condition still involves the right and posterior parts of the pharynx, the right tonsillar region, and the right side of the base of the tongue. The palatal curtain is still considerably infiltrated, although all signs of acute inflammatory trouble have disappeared. At the base of the uvula, on the right side, a small fungoid excrescence has developed, which has shown a disposition to extend.

On the free margin of the palatal curtain, midway between the uvula and right tonsillar region, a similar growth of very small size has also appeared. The ulceration at the base of the right anterior faucial pillar, and alongside of the tongue, presents a worm-eaten surface, indicating an extension of the destructive process. The breathing is free and the voice is clear, but the movements of the tongue are somewhat restricted, affecting articulation accordingly. The enlarged glands under and around the right angle of the lower jaw are somewhat harder, and, in consequence of surrounding inflammatory infiltration, are quite firmly fixed. There is, however, less pain in the diseased parts than formerly, and the secretion of mucus is less abundant. The patient obtains a full night's sleep with a minimum amount of morphine, and awakes in the morning feeling much refreshed. Despite the favorable general condition, there have been, unfortunately, no changes in the local disease to warrant any modification of the original diagnosis by the members of the medical staff.

News of the Week.

The New York Post-Graduate Medical School and Hospital has opened a physiological laboratory in the hospital building. The laboratory is intended to encourage physiological research, and is open to all physicians who may desire to make investigations in this department. The director is Dr. G. M. Hammond.

New York Polyclinic.—The regular session of the New York Polyclinic ends on Saturday, May 30th. The number of physicians who have attended the clinics since September 22, 1884, is over two hundred. The summer session opens Monday, June 1st, and will continue to September 12th. The Laboratory of Pathological Histology will be open all summer.

Small-pox has appeared in Missouri, at East Atchison, in Canada, at Montreal, and in Boston, Mass.

The Iowa State Medical Society holds its annual session at Cedar Rapids, beginning May 20th.

The Pennsylvania State Medical Society holds its thirty-sixth annual meeting at Scranton, May 27th to 29th.

The Medical College of Denver University held its annual commencement on March 26th, graduating six students. Dr. Charles Denison delivered an able valedictory address.

The Kentucky State Medical Society.—The Kentucky State Medical Society will hold its third Annual Session at Crab Orchard Spring, Ky., on Wednesday, Thursday, and Friday, June 24, 25, and 26, 1885, commencing at two P.M., on Wednesday, June 24th. Reduced hotel and railway rates have been secured, and everything will be done that can contribute to the enjoyment of the occasion. Gentlemen desiring further information will please address Dr. Edward Alcorn, Chairman Committee of Arrangements, Hustonville, Ky.

Two Cases of Hernia of the Lungs into the Neck, verified by post-mortem examination, are reported by Dr. Maurice Knox in a recent issue of the *Lancet*.

The Saleswomen's Fair, lasting ten days, netted about $10,000. It has been decided, apparently, at the last moment to give the money to a homœopathic institution in this city. There would be no objection to giving a proportional amount in this direction, but the sudden appropriation of the whole sum is unjust to the saleswomen and a cheat upon those who helped at the fair.

Muscle-Grafting.—An operation for muscle-grafting was performed at Bellevue, the muscle from a dog being transferred to that of the arm.

Sanitary Inspection of Railroads in New Hampshire.—At a recent meeting of the State Board of Health of New Hampshire, it was ordered "That a sanitary inspection be made of all the railway stations and grounds, hotels, camp grounds, and other places of public resort in this State, the details of the same to be left to the officers of the Board." In response to the above the leading railroads have already tendered a special train to the Board for the purpose of facilitating the inspections, and have evinced a willingness to coöperate with the Board in making thorough inspections, and in placing the sanitary conditions of the railroads of that State in the best possible condition.

The Illinois State Board of Health and Preliminary Medical Education.—At the annual meeting of the Illinois State Board of Health, held April 16th, the subject of medical education was taken up. It was stated by the Secretary that although 78 medical colleges out of the 116 in the United States, claim to have exacted, at their last session, a preliminary-education requirement as a condition of matriculation, the evidence afforded by the applications thus far received goes to show that in too many cases the standard of such education must be very low. From the graduates of one college, which announces that a preliminary examination will be held in accordance with the rules of the State Boards, five out of the seven applications received contain such intrinsic proof of defective preliminary education, that they were presented to the Board. The Board subsequently adopted the following resolution:

Resolved, That, in order to secure the recognition of its diplomas as in good standing for the purposes of the Medical-Practice Act in this State, it is necessary that each college shall distinctly state in its annual announcement that the conditions of admission to its classes are: 1. Credible certificates of good moral character. 2. Diploma of graduation for a good literary and scientific college or high school, or a first-grade teacher's certificate. Or, lacking this, a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy.

The First Female who Received a Diploma from the Lying-in Hospital, Dublin.—The first diploma from the Dublin Lying-in Hospital for the Licentiate Midwifery issued to a female practitioner, was given to Mrs. Elizabeth Caroline Secord.

The Congress of French Surgeons held its first session in Paris, beginning April 6th. Professor Trélat was elected President, Professor Ollier, Vice-President. After an introductory address by the President, the scientific work began with a paper by M. Gross, of Nancy, who advocated "Posterior Tarsotomy in Club-foot of Long Standing." He showed the advantages of removal of the astragalus and resection of the head of the calcaneum.

M. Ollier made a communication on "Total Resection of the Tarsus, or Anterior Tarsectomy in Cases of Osteo-arthritis," advocating its employment in adults.

M. Demons made a communication in which he advocated the use of osteoclasis in preference to osteotomy in the treatment of genu-valgum of adults.

M. Socin, of Bâle, reported the results of experiments upon the pathogeny of suppuration. He had observed, cultivated, and inoculated the micrococci of osteomyelitis, but did not succeed in reproducing the disease, and he therefore denied the specific character attributed to them.

Perhaps the most important and practical contribution, if corroborated, was that made by M. Thiviar, of Brussels, upon the "Characters of the Urine in their Relation to

Abdominal Surgery." M. Thiviar asserts that in cases of abdominal tumors, if the amount of urea falls gradually to twelve grammes daily, remaining at about that point; the tumor is malignant. After an operation, if the amount of chlorides falls gradually and finally reaches about one gramme in twenty-four hours, suppuration has set in with all its attendant dangers.

Death of Dr. J. S. Bemiss.—We regret to announce the death of Dr. J. S. Bemiss, of Cannelton, Ind., nephew of the late Professor Samuel Bemiss, of New Orleans. Dr. J. S. Bemiss was born in Bloomfield, Ky., January 16, 1838, and was graduated from the University Medical College, of Louisville, Ky., in 1861. After securing his degree of M.D. he entered the Confederate army and soon attained an enviable reputation as a surgeon.

Cocaine to the Soudan.—Among the 24,000 British troops at present in Egypt, the percentage of sickness is only four. The National Aid Society has arranged to send a supply of cocaine to the Soudan.

Bequests to Medical Charities.—The late Mrs. E. D. Morgan bequeathed in her will to the Woman's Hospital of this city, $20,000; to the Home for Consumptives, $5,000.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—The Medical Record, New York.

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Reviews and Notices.

Transactions of the American Surgical Association. Edited by J. Ewing Mears, M.D., Recorder of the Association. Vol. II. Philadelphia: P. Blakiston & Co. 1885.

A compact volume of over five hundred pages, and bearing the above title, lies before us. Its twenty-six papers are replete with useful surgical information. An article which will attract as much attention perhaps as any (at least here in New York at the present time) bears the title "Tracheotomy in Croup." Its author, Dr. Gay, of the Boston City Hospital, condenses into a few words the distinction between diphtheria and membranous croup, as those terms are currently accepted. If the operation should be performed and respiration become impeded by the presence of blood in the bronchi, we never should *suck* it out, he says, but should blow air into the lungs. "It is a physical impossibility to *suck* anything out of the trachea, unless air has free ingress to supply the vacuum. . . . . Nature gets rid of offending substances in the air-passages by means of forcible expirations or cough, and we should try to imitate her" (p. 389). He considers subsequent steam inhalations a vital condition of success. Several papers on surgical interference in cerebral troubles (abscess, epilepsy, etc.) indicate the present drift of professional opinion and study. It goes almost without saying that this contribution to the annals of American surgery is a most valuable treatise whose worth coming years—even more fully than the present time—will demonstrate.

A Manual of Organic Materia Medica. Being a Guide to Materia Medica of the Vegetable and Animal Kingdoms, for the Use of Students, Druggists, Pharmacists, and Physicians. By John M. Maisch, Phar.D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Second Edition. With Two Hundred and Forty-Two Illustrations. Cloth, 511 pages. Philadelphia: Lea Brothers & Co. 1885.

This work is already well known to pharmacists through the first edition, which appeared some three years ago. The present edition is practically the same as the first, except that it contains descriptions of a greater number of drugs and that the structural characters of the drugs have received increased attention. To the students of pharmacy whose good fortune it is to follow the author's lectures this book must be a great help. By the practical pharmacist it must need be looked upon as a reliable manual of reference in regard to the essential physical, histological, and chemical characters of the organic drugs.

Transactions of the Medical Association of Georgia for 1884.

Our Southern brethren seem to conduct their annual gatherings in a very practical and profitable way. They are not mutual admiration societies nor merely social organizations, but the time seems to be spent in an interchange of professional ideas with such discussion thereon as experience may suggest. An especially interesting paper is that by Dr. Battey on "Antisepsis in Ovariotomy and Battey's Operation," in which he reports thirty consecutive successful cases. A rather caustic but well-written review of Herbert Spencer's views on "Syphilis as a Sociological Problem," is made by Dr. Eugene Foster. All the contributions are upon live topics. The general plan and make-up of the volume is excellent. They might be followed with advantage by the publication committees of some States farther north.

An Introduction to the Study of Nervous Diseases. By J. Grainger Stewart, M.D., Professor of the Practice of Physic and of Clinical Medicine at the University of Edinburgh. 1884.

To prepare his students for the study of nervous diseases by presenting to them a concise summary of the subjects of nervous anatomy, physiology, and physiological pathology, has been the object of Professor Stewart in this work. Advances have been so rapid in these departments of neurology of late that such a summary is needed in order to place the student in possession of the many facts recently discovered which aid in the comprehension of nervous disorders. New methods of presenting the anatomy of the central nervous system are superseding the old ones, and at present the course of tracts through the brain is studied instead of the relations of masses of white and gray matter. If the function of one tract is motor, and its course is known from its commencement in the central convolutions to its termination in the motor nerves, then paralysis means a disturbance of the function of this tract, and the location of the disease in the tract is definitely determined. So disturbance of any function means a lesion in the anatomical part presiding over that function, and the anatomy being known, the localization of the disease is not difficult.

It is a feature of this book to connect symptoms with lesions in a very clear and graphic manner, and those who read it will find that many of the rather puzzling facts presented by nervous cases admit of a satisfactory explanation. It is too often the case that students are repelled from the study of nervous diseases by the lack of knowledge of just those facts which are presented here. Dr. Stewart has supplied his students with a manual which will enable them and all others to attend a nervous clinic with much greater interest and profit.

The well-known clinical experience of the author has enabled him to illustrate by appropriate cases almost all of the various conditions which he describes, and he has done this in an attractive manner. The numerous very clear diagrams and figures also aid in the comprehension of the subject. The book will be of great service to those who are beginning the study of nervous diseases, and will also interest those who desire to acquaint themselves with recent progress in this department.

A Guide to the Diseases of Children. By James Frederick Goodhart, M.D., F.R.C.P., Assistant Physician to Guy's Hospital, etc. American edition, revised and edited by Louis Starr, M.D., Clinical Professor Diseases of Children, University of Pennsylvania. Pp. 738. Philadelphia: P. Blakiston, Son & Co. 1885. (New York: J. H. Vail & Co.)

As it is said of some men, so might it be said of some books, that they are "born to greatness." This new volume has, we believe, a mission, particularly in the hands of the younger members of the profession. In these days of prolixity in medical literature it is refreshing to meet with an author who knows both what to say and when he has said it. The work of Dr. Goodhart (admirably conformed by Dr. Starr to meet American requirements) is the nearest approach to clinical teaching without the actual presence of clinical material that we have yet seen. It does not discuss mooted questions of pathology, but is a terse, straightforward account of the author's experience at the bed-side of ailing children. Domestic hygiene is awarded its important place in the therapeutics of pædiatrics. The details of management so gratefully read by the young practitioner are fully elucidated. Altogether the book is one of as great practical-working value as we have seen for many months.

Reports of Societies.

American Medical Association.

Thirty-sixth Annual Session, held at New Orleans, La., April 28, 29, and 30, and May 1, 1885.

Friday, May 1st—Fourth Day.

The Association was called to order by the President. Prayer was offered by Rev. Sylvanus Landrum.

COMPLETED REPORT OF COMMITTEE ON NOMINATIONS.

For Trustees of the *Journal*, Drs. J. M. Toner, of Washington, J. H. Hollister, of Chicago, E. M. Moore, of Rochester, N. Y. For Chairman of the Committee of Arrangements, Dr. Le Grand Atwood, of St. Louis. For Assistant Secretary, Dr. William Glasgow, of St. Louis. To fill the vacancy in the Judicial Council caused by the resignation of Dr. William Brodie, of Detroit, Dr. J. K. Bartlett, of Milwaukee, Wis.

Dr. Harvey Reed, of Mansfield, O., offered the following resolution, which was adopted:

"*Resolved*, That a committee of three be appointed by the President, whose duty shall be to devise a system for awarding, to those who may desire, honors for papers at the next meeting, and that said committee shall report through the Association *Journal*."

The resolution offered by Dr. Roberts, of Philadelphia, adopted in the Section on State Medicine, and referred to the Association, was taken from the table and adopted. It recommends that measures be taken to establish in each State and Territory a

BOARD OF MEDICAL EXAMINERS,

whose certificate shall be the only license to practise medicine in that commonwealth.

CREMATION.

Dr. Keller, of Hot Springs, called up the following resolution, which on motion by Dr. Morris, of Baltimore, was referred to a special committee to report at the next meeting:

Resolved, That, in the near future, if not now, cremation will become a sanitary need in the cities.

Dr. J. A. White, of Richmond, Va., read the

ADDRESS OF THE CHAIRMAN OF THE SECTION IN OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

Operations and methods have been lauded as making an era in medicine, have been universally adopted, and have as suddenly died. For example, optico-ciliary neurotomy and Graefe's modified linear extraction of cataract have shared a fate which renders it difficult to say what is, and what is not, an advance in the right direction.

During the last year there has been a steady growth in the departments represented in this Section, especially in rhinology, both in the way of grafting in new ideas and applying the pruning-knife to old ones. In ophthalmology much has been done in researches concerning the pathology of sympathetic ophthalmia, and while it has not been definitely established that the disease is a specific infection, the opinion is steadily gaining ground that the optic nerve and its sheath make a direct communication between the uveal tracts along which micro-organisms can pass and play a most important part in communicating the affection.

The effort to substitute evisceration of the eyeball for enucleation, the apostle of which is Alfred Graefe, was originated by Henry D. Noyes of New York. The treatment of purulent ulceration of the cornea by means of the galvano-cautery has obtained foothold through the aid of cocaine.

Dr. White then gave rules for the use of jequirity in the treatment of trachoma. The most important ophthalmic work of the past year is Landolt's labor to find the exact method of determining the amplitude of convergence. Binocular fixation for established distance is one of the most important functions of the eye, and any disturbance of the normal relation of the two sets of muscles which accomplish this brings about asthenopia. Landolt's method contemplates the exact determination of the power of convergence.

The speaker then directed attention to cocaine and the manner in which it produces its peculiar anæsthetic effect. It is almost useless in children, or in stupid, obstinate, or very anxious patients, in complicated cataract, in iridectomy for glaucoma when the eye is much inflamed, and in all prolonged operations.

The most important advance in rhinology has been in the investigations tending to the solution of the important questions regarding the relation of nasal pathology to certain neuroses heretofore referred to other causes. That a "reflex producing area" exists in the nasal fossa has been determined by Hack, of Freiburg, and Mackenzie, of Baltimore, working independently of each other, and arriving at practically the same conclusions.

The address closed with a special reference to the reflex phenomena of hay fever, in which he did not agree with Mackenzie in the necessity of engorgement or swelling of the turbinated tissues, but thought that abnormal excitability, either inherited or acquired, of the reflex nervous centres best explained the different forms this reflex neurosis takes in different individuals.

The address was referred to the Committee on Publication.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON DISEASES OF CHILDREN.

Dr. J. H. Pope, of Texas, gave an abstract of his address, in which he said that no remedies specially adapted to the treatment of diseases of children had been brought forward during the past year, unless such measures were included as had been devised for the improvement of preparations of infants' foods. Of diseases special mention was made of diphtheria and the benefit arising from its treatment by means of bichloride of mercury. The third topic to which special attention was directed was prolonged nursing as an etiological factor in rickets.

The address was referred to the Committee on Publication.

Dr. W. W. Allport, of Chicago, Ill., Chairman of the Section on Dental and Oral Surgery, being absent, his address was not read, but permission was given to him to report directly to the editor of the *Journal*.

Dr. Quinby, of Jersey City, Chairman of the Committee, reported the following proposed amendment to the by-laws: "That

A NEW SECTION OF MEDICINE

entitled 'Medical Jurisprudence' be established by the Association." Laid over until next year.

Dr. Toner, of Washington, Chairman, reported that the

COMMITTEE ON NECROLOGY

had from time to time reported to the journal, thus obviating the necessity of making an extended report to the Association.

AMENDMENTS TO THE BY-LAWS PROPOSED LAST YEAR.

On motion by Dr. Eugene Smith, of Detroit, the amendment proposed by Dr. Carl Seiler, to divide the Section in Ophthalmology and create a Section in Laryngology, was taken from the table, and after some discussion was postponed indefinitely.

The amendment proposed by Dr. von Klein, of Dayton, O., with reference to *a higher grade of medical education*, was, on motion by Dr. Toner, in the absence of the proposer, laid upon the table.

The following resolution, offered last year by Dr. Cochran, of Alabama, and which he wished to have construed as a proposed amendment to the by-laws, gave rise to a brisk discussion, and finally, on motion by Dr. Murphy, of St. Paul, was laid upon the table.

"*Resolved*, That it is the sense of this Association that it is not expedient for the Nominating Committee to nominate any of its own members for any of the offices of the Association."

Dr. Byrd, of Quincy, Ill., offered as a proposed amendment concerning

THE FORMATION OF THE NOMINATING COMMITTEE.

that each State medical society shall each year appoint a member of the Nominating Committee, together with three alternates, and that the members thus appointed by the several States shall constitute the annual Committee on Nominations of the Association. Laid over under the rule.

Dr. Morris H. Henry, of New York, was elected a delegate to the British Medical Association, and the President and the Permanent Secretary were empowered to issue credentials to delegates to the same Association as heretofore.

Dr. Garcelon, of Maine, and Dr. Jelks, of Arkansas, offered the usual resolutions, including the thanks of the Association for the courteous attention paid to it by the citizens of New Orleans, mentioning especially Mrs. Dr. T. G. Richardson, Mrs. Cartright Enstis, the Jockey Club, the Washington Artillery, the Directors of the Tulane University, the clergymen, and the daily press. Several short but earnest speeches were made complimenting the citizens of New Orleans for their reception and entertainment of the Association, and the resolutions were unanimously adopted.

Ex-Presidents J. M. Toner and T. G. Richardson were appointed a Committee to conduct the President-elect, Dr. William Brodie, of Michigan, to the chair, who, in behalf of the profession of the State which he represented, thanked the Association for the honor it had conferred upon him.

Dr. N. S. Davis, of Chicago, then made a few stirring and patriotic remarks with reference to this meeting in the Crescent City of the South, after which the Association adjourned to meet in the city of St. Louis on the first Tuesday in May, 1886.

SECTION ON SURGERY.

[The following report is an elaboration of that sent by telegraph, and contains abstracts of such of the papers as have been referred to only by title.—ED.]

A CASE OF HYDRONEPHROSIS.

DR. BYRD, of Illinois, related a case of supposed ovarian cyst which he tapped, drawing off fluid which was not examined microscopically, and upon which he afterward, as the patient had an apparent continuance of trouble, made abdominal section and found absolutely nothing. Patient recovered.

DR. HURST, of Illinois, thought Dr. Byrd's case was one of hydronephrosis, and the operation not justifiable.

RUPTURE OF OVARIAN CYST DURING COITUS.

DR. PECK, of Iowa, reported a case of a lady with enlargement of the abdomen, which he regarded as unquestionably an ovarian cyst. The patient was sent home to take treatment preparatory for operation. A few days later he was called and found the woman dying. He learned that on the night previous, upon having intercourse with her husband, who was a large, heavy man, the tumor apparently burst and soon disappeared entirely.

DR. RANSOHOFF, of Cincinnati, O., then read a paper entitled,

TWO OVARIOTOMIES ON THE SAME PATIENT.

The writer reported the history of a case of ovarian disease in which two operations were made successfully with an interval of four years. The first operation was practised by Professor Schönborn, of Königsburg in Prussia, the second by Dr. Ransohoff. The patient at the first operation was twenty-four years of age and married, but had never borne children. At the time of the first operation, when the right ovary was removed, the left gland was already found to be enlarged. Two years before the second operation the abdomen commenced to enlarge rapidly, and when the essayist saw the patient the growth was easily recognized as ovarian. Extensive pelvic adhesions were diagnosticated from the relations of the tumor to the uterus and its protrusion into the pelvic cavity, as revealed by vaginal examination. At the second operation the pelvic adhesions to the uterus and rectum were so extensive that no distinct pedicle could be discerned. A separation of these adhesions would in all probability have involved the life of the patient. For this reason, after the greater portion of the cyst was excised, the remaining portion was fastened to the abdominal wall by a number of silver-wire sutures which were made to include an inch of both cyst and abdominal wall. The lining membrane of the remaining portion of the cyst was then destroyed with the thermo-cautery, to insure against recurrence of the disease and the possible formation of a permanent fistula. With the exception of a pelvic abscess, which developed after the second week and which was opened through the abdominal wound, the patient made an excellent recovery. Since the operation the catamenial flow has appeared four times, each period lasting from three to five days.

In commenting upon this case the essayist called attention to the frequency of bilateral ovarian disease as illustrated by the clinical experience of different operators. As to what constitutes sufficient disease in the second ovary to warrant its removal, different operators are far from agreed. Thus, while Wells has removed both ovaries in about ten per cent. of all cases, Goodell has resorted to double ovariotomy in nearly fifty per cent. of his operations. In this connection the essayist alluded to the increased danger which attends double ovariotomy, the mortality of unilateral operations in the hands of Wells and Koeberle being twenty-two per cent., while that following double ovariotomy by the same operators is respectively thirty-four and fifty-one per cent. In view of this fact, and the youth and conjugal relations of many of these patients, conservatism should be practised in these cases, particularly since children may be born after the removal of one ovary. Of thirty-two cases collected by the author of the paper in which laparotomy was twice performed in the same patient, children were born by five patients between the two operations, the aggregate number of children born being fourteen. The light mortality following second ovariotomies should likewise incline the operator to conservatism. Of thirty-two cases tabulated by the author only 12.5 per cent resulted fatally from the operation itself.

The method of treating the cyst by suture to the abdominal wall was deemed by the author the most important feature of the case. For this method of operating, to which English and American writers had paid little or no attention, he would suggest the name "Ventrocystorrhaphy," to distinguish it from other and inferior incomplete operations for abdominal cysts of every description. By resorting to it the peritoneal cavity is completely shut off from the wound, and the latter is in reality converted into an extra-peritoneal one. When, then, the lining membrane, the proliferating matrix of the cyst, is destroyed by the thermo-cautery, there is almost no danger of a recurrence of the disease or of the establishment of an intractable fistula.

In discussing Dr. Ransohoff's paper, DR. REID, of Ohio, reported a case of second operation on the same patient, occurring in his own practice, with recovery.

DR. JOSEPH H. WARREN, of New York, thought there were certain cases where it was even better, when both ovaries were affected, to defer one side till a subsequent operation.

DR. A. Y. P. GARNETT, of Washington, D. C., read a paper entitled

CHOLO-PROCTITIS TREATED BY HOT-WATER DOUCHE AND STRETCHING OR DIVISION OF THE SPHINCTERS ANI.

He said while the disease under consideration was usually of long standing, it is purely non-malignant in character, confining itself almost entirely to the mucous or submucous tissues, resulting in some cases in superficial ulceration just within the external sphincters, and is often mistaken for simple dysentery and so treated. Several interesting cases illustrating the method of treatment were cited. The patients were confined to a purely milk diet, which was given in one-half pint quantities every three hours. The rectum was injected with water every few hours, as hot as could be tolerated, and which was medicated with ipecacuanha and enough opium for a soothing effect.

In other cases the sphincters were first divided and the same treatment as above adopted.

DR. DAWSON, of Cincinnati, always used the knife freely. He said he thought the principle involved in successful treatment was rest, and to either divide or temporarily paralyze the sphincters by stretching was the essential course to pursue. He said the recognition of the malady was very important though not always easy, as the sensations were directed up into remote parts.

DR. PECK said that as the passage of the hand into the rectum had now become pretty generally considered allowable for exploration in various cases, he would like some expression of the Society on the matter. He cited a case where the procedure had been followed by apparent paralysis and suit for malpractice. He, however, had concluded from personal experiments that a certain sized hand was allowable—say seven inches in circumference.

DR. DAWSON thought no arbitrary rule could be laid down as to the size of the hand, as that must be governed by the size of the rectum, which would vary with the size of the patient.

DR. BYRD, of Illinois, thought an irritation of the sigmoid flexure might explain the apparent paralysis of the sphincters in the case Dr. Peck referred to.

Dr. Ransohoff said the rectum was only governed in size in many cases by the extent of the paralysis.

A paper by Dr. H. L. Getz, of Iowa, entitled

A NEW COMBINED TROCAR AND CANULA AND ASPIRATING NEEDLE,

was read by title and referred to the Committee on Publication.

A lengthy and interesting paper on

AUTOPLASTY, WITH CASES,

was read by Dr. F. Formento, of Louisiana.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE DISCUSSION ON ABDOMINAL ANEURISM AT THE MEDICAL AND CHIRURGICAL SOCIETY—VIEWS OF MR. BRYANT, MR. HOLMES, AND MR. HUTCHINSON—DEBATE AT THE CLINICAL SOCIETY ON AMPUTATION AT THE HIP JOINT—THE DEADLOCK AT THE COLLEGE OF SURGEONS—RESECTION OF THE INTESTINE IN CASES OF STRANGULATED HERNIA, WITH GANGRENE OF THE BOWEL—DISCUSSION AT THE MEDICAL SOCIETY OF LONDON—MOUNTAIN CLIMATES IN THE TREATMENT OF CONSUMPTION—CASES IN WHICH THEY SHOULD NOT BE USED—CLIMATE AS A THERAPEUTIC AGENT.

London, April 21, 1885.

At the last meeting of the Medical and Chirurgical Society an important discussion took place on the treatment of abdominal aneurism. The discussion followed the reading of a paper by Mr. Lunn and Dr. Benham on a case of aneurism of the abdominal aorta treated by distal compression. The patient died, but at the autopsy the aneurism was found to be cured. There was gangrene of about two feet of the jejunum. Mr. Henry Morris followed by reading a paper on a case in which death ensued on gangrene of the right lower extremity, the gangrene being due to the pressure of an aneurism on the vena cava inferior and the common iliac veins. The aneurism was full of laminated clot and had thus undergone a process of spontaneous cure.

The publication of Professor Loreta's case of abdominal aneurism in which he effected a cure by passing a couple of yards of copper wire into the sac has attracted much attention, and the recent discussion was therefore very opportune. Those who expected to hear a verdict given on Professor Loreta's recent case by the leaders of London surgical opinion were not disappointed. Mr. Timothy Holmes evidently approved of the procedure of the Bolognese professor, and said that if he had to treat a case such as Mr. Lunn's he should be inclined to adopt it instead of a pressure which was doubtfully distal. Mr. Holmes is one of the most cosmopolitan of our metropolitan surgeons and one of the few who are versed in Italian surgical literature. As the editor of the "System" which bears his name his opinion will doubtless carry weight. As the Senior Surgeon to Guy's, Mr. Bryant will probably find equal support to the opinion expressed by himself in favor of pressure. Mr. Hutchinson, on the other hand, regarding the application of pressure as a dangerous operation, pleaded for the adoption of a drug-treatment. He regarded ergot, acetate of lead, and iodide of potassium as the three best remedies, but insisted that, to be of any use, their administration, not separately, but together, must be persisted in almost to the point of poisoning. Mr. Hutchinson said that in a severe case he had had under his care closely resembling Mr. Lunn's, he had given acetate of lead in such large doses as to produce a blue line on the gums, and lead colic. Rest, a dry diet, and covering the abdomen with layers of ice were also employed at the same time as adjuvants. A complete cure resulted in three months, and the man resumed work. Mr. Hutchinson's reputation as an accurate clinical observer and as a careful and cautious surgeon stands so high that his utterances always command the most respectful attention. His experience, too, at the London has been very large, that being the largest of our metropolitan hospitals and especially noted as a school of surgery. On one point at least most surgeons will be disposed to agree with him. Drugs, rest, and diet may not cure all cases; Mr. Hutchinson does not pretend they will. The suggestion is, however, most reasonable that such measures should be tried before instrumental methods are adopted.

Several speakers doubted whether the pressure applied in Mr. Lunn's case was really "distal;" it was thought more probable that it was "direct." Mr. Henry Morris referred to the valuable paper on the subject in the "International Encyclopædia of Surgery." Ten cases were there mentioned in which proximal pressure had been used, five died, five recovered. Death was due to bruising of the intestines and peritonitis. Mr. Morris said it was a question whether the intestinal injury was due to direct pressure or to embolism on the superior mesenteric artery. Dr. Benham considered the latter to be the cause of the gangrene.

Another surgical question which has lately been brought to the front is that of amputation at the hip-joint. Two papers on the subject were read at the meeting of the Clinical Society last week. One was by Dr. Lewis Marshall; the other by Mr. Hutchinson. In the subsequent debate an agreement was evident among the speakers on most of the points. I may briefly summarize the conclusions reached as follows: Lardaceous visceral disease need not deter the surgeon from operating, but rather the reverse. Early operation is desirable. Davy's rectal lever is useful in many cases, but has its dangers, particularly in pelvic disease. Furneaux Jordan's method is a very good one to adopt in amputating at the hip-joint, and insures a better stump. On this point, though, there was difference of opinion, some of the speakers preferring the older method.

The conflict between the Fellows and Members of the College of Surgeons on the one hand, and the Council of the College on the other hand, still continues. The Council has given its answer and simply declines to move on the road to reform. Some of the proposed reforms touch the pockets of the Councillors somewhat too closely. Those members of the Council who are also examiners are not at all anxious or indeed willing to relinquish the emoluments attached to the office of examiner; neither do they wish to give up the dignity of being on the Council. The Fellows—and still more the Members—are indignant at the microscopic morsel of reform the Council is offering to grant. Well they may be! A renewal of the previous agitation is apparently about to begin on a more extensive scale.

London, April 25, 1885.

At the meeting of the Medical Society of London last Monday evening, the whole time of the meeting was occupied in the discussion of the important subject of the "Treatment of Gangrenous Intestine in Cases of Strangulated Hernia." The debate was introduced by the reading of a paper on the subject by Mr. Mitchell Banks, of Liverpool. Mr. Banks gave the history of a case in which he excised the gangrenous portion of the bowel. The patient was a man, aged twenty-five, who was admitted for a strangulated inguinal hernia on the right side. On opening the sac a long loop of small intestine was found gangrenous. It was removed and the stricture divided. A wedge-shaped piece of mesentery was removed, and the ensuing hemorrhage checked by the application of a score of fine catgut ligatures. The peritoneum of the mesentery was united by a continuous catgut suture. The edges of the gut were turned in, the mucous coats united by interrupted sutures, and continuous sutures used outside these and through the perito-

neum only. The inguinal canal was freely divided to allow of a reduction of the intestine. The sac was then secured by two catgut ligatures, and divided between and excised, the lowest part being left to form a tunica vaginalis. Antiseptic precautions were employed. The collapse passed away in a few hours. The temperature was at first subnormal, and only rose to normal some time after the operation. The highest temperature reached was 100° F. For four days only ice was sucked by the mouth, then some meat-juice was allowed, and the amount of this was gradually increased. Nothing else (except a little opium) was given by the mouth until the twelfth day. Absolute rest and warmth were insisted on, and Mr. Banks thought they prevented waste of the tissues. Recovery was complete in six weeks.

Although the present case was a very successful one, Mr. Banks maintained that the number of cases in which primary resection of the gangrenous gut could advantageously be performed, would be found comparatively few. In most cases it was preferable to incise the gut and await the formation of an artificial anus. On this point most of the subsequent speakers were at one with Mr. Banks. Sir William MacCormac, Mr. Morrant Baker, and Mr. J. H. Morgan all expressed concurrence with this opinion. Mr. Treves entered a plea for a frequent performance of the bolder operation, but he was almost unsupported. Mr. Makins advocated *secondary* resection of the intestine. Although the stricture was divided in this case, Mr. Banks' opinion is that the best plan is to leave it alone. On this point also Sir William MacCormac was in accord with him. Mr. Morrant Baker naïvely confessed that he had not yet made up his mind on the question of division of the stricture, although, following the teaching of his seniors, he had usually performed it.

Dr. Hermann Weber, in his recent Croonian Lectures, expressed himself somewhat strongly in favor of "altitude climates" in cases where there is a tendency to phthisis, whether hereditary or acquired. He specially recommends them in cases with imperfect expansion of the thorax and the so-called 'phthisical habitus." He also considers altitude climates to be generally beneficial in cases where the disease is already existent, but he thinks they are unsuitable in the following cases: Patients of erethric constitution; advanced phthisis; phthisis complicated with any one of the following conditions, viz., emphysema, albuminuria, heart-disease, ulceration of the larynx, constant pyrexia, rapid progress, great loss of substance, considerable empyema; also in persons who cannot eat or sleep at high elevations, or who feel constantly cold. "Some of these conditions," remarked Dr. Weber, "are not permanent but only temporary obstacles." He does not regard hæmoptysis as any bar to a trial of "altitude climates," as experience has shown that hemorrhage occurs less frequently in high than in low regions, and is often checked during a stay in mountain climates.

The question of climate is one which has been much neglected in the treatment of disease, especially by British physicians. By this I not only mean that "climate" has been neglected as a therapeutic resource, but that where a change of climate has been advised, the recommendation of some particular place has been too hastily made, without sufficiently careful consideration of its suitability for the case about which advice is asked. An anecdote I overheard related in a railway train a few years ago, illustrates this point very forcibly: A lady suffering from some eye complaint consulted an eminent oculist, and was advised by him to go to a certain health resort on the continent. A few weeks afterward the oculist himself went to the same place for his annual holiday. The lady had derived no benefit from her stay there, but rather the reverse, it being a dry, dusty place. On his arrival she consulted the oculist. He did not recognize her again and something like the following conversation ensued: Patient: "Well, doctor, I have got no better here, but much worse." Eminent Oculist: "Why, what fool sent you here? It is the very worst place you could have come to." Patient: "Why, you did."

I cannot, of course, vouch for the truth of the above story, the narrator being quite a stranger to myself, but I may mention that the name of the oculist in question was given, and although a very uncommon one, given quite correctly.

IS DEATH FROM HEART-WOUNDS INSTANTANEOUS?

To the Editor of The Medical Record.

Sir: Interesting medico-legal questions were brought before our local physicians during the December, 1884, term of court in the trial of Thomas Magill for the killing of Melville Bessey, the plea being self-defence and the evidence circumstantial. Bessey, a blacksmith on the Magill farm, was at work in his shop when called upon by Magill for a certain purpose. According to Magill's testimony a quarrel ensued, and Bessey was shot just at the time he left the anvil with hammer uplifted for the purpose of striking Magill. He was shot with a charge of B. B. shot from a choke-bore shotgun, the right margin of the main wound just reaching the left border of the sternum, at and removing a portion of the third costal cartilage, penetrating the anterior wall of the right ventricle a little below the left centre, the ventricular septum and posterior wall of the left ventricle at the centre, the upper margin of the wound not quite reaching the auricles, possibly a few scattering shot penetrating the auricles. Three fingers could be introduced through the wound in the heart, the ventricles being considerably lacerated. The charge lodged in the posterior chest-wall.

At the coroner's inquest it was testified that death would be necessarily instantaneous, that the man would "drop in his tracks;" but as the body was found eight feet from this spot partially under a work-bench, the question as to dropping in his tracks became an important one. Five "medical experts" were summoned and kept on the witness stand at times varying from five minutes to an hour, the defence trying to prove that Bessey, in a striking attitude, hammer in hand, approaching Magill, was shot through the heart, and while staggering received a second glancing charge of shot in the scalp at the back of the head; the prosecution endeavoring to prove that Bessey was shot while standing at the work-bench, the first charge glancing off the back of the head to the right, that he turned and received the second charge in the heart, and fell dead under the bench. It was also testified that Bessey, when found a few minutes after, was having convulsive movements of the feet, had the hammer clenched in his hand and threw his head and shoulders back, but gave no other signs of life. Questions were profusely propounded in reference to shock, hemorrhage, power of volition and locomotion, possibility of his still retaining the hammer, etc. The differences of doctors, bewilderment of attorneys, rulings of the learned judge, and horror of the jury when the judge ordered the heart brought into court (which order, however, was revoked on the protest of the jury and the attorney for the prosecution), seemed to throw a terrible responsibility on the innocent "expert," and for a time the court seemed held by him in abeyance.

The following question of interest was asked by the prosecution, and objected to and ruled on:

"Now, doctor, having seen the position in which Magill testified to holding the gun, having heard the testimony in regard to the position of Bessey, having examined the wound in the chest-wall and heart, in your opinion, could such a wound be produced under such conditions?"

All seemed to rest upon the "opinion" of the "expert." He was relieved by the defence objecting to the question as being an improper one for a medical expert.

The learned judge adjourned the court, and after a night's rest ruled, "The witness may answer the question if he chooses, but the Court will not compel him to do so."

Even the topography of the heart was brought into dispute, and one expert only saved himself a great embarrassment by examining the section of the chest to ascertain how the charge of shot could enter at the third costal cartilage and penetrate the ventricles of the heart in such manner. The intercostal spaces were much greater than normal, thus bringing the third rib where the fourth should be. Bessey was a man of large frame. Experience of experts with shotgun wounds of the heart was limited, but serious as the wound was it could not be proven that it was "necessarily instantaneously fatal." It seems very difficult to prove that any heart-wound, no matter how severe, is "necessarily instantaneously fatal." In this case the jury disagreed, and a new trial was set for the spring term of court. Experience with shotgun wounds of the heart would be very desirable. In this case, "if life were prolonged a few moments," it would seem as though instantaneous death from heart wounds must be caused by some element besides severity of the wound and hemorrhage. If this be shock, it would seem as though death must have been instantaneous, or shock from heart-wounds does not depend upon the amount of injury. LOUIS C. PETTIT, M.D.

BISMARCK, D. T.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from April 26, 1885, to May 2, 1885.

BYRNE, CHAS. C., Major and Surgeon. Assigned to duty as attending surgeon at the Soldiers' Home, D. C., to take effect May 15, 1885.

DE WITT, CALVIN, Captain and Assistant Surgeon. Upon being relieved by Surgeon Byrne, ordered to report to the Surgeon-General of the Army. S. O. 94, A. G. O., April 25, 1885.

TORNEY, GEO. H., Captain and Assistant Surgeon, United States Army. Assigned to duty at Fort Monroe, Va. S. O. 87, Department of the East, April 25, 1885.

ARTHUR, WM. H., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Niagara, N. Y. S. O. 89, Department of the East, April 28, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 2, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
April 25, 1885	0	11	79	4	173	45	0	0
May 2, 1885	0	10	72	4	159	56	0	0
Deaths.								
April 25, 1885	0	3	22	2	21	26	0	0
May 2, 1885	0	6	15	3	12	25	0	0

TO RELIEVE TOOTHACHE.—A writer in the *Courrier Médical* recommends the chewing of canella bark for the relief of toothache. The pain is at once quieted, he says, if the bark is of good quality, and as effectually as with creasote, carbolic acid, etc.

A SELF-PERFORMED CÆSAREAN SECTION.—Dr. Guggenberg relates the following: "A woman, who had already been delivered seven times without accident, became pregnant for the eighth time. Toward the end of her pregnancy she was seized with pains, which continued regularly for a day and then ceased. They were replaced by spasmodic attacks of very violent pain, accompanied by expulsive movements and an enormous distention of the abdomen. The fœtal movements ceased and the pains increased to such a degree that the patient thought she was going to die. She then seized a razor and cut through the abdominal wall in a longitudinal direction, extracting a dead child together with the placenta through the wound. At this time Dr. Guggenberg was called, but had nothing to do beyond replacing some loops of intestine and closing the wound. He concluded that there had been a partial rupture of the uterus, and that the woman had removed the child through the rent, not cutting the uterine structures. The hemorrhage was at first very profuse, but finally ceased spontaneously. The woman made an excellent recovery.—*Rivista Internazionale di Medicina e Chirurgia.*

MEDICAL GRADUATES IN FRANCE.—The diploma mills in France seem to grind with an exceeding slowness unknown in the older and freer republic on this side of the Atlantic. There were graduated in 1884 but five hundred and ninety physicians from the six medical schools of that country, as compared with six hundred and sixty-two for the preceding year.

STILL ANOTHER ANTIPYRETIC.—Haeckel gives a description of a new substance, called by him "dundakina," obtained from the bark of the *sarcocephalus esculenta* growing in Senegal. It is a bitter resinoid substance, soluble in water and alcohol, possessing astringent and antipyretic properties, and has been proposed as a succedaneum of quinine.

THE BAROMETER IN THE COFFEE-CUP.—When a lump of sugar is dropped into coffee and allowed to dissolve without being stirred, the bubbles of air contained within it rise to the surface of the liquid. If a foamy mass is found which remains in the centre of the cup, it is said to be an indication of fair weather; but if, on the contrary, the bubbles are scattered from the centre, and collect in a ring around the edge of the cup, the probabilities are that there will be rain. The coffee must, however, be good, for if adulterated these appearances will not be presented.—*La Hygiene para Todos.*

A CRITICISM OF DR. ROBERTS' PAPER ON "ANATOMICAL GEOMETRY AND TOPONYMY."—Dr. Harry M. Sherman, of San Francisco, Cal., writes to call attention to several points in the article on "Anatomical Geometry," by Dr. M. J. Roberts, in THE RECORD of February 21, 1885. The paper, he says, "contains inaccuracies and errors, some of which are slight and would be overlooked in any other than an article which aims at absolute accuracy, while others are plain mistakes." In his definition of a standard attitude the author has, he thinks, left too much to the individual judgment of each observer to satisfy the requirements of a scientific standpoint. In the first place, the soft parts over the femoral condyles and malleoli are to be either "in contact or equidistant from each other"—a definition which permits two standards and introduces confusion into the comparison of cases. "Again, the feet are to be slightly everted. Passing over this term (though it is certainly open to criticism) and accepting it to mean that the toes are slightly turned out by rotation of the thigh, we must ask *how much* eversion 'slightly' means. Ordinarily the word would be sufficiently accurate, but we are hereafter to measure angles in degree and not to estimate them approximately, and the point from which we measure—the point at which it is considered that there is rotation neither outward nor inward—should be indicated and not left to the judgment of different observers, whose ideas

of 'slightly' may vary considerably. This laxity is fatal to the attempt 'to determine by instruments of precision the extent of outward or inward rotation of the limb,' in such a manner that cases measured by different observers may be compared." Dr. Sherman further criticises the author's method of naming the lines and angles in the different figures. "A line should be indicated by two symbols, placed one at each end; an angle by three symbols, placed one at the apex of the angle and the other two at the two free ends of the lines forming the angle. Moreover, in reading the symbols, that at the apex should be named between the names of the two others. Thus, in the description of the 'angle of normal proximo-distal convergence,' in Fig. 4, it should be named *a r b;* merely saying that it 'is represented by the lines *r a b*' means nothing. Under the head of *Inversion* the 'line *l c e*' is mentioned, but *l c'* is a straight line and *c' e* is the arc of a circle. This is lamentably inaccurate. It is not necessary to follow the demonstrations, pointing out similar errors; they exist in connection with every figure, and render the *anatomical geometry* portion of the title absurd. 'Drastrophometry,' taught as it is in this article, with an indefinite standard as a never-failing source of error, with the lines, planes, and angles misnamed and almost inextricably confused, showing a total disregard of geometry and geometrical nomenclature on the part of the author, cannot be considered an advance in surgery." The motive of Dr. Roberts' article, the writer thinks, was good, but he considers his instruments "absolutely useless so long as the principles of their application are described in such a hopelessly crude way."

The Causes of Sudden Death in Childhood.—M. Bontemps has written a thesis treating of this subject, in which he formulates the following classification from a study of a large number of cases: 1. Sudden death from disease of the nervous system. Possible causes: cerebral congestion (a much less rare condition than is usually supposed), cerebral anæmia, meningeal hemorrhage, hydrocephalus, cerebral tumors, anencephalia, convulsions, glottic spasm. 2. Possible causes in relation to the respiratory apparatus: laryngismus stridulus, pleurisy, tubercles in the lungs or bronchial glands, suffocating catarrh, congestion or apoplexy of the lungs, foreign bodies in the air-passages, whooping-cough. 3. Circulatory system: syncope, pericarditis and endocarditis, cyanosis, venous thrombosis, purpura hemorrhagica, ulceration of the jugular veins. 4. Digestive system, peritoneum, and kidneys: cholera infantum, typhoid fever, hematemesis, intestinal worms, peritonitis, nephritis with uræmia. These different causes of sudden death in children are of varying frequency, some being very rare. An arrangement according to the relative frequency would be desirable, but the author says that he had not sufficient clinical material to enable him to determine this point with any accuracy.—*La Hygiene para Todos*, April 1, 1885.

In Hæmoptysis, when the usual remedies, as ergot, gallic acid, etc., have failed, Professor DaCosta advises the use of the tincture of matico, in doses of ʒ ss. to ʒ j., every two or three hours.—*College and Clinical Record.*

The Remedy against Mosquitoes.—The time is coming when mosquito remedies are to be in demand, and we print the following letter from "An Old Salt," published in *The Lancet:* "The unfortunately too frequent differences among doctors when they do ventilate their opinions may, so far as the above matter is concerned, be very easily explained. The application of carbolic acid and oil, in the proportion of one to ten or fifteen, is for a time perfectly successful in keeping off mosquitoes; but the carbolic acid evaporates so rapidly that a renewal has to be made every half-hour or thereabouts. So far as my experience goes, there is no place where the sting of the mosquito is so venomous as on the banks of rivers and lakes, and after exposure in such places I have known men to be laid up and disfigured for weeks. By using the oil, and repeating its use every half hour or so, I have fished with perfect impunity where all other fishers were half smothered with mosquito muslin wrapped round them—and in the tropics this is very heat-producing, even if effectual in keeping out the 'wily mosquito'—and the only difficulty I had was to keep it out of my eyes, as it produces smart pain if it touches the conjunctiva. Put a bottle of freshly mixed acid and oil in your pocket, and apply it at frequent intervals, on hands, neck, and face, and you may defy mosquitoes, gnats, *et hoc genus omne.* My experience includes the east and west coasts of Africa, the East and West Indies, North America, and the Arctic. The Arctic black gnat in summer is as annoying as any 'punkah mosquito.' Before I used carbolic oil I employed creasote and oil, and a mixture of it used to be sold at least a quarter of a century ago by the fishing-tackle folk in the land of the 'Blue Noses;' indeed, it was my experience there which led me to substitute the carbolic acid for the creasote." We would add a caution against possible black urine and poisoning by carbolic acid.

Treatment of Gonorrhœa.—In the early treatment of gonorrhœa, Professor Gross condemns the use of injections. His plan is as follows: If possible, put the patient to bed; give him at the outset a purge, by administering Epsom and Rochelle salts, each ʒ ij., in lemon syrup. Allow no meat or any stimulating articles of diet, etc. Malt liquors do more harm than alcoholic, so interdict both. No tea or coffee, but give him milk, eggs, and some oysters, etc. Three times daily he is to hold the penis in a cup of hot water—quite hot. Keep the organ there for five minutes at a time, then wipe it gently each time. The internal treatment will be by the "antimonial and saline mixture:

℞. Antimonii et potassii tartrat..... gr. $\frac{1}{10}$.
Magnesii sulphatis..... ℥ ij.
Morphinæ sulphatis..... gr. $\frac{1}{16}$.
Tinct. aconiti radicis..... gtt. j.
Liquor potassii citrat ..... f ʒ ss.
Olei limonis..... gtt. ss.
Elixir simplicis ..... f ʒ ss.

M. Sig.—Ter die.

By this treatment the urine will be rendered bland and unirritating. Should the urine persist in "scalding," then add to the above prescription tinct. cannabis indicæ, gtt. x. To prevent or cure chordee, order at night a suppository of—

℞. Extract. opii,
Camphoræ.....āā gr. iij.

In the course of four or five days the discharge from the urethra will look more like laudable pus; then order an injection:

℞. Hydrargyri chloridi corrosivi ..... gr. ij.
Aquæ destillat..... Oj.

Sig.—With a syringe that holds an ounce, inject into the urethra—having first "flushed" the canal several times by voiding urine—and retain the fluid for five minutes.

Internally, a useful combination is that used at the outdoor department at the hospital, and consisting of—

℞. Cubebæ ..... ℥ ij.
Alum. pulv..... ʒ j.

M. Sig.—Of this take a heaping teaspoonful in a tumbler of water, ter die; the dose to be increased.

Should the discharge per urethram still persist, use an injection of—

℞. Liquor plumbi subacetatis ..... f ʒ j.
Aquæ ..... f ℥ x.

M. —*College and Clinical Record.*

The Treatment of Malaria One Hundred Years ago.—All readers of old medical books delight in Dr. James Lind's essay on the diseases of hot climates. Lind had been in all the tropical regions of Asia, Africa, and North and South America, and finally was physician to the great naval hospitals at Nashua and Portsmouth. His experience was immense and his good sense equally so. With the exception of the substitution of quinine for Peruvian bark, it is doubtful whether his treatment in 1784 was not as good, and in some respects better than it is in 1884. Fever and ague was then epidemic, and prevailed in low, woody, and marshy places in England, and infants at the breast were not spared. Lind said its prevention was more difficult than its temporary cure, and relapses were difficult to guard against in impure air. The soil, air, and water of the places were at fault, and it was hard to correct all these; but boiled or distilled water was very useful. He thought that the numerous fires and great smokes of large towns tended to purify the air. In 1759 he sent away two regiments placed on low ground, and decimated by fevers and fluxes, to high ground only five miles away, when not a man was afterward taken with these diseases. He made people sleep in the highest rooms in their houses, and shut up the doors and windows looking toward low grounds. He made them wear warm clothing, with a plentiful diet of meat and warm soup, with spices, which are now known to be good germicides, and some wine, with a little tobacco. He would not let people go abroad in the morning with an empty stomach, even to prayers, but made them take at least a slice of bread, with coffee or tea, or even chamomile or Peruvian bark tea. He advised laborers to take an onion or bit of garlic with their bread, and did not object to beer, or an infusion of bark or rhubarb, with a little spirits, especially if they had to dig ditches, or drain marshes. This was not half as bad as drinking pond or marsh water. He had great faith in tinctura sacra, or aloes with cloves, which reminds one of Warburg's tincture, and thought an infusion of Peruvian bark with orange-peel was a good morning preventive draught, although sometimes tinctures were better. He advised people not to swallow their saliva, and chewing chamomile flowers was better than tobacco. In the cold fit he advised a teaspoonful of spirits of hartshorn in warm wine whey, or balm tea, and has known agues entirely removed by this simple treatment after the most powerful remedies had failed. Lind was among the first to teach that agues cannot be stopped too soon, and says of over two hundred cases stopped after the first or second paroxysms, none felt any bad effects. But he always gave ipecac if there was nausea, and aloes pills if there was not. The amount of his practice may be inferred when he tells us that he gave one hundred and forty pounds of bark in 1765. He was among the first to use opium in the hot stage, to ease the headache and other pains, to abate the fever, and produce sweat. Among three hundred patients, he noticed that opium did not prevent or mitigate the succeeding stage when given in the cold fit, but when given half an hour after the hot fit, it generally gave immediate relief. He says if opium is given in the hot fit it shortens and abates it, with more certainty than an ounce of bark is found to remove the disease. It generally gives sensible relief to the head and takes off the burning heat of the fever, while it favors profuse perspiration. He says this opium sweat is attended with an agreeable softness of the skin, far different from the disagreeable burning sensation which is so common when it is not taken. It often also produces a refreshing sleep. He thought it helped to produce a full intermission. If the patient was costive, he gave the opium in two ounces of tinctura sacra, the operation of which was not prevented by it. In 1765, 1766, and 1767 he seldom visited less than thirty or forty ague patients a day. If opium was not well borne internally, he used equal parts of laudanum and soap liniment, rubbed on the spine or abdomen, or both, or gave it in clysters. He thought, next to bark, alum with nutmeg was the best remedy against ague; at least, he prescribed no medicine with better success; ten to twenty grains of extract of gentian with two ounces of tincture of aloes was not bad, and often removed very obstinate intermitting fevers. Hot small beer was occasionally useful. Two-grain doses of ignatia cured four patients of quartan ague, but failed in twice that number. Oleum succini applied to the spine prevented the fits of an ague as often as most external applications, except turpentine. Nutmeg, pepper, horseradish, and lemon-juice were useful. Bay leaves were not bad, nor the inner bark of ash, calamus, mustard seeds, etc. He thought that spirits generally occasioned severe headache or aggravated the hot fit.

George Eliot was sufficiently interested in the following advertisement, which appeared in the *Times* of 1852, to copy and send it to her friends, the Brays: "To Gentlemen—A *converted* medical man, of gentlemanly habits and fond of Scriptural conversation, wishes to meet with a gentleman of Calvinistic views, thirsty after truth, in want of a daily companion. A little temporal aid will be expected in return. Address, Verax."

Remarkable Post-Mortem Preservation of the Human Body in Death from Arsenic.—Dr. Walter H. Peters, of Lafayette, Ind., reports the two following instances of remarkable preservation of the human body as the result of arsenic poisoning: "The cases were subjected to judicial investigation at the December term of the White County, Ind., Circuit Court, 1884. August 18, 1884, I was called upon to make a post-mortem and clinical examination of the body of a citizen of Monticello, Ind., who had died thirty months previously. Upon the cover of the coffin being removed no odor of putrefaction was perceptible. The skin of the whole body was discolored, but firm and moist. The face was somewhat shrunken, but easily recognizable. The viscera, as well as the muscles of the extremities, were moist and maintained their histological characteristics and elements. The deceased was recovering from a slight attack of pneumonia at the time of his death, and the pathological condition was as clearly evident as though death had but just occurred. Throughout the whole alimentary canal there was not a single perforation from decomposition. The duodenum, sigmoid flexure, and rectum showed evidence of inflammation which was unmistakable, being greatly reddened and thickened (compare Taylor, 'Poisons,' 1875, p. 127). The stomach and all of the remaining viscera were normal. The gentleman lived five days after symptoms of poisoning set in, and the arsenic was pretty equally distributed throughout the body, with the exception of the liver, which contained only a trace. The stomach and intestines contained no poison, and the kidneys and spleen the largest proportion, or one-third of a grain. The total amount of arsenic in the body was estimated at about five grains. The degree of preservation and the length of time after death at which the evidence of inflammation was visible, places this case almost without parallel in the annals of medical jurisprudence. Two weeks later the body of a sister of the deceased, who had died at the same time, was exhumed, and the whole of the body, except the abdominal and thoracic viscera, was found decomposed. The viscera, however, were about as well preserved as in the former case, although I was unable to swear as to the presence of inflammation at the time of death. The woman had died within twenty-four hours after symptoms had appeared, which will probably account for the less perfect distribution of the poison. 1.271 grain of arsenious acid was found in the alimentary canal, and .2 grain in the liver. The remaining organs were not examined. The bodies were buried in a moist sandy soil, at a depth of five feet, in ordinary wooden coffins. These cases may, I think, go on record as instances of preservation due entirely to the action of arsenic as an antiseptic. They also throw some doubt

on the correctness of Dr. Taylor ('Treatise on Poisons,' p. 299), that 'absorbed arsenic does not prevent decomposition of the soft organs in which it is deposited.'" [Dr. Peters has not, apparently, excluded the possibility of the bodies being preserved by formation of adipocere. —Ed.]

Atropia vs. Morphia in Morphia Poisoning.—Dr. J. R. Brandt, of Green Bay, Wis., was called to see a married woman, who at 9.40 P.M. had taken gr. vij. of sulphate of morphia. Dr. Brandt saw her at 1.15 A.M., three and a half hours later. He found the pupils contracted to about a line, and would not respond to the light, face pale, lips bloodless, surface cool, and covered with a cold clammy perspiration, temperature 97°, pulse 60, and heart feeble. At 1.30 A.M. he gave an injection in the left arm, fifteen drops of a solution of atropia sulphate (grs. iv. to ℥ j.). At 1.45 A.M. he gave half a teacupful of strong coffee. The pulse immediately became 78, steady and feeble. At 2 A.M. she vomited a large quantity of brown fluid, with odor of coffee. The pulse fell at once to 60, feeble, and so continued until 2.20 A.M., when it rose to 70, and vomiting began again, after which it fell to 60. Gave another half-cup of coffee. At 2.30 A.M. ten drops of atropia solution were injected, and in one minute she complained of an indescribable sensation, diplopia, pupils dilated to about two lines, and at 2.45 A.M. dryness of the mouth and fauces were complained of, desire to drink, and some retching, but no emesis, pulse 78, temperature 97.8°. At 3 A.M. she vomited again, and vomiting was repeated every twenty minutes; gave coffee each time. Five minutes before each vomiting spell, her pulse would fall to 60, and in a moment after would rise to 78. At 4 A.M. vomiting ceased, pulse rose to 80, temperature 98°; ordered her to go to bed, but she could not sleep. At 4.30 A.M. left the patient until 7 A.M., found the patient with violent frontal headache, very restless. Temperature 99°, pulse 85, face flushed, mouth dry. The patient continued to improve, and made a happy recovery. Dr. Brandt writes: "I gave $\frac{5}{24}$ grain of sulphate of atropia; I think had I given $\frac{1}{24}$, *i.e.*, $\frac{1}{24}$ to each grain of morphia, it would have been dangerous."

The "Archives of Hydrology."—A new journal, entitled the *Archives d'Hydrologie*, made its appearance in April. It is to be devoted chiefly to a consideration of the merits of the mineral waters of Auvergne and of the central plateau of France.

A Warning to Drinkers.—*Le Journal d'Hygiene* publishes a comparative table of the probabilities of life for moderate drinkers and total abstainers. According to this, a moderate drinker at twenty years of age may expect to live 15.6 years; at thirty, 13; at forty, 11.6; at fifty, 10.8; at sixty, 8.9. The probability for total abstainers is, at twenty years, 44.2; at thirty, 36.5; at forty, 28.8; at fifty, 21.25; and at sixty, 15.285.

Scarlet Fever Carried by a Third Healthy Person.—Dr. A. H. Baker, of Wellsburg, N. Y., writes: "In The Medical Record for April 18, 1885, I read an article by J. M. Ward, M.D., on the question whether a physician is liable to convey scarlet fever to his obstetrical cases. In this connection, my experience, as related in the following recent case, may be of sufficient interest to merit publication. On April 6, 1885, I was called to attend Mrs. G—— in her first confinement, about 9 P.M. I remained with my patient all night, and as the labor was a tedious one, frequent examinations were necessary. On the morning of the 6th, previously to visiting the above patient, I had visited four cases of scarlet fever, all in one family and crowded into one room. My visit there was somewhat prolonged on account of the number needing my attention. Before going to my obstetrical case I took a thorough bath and made a complete change in my clothing, this being the usual day for such change. I washed my hands in a bichloride solution, twenty-five grains to the gallon of water. The young mother did very nicely until the 10th, about four days from her confinement, when I was called and found her presenting symptoms of scarlet fever. On the 11th, the characteristic eruption made its appearance. On the 14th, a sister-in-law of my first patient, who had been acting as nurse, was suddenly taken ill with sore throat, vomiting, and fever, and on the 15th gave evidence of the character of the attack by the appearance of the scarlet eruption. On the 20th, the infant, then about two weeks old, presented unmistakable signs of the fever, by the appearance of a profuse eruption in the morning, after having had a restless night. All are making a good recovery. This family resides three miles out of town, and had had no communication with any infected person or family, except the above as related. I believe the fever germs were carried in the physician's hair."

Papilloma of the Bladder.—At the meeting of the Cincinnati Academy of Medicine, April 20th, Dr. C. D. Palmer reported a case of papilloma of the bladder. The patient, a married woman, a multipara, aged fifty, past the menopause, came to the Doctor in January, 1884, complaining of dysuria, hæmaturia, and tenesmus vesicæ. On microscopical and physical examination, he found papillæ, blood-corpuscles, and mucous strings, but no tube-casts. After a course of treatment, she was in the following March put under ether, the urethra dilated, the finger introduced, and a papillomatous growth about the size of a half section of a hickory nut removed by the finger-nail. The bladder was washed out, and the patient made a good recovery, remaining comparatively well for several months. Gradually, however, her old symptoms returned. These became so aggravated that the doctor determined upon another and more radical operation. In March last, one year after the first operation, assisted by Drs. Kehler, McKee, and Zinke, he made a vaginal cystotomy. A growth the size of the thumb was found and removed. The bladder was left open, and the urine allowed to flow at will. Patient had an elevation of the temperature for one day, other than which there were no untoward symptoms. She is now feeling quite comfortable again. The urine flows sometimes from the opening in the base of the bladder, sometimes through the urethra. The reporter spoke in favor of the vaginal cystotomy, compared with the dilatation of the urethra. The operation required less skill, it was done in less time, there was less danger attendant upon it, the recovery was more rapid, and the removal of growths much more satisfactory and thorough. Besides this, when there was present, as in many cases, a chronic cystitis, the rest given the bladder by the continual drainage of the urine was a great advantage. The cut was usually left open. It sometimes healed spontaneously, in other cases remained permanently patulous. That the patient would remain in her present favorable condition, the doctor was not ready to say. The papilloma he sometimes thought changed into the epithelioma.

Poisoning by Opium and Belladonna.—At a meeting of the Lyons Medical Society (*Lyon Medical*, March 15, 1885), M. Icard related a case of accidental poisoning by the injection of about two and a half drachms each of laudanum and tincture of belladonna. The patient was not seen until several hours after the mixture had been taken. After the unsuccessful employment of emulsives, M. Icard had recourse to hypodermic injections of ether, and the patient finally recovered.

Dr. Rouxeau has been appointed Adjunct Professor of Anatomy and Physiology to the École de Médecine of Nantes.

Inoculation of Cancer.—MM. Violet, Mathis, and Faivre, of the École Vétérinaire of Lyons, have succeeded in several instances in producing cancer in the lower animals by inoculation.

Death from Impaction of the Bowels.—Dr. Fred. L. Kingsbury, of Samokov, Bulgaria, writes, asking what was the cause of death in the following case: "A villager was brought to a Khan in this city from his home, six hours distant (approximately eighteen miles). I found the man extremely anxious, and complaining that he had not been able to have a passage from the bowel for two days. He was a man in the prime of life and strength. Both he and his friends declared that he had never from his childhood had *one sick hour*. On examination, I found the colon enormously distended with fecal accumulation, the transverse portion being evident exteriorly. His temperature was normal. This was Saturday. He had been as well as usual until the previous Thursday. On Friday, at home, he had taken about twenty grammes of magnesii sulphas without effect. His pulse was about 80 from the time when I first saw him until he died. He was given at once strong purgatives, but without effect. Copious rectal injections were then given, but the rectum was so stopped by fecal accumulation that the water simply ran back. It was impossible to thrust in a long tube on account of the extreme hardness of the impaction. On Sunday he was given six drops of croton oil without effect. The treatment was then changed to anodynes and stimulants. Despite everything he steadily sank and died. The peculiar feature of the case was that there was no tenderness on pressure, no elevation of temperature, and almost no vomiting. The thermometer used was Casella's patent, with magnified index, the best instrument he makes. I will be glad to answer any questions relative to this case."

Hot Water and Hæmorrhoids.—Dr. W. H. Bennett, of Brooklyn, N. Y., writes: "Of late it has been the rage to drink hot water before breakfast by the pint, and even by the quart, or more. The list of diseases which such a treatment will cure is claimed by those who enthusiastically practise it to be unusually long. I am afraid some among the profession have been deceived in this matter as well as many of the laity, and the eyes of both have been closed to the harm that might result from such treatment, *long continued*. In certain diseases of the stomach, and possibly of the first few feet of the upper bowel, copious draughts of hot water may do great good, as in gastric ulcer and gastric catarrh. But on the large intestine, especially on the rectum, the effect is not salutary, for the water cannot reach these latter parts *hot*, and its ultimate action is to debilitate the muscle and to relax the mucous membrane. Several cases of hæmorrhoids and prolapse of the rectum have come under my notice which first appeared after a few weeks' use of hot water internally. On imbibing hot water in large quantities the general circulation is perceptibly stimulated, but it soon becomes sluggish in those parts not brought in immediate contact with the fluid, and the tissues become œdematous and overstretched, then relaxed and flabby."

The Treatment of Insomnia.—Dr. Samuel Francis in a lecture upon this subject says: "I would advise four remedies for insomnia; each one is simple and easy of access. 1. To abstain from all mental work, no matter what the consequences, and give up any habits that over-excite the nervous system. If duty enforces labor of the intellect then confine it, if possible, to the hours of from 10 A.M. to 3 P.M., and a free use of vapor-baths, under the supervision of the family physician, will materially assist. 2. Drink freely of skim-milk, from one to four quarts a day, and eat of the plainest and most digestible food, masticating thoroughly and slowly, and avoid wine of any kind, for it only deceives the drowsy brain by its intoxicating influence, demanding full pay the next day. Just before retiring let the patient take an old-fashioned tumbler of bread and milk. This serves to cause the flow of blood to go to the stomach instead of the head; and, if the head be placed rather high in the bed, that will effectually aid gravity to lessen its fulness. If you want to prove this, let a student stoop to pick up a pin on the floor, and see the crimson purple of his face. 3. If his means can afford it, a quiet, long, open-air drive, in a comfortable carriage, with perfect silence, and the bracing wind in his face, while he is warmly wrapped up, will bring on a soothing influence that will often cause sleep during the drive; and if his mind is not excited by the useless conversation of a companion, he will pass a beneficial night in his room, providing it be cool. No matter how well off a person may be, let him have a blazing fire in the adjoining dressing-room, but no artificial heat in any sleeping apartment, and plenty of warm bed-clothes. 4. I would suggest a regular judicious employment of massage. To state something that can be remembered, I would briefly say that where there is pain and inflammation the rubbing should always be toward the heart; but when it is to be practised exclusively for nervousness or sleeplessness, it can, and had better be from the heart toward the extremities. For it serves to stimulate resistance and reaction, which increase the circulation and bring the blood to the surface, lessening the amount in the head."

A Floating Hospital in the Red Sea.—The ship Garibaldi is to be converted into a hospital for the use of the Italian forces in Egypt. It will be provided with two hundred beds, and is to be in charge of Drs. G. Butera and A. Morisani, who have been ordered to Massowah to superintend the work.—*Gazzetta Medica Italiana, Lombardia.*

Distilled Water in the Treatment of Renal Disease and Rheumatism.—Dr. E. P. Turner, of this city, writes: "I have been treating patients suffering from kidney trouble with distilled water for a year past, and with satisfactory results. In Bright's disease I restrict the patient to a milk diet, and direct him to take the water freely, from one to two quarts a day. I have one case that seems to be nearly cured, and another which has surely improved, though under treatment but a short time. I also think the water is beneficial in rheumatism. I first used the distilled water on the theory that it added nothing irritating, is a good solvent, and would therefore relieve the kidneys of any irritant that water will dissolve. I mention this so that, if it is considered worthy of trial, it may have a fair test. I use it in preference to mineral waters, and believe it will have a better effect." Distilled water has been used quite extensively in hospital and private practice in this city, in the treatment of Bright's disease. It is a good diuretic, and often improves the symptoms.

Honors to Dr. Ferrán.—A grand banquet in honor of Dr. Ferrán, with whose researches into the morphology of the cholera microbe the readers of The Medical Record are familiar, was given at the Grand Continental Restaurant in Barcelona, on the evening of April 9th. The *menu* was inviting, but at the same time rather suggestive of a stomach-ache. It was printed on a card which seemed to be marbled, but which, on closer inspection, was found to present a picture of all the various morphological aspects of the cholera microbe as described by Ferrán. Among the dishes were purée à la Peronóspora, candied fruit à la Pasteur, chops à la Koch, filet à la Paulli, fish with comma bacillus sauce, partridge à la Ferrán, punch à la prophylaxis, capons à la Van Ermengem, and ice-cream à la Nicati and Rietsch. No casualties were reported. Most of our Spanish exchanges devote a large portion of their space to an account of the banquet and a report of the congratulatory speeches, and the *Revista de Ciencias Médicas* presents its readers also with a well-executed portrait of the recipient of these honors. Judging from the enthusiastic welcome which Dr. Ferrán everywhere receives, Spain is not unmindful of the labors of her sons, and we hope that his discoveries may receive such confirmation as to entitle him to similar honors in other lands. In the meanwhile we are glad to learn that he survived the cholera banquet, and we extend to him our sincere congratulations.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 20 NEW YORK, MAY 16, 1885 Whole No. 758

Original Lectures.

ON IRRITABLE BLADDER.

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THE bladder is a remarkable organ. When we consider how simple it is in structure, we marvel at the complexity of its mechanism. How tolerant at times of irritation, how patient even of extensive structural change within its walls, and yet how easily and from what insignificant causes is it excited to irritability! In illustration of this point, many instances might be cited. The following occur to me at hand, they stand out in bold contrast to each other. A woman died from perimetric abscess and tubercular peritonitis. The perimetric abscess was a consequence of parturition, and it burst into the ileum. Simultaneously with the diminution of the abscess the urine became bloody, and carried with it a large amount of pus. It was believed that the abscess had opened into the bladder. Pus was never observed in the stools. At the autopsy there was no communication found between the bladder and the abscess. The entire mucous membrane of the bladder was dark red, in a state of the highest degree of catarrhal inflammation, secreting pus and exuding blood. And yet the woman had no irritability of bladder; she never complained of that organ (J. Mathews Duncan).

Another female complained of incontinence of urine, with great bearing-down pains. The bladder did not contain a teaspoonful of urine before she was compelled to void it, and the act was accompanied with much forcing and great scalding. Every five minutes the expulsion was repeated, and the moanings of the patient were pitiful to hear. She obtained no peace day or night; she suffered upward of six months. Autopsy showed bladder empty and *quite healthy*. Right kidney double normal size, but healthy. Left kidney was one large pouch of pus, which had not yet emptied itself; no trace of kidney structure was left (Pratt: London *Lancet*, October 18, 1879).

The vesical neck is the most sensitive part of the bladder. The fundus is infinitely more tolerant of pathological encroachments and stimuli than is the vesical neck. Note the quantity of residual urine, often acrid and offensive, that unconsciously accumulates in the basfond in certain forms of centric hypertrophy of the prostate. A calculus in contact with the vesical orifice provokes painful and energetic contractions; but when, by change of position, the stone is thrown into the body of the viscus, irritability is at once diminished and the frequency of micturition lessened. Appreciating, then, the fact that the neck of the bladder is the most sensitive part of the viscus, and that it is from this point that the afferent impulses originate which set into operation the coördinate movements necessary to bring about the physiological act of micturition, it is obvious that anything that will stimulate or irritate this portion of the organ, either directly or indirectly, will augment this sensibility to an unnatural degree, and produce the frequent and perhaps painful micturition which characterizes our complaint—*irritable bladder*. Again, bearing in mind the intimate nervous connections which exist between the bladder and the neighboring pelvic organs, we cannot be surprised that any disease or disturbance in the latter arouses sympathetic action in the former, so that vesical irritability is excited not only by contiguous irritation, but as often by reflex irritation. Frequent and painful micturition is always a more or less prominent symptom when the bladder has itself undergone structural change; thus a contracted bladder or a concentric hypertrophy of its muscular coat, resulting from overwork in overcoming some existing obstruction to the outflow of urine (stricture, hypertrophied prostate), diminishes at times to a remarkable degree the capacity of the organ, and as the quantity of urine poured into it is not diminished, micturition becomes so frequent as to verily constitute an incontinence.

Here I show you the urinary tract of a man who, three months previous to his death, had a close stricture divided by an internal urethrotomy. He was relieved of much pain, but the micturition continued as frequent as ever; in fact he kept the penis in a urinal all the time. The result of the mechanical obstruction to the outflow of urine is evident in the enormously dilated ureters and pelvis of kidney, etc., but note especially the contracted and hypertrophied condition of the bladder. I am sure it could not hold more than an ounce of fluid. Given a normal quantity of urine conveyed to such a bladder, you can imagine what must be the frequency of micturition, barring inflammation, which existed in this case. But at present I do not wish to lead you so much to the consideration of "irritability" as it is symptomatic of pathological conditions of the bladder itself, as to those forms of the complaint in which it presents simply as a functional disturbance. As such, its causes may be classified into mechanical, reflex, local, and constitutional.

As mechanical causes we have the various uterine displacements, pelvic and abdominal tumors, etc. These conditions, by pressing upon, distorting, and even dislocating the bladder, tend not only to diminish its capacity, but worry and irritate it to increased functional activity, so that after a time a very small quantity of urine creates an irresistible desire to urinate, the patient holding water with the greatest difficulty. The habit acquired in these cases, of emptying the bladder at short intervals, produces in time a diminution in the capacity of the bladder, which may itself become a factor in the complaint.

As reflex causes we have the presence of ascarides, hemorrhoids, ulceration of rectum, fissure of anus, abscess in ischio-rectal fossa, or between prostate and rectum, irritation or congestion of prostatic sinus, or vesiculæ seminales, excessive sexual intercourse, or ungratified sexual desire, masturbation, phimosis, congenital insufficiency of meatus, stricture, urethral caruncle, vaginismus, pyelitis, calculus in pelvis of kidney or ureter, the passage of gravel or blood-clots along the ureter, are among the numerous causes which have been known to provoke frequent and painful micturition. It is common with women much employed on the sewing-machine, and exposure to cold almost invariably aggravates the trouble.

The bladder naturally resents the presence of urine that has undergone any change in its physical or chemical condition. Urine that is over-acid or over-alkaline, too dense or the reverse, is not well borne by the bladder. Hence all constitutional disturbances that reflect on the composition of the urine are causes of irritable bladder; malassimilation, primary or secondary; a scrofulous, rheu

matic, or gouty condition of system; the inhibition of certain drugs, such as cantharides; diuretics in large or long-continued doses; alcohol, asparagus, strawberries, etc., are factors in the causation, which require recognition and proper interpretation. Especially is the presence of pus or blood intolerable to the bladder, and thus it happens that frequent and painful micturition are often the first symptoms which point to the existence of serious disease in the urinary tract above. While I wish to avoid unnecessary repetition, I would again impress upon you the fact, that not only is frequent and painful micturition a symptom common to many ailments in which the bladder is but sympathetically involved, but that with these symptoms there may be pus in the urine, even in considerable quantity, which may make the bladder symptoms so prominent as to completely mask the real disease and mislead you in the belief that you have a veritable inflammation or disease of the bladder, when this organ is almost or wholly unaffected. Do not harass the already overtaxed bladder with treatment for a disease of which it is innocent.

On the other hand, you must remember that, as increased vascularization is the natural sequence of prolonged irritation, it happens not infrequently that the irritated bladder is at the same time congested or inflamed, furnishing pus; and now, again, you must be on your guard that you do not accuse the bladder of the original cause, which may be apparent elsewhere. In these cases it is always important to ascertain whether the pus contained in the urine is derived from the bladder or from the urinary tract above. This is determined by thoroughly washing out the bladder, and then, the patient standing, allowing the urine to trickle through a soft catheter as it comes from the ureters. If the urine thus accumulated contains pus, the conclusion is that the source of the trouble is beyond the vesical cavity.

Finally, if after deliberate search you cannot reconcile cause and effect, you are forced to the conclusion that your trouble is of neurotic origin. It is often concomitant with psychic disturbances, nervous depression, close mental application, anxiety, fear, excitement, fright, etc. In these conditions the frequency of micturition is often due as much to an increase in the quantity as to the change in the quality of the urine; notably so in the hysterical attacks of women, in whom the renal secretion is not only pale and limpid, but very abundant.

Therefore we have to make a distinction between those conditions in which the frequent micturition is the result of rapid accumulation from excessive production—the quantity of urine passed each time being quite considerable—and true irritability, in which the quantity passed is small, often but a few drops. Again, in the latter condition, pain, if it does not exist at the outset, very soon becomes a marked feature. It may be slight, it may be severe, according to the causation and duration of the complaint; it is often of a burning or scalding character; it may be limited to the vesical neck, or, having its origin here, may radiate in various directions, especially toward the glans penis and rectum. Sometimes the pain is felt during micturition, but usually it is most pronounced with the final expulsive effort of the bladder. Irritable bladder and incontinence of urine have so much in common as regards their etiology, that the one is frequently associated with the other. These patients often complain that they wet themselves. When the complaint is of purely neurotic origin, it is especially characterized by the inconstancy and variableness of its symptoms—present one day, gone the next; severe at one time, slight the next.

The paroxysmal form is analogous to neuralgia of the vesical neck, and the terms irritable bladder and neuralgia are often used synonymously. Again, there may be spasm of the bladder. This, when a distinct complaint, differs also from simple irritability in the decidedly paroxysmal nature of the attacks, during the intervals of which the person is at perfect ease. The paroxysm consists of a constant desire to void urine, with violent tenesmus or bearing-down pains. The urine is expelled sometimes involuntarily, always in small quantity, and in an intermittent and spasmodic manner. Often, however, the patient will stand and strain to pass water ineffectually, for now the spasmodic condition of the external sphincter is in the ascendency, and the antagonism of the latter to the "detrusor" is such that, while allowing the escape of jets of urine during momentary periods of relaxation, the bladder is not permitted to empty itself completely, and more or less retention exists until the cessation of the attack. The following is an aggravated case in point, and it is further instructive in that the accumulation of urine was so gradual that retention was unsuspected by the patient, even with his bladder distended to the umbilicus:

Mr. ——, aged forty-eight; many years in feeble health. Came to me to be relieved of frequent and painful micturition. Suggestive of the cause of his trouble was cantharideal ointment, which he had used freely on the chest for the relief of a chronic cough. He was obliged to pass water, or at least make the attempt, every fifteen or thirty minutes, which was always accompanied with much strangury, a "smarting, burning pain along under-surface of penis." The desire to urinate came suddenly and urgently. Often he would wet himself in spite of all haste to prevent it, while again he would stand and strain without passing a drop. The strangury lasted about a minute and then subsided, whether any water was passed or not. Thus he continued, taking medicines, but attending as usual to his business for about twenty days, when I saw him again. I now found the bladder distended to the umbilicus, but he did not complain in the least of any pain or discomfort. The only thing that attracted his attention was a "swollen abdomen," and that he passed less water than usual. His bladder was slowly and gradually relieved of an enormous quantity of urine, but it never regained its tonicity, and ever since, now a number of years, he has depended exclusively upon the catheter for the evacuation of his bladder.

The indications for treatment range themselves with the causes of the complaint; hence it is important to bear in mind that the bladder symptoms are often but the signals of distress pointing to some remote trouble, which, if sought for, recognized, and removed, will cause the bladder symptoms to disappear without any special treatment directed to it. The first thing to be done is to investigate the condition of the pelvic organs and examine as to the existence of any external or reflex source of irritation, which, if present, will be dealt with in a manner called for by each. At the same time the condition of the urine is to receive immediate attention. If found at fault, the next thing is to ascertain the cause or causes which produce the disturbing quality in its composition, whether it is due to some constitutional taint, to a gouty or rheumatic diathesis, to improper diet, imperfect digestion, malassimilation, sedentary occupation, or some other peculiar habit of life. The lithic and oxalic diatheses are to receive the neutralizing agents adapted to them; the scrofulous the remedies peculiarly applicable to them. Any deviation from the normal reaction and density of the urine is to be corrected; if found too acid and dense, it is rendered bland by alkalies and diluents, such as potass. or sod. bicarb., citrat., or acetat., liq. potass., lithium carb., etc. There seems to be at times an individual idiosyncrasy or susceptibility for one or the other of these drugs, so that in a given case one drug will act promptly and efficiently, while another will be apparently inert; but whichever one is used, it must be taken persistently, in full doses, at short intervals, and largely diluted. Acid urine is easily enough neutralized; I wish that we had the same power over alkaline urine. For this purpose benzoic acid is depended upon, given in increasing doses from twenty or thirty, to sixty grains per diem. It rarely appears in the urine

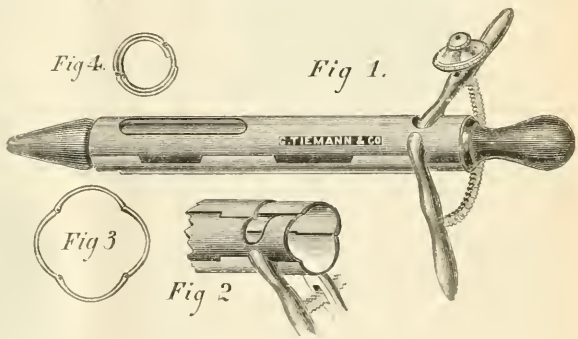
under its own form, but generally as hippuric acid, which is supposed to be formed by the conjugation of the benzoic acid with the glycocol of the liver.

Attention must be directed to the diet. Alcohol in any shape is obviously interdicted. A rich animal diet tends to increase the production of urea and uric acid, and to intensify the acidity of the urine, while asparagus, spices of all kinds, and certain fruits are to be avoided. In short, the food and drink must be unstimulating to kidneys and bladder, very digestible, and adapted in quantity and quality to the requirements of the system, always remembering that while high living and excesses are to be carefully avoided by the plethoric and robust, a more generous regimen and tonic treatment will be required by the anæmic and impoverished of blood. Milk in liberal quantities, even for a time as an exclusive diet, has proved of excellent service in these cases. Digestion, if impaired, must be assisted, the bowels kept free, not by active cathartics, but by the mildest means that will serve to relieve the hemorrhoidal vessels and nerves from pressure and irritation. General hygienic rules are to be laid down, with possibly change of air and scene.

To enumerate all the so-called specifics for vesical irritation would fill a page; among the most popular are buchu, triticum repens, flaxseed, alchimella arvensis, pereira brava, uva ursi, and gelsemium. These are generally taken in form of infusion or decoction, from a half to one pint daily, and it cannot be denied that in properly selected cases they have proved serviceable. Iron has always been a favorite remedy, and when you wish a decided tonic effect, a combination with nux vomica and quinine is excellent. In the purely neurotic forms of the complaint, belladonna, chloral, hydrobromic acid, and the bromides suggest themselves. Having done what we can to correct any condition of system which may give rise to irritating urine, we turn next to the immediate alleviation of pain, which is especially demanded at night. For this purpose we resort to anodyne suppositories or to morphia subcutaneously in the perineum. The hot sitz-bath or hot fomentations over hypogastrium and perineum sometimes afford great relief. In severe cases the patient is best in the recumbent posture, with the pelvis elevated to favor gravitation of urine from the vesical orifice. Cocaine is decidedly potent in its sedative influence on the mucous membrane of the bladder. In the few cases that I have thus far had occasion to use it, it has proved very satisfactory. The strength of the solution may vary from two to four per cent., and the quantity injected from one drachm to half an ounce. The gentle introduction of a well-warmed conical steel sound, beginning with a small instrument and gradually increasing the size to the full capacity of the urethra or meatus, is, in neurotic cases, often of great benefit. At first the passage of the instrument is apt to be painful, but the effect following is to obtund the morbid sensibility and to afford relief. In the spasmodic form of the complaint there is considerable resistance to the passage of the instrument, and this should never be forcibly overcome. If by gentle and steady pressure the sound is not permitted to pass, or creates much pain, it is best to substitute for a time a flexible tapering bougie until the urethra becomes accustomed to the presence of an instrument.

A married gentleman, aged thirty-five, came to me to be relieved of great frequency in micturition both day and night, and a severe scalding pain in the prostatic urethra occurring with each seminal emission, whether during the orgasm of coitus or involuntarily. The symptom had its origin in an attack of urethritis more than three years before, but finally it became so severe that he refrained from sexual intercourse. There was no obstruction other than a decided spasmodic contraction of the compressor urethræ. The urethra was sensitive throughout, but especially so the prostatic portion, where the passage of the instrument occasioned almost intolerable pain. The prostate was not sensitive to rectal touch. There was no perceptible discharge, but a disposition to gluing of meatus and slight staining of linen had existed from the beginning. Urine was normal. As patient had unavailingly tried a variety of remedies before seeing me, internal medication was suspended, and he was treated simply with steel sounds gradually increased from 7 E. to 19 E. These were introduced at first every third day, then every second day, and finally every day. At first the irritation seemed to be increased, but this was rapidly followed by relief. In a few weeks the frequency of micturition became normal, and within two months the pain in seminal emission entirely disappeared. Several years have elapsed and he has had no recurrence of the trouble.

For the female we have a most valuable procedure in rapid dilatation of the urethra. It is indicated not only in all cases in which the exciting cause of the "irritability" is obscure, but even in those in which the cause is apparently still operative and unyielding to ordinary treatment; the relief thus obtained is often prompt and signal. The objection that has been urged against this operation is the danger of producing permanent incontinence of urine. When this operation was first performed for the relief of irritable bladder, it was with the expectation that at least temporary incontinence would



follow, and that the bladder would thus obtain a period of physiological rest; but experience has taught that moderate dilatation is not followed by incontinence, but that, *per contra*, the irritable viscus retains its contents more comfortably, and for a longer time, after the stretching of the urethra than it did before. That permanent incontinence of urine has resulted from extreme dilatation is a fact which we should keep constantly in mind, and I would enjoin upon you the exercise of every care, gentleness, and patience in your manipulations. At the same time, for the treatment of irritable bladder, such an accident should not happen, because, as I believe, it is never necessary to carry the dilatation to the point of laceration, or to a degree in the least endangering the tonicity of the parts. Again, the instruments that have hitherto been employed, such as "uterine dilators," "sequestrum" and "bullet" forceps, are not adapted to serve the purpose of dilators for the delicate female urethra! Digital dilatation is not much safer; unfortunate results have followed this practice, for it also is too sudden and extreme. I will now show you an instrument which I believe most nearly fulfils the requirements of a urethral dilator. It consists of a metal tube, three and a half inches in length, with an obturator, elastic and conical at the point, which projects an additional inch beyond the distal end, and which serves to facilitate the introduction of the instrument. One inch from the proximal end is a handle that supports a graduated bar and thumb-screw, by means of which the expansion of the instrument is effected. When closed, it is thirty-nine

millimetres in circumference, and is capable of expansion to six and a half centimetres. Fig. 4 represents a vertical section of the instrument closed. At Fig. 2 it is seen expanded to fifty millimetres, and Fig. 3 shows a vertical section in complete expansion, namely, six and a half centimetres. From this you will see that the expansive force of the instrument is distributed as equally as possible over all parts of the circumference of the urethra by smooth, rounded blades, and not upon two or three points or sides of the canal. Furthermore, the dilatation can be effected very gradually, and with absolute precision, the degree of expansion being determined by the graduated bar, with the greatest accuracy, even to a millimetre. In this manner we conform to the conditions by which alone a maximum degree of dilatation, without laceration, can be attained. Indeed, the tearing or rupturing of the urethra, which, with other instruments is almost inevitable when thorough dilatation is effected, and the incontinence of urine, which such an injury often entails, will by this, if by any method, be avoided. Owing to the peculiar conformation of the instrument it creates very little pain, even when dilated to its utmost. I have operated in this manner many times without anæsthetics. The instrument is an admirable speculum by which a most satisfactory view of the interior of the bladder can be obtained. The following is the method of procedure : Your patient is put on the back or on the left side, the latter position is often preferred from motives of modesty, while the urethra is thus perfectly accessible. The instrument is introduced and rapidly dilated until the urethra is moderately stretched, when the dilatation is proceeded with more slowly and cautiously, according to the degree of resistance felt, the screw being advanced a few millimetres at a time ; the force exerted being in inverse proportion to the resistance to be overcome. Thus gradually the parts relax, and the instrument is expanded, if needs be, to its full capacity. Simon, who did so much to popularize this operation, divided the meatus with scissors before commencing dilatation, making two lateral slits of one-quarter centimetre in the upper margin, and one downward of half a centimetre in depth. With my instrument I have had no occasion to do this ; but if the parts are at all rigid, there is no objection to slitting the meatus, as an incision is better than a laceration ; nevertheless, laceration of the meatus does not necessarily impair the retentive power of the bladder, while incontinence of urine is apt to follow extreme dilatation, even when the urethra is not torn. This is especially to be apprehended after the slow dilatation with sponge or seatangle tents. The dilatability of the female urethra varies much with the individual and with age. In some persons the meatus is rigid and very unyielding, while in others you can carry the expansion to the full capacity of my instrument, with scarcely any pain and very little delay. It is an interesting fact that two fingers have been forced into the bladder and yet the retentive power of the viscus has remained intact ; but such a degree of stretching is always dangerous to the integrity of the bladder, and for the relief of the symptoms now in question, extreme dilatation is entirely unnecessary. In the last five or six consecutive cases in which I have dilated the female urethra for vesical irritability, I have not exceeded five or five and a half centimetres, a degree of dilatation entirely innocuous and satisfactory. In illustration I will mention briefly the last two cases that have been operated on in this hospital.

Mrs. ——, aged forty-two, admitted to hospital January 4th. Gives evidence of syphilis of long standing. There are several ulcerations on the labia, and one in the rectum, which are dressed with calomel, iodoform, and zinc oxide.

March 30th.—Has complained of frequent and painful micturition since January 25th, internal medication affording occasional relief. At first the urine was reported clear and normal; recently pus-cells have made their appearance. The irritability of the bladder and pain have much increased of late. Passes water eight to nine times during the day, and from five to seven times during the night; occasionally has incontinence. Her urethra was dilated to five and a half centimetres, without anæsthesia, and with scarcely any indication of pain.

April 1st, the day following the operation, the frequency in micturition remained about the same, but that night she passed water twice only, and without pain.

April 3d.—Retained water at one time seven hours without inconvenience.

April 5th.—Passed water six times since corresponding hour yesterday, and from this date her micturition was painless and averaged six or seven times in twenty-four hours for several weeks, when she was discharged.

The next case is even more striking.

Mrs. ——, aged twenty-two, admitted with papulo-squamous syphilide vaginitis and irritable bladder, the latter trouble she has had six weeks ; at present urinates ten to twelve times during the day, and six to eight times at night, with considerable bearing-down pains. Urine feebly acid, contains pus ; urethra exceedingly sensitive. Small flexible catheter could not be introduced on account of pain.

April 25th.—Patient was etherized and urethra dilated to five centimetres. On inspection the mucous membrane of the bladder was found very much congested.

April 26th, passed water eleven times, and 27th nine times in twenty-four hours.

April 29th, 30th, and May 1st, passed water six times in twenty-four hours ; has no pain about the bladder.

May 2d, 3d, and 4th, passed water five times in twenty-four hours.

May 5th, passed water four times, and 6th, 7th, 8th, 9th, and 10th, five times in twenty-four hours, and absolutely free from pain.

And lastly in the rôle of surgical interference comes cystotomy, vaginal or perineal, as the case may be. Both can show gratifying results. A short time since I received a letter from a young man on whom I made a medio-bilateral operation in this hospital in April, 1878. He writes that he is well, and is profuse in his expressions of gratitude for the relief that was given him. As I remember him, he was an eccentric and nervous youth, about eighteen years of age, a cook by occupation, and rather precocious in his sexual instincts, having had gonorrhœa three times, the first time at the early age of ten. He complained of great frequency of micturition, with acute lancinating pains in the glans penis, radiating to the perineum, and at times to the inguinal and hypogastric regions. His urine was feebly acid, free from albumen, but held small quantities of pus. Prostatic urethra was exquisitely sensitive to the passage of the smallest instrument. He was given a variety of remedies, together with hot baths, fomentations, and suppositories, but with only transient and unsatisfactory results. He became greatly emaciated and haggard in appearance, lost his appetite, and begged earnestly to have something more done for him. The cystotomy gave him immediate relief, and, as it now appears, he has remained well ever since, a period of seven years. I have cited these personal experiences to you not because they are unique or exceptional, for they can be multiplied many times, but they serve to illustrate the wide range of treatment to which these cases are susceptible.

PROTESTING AGAINST VACCINATION.—A public meeting was held not long ago in Leicester to protest against the compulsory vaccination law. Several thousand people marched in procession and assembled in the public square to listen to speeches from opponents of the measure. A picture of Jenner was burned, and also a printed copy of the objectionable vaccination law.

Original Articles.

CASE OF
CONGENITAL CYST OF THE TONGUE.

By J. WILLISTON WRIGHT, M.D.,

PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK; VISITING SURGEON TO BELLEVUE HOSPITAL, ETC.

The patient was a healthy and well-developed girl, six years of age. At birth the tongue was somewhat larger than normal, and protruded slightly from the mouth, but did not interfere with the act of nursing, and did not seem to incommode the child to any extent until about two years ago.

At that time, however, the tongue began to enlarge quite rapidly, and in the course of a few months assumed such proportions that it was with great difficulty she could withdraw it between the teeth and close the lips over it. Her speech became unintelligible to any one except her mother; mastication had been impossible for the last year and a half, and she had been obliged to subsist entirely upon fluids, bread soaked in milk, and other soft food.

On April 3, 1884, when I first saw the patient, the following notes were made of the case: American; aged six years; blonde, well-developed, in excellent bodily health, and, mentally, very bright. Tongue protrudes from the mouth two and a half inches beyond the incisor teeth, and measures five inches in circumference. Its surface is covered with large, dry, brownish-colored scales. Saliva constantly dribbles from the mouth. Speech greatly impaired. By making a great effort the tongue can be drawn into the mouth and the lips closed, but at all other times it hangs down over the chin, as shown in Figs. 1 and 2, and presents a most unsightly

Fig. 1.

Fig. 2.

appearance. To the touch the tumor seems to be solid, and is possibly a simple hypertrophy, but an indistinct sense of fluctuation near its centre renders it quite possible that it may be cystic. The under jaw is somewhat expanded laterally, and is bent downward from the angles to the symphysis in such a manner that when the tongue is withdrawn into the mouth and the molar teeth of the upper and under jaws brought in contact, the incisor teeth of the two jaws are separated by about an inch and a half. The teeth in the under jaw, especially the incisors and the canines, are very irregularly placed; some have been forced out of their sockets and lost; some are situated nearly horizontally, with the cutting-edge projecting forward, while all are covered with a dense layer of tartar and, together with the gums, are in a generally unhealthy condition.

April 8, 1884.—With the patient under ether, two stout, slightly curved needles, each carrying a double silk ligature, were passed through the base of the tongue from opposite sides, and from above downward. The needles were then cut off, and one of the ligatures on each side tied with moderate firmness around the corresponding lateral half of the tongue, as a temporary means of controlling hemorrhage. The ends of the remaining ligatures were simply knotted together, to be used in case of necessity after the operation, for preventing the stump falling back into the fauces.

An incision was then made on the upper surface of the tumor, through which about three ounces of thick, yellowish, purulent-looking fluid made its exit. On introducing the finger into the cavity, its walls were found to consist of a thick, glistening, well-organized membrane, extending for some distance backward into that portion of the tongue which occupied the cavity of the mouth, and as the tongue was still greatly in excess of its normal size and length, even after the cyst had been completely emptied of its contents, it was decided to amputate at about the level of the incisor teeth.

Fig. 3.

This was accordingly done by making, with a long finger-knife, antero-posterior flaps and afterward dissecting out the posterior segment of the cyst. The vessels were then secured with fine carbolized silk ligatures, the temporary ligatures through the base removed, and the edges of the wound closed with several points of interrupted suture. With the exception of a temporary suppression of urine on the day following the operation, her recovery was rapid and satisfactory. Two weeks later I removed the first permanent molar tooth from each side of the under jaw for the purpose of allowing the front teeth to come closer together.

May 18th.—Since last report the patient has worn an elastic chin bandage, attached to a leather skull-cap for the purpose of drawing the depressed chin upward into its proper position. The lips can now be closed with ease, and she talks so well that even a stranger has no difficulty in understanding every word she speaks.

May 19th.—Returned to her home in Connecticut.

February 16, 1885.—Saw the patient to-day. The temporary incisor teeth have been shed and the permanent set have taken their place. These are all large, regular, and strong, and those of the upper and lower jaws are as closely in contact when the mouth is closed, as in any other subject, while her speech is absolutely free of impediment. Fig. 3 is from a photograph taken a few days ago, or about ten months after the operation.

A microscopical examination of the contents of the cyst revealed the presence of a quantity of granular detritus, some fat-cells, a few large granular corpuscles, but no pus-cells.

53 West Nineteenth Street.

The Mineral Springs of this Country.—A correspondent writes: "Referring to the celebrated unction treatment ('Schmier-kur') as practised at Aachen (Aix-la-Chapelle), Germany, in syphilitic ailments, can you inform me whether we have any springs in this country, barring the Hot Springs of Arkansas, whose waters possess medicinal properties equal to those of the German spa."

THE MECHANICAL TREATMENT OF TALIPES CALCANEUS.[1]

By A. B. JUDSON, M.D.,

ORTHOPÆDIC SURGEON TO THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

Simple talipes calcaneus, if not severe, belongs to the category of non-deforming club-foot. If the heel is not greatly enlarged, and if the case is not complicated with talipes valgus, the foot may be so dressed with an ordinary shoe that it has both good shape and small size. But this variety of club-foot is accompanied by a very serious impairment of function, due to paralysis of the muscles of the calf. The patient is unable to stand on tiptoe on the affected foot, or even to use the anterior part of the foot in walking. His condition resembles that of a slave in the hands of the aborigines of North Carolina who were in the habit of performing amputation of the anterior part of the foot in the case of a captive whom they wished to keep as a laborer in their fields.[2] They performed disarticulation at the tarso-metatarsal joint, now known as Lisfranc's amputation. A patient affected with talipes calcaneus is unable to make pressure on the ground with the anterior part of the foot, not by reason of absence of the part, but from paralysis of the muscles controlling it. The result is a peculiar and serious defect in the gait.

Dr. Holmes, whose recitation class in anatomy I had the great benefit of attending in the spring of 1860 (I recall his admirable skill as an examiner with a mixture of pleasure and pain), analyzed the complex act of walking in the following words: "Walking, then, is a perpetual falling with a perpetual self-recovery. Man is a *wheel*, with two spokes, his legs, and two fragments of a tire, his feet. He *rolls* successively on each of these fragments from the heel to the toe. If he had spokes enough, he would go round and round as the boys do when they 'make a wheel' with their four limbs for its spokes. But having only two available for ordinary locomotion, each of these has to be taken up as soon as it has been used, and carried forward to be used again, and so alternately with the pair."[3]

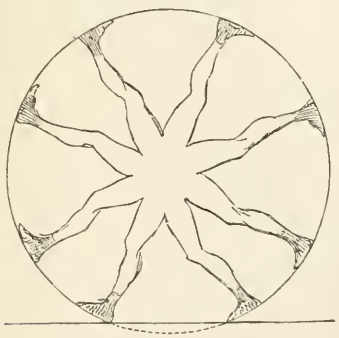


Fig. 1.

A reference to Fig. 1, which is copied from Dr. Holmes' article in the *Atlantic Monthly*, will facilitate an analysis of the defective gait of a patient affected with talipes calcaneus. It is evident that in such a patient some fragments are gone from the felloes of the human wheel. Practically the condition is not much better, so far as locomotion is concerned, than that of a person who has suffered amputation below the knee and is provided with a peg leg.

For the mitigation of this defect I have used in a number of instances a brace which fills, partly at least, the place of the paralyzed muscles, and restores to the patient the ability to walk as though he were able to rest his weight on the anterior part of the affected foot. It consists of an upright and a foot-piece, the joint between the two being so constructed that the foot-piece falls but cannot be raised beyond a right angle with the upright. The foot and leg of the patient are attached to the foot-piece and the upright respectively, and as these component parts of the brace cannot be flexed the one on the other past a right angle, it follows that in standing and walking the foot will remain at right angles with the leg.

Fig. 2.

Fig. 2 represents the steel frame of such a brace for the left foot. Buckles are attached at A, B, D, and E. A strap passes from A to B, across the front of the leg, and another, riveted at C, has two free ends, one of which is buckled at D and the other at E.

Fig. 3.

Fig. 3 represents the feet of a girl, seventeen years of age, who has talipes calcaneus of the left foot, the result of infantile paralysis. She is otherwise well-developed. Without the brace, which she has worn for six years, she is unable to rest any part of her weight on the anterior part of the left foot, a defect which is the result of paralysis of the muscles acting on the tendo Achillis. The extent of the paralysis in this case may be appreciated by observing the difference between the two calves. They measure 9½ inches and 12⅜ inches in circumference, a difference in favor of the unaffected limb of nearly three inches. The figure is copied from an instantaneous photograph, for which I am indebted to the kindness of my friend, Dr. Laurence Johnson, and shows the patient in the position of running. She is poised on tip-toe, an attitude which she cannot assume on the left foot without the help of the brace. The improvement effected by this simple apparatus is highly appreciated by the patient. Her walking is greatly improved by it, not only with regard to grace of motion, but also in her ability to endure prolonged walking without fatigue.

[1] Read before the New York Orthopædic Society, April 30, 1885.

[2] See an interesting historical note by Dr. O. P. Hubbard in The Medical Record, May 19, 1877, pp. 314, 315.

[3] The Human Wheel, its Spokes and Felloes. By Oliver Wendell Holmes. Atlantic Monthly, May, 1863, pp. 567, 580.

A consideration of the action of this brace shows that it transfers to the vicinity of the tubercle of the tibia the pressure and friction which ordinarily fall on the anterior part of the sole of the foot. As this bony process supports a large part of the weight of the body in the kneeling posture, it follows that a patient wearing this brace and standing in the position represented in Fig. 3, feels a compound sensation of standing and kneeling.

It is not to be supposed that this apparatus will restore the wasted muscles, but it will prevent the unseemly enlargement of the heel and extreme elevation of the anterior part of the tarsus, which are often found in patients affected with talipes calcaneus who have passed neglected through the years of development and growth. It may perhaps be added that the muscular fibres of the calf are in a better condition for development when protected by this apparatus, than when they are stretched to their limit by the overpowering weight of the body at every step. When applied in the case of an adult, the brace is a prothetic instrument, an artificial substitute for a natural part that is absent, an aid in locomotion, rather than a therapeutic agent. As such it is in use, and would be more widely used but for the expense attending its construction, repair, and renewal.

In the construction and application of this apparatus certain points should receive especial attention. In the first place, considerations of a sentimental nature should not prevent the use of mechanism strong enough to accomplish the purpose in view. Here, as in the case of the hip-splint, the weight of the body is to be supported in walking and running. The brace represented in the figures weighs a pound and a half. The sheet steel used for the foot-piece is nearly three-sixteenths of an inch thick. The curved piece is mortised and receives the top of the upright as a tenon. The stop-joint requires especial care in its construction, and should in use be frequently oiled. Each step of the patient inflicts a blow on a portion of this joint, which is worn away in a few weeks, so that the angle between the two parts of the brace is less than 90°, and the effectiveness of the apparatus is diminished. To save renewing this joint the round plate may be readjusted on the side of the foot-piece in such a way as to restore the right angle, or the same effect may be produced by a few blows of a hammer on the side of the upright near its anterior border, a short distance from the joint. The upright is made of soft steel, and its anterior edge at this point is given additional thickness with this proceeding in view.

In the application of braces for the correction of either talipes equinus or talipes calcaneus it is important to keep the axis of the leg and that of the upright portion of the brace in the same lateral plane, or at least parallel one with the other when viewed from the side. In the treatment of equinus the loss of this parallelism may allow the heel to come in contact with the foot-piece of the apparatus while the angle between the leg and the foot is unchanged. In the treatment of calcaneus it will be seen, by a reference to Figs. 2 and 3, that the maintenance of parallelism depends on the drawing short of the straps passing from A to B, and from C to E. Fortunately it is found in practice that the patient voluntarily keeps both of these straps buckled short, in order to secure improvement in walking. But the webbing which crosses the front of the leg below the knee is soon torn by the teeth of the buckles and gives way under the strain to which it is subjected. It is well, therefore, to attach it by two buckles, one on each side of the leg, so that it may be moved along and new points exposed to the wear and tear. A callus will form under this webbing, as the leg here receives the pressure and friction which ordinarily fall to the lot of the anterior part of the sole of the foot. It is well, therefore, to interpose several folds of blanketing between the webbing and the limb at this point.

Beyond this, the apparatus needs no lining or padding, excepting that the foot-piece may be lined first with adhesive plaster to protect the steel from rust, and then with a piece of russet leather fastened with two small copper rivets, and extending, for the sake of cleanliness, around the stop-joint. The curved piece at the top of the upright may be left without lining, as it scarcely touches the limb, its only function being to provide a point of attachment for a buckle on the inner side of the limb. The brace is worn over a stocking. With a second stocking drawn over the brace the appearance is nearly normal.

In case of valgous complications the ankle may be supported laterally by webbing on the inner side, appropriately fastened to the foot-piece and the upright, the outer border of the foot being duly protected from the pressure of the vertical part of the foot-piece.

Reports of Hospitals.

ST. LUKE'S HOSPITAL.

CANCER OF THE PERITONEUM.

REPORTED BY SAMUEL T. KING, M.D.,
EX-HOUSE-PHYSICIAN.

THE following report of three cases of carcinoma of the peritoneum is abbreviated from the records of the hospital. The absence of rise in temperature—except in one of the cases, which presented a slight elevation for a few days—and of tenderness, and the slight amount of pain, except that due to the great distention of the abdomen and tormina in one case, should be remarked.

CASE I. (Service of Dr. A. Brayton Ball.)—Annie D——, aged nineteen, single, a native of Ireland, and a domestic, was admitted to the hospital August 31, 1883. Her family history was good. Previous health had been very good. She first noticed a painless swelling of the abdomen six weeks prior to entrance, and this increased so rapidly that in two weeks she suffered from orthopnœa. With the intention of relieving this latter symptom, as well as the possible removal of the tumor, nineteen days before entrance patient underwent an operation, during which considerable ascitic fluid was removed and cancer of the peritoneum was made out. The cancerous mass was not removed. With the exception of a slight pain on the left side of the abdomen before this operation, she has suffered no pain whatsoever. On entrance she complains only of the enlargement of the abdomen. Physical examination reveals a hard, insensitive mass, filling up a large portion of the abdomen, not connected with the liver, spleen, or uterus; with a slight amount of ascites. While in the hospital she suffered from almost incessant vomiting, and rapid loss of flesh and strength. On entrance the temperature reached 103°, but it gradually fell to normal in the course of six days. The pulse ranged between 130 and 150. On September 30th it was noted that there was severe pain in the back. Patient died September 9th, ten days after entrance.

At the autopsy, twenty hours later, there was found in the abdominal cavity a hard mass which corresponded to the site of the omentum. There were several secondary deposits in the right pleura, capsule of liver, and other portions of the peritoneum. There were signs of old and recent peritonitis. Uterus was normal. The ovaries were nodular and bound by old adhesions to each side of the uterus.

CASE II. (Service of Dr. Geo. S. Wheelock.)—Annie M——, aged about fifty-seven, single, Irish, a child's nurse, was admitted to the hospital February 14, 1884. Her memory was very poor, and it was with the greatest difficulty that anything in regard to her past history could be learned. She had had intermittent fever in 1861. About three months before entrance she first noticed that her abdomen was swollen, and at the same time she began to vomit, and one month later œdema of the feet appeared. She does not remember to have had any pain. There had been no ocular symptoms or headaches. On

admission she complained of ascites and œdema of lower extremities, anorexia, pyrosis, and occasional vomiting. Patient is senile, and poorly nourished; there is no icterus. Temperature normal; pulse somewhat accelerated. The superficial abdominal veins are enlarged. She suffered some while in the hospital from general abdominal pains. Her condition continued apparently about the same, except, perhaps, some increasing weakness, until February 26, 1884, at 6.50 P.M., when she suddenly ceased breathing. No diagnosis had been made.

At the autopsy, twenty hours afterward, the peritoneal cavity was found to contain 284 ounces of clear serum. Both parietal and visceral peritoneum were everywhere studded with miliary masses, which in places were gathered together to form cauliflower growths of considerable extent. The heart was small, its tissue brownish and fatty. There was some chronic diffuse nephritis. The remaining organs were negative.

Microscopical examination by Dr. Frank Ferguson: All the miliary masses above alluded to are carcinomatous in structure. The fibrous stroma is quite scanty. The alveoli are large, and very generally the cells in the centres of the alveoli have undergone the granulo-fatty degeneration. The cells at the periphery of the epithelial masses within the alveoli are distinctly nucleated, of small size, cuboidal in shape.

All the masses examined presented the same appearance.

CASE III. (Service of Dr. Geo. S. Wheelock.)—Thomas B——, aged twenty-eight, married, an Englishman, a machinist, was admitted to the hospital July 16, 1884. He gave no family history of cancer, and he had never been sick. Three months before entrance he began to be very constipated, and to lose flesh and strength, and six weeks later his abdomen began to increase in size. Since then there has been varying distention of the abdomen, at times very great, and accompanied by tormina and pain, but at no time completely disappearing. There has been nothing characteristic in his stools; no enteralgia. Vomiting began three weeks before entrance, and his skin became slightly jaundiced. On admission patient is cachectic, markedly anæmic. Appetite is fair. The bowels are obstinately constipated. Physical examination reveals extreme distention of abdomen, which gives a tympanitic note on percussion, a small amount of ascites, some enlargement of the inguinal glands on both sides. There was no enlargement of liver or spleen, no stenosis of the rectum. No tenderness on pressure over the abdomen. Respiration and temperature were normal. Some acceleration of the pulse. Patient continued to suffer from almost persistent vomiting, and was nourished largely by nutritive enemata. August 5, 1884, after gradually losing flesh and strength, he died at 6 A.M., not having apparently suffered any pain, except what could be explained by the tormina and the extreme distention of the abdomen.

At the autopsy, nine hours afterward, there were found nodular masses throughout the peritoneum, both visceral and parietal, also a constriction of the colon about thirty inches from the anus, which barely admitted a sound three-fourths of an inch in diameter. No pathological change of any importance was found in any of the organs.

On incising the abdomen the immensely distended and enlarged colon escaped from the abdominal cavity. All the small masses are cancerous nodules, and the enormously distended colon above the stricture was filled with fluid fæces. The latter fact explains the reason for several unsuccessful attempts to relieve the extreme distention during life by punctures with a hypodermic needle, although there was sufficient gas mixed with the fæces to give a decided tympanitic percussion note.

MELANOSIS.—M. Bard says that melanosis is a parasitical disease, and that the pigmentary matter is made up entirely of spores.

Clinical Department.

EXCISION OF A RIB FOR EMPYEMA.

DR. LEONARD C. MCPHAIL, of Brooklyn, relates the case of a child, eight years of age, suffering from empyema, following pneumonia and pleurisy. An incision was made in the eighth intercostal space, and thirty-two ounces of pus withdrawn. A drainage-tube was introduced, and the child did well for some weeks, until the ribs came together, expelling the tube, and pus reaccumulated in the chest. It was then decided to excise a portion of the eighth rib. This was done through an L-shaped incision in the integument, and after denuding the bone of its periosteum, a piece one and one-fourth inch in length was removed. The child suffered greatly from shock, but began to improve after a few days, and is now gaining rapidly. The wound is permanently closed, and the patient is in better health than ever before.

STONE IN THE BLADDER REMOVED BY THE SUPRA-PUBIC OPERATION.

DR. LEONARD C. MCPHAIL, of Brooklyn, sends us the history of a boy, eleven years of age, who presented the symptoms of vesical calculus. The diagnosis having been confirmed by examination with the sound, the high operation for removal of the stone was determined upon. This was performed by the writer, assisted by Dr. L. S. Pilcher. The patient having been anæsthetized, and the stone having been again felt with the sound, a catheter was introduced and about eight ounces of a warm boric acid solution (15 grs. to ℥j.) injected. A rubber bag was then introduced into the rectum, just above the sphincter, and was dilated with warm water. An incision, three and one-fourth inches in length, was made in the median line, and, the pyramidal muscles being held aside, the bladder was brought into view. The viscus was then incised from above downward, for a distance of one and a half inch, by means of a sharp-pointed bistoury, and the index-finger being introduced, the stone was felt lying loose in the bladder. This was removed by the forceps, and the bladder and wound were washed with a boric acid solution. Drainage from the bladder was provided for by two parallel rubber catheters wired together, and passed down to the fundus. The edges of the wound were approximated by two deep and two superficial sutures, and a dressing of iodoform and borated cotton was applied. The case progressed favorably, with occasional rise of temperature and some suppuration of the wound, and on the twelfth day after the operation the urine began to pass through the urethra. On the seventeenth day the wound in the bladder was closed and the temperature was normal. The stone weighed seven drachms, and measured four inches in its greater circumference by three and three-eighth inches in its lesser; it was a trifle over one and a half inch long by one and one-fourth wide.

OPACITY OF THE CORNEA PRODUCED BY COCAINE.

DR. W. FLETCHER WILSON, of Denver, Col., writes that he has used cocaine in fifty-six operations upon the eye, with almost uniform success. In one case an enucleation was performed with but little pain, but in another operation of the same kind he was obliged to resort to ether. In two instances the cocaine gave rise to a peculiar symptom. The first case was that of a man, forty-seven years of age, who had lost his left eye some years before from an injury. The right eye had suffered from ulceration of the cornea, with perforation and adhesion of the iris. A large opacity covered the centre and inner portion of the cornea. A four per cent. solution of co-

caine was used, and iridectomy was performed on the outer side. Cocaine was then employed instead of atropine three times a day. On the following morning the clear portion of the cornea began to assume a hazy and pitted appearance, and this continued to increase up to the third day, when the cornea was of a light yellow color and with a roughened surface. The cocaine was then discontinued and a one per cent. solution of atropine substituted. Immediate improvement followed, and continued up to the fourth day, when the cornea was smooth and the cloudiness had disappeared. In a case of discission of soft cataract, in a child, ten months of age, cocaine was used during the operation, and twice a day afterward. The case seemed to be doing well up to the third day after the operation, when the cornea began to present the same hazy and pitted appearance as in the first case. As the condition continued to grow worse, a solution of atropine (2 grs. to ℥j.) was substituted for the cocaine. Under this treatment the corneal cloudiness soon disappeared. That this symptom was due to the cocaine would seem to be shown by the similarity of the two cases and by the rapid and immediate improvement following the discontinuance of the drug in each instance.

THE COMMUNICABILITY OF SCARLET FEVER THROUGH A THIRD HEALTHY PERSON.

Dr. D. R. Waggoner, of Oxford, Neb., relates the following instances in which the virus of scarlatina was evidently conveyed from the sick to the well by a third healthy person. Mrs. R—— had been visiting a sister, five of whose children had scarlet fever. She returned twenty miles to her own home and within five days her own little girl was attacked with the disease. There had been no scarlatina in the neighborhood for months. A niece of Mrs. R—— spent several hours with her on the day following her return. This child was also seized with the fever on the same day as Mrs. R——'s daughter, and died of it the fourth day. Dr. Waggoner attended both these cases, and Mrs. R——'s niece died in his arms. On returning home after the child's death, his little boy, as was his custom, climbed into his lap and sat on his knee for perhaps an hour. Four days later this boy was taken with scarlet fever, and his older brother four days after that. As these were the only cases in the neighborhood it seems impossible to explain their origin except by the conveyance of the poison by a third person. Dr. Waggoner says that since this sad experience he has always worn rubber clothing in the sick-room of a scarlet fever patient. He also relates another instance, unconnected with these cases, in which the poison was conveyed in a similar manner.

Dr. A. H. Hewetson, of St. Clairsville, O., writes that in 1873 he attended a case of scarlet fever of very severe type. The case was an imported one, the first in that locality for more than a year. While making an application to the throat, Dr. Hewetson held the little patient on his knee, and upon his return home his own son climbed up into his lap before he had had time to remove the overcoat worn in the sick-room. Soon afterward this child was attacked with the disease, and subsequently the other children of the family suffered in like manner.

GLIOMA OF THE BRAIN.

Dr. N. Dodge, of Milwaukee, sends a report of the following interesting case. In January, 1883, he was consulted by Mr. H——, a clergyman, who stated that three years previously, after an unusual mental effort, he was suddenly seized with an epileptic attack of great severity. Since that time he had had several convulsions of mild type and occurring at long intervals. He had taken large quantities of bromide of potassium and had made a voyage to the Azores, but without obtaining any relief. At the time of the consultation he had not had a fit for several months, but suffered from a tremor of the left hand which was increased by attempts at voluntary motion and by mental excitement. There was no paralysis, the various reflexes were normal, vision was unimpaired, and the optic nerve presented a healthy appearance. Headache of a deep-seated character, not constant, was a prominent feature in the case. At times there were ringings in the ears, and a feeling of impending danger. The patient had a peculiar, excited manner, but he reasoned well on ordinary topics and showed slight, if any, mental impairment. There was a history of nervous disorders in his family. Dr. Dodge diagnosed disease, probably tumor, of the right side of the brain near the base, and advised absolute rest and put the patient on general tonic treatment. The absence of mental symptoms and of disturbance in articulation, and the subsidence of the convulsive attacks, seemed to exclude sclerosis. The patient was not seen again until the following spring, at which time he presented a marked aggravation of all the previous symptoms. The tremor now involved the entire left side, was rhythmical in character, and absent only during sleep. The patient was now also much changed in manner and disposition, and could with difficulty continue a conversation on one subject for any length of time. From this time he continued to grow rapidly worse, until September, when he was taken with what appeared to be acute meningitis. During this attack, which lasted about two weeks, he became hemiplegic on the left side. He subsequently partially recovered from this attack so as to be able to walk with the assistance of a cane, dragging the left leg. The patient remained in this condition for several weeks, when he was suddenly seized with violent headache, symptoms of compression came on, and he died comatose in a few hours.

The post-mortem examination revealed a large gliomatous tumor of the brain, occupying nearly the entire under-surface of the middle lobe on the right side, sending prolongations to the frontal lobe and also encroaching upon the pons and right crus cerebri. The right optic tract was also flattened by the pressure of the tumor, which invaded the brain substance to such an extent as to form the floor of the posterior cornu of the right lateral ventricle. The corpus striatum and optic thalamus were not involved in the morbid process. The hemiplegia was probably produced by pressure of the right crus cerebri. The interesting features of this case were the early and persistent tremor limited to the left side, and the absence of paralysis until late in the course of the disease.

PEROXIDE OF HYDROGEN IN AURAL THERAPEUTICS.

Dr. Frank Allport, of Minneapolis, Minn., writes that he has found the peroxide of hydrogen very serviceable in cleansing the middle ear preparatory to an insufflation of boric acid, iodoform, and other antiseptic powders. This substance, H_2O_2, is a combination of so unstable a character that it readily decomposes, liberating one atom of hydrogen upon contact with various substances, pus among the number. The oxygen thus liberated is in a nascent condition and very active, and will force pus to escape in the form of bubbles from any cavity in which it may be confined. Dr. Allport first employed peroxide of hydrogen to cleanse the exposed mastoid cells after an operation, and was so pleased with its action in this case that he commenced using it in chronic suppuration of the middle ear. His method of employing the agent is very simple. The meatus is first wiped out with cotton, and then a small quantity of the peroxide is instilled and allowed to remain for a minute or two, during which time the pus will escape bubbling from the meatus. The canal is now cleansed again and a further instillation of the peroxide is made. The process is repeated until no

effervescence is noticed, which is usually after the second application. The parts are then thoroughly dried and the insufflation is made. When the opening in the membrana tympani is so small as to render it difficult for the fluid to enter, a middle-ear syringe is used, and two or three drops passed into the tympanum. Dr. Allport states that the success attending this mode of treatment in his hands has been very gratifying. In order to obtain the best results the peroxide of hydrogen must be fresh. After standing a few weeks it loses much of its strength, and it should be kept in a colored bottle, away from the light and in a cool place.

A FAILURE WITH CHLOROFORM IN THE TREATMENT OF TAPE-WORM.

Dr. J. J. Smith, of Boston, Mass., relates the case of a man, forty-two years of age, who came to him with the complaint that he frequently passed worms from the bowel while at work. He said that he had passed some while on his way to the doctor's office, and on examining the clothing several segments of tape-worm were found. The patient was instructed to fast for twenty-four hours, and at the expiration of that time received a mixture containing chloroform ℥ j ; croton-oil, gtt. ss ; mucilage of acacia and castor-oil, āā ℥ jss. Four hours later he took two ounces more of castor-oil. In two hours he had a copious evacuation, passing, however, but two or three segments of the worm, the longest of which was less than two inches. In two weeks the chloroform was repeated after another fast of twenty-four hours, with the result of causing the expulsion of a segment about twenty inches in length. The patient is now again passing several pieces of the worm each day in the same manner as before the treatment was begun.

BUCKWHEAT FLOUR IN DIABETES.

Dr. A. M. Duncan, of Hamler, O., writes that Dr. Alvord, a retired practitioner of that place, who is a sufferer from glycosuria, finds more relief from a diet of pure buckwheat-flour cakes than from anything else. While he adheres to this food the urine becomes nearly normal in quantity and quality, there is no gastric distress, and the pain in the eyes—nearly destroyed by chronic iritis—is markedly relieved. On resuming the use of wheat bread and other starchy foods, the symptoms become aggravated, to be again relieved upon a return to buckwheat.

PARALYSIS FROM THE USE OF COCAINE (?).

A correspondent, E. F. H., sends us an account, in substance as follows, of a disagreeable experience of which he was himself the subject. On December 13th, he writes, he went to a dentist for the purpose of having a carious tooth filled. On account of the excessive pain attending the process of excavation, cocaine in four per cent. solution was used very freely. On the morning of the second day following the operation, December 15th, he found that, on attempting to swallow, a portion of the fluid escaped from the right side of the mouth by reason of inability to close the lips firmly. "This condition undoubtedly began its development much earlier than the time of its discovery, as it went on in its course of extension for the two succeeding days, involving every function of the entire right side of the head, rendering me deaf and unable to close the eye. The brain was depressed as to destroy all continuity of thought, and I was unable to read or to exercise any mental function whatever. I should have expected the same class of cerebral symptoms from an over-dose of opium." This paralyzed condition remained stationary for ten days, and then began slowly to improve, until, at the expiration of six weeks, it had nearly disappeared, "leaving only a sensitiveness to cold, and a leathery, subdued feeling, which exists even to the present time." The writer says that he attributes his sufferings in this instance to cocaine only because he can find no other explanation, for his habits are regular, and his general physical condition as nearly perfect as it is possible to be. But in view of the fact that more than twenty-four hours intervened between the use of the cocaine and the appearance of the first symptoms, it seems more than probable that the drug had no hand in their production.

REDUCTION OF THE FUNIS.

Dr. Daniel E. McSweeny sends us a description of the method employed by him with success in eight cases of replacing a prolapsed funis. It consists simply in passing the index-finger through the most dependent loop of the cord, and then slowly and gently twisting the funis upon itself. In this way the presenting object is soon formed into a ball which can be readily grasped as a whole and replaced above the brim of the pelvis. When once inside the uterus, its natural elasticity causes it to unwind, thus obviating all danger of strangulation. In the meanwhile, the hand is retained in the vagina until the head of the child engages. Dr. McSweeny relates a case in which this complication occurred, and in which he employed this method of reduction with perfect success.

COCAINE OR APPREHENSION?

Dr. M. A. Veeder, of Lyons, N. Y., writes: "In employing cocaine in operations about the eye, it should always be remembered that the anæsthesia produced by it is purely local. The patient is fully conscious of what is being done, though free from pain. Now, there are persons who faint during so painless an operation as vaccination, and it is not strange that there are those who feel sick and faint when they see an instrument coming directly toward the eye. The sensations thus experienced are to be ascribed to the nervous condition of the patient rather than to any poisonous effect of the drug, as some have assumed.

The Massachusetts General Hospital.—"The Seventy-first Annual Report of the Massachusetts General Hospital and McLean Asylum" presents a concise statement of the work of the year 1884, and is replete with interesting information and tables of valuable statistics. Its large endowment and numerous subsidiary funds make us realize that our rich men are, as a class, behind those of Boston in liberality toward medical institutions. We note with interest the fact that a separate establishment for convalescent patients is a feature of the management of the institution. Gratifying results have followed this division of the work. This topic should command the attention of hospital managers everywhere. The ambulance service of Boston seems, from the brief allusion made to it in this report, to be in its infancy, and far behind that of New York.

Night Medical Service in Paris.—This service was organized in 1876, and consists at present of 739 physicians and 308 midwives. The number of visits made increased from 3,616 in 1876, to 9,895 in 1883. In 1884, notwithstanding a large proportional increase during the last quarter by reason of the cholera, there was a total of only 8,712. Of the calls during the last quarter of 1884, 145 were for cholera, 11 for cholerophobia, 273 for cholerine, and 237 for various other intestinal disorders.

Too Many.—A female of the human species, living in Algeria, gave birth not long ago to five boys in one litter, three of whom were at last accounts alive. Possibly the others were drowned.

Progress of Medical Science.

The Relief of Pyloric Stenosis.—Until within the past six years the above condition was regarded as beyond the domain of surgical interference, and with the diagnosis, stenosis of the pylorus, the fate of the patient was irrevocably sealed. Internal medicine offers absolutely no hope to the unfortunate sufferer from pyloric stenosis, until Péan, in 1879, performed pylorectomy for the relief of pyloric disease, and ushered in a new era in abdominal surgery. Dr. Randolph Winslow, of Baltimore, in *The American Journal of the Medical Sciences* for April, 1885, has collected and analyzed all the recorded cases, eighty-five in number, of operative interference for the relief of pyloric disease. He presents the following valuable deductions: 1. In cancer of stomach not producing stenosis, anodynes should be given in quantities sufficient to relieve distress, and no operation should be performed. 2. Pylorectomy for carcinoma is followed by seventy-six per cent. mortality, hence it should only be very exceptionally performed in those cases where, with marked stenosis, the pylorus is not adherent to the neighboring organs, and the patient is young and fairly strong. 3. In other cases of carcinomatous stenosis, as only very temporary benefit can be obtained, gastro-enterostomy should be performed. 4. In cicatricial stenosis digital divulsion should be performed, but if this is impossible owing to great thickening of the walls, resection in those who are well nourished, and gastro-enterostomy in the debilitated will both be followed by good results. 5. Hemorrhage or perforation from ulcer or other cause than stenosis, does not present indications for pylorectomy. 6. Duodenostomy, gastrostomy for the passage of a tube, and complete gastrectomy should all be replaced by gastro-enterostomy. In the same journal Dr. J. M. Spear, of Cumberland, Md., reports a case of partial pylorectomy in a blacksmith, aged forty, who suffered from cicatricial stenosis of the pylorus. The operation was a modification of Billroth's, and required one hour and a half for its performance. The tumor was not adherent. Death ensued in two and a half hours, from collapse. In the opinion of Dr. Spear the case was an eminently proper one for operation, but it should have been performed at an earlier period in its history.

Membranous Croup; Diphtheritic Croup; True Croup.—Dr. J. Lewis Smith holds that inflammation of the laryngeal and tracheal surface, whatever its cause, whenever it reaches a certain grade of severity, may be attended by the exudation of fibrin and the formation of a pseudo-membrane, but such a result more frequently occurs in the inflammation caused by diphtheria than in that produced by other agencies. In diphtheria a moderate laryngo-tracheitis is attended by the pseudo-membranous formation. Dr. Smith's experience leads him to believe that not more than one in eight cases of croup has recovered by medicinal treatment which began in the first week of diphtheria, and in which the symptoms were so pronounced as to indicate more or less laryngeal stenosis. The exudation in the first week of diphtheria, or in its active period, occurs so rapidly, and in such large quantity, that no one of the medicinal agents or modes of treatment, which physicians commonly prescribe, is sufficiently prompt in its action to prevent the formation of the pseudo-membrane to an extent that soon endangers life. Croup occurring in the second or third week of diphtheria, since it is attended by less abundant and less rapid exudation than when it occurs during the acute stage, can be more successfully treated under the persevering use of solvent inhalations, and a larger proportion than one in eight, perhaps one in three, recovers by the early and continuous, or almost continuous, use of inhalations. Still the mortality is so large, and the suffering so great in croup, at whatever stage of diphtheria it occurs, that we cannot rely on the slow action of medicines or inhalations, and surgical treatment is in most instances required to diminish the suffering, and afford the best chances for saving life. Under the head of medicinal treatment Dr. Smith strongly recommends trypsine as a solvent of false membrane. Of calomel, he says: The experience of many physicians justifies the belief that mercury, and especially calomel, employed within certain limits in the commencement of a pseudo-membranous inflammation does exert some controlling action on this disease. That it did much harm formerly when physicians prescribed it as freely as we now employ potassium chlorate, to the extent in many instances of increasing the cachexia and causing mercurialism, should not deter from its judicious use. In the ordinary form of diphtheria he would not advise the use of calomel, or would limit its employment to one or two doses of six to ten grains in the commencement of the disease in robust cases. But in croup, since the danger is not from the cachexia or blood-poisoning so much as from the laryngeal stenosis, which is apt to develop rapidly, that medicine is indicated, and should be prescribed, which most strongly retards the exudative process, and aids in liquefying and removing the pseudo-membrane; provided that it produce no deleterious effect which renders its use inadmissible. Hence it is proper to prescribe calomel in larger doses and for a longer time in the treatment of croup, than in other forms of membranous inflammation, if it fulfil the indication, as it seems to in a measure. Dr. Smith states that we can claim for tracheotomy judiciously performed, and at a sufficiently early stage, the cure of one in every three patients in the average.—*American Journal of the Med. Sciences*, April, 1885.

The Diagnosis of Submersion during Life or after Death.—The Paris correspondent of the *London Lancet* writes that, struck with the divergence of opinion among authors as to the diagnosis of submersion having taken place during life or after death, Dr. Bougier made a new study of the subject. From experiments and autopsies at the Morgue, he formulates the following conclusions: 1. The exterior aspect of the body is about the same in both cases—that is, when the body has been submerged before or after death; the appearance of moss on the body would be of some diagnostic value. 2. Water and foreign bodies penetrate into the air-passages and into the bronchial tubes of those submerged before, as well as of those immerged after death; but in the latter the foreign bodies do not go beyond the fifth or sixth divisions of the bronchial tubes, and the liquid is arrested at the bronchi of medium size by the column of compressed air; whereas, in the submerged during life, it penetrates down to the small bronchial tubes. 3. The epiglottis is vertical in the submerged; it is only half open in the corpses immerged. 4. Water penetrates in a pretty large quantity to the stomach of the former, but never to that of the latter; and in making a comparative analysis of the liquid found in the bronchial tubes, one might arrive at a certain diagnosis. 5. The same is the case with the middle ear. 6. The characteristic moss is found only in the submerged. 7. If the fluidity of the blood exists in certain cases of poisoning by opium, it is easy by the aid of the spectroscope, and by analysis, to form the diagnosis. 8. In putrefied corpses, all the signs have nearly disappeared, and the medical jurist can only draw conclusions by presumptions.

Picrotoxin in the Night-sweats of Phthisis.—In several cases in which atropine, quinine, and ergot had proved unsuccessful, Dr. Westbrook obtained excellent results with picrotoxin. It was given by hypodermic injection in dose of one-half to one milligramme ($\frac{1}{120}$ to $\frac{1}{60}$ grain), gradually increased to three milligrammes. It was also efficacious when given by the mouth.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, May 16, 1885.

THE LIFE HISTORY OF THE CHOLERA MICROBE.

WE referred recently in these columns to the investigations of Dr. Ferrán into the morphology of the cholera microbe, and stated that he claimed to have seen this micro-organism under various strange and hitherto unsuspected forms. A commission of the Royal Academy of Medicine and Surgery of Barcelona, was appointed to examine into the methods pursued by this eminent naturalist, and the conclusions derived from his studies. This commission has now made its report, and has not only approved of the methods, but has fully sustained Dr. Ferrán in his views concerning the life history of this microbe. This report we find published in the *Gaceta Médica Catalana* of March 31, 1885.

If, according to Dr. Ferrán, the comma-bacillus be transplanted from the ordinary gelatine culture to a liquid medium, in the succeeding series of cultures the spiral form tends to disappear and to be replaced by long, somewhat wavy filaments. That this is not a strange form, introduced from without, is shown by the fact that, when retransplanted to a gelatine culture, the characteristic spirilla, S-shapes, and commas are reproduced. Examining a drop of liquefied gelatine taken from the apex of the cone in a test-tube culture, Dr. Ferrán found here and there a spirillum having a minute spherical body at one or the other extremity. This was rare in gelatine cultures, but of very frequent occurrence in liquid media. The body thus found increases in size until it exceeds that of a red blood-corpuscle. It is colorless and formed, of protoplasm, which, at first of uniform consistence, soon begins to contract and to collect at one or another portion of the sphere, leaving thus a cavity of irregular shape surrounded by a transparent hyaline envelope. The filament remains attached to the sphere at the point where the collection of protoplasm is found, and the protoplasm itself is soon formed by a process of segmentation into granular matter. Upon the filament, near its extremity, a second sphere is usually found which does not, however, attain the size of the first, and which Dr. Ferrán is inclined to regard as the pollen mass.

After the protoplasm has been converted into granules, the periplasma or hyaline envelope is ruptured and the granules are set free in the culture-fluid. It is probably at this time that they are fecundated by the pollen, though possibly the pollen mass penetrates into the sphere before its rupture. The granules set free in the fluid begin soon to increase in size, and assume one of two very different appearances. They either grow rapidly to an enormous size, presenting as smooth spherical bodies, or else they remain of smaller size and become roughened and bulbous-looking on their surface. The former are probably sterile, though they have not yet been sufficiently studied to determine exactly what they are. After a while, from one of the roughened spheres, "muriform bodies," a very long and minute filament shoots out like a jet of protoplasm. The part of this filament nearest the sphere is almost invisible, but the distal extremity soon acquires sufficient volume to enable it to be distinctly seen. Little by little this filament becomes wavy and then spiroidal, and finally develops into the unmistakable cholera spirillum. And thus the circle of existence of the so-called comma-bacillus is completed. In order to observe this mode of reproduction it is necessary to prevent the too rapid growth by scission, which is that most likely to occur in rich cultures and at elevated temperatures. We cannot now detail Dr. Ferrán's methods, but must content ourselves with this brief account of his conclusions.

This is certainly a novel morphological history of what we have learned to call the comma-bacillus, and it can hardly be accepted without further proof. Yet we must confess that there are many elements of probability in favor of Dr. Ferrán. In the first place, the reputation which this learned naturalist already has for scientific accuracy calls for at least respectful attention to what he advances, and forbids us to reject his theories until they have been disproven. Then the endorsement of the Royal Academy of Barcelona, and of other scientific bodies in Spain, would not be given lightly and without careful investigation. And, thirdly, we find corroborative testimony from Belgium, where Van Ermengem reports finding bodies in his cultures which are apparently identical with the muriform bodies of Ferrán.

Of course, a micro-organism presenting such a life history is not a bacillus. Dr. Ferrán has called it the peronospora barcinonæ after his native city, but we see no reason why, if his discoveries are verified, the name of peronospora Ferrani, already given to the microbe by a number of enthusiastic Spaniards, should not be accepted by scientific men of other countries as well.

THE HEALTH OF THE FRENCH TROOPS IN FORMOSA.

IT seems strange that so little care should be given to the commissary department of modern armies. It is little to be wondered at that the Crusaders should have undertaken their wars without much preparation for insuring their health after arriving in the Holy Land, but that the governments of modern Europe should send out soldiers to hot and unhealthful countries, without any thought as to how they are to be cared for when there, does appear incredible. Yet such would seem, in a measure at least, to have been the case with regard to the French soldiers in China. Several abstracts from the private letters of an officer stationed in Formosa are published in a recent number of *L' Union Médicale*, in which the condition of the troops in that island is shown to be most deplorable. Lodged in miserable Chinese cabins lying in the mud, half starved, insufficiently clad, and

overworked, the poor men sickened and died in frightful numbers. Of 130 men in the command of the writer, 72 were at one time lying in the straw huts, shaking with the fever, without physicians and without medicines. "Instead of sulphate of soda we were given sea-water, and instead of sulphate of quinine, kind words." Of 1,800 men in Ke Lung in October, between 800 and 900 were fit for duty on Christmas day; the other thousand were sick or dead. There was not only a lack of medicines and other necessities for the sick, but there was a short supply of provisions, and such food as could be had was hardly fit to eat. The results of such neglect are beginning now to be felt, for, as recent cablegrams have reported, the French have sustained a humiliating defeat, and one portion of their forces is even in danger of extermination. If, however, the present unsanitary condition of the invading army is allowed to continue, the Chinese need not risk their lives in an engagement, but may be content to keep out of the range of the French guns, while their powerful ally, disease, is thinning the ranks of their enemy.

THE EPIDEMIC AT PLYMOUTH.

It is a long time since the country has seen so extensive and fatal an epidemic of typhoid fever as that which has been affecting the town of Plymouth, Pa. Since April 17th, between 1,000 and 1,200 persons in a population of 8,000 have been attacked, with already about one hundred deaths. The disease, in most cases, is undoubtedly true enteric fever, but a large number appear also to have suffered only from civic, or marsh malaria.

The origin of the epidemic is satisfactorily accounted for by the local physicians, Drs. Murphy, Taylor, and Miner. The town of Plymouth is situated on a belt of alluvial soil and upon foot-hills which slope toward the Susquehanna River. There are, it is said, always some malarial diseases among the inhabitants. The water-supply comes from reservoirs, which are filled by a brook that drains into the Susquehanna. The town has no sewage system, and is filled with a mining population, of which the greater part is too poor or too ignorant to pay any attention to sanitary laws.

Last winter a person, while visiting Philadelphia, contracted typhoid fever. The disease appeared after his return to Plymouth, in March. While sick he occupied a house about forty feet from the banks of the brook, between the third and fourth reservoirs. The excreta were thrown upon the snow near the bank. When the snow melted, the infectious material was drained into the brook, and thence to the reservoir, from which it was distributed through the town. This view of the origin of the disease is corroborated by the fact that, in many instances, families which were supplied with well-water did not take the disease.

That the disease is, in most cases at least, typhoid fever, has been established by the testimony of the physicians, as well as by post-mortem examinations made by Dr. French and Dr. E. O. Shakespeare, of Philadelphia. The possibility of the introduction of the typhoid fever poison into a community by the pollution of the water-supply is well recognized. The bad sanitary condition of the town seems to have prepared a fertile soil in which the specific poison might develop.

THE BOSTON "MIND CURE."

We have before this noticed the interesting fact that most literary ladies of a slightly transcendental turn of mind are homœopathists. The faith of one of them became temporarily shaken a short time ago, and she turned to the "mind cure," which is now affecting Boston and vicinity with a kind of psychic storm. Miss Louisa M. Alcott forsook globules and faith in potentization for mesmerism, trust in prayer, and occult "passes." She describes her experience in an interesting way in the *Woman's Journal*:

"Writer's cramp and an overworked brain," she says, "were the ills I hoped to mitigate by the new cure, of which marvellous accounts were given me. With a very earnest desire to make a fair trial, I took about thirty treatments, finding it a very agreeable and interesting experience up to a certain point. No effect was felt except sleepiness for the first few times; then mesmeric sensations occasionally came, sunshine in the head, a sense of walking on the air, and slight trances, when it was impossible to stir for a few moments.

"Much cheerful conversation, the society of an agreeable person, and the hope that 'springs eternal in the human breast,' made these earlier weeks very pleasant. But when bodily pain was alleviated, and instinct warned that something was wrong, I began to question and doubt a theory which claimed to cure cancers, yet could not help a headache. I made myself as passive as a reasonable being can, hoping that since lunatics and children were helped, I also could be if I gave up trying to see, believe, or understand. But when thirty treatments left the arm no better and the head much worse, I dared lose no more time, and returned to the homœopathy and massage from which I had been lured by the hope of finding a short and easy way to undo in a month the overwork of twenty years.

"This is my experience, and many others who have made the same experiment tell the same story, while half the fabulous cases reported to me prove to be failures like my own when investigated.

"My opinion of the matter is that, being founded on a fact which no one denies, namely, the power of mind over body, there is truth in it and help if it is not overdone and more claimed for it than is due.

"Mesmerism, unconsciously used, perhaps, does much; curiosity, the love of the miraculous, the hope of health, and more than all, the yearning of weary spirits for divine support, lends this new craze its charm, and attracts the crowd of sufferers who fill the rooms and pockets of the persons who profess the healing gift."

Miss Alcott's analysis of the matter is, no doubt, a truthful one. So much so, that we should be glad to see her apply her analytical powers to Hahnemannism also. The "mind cure" is mesmerism over again, applied to practical therapeutic uses. The mind-curers are doing just what Mesmer did with his "magnetic fluid" at the beginning of this century; and what Mr. Braid and Dr. Elliotson did forty years ago. Mesmerism and "mind-cures" do effect some cures, but their influence in therapeutics is, on the whole, not a good one, especially as long as the methods are in the hands of the ignorant, quackish, and self-deluded. For every individual permanently helped, there are a dozen who are either not

helped or are positively injured. The educated physician, however, should know well the power that lies in these forms of therapeutics. Used by him judiciously some good may be obtained. The occasional revival of faith- and mesmeric-cures may, therefore, be of some value in enlarging the understanding of the physicians of the resources of therapeutics and the modes of action of remedies.

HOSPITAL EXAMINATIONS.

The season is upon us when the semi-annual changes are being made in the resident staffs of our various metropolitan hospitals. The candidates for the vacant positions are, almost without exception, drawn from the ranks of recent graduates of our three leading medical schools. As far as we know, the examinations are all conducted in a spirit of fairness and impartiality. Complaint has been made that students—in every way qualified—from institutions in other cities are either not allowed to compete, or at least are so discouraged in advance from so doing that they are practically thrown out of the race. Under these circumstances it is alleged that the universal competition announced is so but in name. In regard to this point, we think that something can be said on the other side. The positions in our hospitals are coveted for their clinical opportunities. The hope of enjoying them is doubtless the reason why so many of our liberally educated students come to New York to receive their medical instruction.

In regard to the examinations themselves, there are several features which might, we think, be changed with profit. In the first place, they should, in some cases, be held earlier in the spring, so that non-resident graduates intending to compete should not be put to the trouble and expense of remaining in the city for several weeks—simply waiting for the time of their trial to come. Again, more time should be spent in the examinations themselves, and a wider range of subjects should be gone into, else a mere attendant at lectures is given preference over the man of wider reading and more varied resources. This change could easily be made without verging at all outside the domain of practical medicine and surgery. Finally, the examinations should be of a more practical character. This, involves, of course, more labor on the part of the examiners, but an increased efficiency in hospital work would certainly result therefrom. The men simply "crammed" would be displaced by those more practically qualified. Now it is possible for a man with prodigious memorizing powers to pass a purely theoretical examination for a degree, and even hospital appointment, without ever having seen a single case of injury or disease. Judged by this standard alone, such men seem abler than that large contingent in every class not fluent of speech or even rapid of thought, but, who, when brought in contact with a clinical emergency, have a definite idea of what is the condition of affairs and what ought to be done to remedy it. These latter men suffer from the present mode of examination, while their more glibly-speaking competitors bear off the palm. Often men who have stood high on the prize-lists of our colleges have displayed a woeful lack of practical knowledge when called to meet the emergencies which arise every hour in our large hospitals.

There is a difference between practical questions and a practical examination, yet the former are the nearest approach to clinical work that can be reached apart from the bedside. This method is one certainly desirable to cultivate in all forms of examination and instruction. The higher ranks of the profession are to be recruited from our hospital internes, and we should start at the outset with the best possible material.

BLISTERS IN PNEUMONIA.

Several French physicians have been discussing the question of the utility of blisters in the treatment of acute lobar pneumonia and acute bronchial affections. M. Dauvergne, who opened the subject recently, takes ground against vesication, claiming that it not only does no good but may even cause harm. Dr. Dejean, of Nasbinals, writes to the *Bulletin Général de Thérapeutique*, in support of this view. He reports two cases which he had recently been called upon to treat. The patients were attacked with symptoms of pulmonary congestion and incipient pneumonia. Some member of the family applied blisters over the painful parts. Next day the disease was much worse, the congestion having greatly increased, causing severe dyspnœa and general distress. Both patients soon died. The cases, if they do not prove a point, illustrate one, viz., that the application of blisters in the early stages of pneumonia is not indicated, and may even be harmful. It is commonly taught that vesication in the later stage for the purpose of promoting absorption is advisable. While this practice has much clinical evidence in its support, it is, we believe, often carried too far. Extensive blistering is sometimes employed in the later stages of pneumonia, not so much to promote absorption as to arrest the progress of the disease and bring on the crisis, a thing which blisters will probably never do.

What is Dental Surgery?—We note that in nearly all of the States and in the District of Columbia laws are being enacted limiting the practice of "Dental Surgery" to a certain privileged class which is designated as above. Now if it is intended that physicians shall not treat any disease of the mouth unless they take out a degree from some dental "college" or from some medical school where there is "annually delivered a full course of lectures and instructions in dentistry or dental surgery," as the Kansas Dental Law has it, it is about time that medical men were looking to their interests. The above law, however, generously permits "physicians, surgeons, or others," to extract teeth! If the dental "profession" has any claim to consider itself a specialty in medicine, this course is calculated to exclude it utterly. What would be thought if ophthalmologists, otologists, or gynecologists were to secure legislative enactment to prevent their medical colleagues from practising in their field unless they adopted the "profession" of ophthalmology, otology, or gynecology, by taking out a "degree" in these respective branches? Such laws must be unconstitutional, or at least in conflict with the charters of medical schools, which are supposed to send out graduates empowered to treat any of the ills to which the flesh is heir.

News of the Week.

Bequests to Hospitals.—The late Mrs. Jane Holmes, of Pittsburg, Pa., bequeathed to the Allegheny General Hospital $5,000, and to the Home for Incurables sixteen acres of ground and $100,000.

A Medical Commissioner of Charities and Correction.—Mayor Grace has appointed Dr. Charles E. Simmons, of this city, to the vacancy on the Board of Commissioners of Charities and Corrections. Dr. Simmons is a gentleman of fine education and good medical standing. He graduated from Williams College, and subsequently completed his studies at Göttingen University. Then he returned to this city and in 1864 was graduated from the College of Physicians and Surgeons. He practised his profession in Troy for four years and then settled in this city, where he has been ever since. Dr. Simmons is an ardent Democrat, and has been an active political worker in some of the Presidential campaigns.

The Reporting of Contagious Diseases to the Health Department.—The number of cases of contagious diseases reported to the Health Department are so out of proportion to the deaths, that there is no longer doubt that physicians are becoming more and more neglectful in reporting them. The following is the table of deaths from contagious diseases for the months of November, 1884, December, 1884, January, 1885, February, 1885, and March, to the 14th.

Months.	Number of Deaths.	Cases Reported.	Cases Unreported.
November, 1884	325	137	188
December, 1884	372	166	206
January, 1885	347	165	182
February, 1885	312	139	173
March 14, 1885	146	54	92

This shows that, out of 1,502 deaths which occurred during that period, only 661 had been previously reported, considerably less than one-half.

The Board has accordingly passed the following resolution:

"*Resolved*, That the Sanitary Superintendent be directed to send to the Attorney for prosecution the name of every physician neglecting to comply with Section 131 of the Sanitary Code, which relates to the reporting by the physician of all cases of contagious disease which he has prescribed for, or attended for the first time, during any part of the preceding twenty-four hours."

Rodney G. D. Finch, died of phthisis, at Statesville, N. C., April 20, 1885, after an illness that confined him to his bed only for a few days. Dr. Finch was born February 24, 1858, at Shrewsbury, N. J. He studied medicine with Dr. James R. Wood, and at the University Medical College. He graduated in 1881, when he received the third prize, of $200, given by the faculty. Immediately after graduation he entered Charity Hospital and served for eighteen months. Upon leaving the hospital he opened an office in the city and became connected with the University Medical College. He was Attending Physician, Dispensary of the Church of the Holy Communion, and a member of the County Society. He was an earnest worker, and had built up a very good practice when his health began to fail and he had to leave the city.

American Medical Editors' Association.—At the annual meeting, held in New Orleans, Dr. H. O. Marcy, President, delivered the anniversary address, and the following were elected officers for the ensuing year: President—Dr. H. O. Walker, of the *Medical Age*, Detroit, Mich.; Vice-President—Dr. F. L. Sim, *Mississippi Valley Medical Monthly*; Secretary—Dr. F. E. Daniel, *Courier-Record of Medicine*, Texas.

Children's Hospital, Randall's Island.—Dr. Geo. B. Fowler has been appointed Visiting Physician to the Children's Hospital on Randall's Island.

The Late Dr. S. Teller.—Dr. S. Teller, died on the morning of March 13, 1885, of erysipelas contracted from a patient while in the discharge of his professional duties. He was born in Prague, on November 30, 1830. After finishing his preparatory studies at the Gymnasium of his native city, he went to Vienna. Dr. Teller received his diploma in 1858 and acted for a time as assistant at the great general hospital of Vienna. He then came to this country and was soon made House-Physician of the Mount Sinai Hospital. About fourteen years ago, Dr. Teller began to engage in private practice, in which he continued up to the time of his last illness. He was a member of a great many charitable organizations, as also of the County Medical Society, Academy of Medicine, Medico-Legal and Neurological Societies. Twelve years ago he assisted in the founding of the West Side German Dispensary, to which he gave much time and earnest labor. Like so many who have preceded him in death, he fell a sacrifice to his devotion to duty.

The Indiana State Medical Society held its annual meeting during the past week at Indianapolis.

Rendering Unto Cæsar.—Our alert and amiable contemporary, the Texas *Courier-Record*, accuses us of not giving it credit for advising the expectant and dietetic treatment of pin-swallowing. We are only too glad to correct any act of injustice, if such has been done. In The Medical Record of December 20, 1884, page 695, is a note by Dr. Smith, of Syracuse, N. Y., in which he reports a case of shawl-pin swallowing successfully treated by expectancy. It was to this that we believed the physician in York, Pa., referred.

No Law Regulating the Practice of Medicine in Texas Exists.—We say this in answer to some queries upon this subject.

College of Physicians and Surgeons, N. Y.—The annual commencement of the medical department of Columbia College took place May 12th. Dr. John C. Dalton, President of the College, conducted the exercises. After the conferring of degrees, the awards of prizes were made. The highest prize, of $500, was awarded to G. Woolsey, a son of ex-President Woolsey, of Yale College; the second prize, of $300, to H. B. Sweetzer, Jr., and the third prize, of $200, to B. L. Ten Eyck. An address to the graduating class, by the Rev. Dr. Charles H. Parkhurst, closed the exercises.

The Colorado State Medical Society meets at Denver on the third Tuesday in June.

The Atlanta Medical and Surgical Journal has been made the official journal of the Georgia State Medical Association.

The Weekly Medical Review.—Dr. Tilley, the Chicago editor of our esteemed contemporary, the *Weekly Medical Review*, having resigned, the St. Louis editor, Dr. Robert Luedeking, has assumed sole editorial charge.

The Medical Association of Georgia, at its annual meeting at Savannah, April 14th to 16th, elected the following officers: R. J. Nunn, Savannah, President; L. B. Alexander, Forsyth, First Vice-President; T. F. Walker, Cochran, Second Vice-President; Dr. James D. Cray, of Atlanta, Secretary. Augusta was selected as the next place of meeting.

The Syphilis Bacillus.—At a meeting of the Royal Society of Physicians of Vienna, April 17th, Drs. Fürth, Mannaberg, and Zeisse reported confirmations of Lustgarten's discovery of a bacillus of syphilis.

A Dublin Surgeon who displayed a black flag from his house on the occasion of the entry of the Prince and Princess into Dublin has been boycotted by his professional brethren.

Enlargement of the Boston City Hospital.—The City Government has appropriated $40,000 for the erection of an additional building in connection with the city hospital to be used for the isolation of contagious diseases.

Dr. J. W. Holland, of Louisville, Ky., has been elected Professor of Medical Chemistry in Jefferson Medical College.

The Annual Commencement of the University Medical College of Pennsylvania was held on May 1st, when 108 students were graduated.

The Carnegie Laboratory of Bellevue Hospital Medical College was formally opened to the profession on Thursday evening of this week. During the evening there was an exhibition of bacteria and the processes of their cultivation.

Yellow Fever Inoculation.—Dr. Domingos Freire has inoculated 1,109 persons with his protective "vaccine" from December 22, 1884, to March 22, 1885. No accidents followed, and in almost all cases there was a slight rise of temperature and some constitutional symptoms.

The Medical Association of the State of Alabama held its thirty-seventh annual session at Greenville, April 14th to 17th, Dr. B. W. Riggs, President, in the chair. There were over one hundred members present. The following officers for the ensuing year were elected: D. F. M. Peterson, of Greensboro, President; Dr. Star, of Wilcox County, and Dr. Richard M. Fletcher, of Madison County, Vice-Presidents. The Association will meet at Anniston next year.

The Fifty-Second Annual Meeting of the Tennessee State Medical Society was successfully held recently. Dr. T. L. Maddin, of Nashville, was elected President, and Memphis was chosen as the next place of meeting, the first Tuesday in April, 1886.

"The Sanitary Monitor" is the title of a new monthly journal published in Richmond, Va., and edited by Dr. J. F. Winn.

Reports of Societies.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

(By Telegraph to The Medical Record.)

Eighty-seventh Annual Session, held in Baltimore, Md., May 12, 13, 14, and 15, 1885.

First Day—Tuesday, May 12th.

The Medical and Chirurgical Faculty of the State of Maryland was convened in annual session in the Hall of the Athenæum Building, corner St. Paul and Saratoga Streets, Baltimore, at 12 M., May 12th, over one hundred members and delegates being present.

Dr. Thomas S. Latimer, President, called the meeting to order, with Drs. G. Lane Taneyhill and Robert J. Wilson as Secretaries.

The minutes of the previous annual and special meetings were read and adopted.

PRESIDENT'S ADDRESS—ORIGIN AND DIFFUSION OF CHOLERA.

The address began with a detailed account of the course and history of the pandemics of this disease which have prevailed since 1817. Indigenous and long known in India it first extended to Europe in that year. The fifth epidemic is now moving westward. The parasitic nature of the disease the author did not consider proven, since Koch had not succeeded in producing the disease by injecting the comma baccilli, and Lewis had demonstrated the presence of bacilli in the human system, under other circumstances, not distinguishable from the comma bacilli. Drinking-water was one, but not the only means of the communication of the disease. Soil-contamination favors its development; the low-lying sections of the city are most subject to the epidemic influence.

The speaker continued:

"There is little ground for doubting that either this or the ensuing year the North American continent, and probably our city, will be visited by this terrible disease, and it has been fully demonstrated that in spite of the highest attainable efficiency, quarantine is of but little value. We need scarcely hope to escape its invasion by land should we successfully shut it out from our harbor. What is best, then, is clearly to put our city in such condition as will present the most unfavorable condition for its development, and this, it should be clearly understood, cannot be done by the authorities alone. It can only be effectively done by the cheerful, hearty, and intelligent co-operation of all classes of citizens. Let every house be thoroughly cleaned, every privy emptied and disinfected, every cellar cleared of all rubbish, and as thoroughly dried as possible, freely and frequently ventilated and disinfected. Let the streets be frequently washed, and never swept without *thorough* sprinkling. I am aware that Koch advises that the streets should not be wet frequently, because humidity favors the development of bacilli; but, on the other hand, Pasteur says they should, because dryness favors the diffusion through the atmosphere of such germs as may be on the surface. This seems to be far more rational advice. But whichever may be right, the objection of Koch does not apply to the period preceding the appearance of cholera, that period when activity is of most avail. Merchants and residents in the low-lying sections of the city should especially charge themselves with the enforcement of these sanitary precautions. The sweepings from stores and warehouses should not be cast into the streets, but should be put in garbage boxes to be carted away. Captains of vessels of all kinds should, as far as possible, be required to carry all spoiled vegetables and other decomposable substances outside of quarantine limits. All market-men should be compelled to *put at once* and keep all refuse in some receptacle to be carried away with them, and should

not be allowed to throw it on the ground to be gathered up and removed after market hours. I have a number of times seen market-men emptying barrels and boxes of refuse into the gutters during heavy rains that it might be washed away into the sewers.

"This is at all times a most reprehensible practice, and at such a time as the present a criminal one. In my judgment no particular form of diet is necessary as a precautionary measure. Ripe fruits and vegetables of all kinds when fresh may be temperately used. Moderation in their use is all important.

"Finally, should cholera arrive in our city, all the precautionary measures heretofore mentioned are to be continued, and in addition, all water for drinking should be well boiled and subsequently kept in covered vessels. All food should be well cooked. As soon as a case of cholera occurs, it should be promptly reported to the Health Department, the patient isolated, and the household disinfected.

"Dr. Austin Flint, quoting from the report of Elisha Harris (*Medical News*, April 18, 1885), tells us that in the last epidemic in New York, in 363 houses where individuals or families were smitten with cholera, but which were promptly brought under sanitary control by disinfection and sanitary purification, the pestilence did not extend beyond the family in which the first case occurred. More extended experience is necessary to enable us to speak with any confidence of the hygienic value of sulphur fires in neighborhoods most liable to attack, but it is worthy of mention that in 1872 at Sonnepore sulphur fires were kept continuously burning at intervals of fifty yards during the progress of the fair, and that not a case of cholera occurred, although it had generally broken out at previous fairs, and that a similar practice at Dinapoor was attended with a like result. Whether the burning of sulphur contributed in any degree to the immunity had at these places cannot, of course, be determined. To avoid panic, it should be strongly impressed on the public mind that only in very exceptional cases have attendants or cholera patients suffered to any greater extent than the rest of the community, when care is taken to keep thoroughly clean the house, clothing, and persons, together with proper disinfection of all excreta, and the freest ventilation. Flight is more expensive, less effective, and not so creditable. In the face of a common danger every member of a community has a definite duty toward his neighbor."

The address was referred to the Committee on Publication, and, on motion of Dr. S. C. Chew, a committee of three was appointed to take into consideration that part relating to the threatened invasion of this city by cholera, and report to the faculty in what way its influence could best be exerted in the premises for the good of the community.

The Treasurer, Dr. W. F. A. Kemp, reported that there had been 5 deaths, 5 resignations, and 6 dropped for non-payment of dues, a total loss of 15 active and 1 honorary member. There had been added during the year 8 active and 1 honorary member. The receipts for the year had been $1,583.24, expenses $1,682.79, leaving a deficiency of $99.55. The assets, including the value of the library, were $9,840.

The Board of Examiners of the Western Shore, through Dr. Chew, Chairman, reported favorably upon the names of Drs. George J. Preston, William J. Jones, Samuel T. Earle, W. T. Councilman, and E. E. MacKenzie, candidates for membership.

The Library Committee, through Dr. I. E. Atkinson, Chairman, reported the total number of books in library as 4,170, 321 of these being duplicates; 151 had been added during the year, and 94 volumes of journals had been bound. No bound volumes had been bought, owing to lack of funds; a number had been donated. Sixty-four journals are now regularly received, besides Society Transactions, Hospital Reports, etc., as usual.

Dr. John R. Quinan, Chairman of Committee on Memoirs, read sketches of the lives of Drs. Riggin Buckler, John R. Ward, Andrew Hartman, George S. Kinneman, and J. J. Woodward, deceased during the year.

On motion, the meeting adjourned to meet again at 12 M. to-morrow.

Wednesday, May 13th—Second Day.

Mrs. E. P. W. Packard, of Chicago, a philanthropist, addressed the Society in advocacy of

legislation for the protection of the insane.

Her suggestions were referred to the Committee on Legislation.

annual oration.

The annual oration was then delivered by Professor H. Newell Martin, of the Johns Hopkins University, on

the physiological action of drugs.

The object of medical education is to fit the student to practise, to enable him to destroy his enemy—disease. The fundamental qualities necessary for the modern physician are the same as in ancient times, but laboratories of physiology, pathology, and experimental therapeutics have added to his knowledge and resources. The orator proposed to consider cure of disease rather than prevention. A chief object of such meetings as this is to take stock of the year's work, to consider the progress made, and its value. He could "imagine no topic of greater interest at this moment than intracranial surgery; the promise, the just expectation that in the near future the medical man may operate within the arachnoid cavity almost as he now does within the peritoneal, and with equal certainty of diagnosis, and equally reasonable faith of a successful issue!" He addressed them as one concerned rather with the theory than the practice of the medical arts, as one whose relation to our noble warfare is rather that of him who prepares cartridges in the arsenal than that of the soldier who handles the rifle and bayonet at the outposts. He could not forbear, however, to point out that this new branch of surgery, which promises so much benefit to our fellow-men, is in the main due to researches which in their origin had no direct connection with the problems of practical surgery.

Pharmacology, or investigation of the action of drugs in the healthy body, has in the last few years attained an importance, in relation to therapeutics, which is not yet fully realized. It can hardly be said to have existed until the present century. Among the Greeks medicines were considered mysterious, as possessing magical power, inherent or imparted by sorcery. *Pharmakos* meant alike a physician, sorcerer, poisoner. Something of this old notion still exists among the laity, and many otherwise intelligent people are gulled by the jargon of the supernatural virtues of infinitesimal doses raised to tremendous potency by the seventeenth trituration.

The discovery of useful remedies in former times was a matter of accident. By multiplied experience the list of medicines was slowly increased. According to Strabo, the Egyptians exposed those dangerously ill, that passers-by who had seen a similar case recover might advise treatment. By repeated empirical trials some remedies proved of use in certain diseases, and these formed the beginning of our materia medica. Later, the votive tables placed in the temples by grateful patients added to the list. In the Dark Ages the Arabs did something to advance pharmacology, the Europeans almost nothing. The empirical method of the ancients was good, as far as it went; what they had found good before they gave again, on the same principle that we now give quinine in intermittent fever.

In the Middle Ages this sound, if narrow, Hippocratic method gave way to all sorts of fanciful doctrines as to drugs, regardless of observation as to their effects, as, for example, the doctrine of "signatures" of Paracelsus, in

the sixteenth century. According to this, plants, etc., acquired virtues from the stars, and it was the duty of the physician to decipher the signatures or marks which indicated these virtues. This wide-spread doctrine may still be traced in the names of many familiar plants.

Pharmacopœias of the sixteenth, even of the eighteenth, century contain substances of the most repulsive character, or supposed to have virtues connected with fantastic notions as to the animals from which they were derived. While there was no serious study of facts, no experimental investigation; while tradition, not observation, ruled, pharmacology could not be born. Even after Sydenham had led the way back to the sounder Hippocratic methods, it had to wait till chemistry supplied pure drugs, and experimental physiology had taught us how to examine their action in the tissues. The first pharmacological research was made by Magendie on strychnia, and his investigations, which still constitute our guide in using this remedy, were detailed at length. It is almost incredible that, but sixty years ago, it had not been proven for a single medicine that it had a special affinity for, and specific action on, some one organ.

The orator next considered chloral, a remedy which we owe entirely to scientific research—an artificial product created by the chemist, and whose introduction was due to a knowledge of its chemical reactions outside the body. The theory on which it was employed—that it might give rise to chloroform within the body—has not been confirmed, but the value of the drug remains, and we owe our knowledge of it to scientific research; "to chemistry, which led Liebig to discover it and induced others to study its reactions; to physiology, which taught us that the blood was alkaline; to pharmacological research, which, by experiment on the lower animals, demonstrated its power, according to dose, to cause sleep, to abolish consciousness, to act as a valuable antidote in cases of strychnia poisoning; to these we owe its place among our most valued weapons in our fight against disease. Were it not for chemical research, there would not be one grain of chloral hydrate in the world to-day; were it not for physiological experiment, we should be ignorant of its value in the treatment of disease."

A further illustration of how a new remedy is discovered, and how many sciences co-operate to add to the physician's armament, was found in amyl nitrite, a remedy still not officinal, and now being born, as it were. The chemist discovered it, the physiologist and pharmacologist have experimented with it, and now the practising physician is testing it clinically. Whether the reasoning which led to its trial in angina be or be not based on sound physiology and pathology, the fact remains that by no mere chance, but by scientific reasoning, the drug was first tried in this terrible disease.

Numerous other examples might be cited of valuable additions to the materia medica due to pharmacological and physiological research. The story of the past, thoughtfully read, is the safest guide for the future, in which will be realized the results of the activity of modern chemistry, which is continually discovering new agents, not one in a hundred of which is being tested as to its physiological and therapeutic properties.

The Professor continued and spoke of the importance of laboratories for the study of the action of drugs on the living body. There is no such institution in the United States used *exclusively* for this purpose. He gave it as his opinion that pharmacology depends upon experiments on living animals. He thought such observations should be tried on the lower animals first, and explained that it is a great fallacy to suppose that the chief thing to be considered in vivisection is pain. Its object is to save life as well as to relieve pain in man. Men and women subject themselves and their children to pain in order to correct deformity or enhance beauty, which shows that in their judgment physical pain is not the worst thing in the world. We desire to increase our effectiveness as physicians; is not a practice which offers reasonable hope of doing this, though it involve the sacrifice of a hundred, nay a thousand animals, and some of them suffer pain, justifiable and right? When we consider the great activity of chemistry in discovering new compounds each year, the probable value of some of these therapeutically, and the diseases which now baffle our skill, we can appreciate the importance of not hindering scientific research.

The latter part of the address was devoted to a defence of vivisection, on account of the practice of which Professor Martin has been subjected to severe criticism, not only in this community but also in England; to which he has replied in a pamphlet.

The address was listened to by a large audience, about two hundred and fifty.

REPORT OF THE CHAIRMAN OF THE SECTION ON SURGERY.

Dr. Robert W. Johnson presented a brief review of the advances in surgery. Referring to the use of ether by the rectum, he said it was only to be preferred where operations were to be performed about the larynx, requiring the use of the actual cautery. Chloroform is no longer admissible as an anæsthetic, except in cases of obstetrics, and where ether is inadmissible. The man who, for personal convenience, exposes his patient to the greater risk of death by this means, should, if that patient dies, be held responsible. We are still at sea about surgical dressings. The spray has lost ground, but all are agreed as to the necessity of perfect cleanliness. Corrosive sublimate and iodoform offer great advantage, on account of cheapness and portability. Reference was made to Godlee's operation for removal of tumor from the brain. But the greatest triumphs were in abdominal surgery, Dr. Bull's case of laparotomy and suture of the intestine for gunshot wound being characterized as the great operation of the year.

The abdomen should be opened in case of perforation of intestine, hemorrhage, extravasation of fæces, and beginning peritonitis, just as in cases where internal strangulation has been positively diagnosticated, but only under full and complete Listerism; first, because without operation the patient is almost sure to die; second, the danger is far more than counterbalanced by the chances of recovery. He advocated the spray here, because most laparotomies for wounds are done in general hospitals, and are hence strongly liable to infection.

A supplementary report from this section, presented by Dr. W. B. Platt, F.R.C.S., entitled, "Three Months Surgery at Bay View Hospital," was read by title.

REPORTS FROM THE SECTION ON OBSTETRICS AND GYNECOLOGY.

Dr. John Morris presented the report on gynecology. He said a general tendency to conservatism in the treatment of the uterus had been a marked feature in the labors of the year, and quoted Allbutt's Gulstonian Lectures and Shotter, President of the London Obstetrical Society, who had but uttered the sentiments of the profession in England and America on the subject. The ablest medical men in general practice in the United States had for years struggled against the many striking gynecological innovations which had been introduced into practice, and it is to be hoped that at last their judgment will be approved, and a more conservative course be pursued, as far as the ailments of women are concerned. Reformation cannot come too soon in this department of medical art. Dr. Morris referred to a paper read by him in 1875, in which pessaries were very earnestly condemned. Those views, then considered heterodox, have been growing in favor. He quoted similar views recently expressed by Horatio R. Bigelow, of Washington. The only pessaries which he employed and approved of were of cotton. He spoke of the operation of trachelorrhaphy as entirely unnecessary, and referred to a case in which operation upon a lacerated cervix was followed by a sciatica, which lasted a year.

The Alexander Adams operation of shortening the round ligament was useless and unjustifiable. Extirpation of the uterus for cancer of the cervix is unjustifiable; in cancer of the body of the uterus it is of doubtful propriety. He thought the muriate of cocaine would prove valuable in gynecological practices.

Dr. L. Ernest Neale presented the report on obstetrics. He first discussed Dr. Braxton Hicks' combined version in the treatment of placenta prævia. The most favorable statistics of this operation in Berlin show one per cent. mortality under one skilled operator; ten per cent. mortality under promiscuous treatment. Among its advantages are prevention of hemorrhage and cervical laceration (very common, owing to the vascularity of the parts), and of atony, and the better prognosis for the child than under other methods.

Dr. Neale presented

AN OBSTETRICAL FORCEPS

which he had devised, which attracted much attention. He illustrated its advantages and use upon a Gudin and Pinard manikin. He remarked that Simpson's forceps is still the one most used abroad. It cannot, however, be used when the head is at the superior strait. He endorsed the views of Dr. Fordyce Barker as to Tarnier's instrument, which, notwithstanding its advantages, is not yet in general use. The objections offered to it are its unwieldiness and complexity, its liability to cause laceration of the soft parts. Dr. Neale's instrument combines the qualities of both Simpson's and Tarnier's (the two principal forceps of the day) in one. He did not claim entire originality for it, as the idea of the button-hole joints had been suggested to him while abroad. The following explains the instrument: 1. An unaltered Simpson; 2, the button-hole perforations, one behind each fenestrum, into which traction-rods are inserted and maintained thereby the button on the end of the rods; 3, a removable compression thumb-screw, which sinks into a groove made in the extremities of the handles of the forceps; 4, a cross-bar, hard-rubber handle for the traction-rods like Tarnier's, in which handle is concealed a movable rod to be used at option, so as to render the swivel-joint immovable. The instrument was made by Williams, of Baltimore, and will cost about $12.

Dr. Neale exhibited other instruments employed by the obstetricians. He also illustrated

SCHULTZ'S METHOD OF RESUSCITATING THE NEW-BORN CHILD

in cases of asphyxia. The child is held by the shoulders, the thumbs resting upon the thorax, the child's head toward the operator and its anterior surface to the front; it is then swung upward, so that its feet perform a revolution, and lie between the head and the operator's body, the trunk being then in a state of forced flexion. The original position is then resumed by a reverse movement, and the repetition of these movements constitutes the method. Dr. Neale regarded it as more effective than Marshall Hall's or Silvester's, and related a case in which resuscitation had been secured after ten minutes, the measures mentioned and all others having been tried in vain.

He then reported two cases in which

FIBROID TUMORS HAD BEEN EXPELLED POST PARTUM

from the uterus, and spoke of the rarity of such cases in obstetric works.

Dr. Neale concluded his very interesting paper by some remarks upon abdominal palpation in pregnancy, as recently developed by systematic study in France, illustrating his words upon the manikin.

The President announced as the committee upon that portion of his address relating to the threatened epidemic of cholera, Drs. S. C. Chew, Geo. H. Rohe, and Richard H. Thomas.

(To be continued.)

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 7, 1885.

A. Jacobi, M.D., President, in the Chair.

THE PHYSICAL EXAMINATION OF WEAK CHESTS AND THE DIFFERENTIAL DIAGNOSIS OF THE SEVERAL FORMS OF EARLY PHTHISIS.

Dr. E. Darwin Hudson, Jr., read a paper on the above subject. [See The Medical Record, May 9, 1885.]

Dr. A. L. Loomis was invited to open the discussion, and said that he had been interested very much in the paper, for the reason that the writer had defined sharply the physical signs of early phthisis, and, while he might not agree with the author of the paper altogether, he could, in the main, endorse the views which he had expressed.

First, with reference to inspection. He thought that those who had examined chests for a long time realized more and more the importance of careful inspection before any further physical examination was made. It often occurred that the appearance of the chest almost compelled a diagnosis of phthisis. The slight deformities he did not regard as of very much importance; for, in examining over fifteen hundred healthy chests he had found only ten per cent. which were entirely symmetrical; but by inspection knowledge was obtained which could not be secured by any other method. At least it was sufficient to make one hesitate concerning a positive diagnosis.

The next point which had interested him was the remarks of the author of the paper regarding the different areas which were important in examining the chest. When he first began the study of physical exploration, he received the impression that the infraclavicular spaces were the most important for examination in determining the existence of the early stage of phthisis, and for some years he listened in those regions first, and with the greatest care, and on the sounds which he heard there he rested, to a very great extent, his diagnosis; but later on he found that the interscapular space referred to by Dr. Hudson was very much more important than the infraclavicular spaces, and he had very frequently found the physical signs of early phthisis in that region when they were not present in any other portion of the chest. In many instances phthisis will be far advanced before its physical signs can be detected distinctly in an infra-clavicular space, and perhaps during the first six months of the disease the physical signs will be confined to the interscapular space.

With regard to the axillary spaces, even when there was extensive consolidation of the central portion of the lung, and there were evidences of phthisical development in the interscapular space, he had yet to find a case in which he had been unable to detect changes in the respiratory murmur in the axillary space which indicated phthisical consolidation.

With regard to percussion, he would lay more stress upon its value than the paper seemed to indicate; but, as percussion was often performed it was of but little value. The sledge-hammer percussion, and percussion always in one direction, was of but little value. It had also seemed to him that several taps made with the mallet or finger, as was very frequently done, tended to confuse the examiner, whereas a single stroke, firm but light, often told more, perhaps, of the exact amount of infiltration than could be gained by auscultation, especially in the interscapular space.

With reference to whisper, he had found it far more important than the audible voice, especially in determining the changes in the pleura which gave rise to only slight physical signs, and which could be determined very accurately by the whisper.

Vesicular respiration varied so greatly in different individuals that it was necessary to have listened to them for a long time before one could recognize the slight changes which experienced auscultators claimed were present. The vesicular murmur which occurred after

the suspension of the inspiratory act, he was unable to hear. He had come to recognize as important in the early stage of phthisis three features of the vesicular murmur: first, its softness; second, its harshness; third, its interruption. First, that soft vesicular murmur heard in adult life, not heard in childhood, lost in old age, but present in the middle period of life, was very important. When there was loss of this soft, breezy character, and there was in place of it a harsh sound, there existed changes in the bronchi which were perhaps to be followed soon by hemorrhage, etc. It was not a prolonged expiration, necessarily, but that peculiar harsh sound which came on the one side and was not heard on the other. If to that there was added a slight waviness of the respiratory murmur, so well described and so much insisted upon by Pollock, of London, the group included the physical signs which were most important in the diagnosis of phthisis before there were evidences of consolidation, which were so easily recognized. But if there was feebleness of respiratory murmur, still harsh, there was reason to believe that pleuritic changes, which were probably tubercular in character, were present. Dr. Loomis thought he had been able, more than once, to recognize the presence of acute phthisis a number of weeks before the hemorrhage occurred which ushered it in, and by means of this peculiar harsh quality of the inspiratory murmur.

Dr. R. C. M. Page said that the author of the paper and Dr. Loomis had left but little to be added, yet he would like to make a few remarks concerning myoidema. He fully agreed with the author of the paper, that myoidema was frequently present, coincident it might be, in pulmonary phthisis. Attention was directed to this condition first in 1830, by Stokes and Graves, who stated that it was more perceptible in the early than in the later stage of phthisis. This was just the reverse of Dr. Page's observation, and in one hundred cases or more, examined during the last winter, he had found that as emaciation increased the sign became much more perceptible. Mr. Lawson Tait, to whom we owed the name, had stated that it was more marked on the affected side, but Dr. Page had found this not to be the constant rule; but it was usually on the side on which emaciation was most marked. He believed that it was due to muscular contractility, and that it existed in all cases of pulmonary phthisis. He thought that it was present in some cases in which there were no other signs of phthisis, and referred to a patient in whom this sign was well developed, and in whom there were no physical signs of phthisis, but who had persistent elevation of temperature, a hacking cough, and a pulse of ninety-five.

Dr. E. G. Janeway said, with reference to myoidema, that he had studied it sufficiently to convince him of its unreliability as a physical sign of phthisis, inasmuch as it could be developed over muscles in different regions of the body, perhaps over the deltoid and biceps better than over the pectoralis major.

Concerning the physical signs of phthisis in its very early stage, the most any of us could do was to say that certain signs denoted certain conditions of the lung, and indicated limited condensation, consolidation, localized bronchitis, etc.; but the most important point was to determine the significance of such condensation, consolidation, or local bronchitis.

The important points, then, were, first, to prove the existence of pulmonary consolidation, or condensation, or localized bronchitis; and second, to determine the significance of such conditions if present. The chances for error were numerous, and would continue to arise. Hence, all the physical signs had their value, and the examiner could not dispense with any one of them.

There was a method of percussion which he thought had special value; that is, in all cases of doubt employ percussion *at the beginning and at the end of a full inspiration*, in both the supraclavicular and the supraspinous regions.

He also laid special stress upon the signs of irritation of the bronchi, and regarded as of special value the râles heard in the small bronchi and limited to the supra-scapular and supraclavicular fossæ, especially when brought out by coughing, and associated with a general condition of ill-health. The fine subcrepitant râles in these regions, especially if associated with the general condition mentioned and with cough, were especially important physical signs.

It was also important to determine whether or not the pulmonary consolidation or condensation was persistent; for pneumonias developed at the apex of the lung and ultimately cleared up without being followed by phthisis.

Dr. Janeway thought that the microscope should now be regarded as one of the aids in physical diagnosis, and that the presence and number of bacilli were a great aid in establishing a diagnosis of the kind of early phthisis. Of course, we might be obliged to wait for a considerable period to obtain sputum for examination, and yet during this time there were evidences of local bronchitis at the apex of the lung, without decided evidence of pulmonary consolidation. In such cases the sputum might not occur, or it might be swallowed, and considerable time might elapse before it could be secured for examination. In other cases, however, the microscopic examination of the sputum was exceedingly valuable, with the limitations that it was correctly made, and by proper methods—not by quick methods, such as were liable to give rise to the formation of crystals which have been confused with bacilli, and which have not distinguished the bacilli of the mouth from the tubercle bacilli. With proper restrictions, however, the presence of bacilli became of considerable value as a diagnostic sign, and he regarded it as one which should be employed. But it seemed to him that there were cases in which the physical signs could not be interpreted aright without strict inquiry into the history of the patient; for, there might be evidence of old pulmonary disease which was not tubercular in character.

Dr. Hudson, in closing, said that he essentially agreed with those who had participated in the discussion, but wished to say that he did not hope to cover the entire subject in a single paper, and therefore had not alluded to some of the points which had been mentioned by the gentlemen who had spoken.

By the term myoidema he did not mean muscle reflex at all, but simply a cutaneous reflex—as had been well described by one writer—a cutaneous intumescence, showing itself especially over the cartilages in the shape of little cutaneous conoidal elevations which arose after slight taps with the ends of the fingers, and remained from one to four seconds, and which had been described by Finlayson, and corroborated by Gairdner, as a cutaneous reflex. The question of the examination of the sputum for bacilli he had purposely omitted, because, thus far, the exact relation which existed between phthisis and the presence of these micro-organisms had not been established.

Dr. Janeway said that he examined carefully the photographs passed by Dr. Hudson, in order to make sure that he spoke of the same condition under the ordinary term myoidema; and he also thought that Dr. Hudson would admit that fibres of the pectoralis major muscle ran over the costal cartilages.

Dr. H. G. Piffard demonstrated the action of

THE FOOT-BELLOWS USED BY DENTISTS

in working the blow-pipe, and showed how it could be attached with special advantage to the ordinary spray apparatus and the Paquelin cautery.

The Academy then adjourned.

Tincture of Benzoin.—Dr. Kebbel recommends the inhalation of tincture of benzoin at ordinary temperatures, in the treatment of nasal catarrh.

AMERICAN MEDICAL ASSOCIATION.

Thirty-sixth Annual Session, held at New Orleans, La., April 28, 29, and 30, and May 1, 1885.

(Continued from page 526.)

[The following report is an elaboration of that sent by telegraph, and contains abstracts of such of the papers as have been referred to only by title.—Ed.]

SECTION ON SURGERY.

Dr. John B. Roberts, of Philadelphia, read a paper on

FALSE DOCTRINES IN THE TREATMENT OF FRACTURES.

He thought that the employment of the primary bandage under the splint was often unnecessary and sometimes did harm. The ensheathing callus was not so essential as usually claimed, if perfect apposition be secured and maintained. When fracture occurred near to, or involving the joint, early passive motion was not only of no avail in preventing anchylosis, but might even aggravate the condition by setting up inflammatory action. In fractures not involving the joint, passive motion was unnecessary before the end of the third or fourth week. With regard to splints, he said that they were usually left on too long. In fractures of the forearm or leg he thought ten or twelve days long enough. In fractures of the cranium thorough exploration was less dangerous than neglect of the same. In fractures of the nose it was impossible to keep the arch in position with the usual adhesive plaster-dressing, and transfixion with pins was the better way. The axillary pad was useless in the treatment of fractured clavicle, as it was only necessary to fix the posterior angle of the scapula. In fracture of the surgical neck of the humerus the author dispensed with the internal angular splint, and in that at or near the elbow he preferred to place the arm in a straight splint. The interosseous pad in fractures of the forearm seldom accomplished what was claimed for it.

Measurement of the lower extremities was of much less diagnostic value than was generally supposed, as there are always normal differences between the two sides.

In the discussion of this paper, Dr. Peck, of Iowa, said that his plan of treatment in fractures of the elbow was simply to lay the arm on a pillow and make passive motion every day.

Dr. Quimby, of New Jersey, was in the habit of commencing passive motion as soon as the inflammation had sufficiently subsided, and did not think it a good plan to wait three or four weeks. He agreed with the author that the interosseous pad was, to a great extent, useless.

Dr. Budd, of Missouri, thought that Dr. Peck was fortunate in obtaining good results with the treatment he advocated, for if anything was calculated to cause displacement of the fragments in fracture at the elbow it was motion of the joint. The arm should be kept quiet until inflammation had subsided. In fracture of the surgical neck of the humerus the arm should not be carried forward, as the author of the paper had advised, but should be maintained at the side, as in this position the muscles were not put upon the stretch. He thought that in fractures of the forearm splints should be kept on longer than ten or twelve days.

Dr. Murphy, of Minnesota, thought there was a great deal of humbug about splints. No two cases were alike, and consequently could not be treated by any inflexible rule.

Dr. Bird, of Illinois, had frequently treated compound fractures without splints, using simply an elastic bandage.

Dr. Cook, of Illinois, had recently treated a case of Colles' fracture without the pistol splint and had obtained a good result.

Dr. Elliott, of Georgia, said that the primary bandage would not produce bad results, if a plaster-of-Paris bandage were applied. And he regarded this as one of the best methods of treatment.

Dr. Francis V. White, of New York, also spoke favorably of plaster-of-Paris.

Dr. W. P. Verity, of Illinois, then read a paper entitled

THE TREATMENT OF COMPOUND FRACTURES BY WIRING AND DRAINAGE.

When a case of compound comminuted fracture came under his care, he said, the first thing he did after the surrounding parts were shaved and cleaned, was to remove all loose fragments which were liable to act as irritants, then trimming off the sharp edges if necessary, the ends of the bone were wired together. Free drainage was provided for by large tubes from the most dependent portion, and the whole extremity was then covered with a thick antiseptic dressing and encased in a plaster cast, which is to be removed at each dressing. He claims the following advantages for this method of treatment:

1. All points of bone and injured tissue-fragments likely to act as irritants are removed.

2. It is obvious that, as a rule, there can be no shortening.

3. No extension is needed, and thus the necessity of complicated apparatus, which too often interferes with proper antiseptic dressings, is done away with.

4. Proper retention of the fragments in place is presumably secured, thus avoiding any possible danger of the fragments overriding and irritating the soft tissues.

5. The bones unite more quickly for reasons which will be obvious when the principles which underlie all procedures to secure union of ununited fractures are recollected.

6. Drainage, besides its other advantages, prevents extension of the inflammation.

These points were well illustrated with a report of eight cases, accompanied by drawings, representing the pathological and fever condition of each case.

SECTION ON OBSTETRICS.

Dr. W. W. Potter, of Buffalo, reported a case of

PARAMETRIC ABSCESS.

The patient, a married lady, twenty-eight years of age, who had borne three children, was complaining for about a week of pain in the right inguinal region. There was nausea, occasionally vomiting, the temperature was elevated, and finally a severe chill occurred. She was examined at this time, and a pelvic abscess was found posterior to the uterus. This was evacuated, and the cavity at first washed out with solutions of carbolic acid, but no improvement following, iodoform was used with the best results.

The writer asked special attention to the following points: The rapid formation of the abscess; the extent of the same; the change for the better following the use of iodoform in the cavity. The expectant treatment, he said, was the treatment of yesterday; evacuation that of to-day. Given a case of pelvic abscess, confirmed in our diagnosis, we cannot hold back the operation one single moment without greatly endangering the life of the patient. We should first evacuate the cavity, then cleanse, and arrange for thorough drainage.

The next paper was one by Dr. Fenger, of Chicago, on

CHRONIC PERI-UTERINE ABSCESS: ITS TREATMENT BY LAPAROTOMY.

When an abscess is deeply situated behind the uterus laparotomy is very frequently required. The abdominal incision is to be made by preference with the thermo-cautery in order to avoid hemorrhage. Before puncturing the abscess it is well to introduce a large sponge,

which may be soaked in a solution of sulphate of copper, in order to absorb the blood or pus which first appears. We cannot always find a fluctuating point on the tumor, and it is sometimes necessary to introduce the needle several times before finding pus. The question of drainage-tubes in operations of this sort is an open one. Antiseptic precautions should always be taken. The writer preferred iodoform, but employed boric acid for injection. He did not regard a counter-opening into the vagina as at all essential in most cases.

Dr. George J. Englemann, of St. Louis, agreed perfectly with the author in regard to active interference in these cases, and believed that much harm might result from temporizing with iodine and the like. When the pus is inspissated, a diagnosis by bimanual palpation is exceedingly difficult.

Dr. Gordon, of Maine, thought prophylaxis the most important thing in pelvic abscess. In more than half of the cases which had come under his observation, he believed that the abscess was caused by the treatment which the patient had undergone. He was becoming more and more timid about introducing sounds into the uterus, as he believed them productive of much evil.

Dr. J. C. Reeves, of Ohio, reported a number of cases of pelvic abscess. He did not think young physicians were so much to blame for temporizing, as patients were mortally afraid of the knife, and would not only refuse to listen to any suggestion of that sort, but would also in all probability seek for other medical advisers.

Dr. W. A. Jaggard, of Illinois, mentioned the plan, as set forth by Dr. Byford in a recent paper, to dilate the anus and drain the abscess through the rectum.

Dr. G. J. Englemann, of Missouri, then read a paper on

THE IMPROVED TECHNIQUE IN GYNECOLOGICAL OPERATIONS, MAJOR AND MINOR.

His mode of operating was entirely different from that of American surgeons, and was more nearly like the European, although it differed from the latter in some original points. He claimed for his plan asepsis, simplicity, and rapidity, which he regarded as great desiderata. He described the method briefly as one in which all operations on the vaginal tract are made under the hot antiseptic douche. He used no sponges whatever, and had not done so for years. The patient is placed on the table on her back, in the lithotomy position, with oilcloth under her, and a tub to catch the drippings. The operator wears a large oilcloth apron to protect him from the water. Four assistants are necessary, two for the legs, one for the chloroform, and one for the douche. The large number of assistants required he considered to be a disadvantage. The purposes of the hot douche are perfect antisepsis and keeping the surfaces clean, pure, and exposed to view. The use of the knife is not interfered with. The hot douche acts as a hæmostatic, and renders the adjacent parts anæmic. The water should be kept at a temperature of 115° to 125° F.; for the sake of antisepsis he used either a 1 to 1,000 or 1 to 2,000 bichloride solution, or a one or two per cent. solution of carbolic acid. The supply-can for the water is to be placed two or three feet above the surface of the operating table, and the pipe is provided with a small nozzle. The water must strike from above and strike the bleeding part exactly. The hand of the assistant holding the speculum is a guide for the temperature of the water. This plan had been the ideal of the writer for seven years, and when three years ago he saw it carried out by European operators, he immediately decided to use it in all his cases.

The speaker then presented a speculum which was one of Simon's later ones, quite large and broad. On insertion it widens the vagina and draws the uterus down, simply by pressure on the perineum. The principal advantages of the instrument are a concave extremity, shortness, and breadth. After faithfully trying various kinds of sutures he concluded that all sutures are equally good if aseptic. He recommended asepsis in all major and minor operations, together with careful attention to details.

Dr. T. M. Healy, of Maryland, read a paper on

A NEW SPECULUM AND VAGINAL IRRIGATOR.

The object of the speculum which he presented to the Section was to do away with the services of an assistant, often so difficult to obtain in country practice. The holder was applied by a pad to the sacro-coccygeal junction, and at two other joints on the crests of the ilium. The patient could be placed either in the Sims or the dorsal position, and the instrument answered equally as well. The application of the instrument was demonstrated on the living subject.

Dr. E. G. Zinke, of Cincinnati, read an exhaustive paper entitled,

EMMET'S OPERATION—WHEN SHALL IT AND WHEN SHALL IT NOT BE PERFORMED?

In order to arrive at the most satisfactory possible conclusions, the writer had addressed a letter containing twelve questions, covering the entire subject, to twenty-five gynecologists of this country and Europe. From their answers, from the latest literature of the subject, and from his personal experience, embracing in all a record of 4,945 cases, the writer had tabulated the following conclusions: 1. The operation has been performed unnecessarily for symptoms similar to but other than those arising from lacerations of the cervix. Further, it has been done imperfectly, even without preliminary treatment, in many more; and the failure to give relief, as reported by several, is due to these two causes. 2. From our present knowledge we cannot, at this time, arrive at any definite conclusion, from the fact that many of the so-called consequences of lacerations of the cervix uteri are not settled beyond doubt. 3. Every one engaged in this department should carefully select his cases, and try every known means to give relief before resource is had to an operation. 4. The operation should never be performed *eo ipso* in cases of simple fissures or lacerations of the first and second degree. 5. In cases of eversion and disease of the cervical or corporeal cavity, or both, although attended by hyperplasia and displacement, it has been observed that all the symptoms abated, the parts returned to their natural condition, and no laceration was discoverable after alleviative measures had been instituted. 6. There are some cases of extensive lacerations of the cervix that seldom give rise to any inconvenience, and, therefore, an operation should be deferred until symptoms arise that will call for its performance. 7. The operation, although indicated, should never be performed until, by preparatory treatment, the parts have been brought into a healthy condition. 8. Near, and during, the climacteric period the operation should be postponed as long as possible, and the patient not exposed to any risks, since in many cases all the symptoms subside under proper treatment, and, because of senile involution, never return. 9. The operation is justifiable in cases of lacerations of the third and fourth degree, without complications, if there is a history of malignant disease in the family. 10. The operation may be performed with perfect propriety in young women, as a preventive, if the laceration is bilateral and extends up to the cervico-vaginal junction, or beyond it, even though there are no pathological changes; indeed, it seems to be the duty of every one who observes a lesion to that extent to urge the operation. 11. The operation is justifiable in any degree of laceration, and in rare instances even in fissures, when there exists cicatricial tissues, productive of reflex disturbances, annoying in character, and not tractable to any other treatment. 12. The operation is absolutely indicated in all extensive lacerations of the os, in which the cervix is everted, its mucous membrane and Nabothian follicles diseased, and especially if

there be granular or cystic degeneration present, provided the parts have first been restored to a healthy condition by palliative treatment.

Dr. Harvey, of Indiana, by request of the President, opened the discussion. He thought in many instances slight lacerations were more painful than large ones, as the latter become everted and cicatrized, and do not cause much pain. Small lacerations become converted into fissures, and are then very painful and tender. These small fissures he thought could be well compared to fissures of the anus in sensitiveness. These he thought, contrary to Dr. Zinke, should be operated upon; cauterization improves for a time, but by the end of three months we have the same conditions over again. In every one of those slight fissures he found, on anæsthetizing the patient and separating the parts, that the fissure was much more extensive than had been supposed.

Dr. Wathin, of Louisville, said Dr. Zinke might have included in his most elaborate paper the fact that it is sometimes necessary to operate immediately. A very small laceration may cause a variety of troubles local and general, which will at last require an operation. We should remember that every case is an individuality. He thought an operation is contra-indicated as long as the case improves under local treatment. Frequent recurrence after cure, sterility, or abortions, may be indications for operation.

Dr. S. C. Gordon, of Maine, said that Dr. Emmet states in his work that he has never seen a case of epithelioma of the cervix without an accompanying laceration. The profession generally admit that malignant disease is not necessarily hereditary. Therefore the speaker thought every case of laceration should be operated upon. He had operated over two hundred and twenty-five times, and did not believe in so much preparatory treatment.

Dr. King, of St. Louis, confirmed Dr. Harvey's remarks concerning small lacerations. He believed them to be more liable to develop epithelioma than the larger ones. All parts subject to much irritation are favorite seats of cancer, as, for example, the lips, tongue, cardiac and pyloric orifices of the stomach, cæcum, anus, and cervix. The speaker thought that Dr. Emmet was very inconsistent in saying that there is never an epithelioma without a laceration, and then advising against operation in all cases.

Dr. Carson, of Detroit, made the criticism that some gentlemen, in the discussion, had spoken of a woman as being well when she had a lacerated cervix. A woman, he said, who has a laceration, be it ever so small, is not well. He would operate in all cases. Had a man an ulcer or fissure of the leg, be it ever so small, he would have it promptly attended to, knowing what there was to fear.

Dr. Aldrich, of Pennsylvania, recommended operation in every case. He had seen mere scratches of the cervix cause great trouble.

Dr. Hale, of Illinois, said that he was more conservative, and did not agree with some of the speakers who maintained that all cases should be operated upon. It is, however, not always the apparently trivial laceration which should be operated upon. Sometimes quite large lacerations cause little trouble, and *vice versa*.

Dr. Healy, of Maryland, said that trivial lacerations do not "skin over" with new mucous membrane, as had been affirmed by some of the preceding speakers.

Dr. Lewis, of New Orleans, had once thought that every laceration should be sewed up; now, with larger experience, he operated much less frequently. He thought it not improbable that lacerations occur in every woman who has borne a child.

Dr. Marcy, of Boston, was glad to hear from gentlemen from all parts of this country that they were able to readily diagnose laceration of the cervix. Not so much could be said of our "masters" across the water. He said that he was more conservative regarding operating now than five years ago.

Dr. Reid, of Ohio, said he had seen hundreds of women who had had children, and no laceration of the cervix. If she had no constitutional or local symptoms, he asked, how could it be known that she had a laceration? She does not know it, the physician does not know it without an examination, which is uncalled for, and therefore wrong. He hoped the gentlemen did not go about the land examining every woman who had a child to see if she had also a laceration of the cervix.

Dr. W. W. Potter, of Buffalo, suggested to Dr. Reid that we sometimes legitimately discovered a laceration in the lying-in chamber.

Dr. Battey, of Rome, Ga., said, "The well need not a physician, but they that are sick." Much less did the well need a surgeon. He did not operate if the patient was doing well.

Dr. Sutton, of Pittsburg, closed the discussion. He said the point in dispute seemed to be, Should the operation be performed in every case or not? He had done the operation a number of times, simply to relieve the woman's mind. Patients were told they have a laceration, and were sent to him. He was obliged to operate for that laceration, or the woman would not be satisfied, and consequently not relieved. He did not believe that laceration of the cervix was always coexistent with cancer. While in Berlin, he had seen three cases of epithelioma of the cervix in young nulliparæ.

Dr. S. C. Gordon, of Portland, Me., read a paper entitled,

Reasons for and Results of Some Cases of Tait's Operation.

He had heard Sir Spencer Wells say, during a discussion on Koeberle's paper at Copenhagen last summer, that in no case should the ovaries and tubes be removed unless it can be demonstrated by the touch that these organs are diseased. But he challenged this statement, and gave a detailed account of seven cases of operation in which the functional disturbances and nervous symptoms were the principal guides in making his diagnosis, and in each case an examination of the specimens removed most abundantly confirmed the diagnosis. In several of these cases he showed that it was absolutely impossible to demonstrate by the touch the existence of the lesions found, and which were unquestionably the cause of the disturbances for which the operation was performed. The important lesions found were cystic and calcareous degeneration of the ovaries, not materially enlarging them, and closure of the tubes complicated with very small cysts of the same. In no case was there excessive enlargement of either, at least such as would be diagnostic.

He claimed that in these cases the nervous symptoms were due to this peculiar condition, which might never materially change.

The results of the operations were eminently satisfactory, in several cases producing absolute relief to symptoms (and this in the worst cases of suffering), while in others a gradual amelioration was taking place. He believed time was an important element in perfect recovery.

In all cases we should give the patient a fair and faithful trial of cure by all the well-known means, of rest, massage, local and general treatment, before resorting to the operation. Dr. Gordon did not use so-called antiseptics in any of these operations, hot water in abundance having sufficed in this as in other cases of surgery.

Dr. Battey, of Georgia, stated that he was well aware that his operation was considered by many to have a very limited field. Sir Spencer Wells in his extensive practice had used his operation but twice, and Dr. Mathews Duncan but once. Both of these gentlemen were warm friends of his, and would do the operation if they thought it best. Dr. Duncan said to him years ago that he had no use for his operation. Dr. Gordon's results are the usual results whether the tubes are re-

moved or not. Patients frequently have recurrences of pain in one year from the operation, having previously felt quite well. The patients should be told that they must be satisfied if they are entirely and permanently relieved in one, two, or three years.

THE FIRST FRENCH SURGICAL CONGRESS.

Held in Paris, April 6, 7, 8, 9, 10, and 11, 1885.

(Special Report for THE MEDICAL RECORD.)

MONDAY, APRIL 6TH—FIRST DAY.

PROFESSOR U. TRÉLAT, PRESIDENT, IN THE CHAIR.

THE Congress met in preparatory session on the morning of April 6th, and proceeded to the

ELECTION OF OFFICERS.

The following were chosen unanimously: President, M. U. Trélat; Vice-President, M. Ollier; Honorary Presidents, MM. Verneuil, Tilanus, Socin, Koeberlé, A. Guérin, Rochard, Gross, E. Boeckel, and Baron Larrey; Secretaries, MM. Petit, Prengrueber, Picqué, and Coudray; Assistant Secretaries, MM. Bazy, Castex, Julien, Poirier, Poullet, and Redard.

On the afternoon of the same day the inaugural session was held in the amphitheatre of the École de Médecine. The first thing in order was

THE ADDRESS OF THE PRESIDENT.

The speaker began with a recital of the history of the origin of the Congress and of the labors of the Committee on Organization. It was to Dr. Demons, of Bordeaux, that the Congress owed its existence, as he had proposed its formation, in a letter addressed to the Surgical Society. It was hoped that the Congress would serve as a rallying-point for the surgeons of France, where they might meet to compare views, and to become acquainted with each other, and that thus the cause, not only of science, but of good fellowship, might be promoted. The speaker then referred briefly to the

TWO GREAT SURGICAL DISCOVERIES OF THE PRESENT CENTURY,

anæsthesia and antisepsis, giving credit to the latter to Pasteur, Lister, and Alphonse Guérin. In concluding, he said that though this was called a French Congress, science knows no country, and he was rejoiced to see present, and to welcome as members, colleagues from America, Italy, Switzerland, Belgium, Holland, Poland, and Russia. He hoped that these foreign members would find their visit so pleasant and so profitable that they would repeat it each succeeding year.

The scientific work was begun by M. GROSS, of Nancy, who read a communication on

POSTERIOR TARSOTOMY IN INVETERATE CLUB-FOOT.

After having had an extensive and unsatisfactory experience with the various methods of treatment of inveterate talipes, he had adopted that of E. Boeckel, but had modified it by resecting the anterior extremity of the os calcis as well as the astragalus. His conclusions were that tarsotomy, with extirpation of the astragalus and resection of the head of the calcaneum, should be the treatment by preference of inveterate club-foot. It restores the foot to its normal shape, permits easy and graceful locomotion, and is free from the danger of relapses.

M. OLLIER then read a paper on

TOTAL RESECTION OF THE TARSUS, OR ANTERIOR TARSOTOMY, IN OSTEO-ARTHRITIS.

The author had formerly favored partial resections, but now, with a wider experience, he invariably resorted to the complete tarsectomy. The operation should be performed, however, only in adolescents, where it gave the best results. The form of the foot was preserved after cicatrization, and even the arch was reformed. A contra-indication to the operation was found, of course, in the co-existence of general tubercular infection.

M. PANAS related a case of

EXOSTOSIS OF THE FRONTAL SINUS.

upon which he had operated with fatal result. He was thus led to study the question, from a statistical point of view, more thoroughly than he had previously done, and had come to the conclusion that operations, whether partial or complete, for the removal of exostoses of the frontal sinus were attended with a fatal result more frequently than the authors of standard treatises seemed to suppose. He thought it preferable, when the tumor encroached upon the orbit so as to threaten destruction of the eye, to proceed at once to enucleation, as being the safer procedure, since the sight would be inevitably destroyed in either case.

M. DEMONS followed with a paper on the relative merits of

OSTEOTOMY AND OSTEOCLASIS IN THE TREATMENT OF KNOCK-KNEE OF ADOLESCENTS.

The author expressed his preference for osteoclasis as being the safer procedure and equally efficacious.

TUESDAY, APRIL 7TH—SECOND DAY.

M. OLLIER, VICE-PRESIDENT, IN THE CHAIR.

M. ABADIE read an elaborate paper on the respective influence of

MICROBES AND DIATHESES

upon the complications following traumatic or surgical wounds. He believed that diathesis was a secondary factor, certainly much less important than microbial infection. He instanced cataract operations as showing the very slight prejudicial influence exerted by diatheses. It was the same with larger wounds, untoward complications of which were to be traced to the influence of micro-organisms rather than to the pre-existence of any special diathesis. In conclusion the author insisted upon surgical cleanliness and the observance of antiseptic precautions.

M. SOCIN, of Basle, recounted the results of some recent investigations into the

PATHOGENESIS OF SUPPURATION,

undertaken under his direction by M. Garré, his laboratory assistant. He had found the yellow and the white micrococci, described by Rosenbach and Kräuse, in the pus of osteo-myelitis, but had been unable to reproduce these organisms by inoculation. The same parasites were also found in the pus of boils and phlegmonous abscesses, and they could not, therefore, be regarded as the specific agents in the production of osteo-myelitis. The identity of the various kinds of microbes was shown by a personal experience of M. Garré, who nearly lost his life from the effects of an immense carbuncle of the arm caused by inoculation with the microbe of osteo-myelitis.

M. VERNEUIL remarked that the results of these experiments were perfectly in accord with the clinical facts recorded by M. Debove in

ORANGE-COLORED SUPPURATION,

facts which he had had abundant opportunity of verifying during the siege of Paris and the reign of the Commune. Orange-colored pus was regarded as of evil prognostic import.

M. OLLIER recalled the fact that Rodet had succeeded in producing all the different varieties of epiphyseal osteitis by inoculation with the microbe of osteo-myelitis.

At the evening session, held under the presidency of M. TILANUS, M. Ollier presented a communication on

RESECTION OF THE ASTRAGALUS.

It was of prime necessity, the speaker maintained, to remove the astragalus in disease of the ankle-joint, in

order to secure a speedy cure and to prevent relapse. The result of the operation is a shortening of the member of about two centimetres, but the general configuration of the foot is not seriously altered. An early recourse to extirpation of the astragalus, and, if necessary, also *évidement* of the malleoli, would often obviate the necessity of amputation.

M. J. Boeckel read a paper on

EARLY TREPHINING IN FRACTURES OF THE CRANIUM.

The credit for the introduction of this method was due to Sedillat. The author had practised it in some ten cases and declared himself a firm believer in its utility. It was a perfectly safe operation when proper antiseptic precautions were taken, and it transformed an irregular and jagged osseous wound into a smooth one. In order to be of any avail, however, the trephine should be used as soon as possible after the injury had been received.

M. Demons presented a short communication upon the

INDICATIONS FOR LATE TREPHINING FURNISHED BY THE DOCTRINE OF CEREBRAL LOCALIZATIONS.

He believed that we had in the study of cerebral localizations a sure guide, even when every external evidence of the traumatism had been obliterated, and he did not hesitate to incise boldly, even removing the cerebral envelopes and penetrating the brain substance if no superficial lesion was discoverable at the point indicated.

M. Bouvet regarded trephining as a rational and safe procedure, and he advocated its immediate employment in fracture of the skull.

M. Nicaise read a note on the

SUTURE OF NERVES.

He thought the operation was a useful and necessary one, hastening repair, and, at the same time, free from danger with the observance of antiseptic precautions.

The day's proceedings were closed by the reading of a paper on

CATARACT OPERATION BY EXTRACTION,

by M. Panas. The paper was discussed by M. Galezowski and others.

WEDNESDAY, APRIL 8TH.—THIRD DAY.

M. Alphonse Guérin, Honorary President, in the Chair.

M. Thiriar, of Brussels, read a paper on

URINARY ANALYSES IN ABDOMINAL SURGERY.

The points of special importance were the proportion of urea prior to the operation, and that of the chlorides after. In the case of an abdominal tumor, when the daily amount of urea excreted, becoming gradually reduced, falls below twelve grains (three drachms) it may be concluded that the tumor is of a malignant nature. And, on the other hand, if the amount remains above twelve grains the tumor is probably benign. After the operation, a rapid diminution in the excretion of the chlorides and the fall of the daily amount to less than one grain would indicate imminent suppuration, while a total suppression of the chlorides is a warning of the immediate approach of septicæmia.

M. Verchère followed with a communication entitled

POLYURIA AND PHOSPHATURIA IN DISEASES OF THE BONES.

The polyuria sometimes accompanying osteomyelitis, might be due, the speaker thought, to an infectious nephritis rather than to the osseous lesion.

M. Kirmisson had studied the question of the dosage of urea as bearing upon the diagnosis of abdominal tumors, and believed that its value in this respect was over-estimated. He had operated with success on patients in whom the daily amount of urea excreted was less than four grains, and, on the other hand, had seen patients excreting sixteen to eighteen grains of urea in the twenty-four hours, who were, nevertheless, sufferers from tumors, the malignancy of which was beyond all question.

At the evening session, held under the presidency of M. Trelat, the first paper was upon

THE BEST TREATMENT OF FRACTURE OF THE PATELLA.

by M. Trelanus, of Amsterdam.

His method of treatment was by compression, massage, and passive movements, and was asserted by the author to have been followed by excellent results. The average length of treatment was forty days.

M. Richelot followed with a note on

THE FUNCTIONAL CONDITION OF THE LOWER EXTREMITY AFTER TRANSVERSE FRACTURE OF THE PATELLA.

He considered absence of bony union and separation of the fragments as of minor importance. The true cause of functional impairment after fracture of this bone was muscular atrophy. Hence the vast amount of ingenuity employed in the construction of apparatus to secure bony union was useless, and treatment should be directed to a maintenance of the muscular integrity.

M. Larger agreed in the main with M. Richelot, but thought that inflammation of the joint was also, in many instances, a potent factor.

M. Lucas-Championnière was a firm believer in the value of massage, but he thought that suture of the patella was also necessary.

M. Trélat read a paper on

OSTEOMYELITIS.

He referred especially to an insidious form of the disease, the gravity of which was very liable to be underestimated by reason of the apparently trivial nature of the symptoms. The main points in the diagnosis were rapid muscular atrophy, swelling of the bone, and a localized point of tenderness.

THURSDAY, APRIL 9TH—FOURTH DAY.

M. Rochard, Honorary President, in the Chair.

M. A. Guérin read a note on

THE BEST FORM OF DRESSING IN FIELD SURGERY.

The author contended that his method was the best, since it provided immobilization and shut off all access of microbes to the wound. His theory was that, if the atmospheric microbes entered by the veins, pyæmia resulted; if by the lymphatics, erysipelas.

M. Bousquet admitted that M. Guérin's dressing was the safest and most easily applied, but its bulk rendered it impracticable when it was necessary to transport the wounded any distance. He thought that for field surgery the best dressings were those which had for a basis carbolic acid, sublimate, or chloride of zinc.

M. Arragon favored the employment of

VALERIAN DRESSINGS IN MILITARY SURGERY.

M. Audet reviewed briefly the various dressings employed, and spoke favorably of M. Guérin's method of filtration of the air through cotton.

M. Bédoin recommended

DRESSINGS OF FILTER-PAPER,

prepared with sublimate, carbolic acid, or boric acid. A package of this filter-paper could easily be carried by every soldier.

M. Délorme opposed the introduction of individual antiseptic packets as being useless. The wounded must be attended to in the ambulances. He preferred iodoform as a dressing for most wounds of the soft parts.

M. Chauvel did not regard fresh antiseptic dressings

as practicable on the battle-field, but he thought each soldier should be provided with a dry antiseptic dressing for immediate application.

At the evening session, Baron Larrey, Honorary President, was in the chair.

M. Reclus read a paper entitled

THE COMPARATIVE VALUE OF LUMBAR AND ILIAC OPERATIONS FOR ARTIFICIAL ANUS,

in which he expressed a preference for the iliac operation as one of less gravity and of greater ease of performance.

M. Polloson related a case of rectal cancer in which he performed the iliac operation for

ARTIFICIAL ANUS WITH OBLITERATION OF THE LOWER END OF THE GUT.

M. Verneuil was opposed to this method of treatment, as he thought the prognosis might be rendered more grave by the presence of fecal matters in the occluded lower portion of the intestine.

M. Trélat was not in favor of abandoning entirely the lumbar operation.

M. Kirmisson said that closure of the iliac anus was often caused by the aponeurosis of the obliquus externus, and he proposed division of this aponeurosis by a T-shaped incision.

M. Boeckel then read a paper on

RESECTION OF THE HIP IN COXITIS, ITS INDICATIONS AND ITS ULTIMATE RESULTS.

The following were the conclusions of the author: 1. Suppurative coxitis in a young subject cannot be cured until the head of the femur is luxated or destroyed. 2. Resection is not in itself a dangerous operation, but only by reason of the general condition; the greater number of deaths, with or without resection, are due to pulmonary or meningeal tuberculosis. 3. The earlier a resection is performed and the less extensive is the operation, the more certain and speedy is the cure. 4. The arrest of development is slight after early resection, but is more considerable if the operation has been long deferred. 5. Tuberculosis of any of the internal organs is a contra-indication to resection of the hip, but albuminuria is not, as it is susceptible of cure after removal of the diseased bone.

M. Ollier was long opposed to resection, but he now favored the operation in certain cases. He distinguished between true and false articular tuberculosis, the diagnosis in any given case being only possible by the test of inoculation. He distinguished also between acetabular and femoral coxitis, the former being the more grave. In suppurative coxitis he did not resort to immediate resection, but tried first the effects of drainage.

M. Leriche spoke favorably of

ASPIRATION IN SUPPURATIVE HIP DISEASE.

M. Trélat said that it was necessary to bear in mind the fact that there were certain cases of pseudo-coxalgia, presenting symptoms of hip disease with the formation of abscess. It was not always possible to decide in the first instance whether the joint was involved or not, and therefore resection should not be undertaken rashly.

M. Verneuil was not an opponent of resection, as he had performed the operation himself in certain cases, but he thought it should be reserved for cases rebellious to other methods of treatment.

Friday, April 10th—Fifth Day.

M. Koeberlé, Honorary President in the Chair.

M. Cozin read a paper on

TREATMENT OF COLD ABSCESSES BY ABLATION AFTER SOLIDIFICATION.

It was necessary, the author said, to remove the wall of a cold abscess in order to prevent a return and an extension of the disease to the neighboring parts. To facilitate this removal, he employed injections of melted paraffine after evacuation of the pus, and to hasten consolidation used the ether spray. The abscess was thus converted into a solid tumor, and could be dissected out with comparative ease.

M. Bouilly then read a paper on the

IMMEDIATE AND REMOTE RESULTS OF THE TREATMENT OF COLD ABSCESS.

The author maintained that the entire destruction of an external tuberculous centre may, under favorable circumstances, result in a definite cure. It may avert a fatal issue by destroying the foci of septicæmia and the breeding-places of tubercular germs. Operation is contra-indicated in tuberculosis of the lungs or fatty degeneration of the larger organs.

M. Houzel described

A NEW METHOD OF DRAINAGE IN COLD ABSCESS.

He employed a double siphon, introduced into the abscess and into a vessel containing carbolic acid or chloride of zinc, surrounded with iodoform and covered with a dressing of carbolized gauze. These two cavities, that of the abscess and that of the vessel containing the antiseptic, were thus drained the one into the other.

M. Trélat regarded the method of M. Houzel as of undoubted value, but said that there were numerous cases in which it could not be employed.

M. Pozzi related two cases of

MULTIPLE COLD ABSCESS,

treated by scraping, cauterization, and iodoform.

M. J. Boeckel read a paper on the

TREATMENT OF ABSCESSES CONNECTED WITH POTT'S DISEASE.

He favored the opening of these abscesses by large incisions, with counter openings and thorough drainage. He had had very gratifying success with this mode of treatment.

M. Verneuil formerly extirpated cold abscesses, but now preferred to treat them by the injection of an ethereal solution of iodoform He had lately treated in this way, with success, an abscess extending from the diaphragm to the knee, and containing over six pints of pus.

At the evening session the chair was occupied by M. Gross.

M. Koeberlé read a paper entitled

TREATMENT OF THE PEDICLE IN OVARIOTOMY AND HYSTEROTOMY.

The author favored ligature of the pedicle and its reduction into the abdominal cavity, and said that this method reduced greatly the risks of the operation. He preferred ligature to the use of the thermo-cautery. When suppuration occurred it was because the ligature was not perfectly aseptic.

M. Pozzi preferred extra-abdominal treatment of the pedicle when it was very vascular and long. When, however, it was, though vascular, too short to be treated in this way he employed an elastic ligature, abandoning it within the abdominal cavity. The peritoneum was very tolerant of the elastic tube.

M. Terrillon had performed thirty-six operations reducing the ligatured pedicle, and had had four fatal results, but in none of these did the ligature cause any irritation.

M. P. Segond related a case of dysphagia from stricture of the œsophagus relieved by

GASTROTOMY.

The best landmark for the stomach in this operation was, the author said, the inferior border of the liver. If the organ do not present at this point, the left index-finger is passed along the inferior border of the left lobe of the liver until it strikes the vertebral column; then

moving it a little to the left, and keeping well up against the diaphragm, the lesser curvature will be felt. This is Farabœuf's method. He preferred the simultaneous performance of fixation and opening, contrary to the usage of some surgeons in other countries, notably in England.

M. J. Boeckel related three cases of

CHOLECYSTOTOMY.

If there is a fistula and calculi are present, this operation, the author maintained, is necessary, for it hastens the cure and is remarkably free from danger. When, however, there is no fistula, the operation is more grave.

M. Thiriar had removed the gall-bladder on two occasions, and considered this operation far superior to cholocystotomy, which was only palliative, and did not remove the cause of the evil.

SATURDAY, APRIL 11TH—SIXTH DAY.

M. Tilanus, Honorary President in the Chair.

M. Chavasse presented a communication upon

INJURIES OF THE INTESTINES OCCURRING WITHOUT WOUND OF THE ABDOMINAL WALL.

He advocated laparotomy in every case. If the rupture in the gut is small it may be closed by suture, but if the intestine is torn completely across it will be necessary to make an artificial anus. The contra-indications to laparotomy are collapse, with a temperature of 95° F. or less, or lesions of the solid organs of the abdomen.

M. Maunoury related a case of

TRAUMATIC LESION OF THE KIDNEY,

with destruction of the organ and the formation of a large abscess, cured by operation. And he proceeded to discuss at length the indications for operation in injuries of this organ.

M. Pozzi argued in the main with M. Chavasse regarding the treatment of intestinal lesions, but thought that, if the laceration was considerable, it would be preferable to operate at once for artificial anus, rather than to trust to sutures. It was better also in lacerations of the stomach or bladder to establish a fistula, at least temporarily, rather than to resort to immediate suture.

M. Bouilly insisted especially on the

OPERATIVE INDICATIONS IN INTESTINAL INJURIES,

without perforation of the abdominal wall. It would, of course, be desirable to operate before the onset of peritonitis, but that is impossible, since it is the inflammation that indicates rupture of the intestine. But the character of the onset may furnish a valuable indication as to the viscus injured, since each of the secretions of the various abdominal organs reacted upon the peritoneum in a peculiar manner.

M. Demons favored free incisions in laparatomy, so that the operator might have a clear view of the injured parts. The intestinal lesions are often multiple, and some might escape recognition if the abdominal incision were too short.

M. Verneuil agreed with M. Pozzi that it was better to perform the operation at two stages; it was perhaps less brilliant, but it was safer.

M. Socin did not favor suture of the bladder. He thought, however, that surgeons were too timid in operating in vesical injuries, and he advocated an exploratory incision whenever there was a reasonable certainty of injury to that organ.

M. Monod read a paper on the

PATHOGENESIS OF SMALL CYSTS OF THE EPIDIDYMUS.

He did not believe that these were the remains of the Wolffian bodies, but that they bore a relation to sclerosis of the testicle. This sclerosis, which is chiefly pericanalicular, obliterates the tubes and causes a varicose dilatation of the portion behind the obstruction.

At the evening session the chair was occupied by M. Trélat.

At this session was held the

ELECTION OF OFFICERS FOR 1886.

The following were chosen: President, M. Ollier; Vice-President, M. Verneuil; Secretary-General, M. S. Pozzi; Secretaries, MM. Coudray, Petit, Picqué, and Prengrueber.

M. Humbert then read a paper on

THE VIRULENCE OF BUBOES CONSECUTIVE TO SOFT CHANCRES.

M. Delorme followed with a communication on

FRACTURES IN MILITARY PRACTICE.

M. Pozzi read a paper on

OSTEITIS DEFORMANS,

in which he expressed views similar to those enunciated by Paget in 1876.

M. Duret related a case of

IMPERFORATE ANUS,

the rectum communicating with the urethra. The child was operated upon by Amussat's method with an excellent result.

M. Loewenberg completed the scientific labors of the Congress with a paper on the

TREATMENT OF SUPPURATION OF THE MASTOID.

He did not favor trephining of the mastoid process, except in cases of absolute necessity.

After a brief

VALEDICTORY ADDRESS

by the President, the Congress of 1885 was declared adjourned.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 3, 1885, to May 9, 1885.

Bill, Joseph H., Major and Surgeon. Ordered for duty as member of Army Medical Examining Board, New York City, N. Y.

Spencer, William G., Captain and Assistant Surgeon. From Department of the East to Department of Dakota. S. O. 100, A. G. O., May 2, 1885.

Brechemin, Louis, Captain and Assistant Surgeon. From Department of the East to Department of the Platte. S. O. 100, A. G. O., May 2, 1885.

Davis, William B., Captain and Assistant Surgeon. From Department of Dakota to Department of the East. S. O. 100, A. G. O., May 2, 1885.

Sternberg, George M., Major and Surgeon. Detailed to attend, as a delegate on the part of the Government of the United States, the Sanitary Conference to be held at Rome, Italy, on May 15, 1885. S. O. 103, A. G. O., May 6, 1885.

Cowdrey, Stevens G., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon, Fort Bliss, Tex. S. O. 65, Department of Missouri, May 2, 1885.

Wyeth, M. C., First Lieutenant and Assistant Surgeon. Ordered for temporary duty at Fort Wadsworth, N. Y. H. S. O. 95, Department of the East, May 6, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 9, 1885 :

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 2, 1885	0	10	72	4	159	56	0	0
May 9, 1885	0	9	74	8	133	52	0	0
Deaths.								
May 2, 1885	0	6	15	3	12	25	0	0
May 9, 1885	0	4	12	7	24	22	0	0

Dr. Hinde's Paper.—Dr. Hinde, whose paper appeared in The Record of April 25th, asks us to make the following corrections: "Case I., p. 455, instead of age *fifty-four* read *thirty-four*. The bearing of the age of the patient on the normal near-point of distinct vision and on the range of accommodation renders this correction all important. The patient's youth, however, would not permit of his service in the Indian mutiny proper, and on further questioning I have reason to doubt this part of the history. The word *pupilla* occurring several times on p. 456 should read *papilla*; p. 457, line 21 from the top, *which* should be omitted; same page, line 29, instead of *construction* read *contractions*; p. 458, line 37 from top, *notice* should read *notes*; same page, line 8 from bottom, *and* should be omitted."

Foudroyant Cholera.—Dr. James Christie, of Zanzibar, has given the most graphic account of this in his admirable book on the "Cholera Epidemics of East Africa," page 377. He says: "A near neighbor of mine sent for me about midnight to see a remarkably handsome Galla woman about twenty years of age. There had been several cases of severe cholera in the house, and I was sent for at once, and saw her within a quarter of an hour after she first felt any symptom of illness. She seemed in perfect health, except that she had been suddenly seized with vertigo and a sensation so peculiar that she was certain that she was going to die. There had been no nausea, vomiting, diarrhœa, or cramps. I examined her most carefully; there was no pain or tenderness, no coldness, nor any depression of temperature. There was only a certain wildness of the eyes, a restlessness of manner, and an anxious expression. There was no failure of strength; she could walk as well as ever, but she was pulseless at the wrists, although I imagined I detected a thread-like quivering of the radial artery now and then. The heart's action seemed unusually strong and rapid, as if the greatest cardiac power was exerted to propel the blood to the remote capillaries; but in less than a quarter of an hour she was absolutely pulseless at both wrists. I imagined the case was not hopeless, and tried to reassure and comfort her; but turning to her master, she said, 'Oh, my master!' and threw herself upon some cushions on the floor. It was most evident that hers was no fancied case of illness; no effect of a morbid imagination; no effect of fear, for there was no evidence of fear of death. It was far more like the full consciousness that the fountains of life were being sapped. In a very short time a peculiar coldness, the cold clamminess of death, set in; but coincident therewith, the most remarkable symptom of all, viz., a sensation of burning heat, not so much internally, at first, as of the surface of the body; a sensation so intense that nothing would alleviate it but the external application of cold water. Yet the body was very cold to the touch, and next the nose, lips, and tongue became cold, followed by intense thirst, which nothing but cold water could assuage. The pulsation of the temporal arteries ceased, while the carotids throbbed laboriously and spasmodically. The plump, rounded form of the body began to be effaced; the skin of the fingers, toes, hands, and feet became shrivelled, the features pinched, the eyes sunken and glaring, the voice hollow and sepulchral. Then the pulsation of the carotids ceased, the breathing became laborious, the breath was cold, the heart's action began to fail rapidly. The nervous system seemed intact; the intellectual faculties were clear, and motion and sensation were but slightly impaired. She was dead in four hours from the accession of the first symptom. There was no purgation." He noticed the same kind of attacks among children, who invariably cried without being able to explain what was the matter with them. They seemed instinctively to know the deadly nature of the seizure. He saw a man who felt himself taken ill, who at once went to his house, wrote out directions about his property and the liberation of his slaves, and was dead in four hours. He was perfectly calm and collected; had not the least fear, but knew he was going to die. Some negroes were attacked while going along the streets. While engaged in burying the dead, it was no unusual thing for them to be supported back to their huts, there to die, be rolled up in a mat, and carried back to the graves in less than six hours. The well-water in Zanzibar was horrible, and all these severe attacks could be traced to drinking freely of it while the stomach was empty.

Gone to America!—Under this caption the *Allgem. Wiener med. Wochenschrift* bewails the loss of the original drawings for Jaeger's "Atlas of Diseases of the Fundus of the Eye," which it says were recently purchased for Professor Norris, of Philadelphia, for 4,500 florins ($2,250). There are in all about one hundred sheets, each one drawn by Jaeger himself; and to give an idea of the amount of labor which they represent, it is stated that the author spent sometimes two hundred hours in drawing and coloring a single page.

Punished for Neglecting Antiseptic Precautions.—A midwife was recently arraigned in Breslau for causing the death of a woman whom she had attended in confinement. The patient died of septicæmia, due, it was complained, to the neglect of the accused to wash her hands in a carbolic solution prior to commencing her attendance. The midwife said she had washed her hands in carbolized water before leaving her home, but this was declared insufficient and she was condemned to six weeks' imprisonment.

Students at the University of Naples.—The number of students entered at the University of Naples for the current scholastic year reaches the very respectable figure of 3,627. Of these, 1,472 are law students, and 1,383 students of medicine, the remainder being distributed through the scientific and classical schools.

Death of Professor Tanturri.—Dr. Vincenzo Tanturri, Professor of Dermatology and Syphilography at the University of Naples, died on January 31st of the present year. Professor Tanturri, in connection with Dr. Cavallo, founded the journal *Il Morgagni*. He was in his forty-ninth year at the time of his death.

Change of Name.—The Parisians are apparently so fond of change that they cannot even pass by the hospitals. The Hôpital des Tournelles is now to be known as the Hôpital Andral, and the Hôpital des Mariniers as the Hôpital Broussais.

An Electric Lamp for Microscopical Illumination has been devised by Mr. L. Nyrop, an instrument-maker of Copenhagen. It is so constructed as to be applicable to any microscopical stand and can be used for either reflected or transmitted illumination.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 21 NEW YORK, MAY 23, 1885 Whole No. 759

Original Articles.

NON-DEFORMING CLUB FOOT.

WITH REMARKS ON ITS PATHOLOGY.[1]

BY NEWTON M. SHAFFER, M.D.,

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THE disabling conditions which are entailed by club-foot are too well known to warrant any extended description. It is not my object on this occasion to dwell upon this point, but to call attention to a condition which, though less conspicuous than true club-foot, is accompanied by many of its annoyances, and in some cases even by its disability; and which I think has not been described or noticed by writers upon either general or orthopædic surgery. At least, I have been unable, after an extended search, to find any such record; and I have also asked those most likely to have information upon the subject, and the result has been entirely negative. It may be well also to say a word in explanation of the name I have given this condition—non-deforming club-foot.[2] It is an apparent solecism, but I think it best expresses my meaning, and certainly it is no worse than "angular curvature," of which we often hear.

In non-deforming club foot all the conditions found in certain forms of talipes exist, with the exception of the exaggerated deformity. That is, there is a loss of normal relation between the articulation at the ankle and the muscles which act upon it, involving also in many instances the tarsus, producing a condition which prevents normal flexion at the ankle-joint, and modified mobility, with slight deformity at the tarsal, metatarsal, and phalangeal articulations.

With this state of affairs, we find as a result, varying with the conditions present, actual disability, pain, sometimes very severe, in various parts of the foot, ankle, leg, and even reflected to the lumbar region, and tender and inflamed articular surfaces, especially at the junction of the first metatarsal bone with its phalanx.

If these effects be wanting, we may have only an awkward or peculiar gait associated with painful callosities and corns at various points upon the foot.

The integrity of locomotion depends to a great extent upon a proper degree of flexion and extension at the ankle-joint, and upon a normal condition of the plantar arch and plantar tissues. As, however, the conditions which will be considered on this occasion depend upon a modified flexion at the ankle-joint, and a contracted state of the plantar tissues with their sequelæ, we will omit a discussion of other conditions except as they may throw light upon the subject. Nor is it intended to discuss at length the mechanism of the ankle and the various bones of the foot. We have certain and easily demonstrated clinical conditions to account for, and an extensive dissertation upon mechanics is not necessary.

[1] Read before the New York Orthopædic Society, February 26, 1885.

[2] During the discussion of this paper the title I have chosen to designate the condition described met with criticism. No one, however, suggested a better name, unless that used by Dr. Berg is such. In his remarks he referred to "incomplete club-foot." But "incomplete club-foot" does not express my meaning. The club-foot is complete in all its essential particulars. The deformity is so slight, however, that it has heretofore escaped the observation of surgeons and writers on deformity. Hence it is that I retain the title notwithstanding the friendly criticism of my colleagues.

But there are a few points which may help us, and I will briefly allude to them.

First, as to the ankle. Its function, except in extreme extension, is that of a plain hinge-joint. In the conditions we have to deal with, flexion and extension are the only movements to be considered. Extension of the foot, in the adult, is limited at about 135°, or 45° more than a right angle, using the long axis of the tibia as the plane of measurement. Flexion stops at about 70°, or 20° less than a right angle (see Fig. 1). The

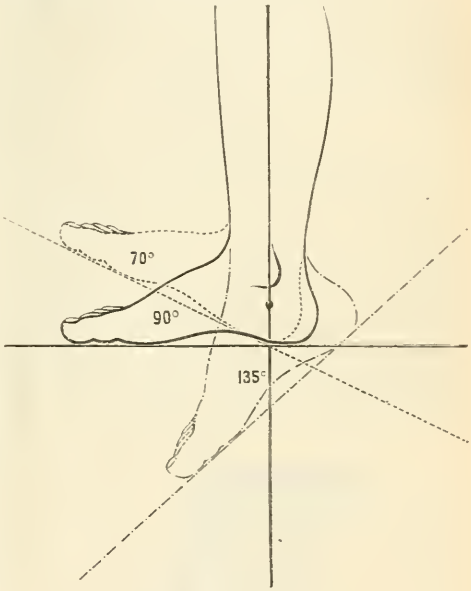

FIG. 1.—Modified from Noble Smith.

position of the foot in standing upon an even surface, with the knee in full extension, is about 90°. The amount of flexion and extension varies in different individuals, but these figures, based upon actual experiment and measurement, represent, I think, the average of normal movement in the living adult subject.

We should remember the general structure and function of the tarsus and metatarsus in sustaining the weight of the body, and especially the relation of the plantar tissues to the arch formed by these bones, and the articulations between them. Grossly speaking, the plantar tissues represent the bow-string of a bow, and they, with the articulations in the arch above, furnish the basis upon which elasticity is furnished to the arch. With each step the arch is "sprung" slightly in normal locomotion; but if we have a contraction of the plantar tissues, this elasticity is destroyed or interfered with, and the "ball of the foot" is drawn toward the heel to a greater or less extent. The os calcis does not move forward toward the "ball of the foot," especially if the gastrocnemius muscle is shortened. In calcaneus, where the gastrocnemius muscle is paralyzed, the plantar tissues contract and draw the heel toward the metatarsus and phalanges. In each

case the least resisting part is drawn toward the more fixed part, and modifications of the tarsal arch of different characters are seen. In each case also the tarsal arch is exaggerated; and, while we can have a calcaneo-valgus with a contracted or shortened plantar fascia, it is only, in my experience, when the gastrocnemius muscle is paralyzed or weakened. The *inner* part of the foot is, so to speak, the *varus part*, and, with the exception above noted, a contraction of the plantar tissues results in a varus with an adduction of the tarsus and metatarsus.

The outer part of the foot is not so likely to be shortened antero-posteriorly as is the inner part. The outer part of the foot in normal locomotion touches the floor at each step, and is deprived of elasticity in the same sense as the plantar arch. It is intended for direct contact, and affords an unyielding support. It becomes affected secondarily in club-foot, when pes cavus results.

Practically speaking, with the exception noted, we can divide the foot longitudinally, as applied to the deformities of club-foot, at the mid-tarsal and mid-metatarsal region, just as we can divide the foot transversely at the medio-tarsal joint. As before stated, we do not expect to find a shortened plantar fascia in valgus, nor do we look for an elongated condition of the plantar tissues in varus. If the plantar arch gives way, valgus results. If the arch is exaggerated with the exception noted, we have one of two deformities. First, the antero-posterior contraction in the plantar region draws the ball of the foot nearer the heel, and brings the metatarsal bones more nearly in a line with the long axis of the tibia, producing that position so frequenlty seen as the accessory of pes equinus, with little or no varus; or, secondly, we find a true varus with the metatarsal bones thrown into an adducted position, *i.e.*, toward the mesial plane. In exaggerated cases both of these conditions may exist. In non-deforming equinus, of the type now under consideration, there is generally a slight exaggeration of the tarsal arch, with little or no adduction of the tarsus and metatarsus. The deformity at the tarsus, in short, is antero-posterior, and not lateral; and while we may have and frequently see a non-deforming club-foot presenting as a valgoid state, it is not of this condition that I wish to speak.

FIG. 2.

Depending upon the portion of the plantar tissues affected, we have as a result of the condition now under consideration a shortening of the inner half of the foot. The inner part of the foot contracts, antero-posteriorly principally, with the result of making the plantar arch noticeably hollow just posterior to the junction of the first metatarsal bone with its phalanx. (See Figs. 2 and 3.)

The two inner metatarsal bones assume a position more nearly approximating a vertical line, and the whole of the inner half of the distal part of the foot is thrown out of normal relation to the rest of the foot and the body.

The three outer metatarsal bones are not normal under these circumstances. Their relations to the other parts of the foot are, however, considerably less disturbed than are the two inner ones.

And now, what happens as to the muscular relations? The flexors of the ankle-joint proper are unable perform the act of flexion. Owing to the plantar resistance or the gastrocnemius resistance, or both, and the altered relation of the metatarsal bones and the tarsus to the

FIG. 3.

ankle-joint, the distal part of the foot passes beyond the complete control of the ankle flexors. A peculiar feature of non-deforming club-foot now presents. The extensors of the toes act as assistant flexors of the ankle, and in doing this it is necessary that the extensors should complete their function as such before they can aid the crippled ankle-joint flexors. Hence, all those who have non-deforming club-foot with plantar or gastrocnemius contractions, when asked to flex the ankle, put the toes in extreme extension in the effort to accomplish ankle-joint flexion.[1]

Not only, then, are the inconveniences and disabilities of non-deforming club-foot due to contractions of the muscular tissue and fasciæ, with subsequent changes in ligaments and bone—thus putting the complicated foot- and ankle-mechanism at a disadvantage—but also to a very important loss of elasticity at the tarsus. When this elasticity is lost completely in simple flat foot, the gait and the disability are easily recognized. When the elasticity is modified by a shortened state of the plantar tissues and the arch is exaggerated, a different disability is present, the principal features of which I shall soon point out.

It is unusual to find a gastrocnemius shortening without some changes in the plantar tissues also. When, however, as sometimes happens, the gastrocnemius shortening is the principal factor in non-deforming club-foot, flexion may be arrested at any point about the right-angled position. Most frequently the foot stops at 90°, or a little more or less. An awkward gait is apt to oc-

[1] (See again Figs. 2 and 3.) The toes are thrown into extreme extension, and the tibialis anticus stands out prominently, as seen in Fig. 3, and yet the patient could not flex the ankle sufficiently to raise the "ball of the foot" to the 90° line. So also in Fig. 2, the plantar depression and the prominent and calloused "ball" is very evident. The patient from whom these engravings were made, came to the Orthopædic Dispensary suffering from severe pain in the thigh, and was limping badly. Only one limb was affected. It was supposed by the physician who sent the patient to the institution that she was suffering from hip-joint disease. All her symptoms arose from the slight non-deforming club-foot, which escaped the notice of the entire assistant staff of the dispensary. The patient was exhibited at the meeting after the reading of this paper. It is this condition which constitutes true non-deforming club-foot. The patient was unaware of her condition; many physicians examined her without discovering her true trouble, and it required a close examination and tests to demonstrate the slight deformity upon which depended the pain and disability.

cur with gastrocnemius shortening and slight plantar trouble; while pain, "gouty big-toe joints," and disability are apt to occur when the plantar troubles are in excess.

If the condition which I have tried to describe exists, while the patient is aware that something is radically wrong, he does not recognize the cause. The trouble, not enough in many instances to warrant belief that a surgeon could be of service, comes on gradually, and is frequently a process of slow growth. It becomes a sort of "second nature" to the individual, and he comments on his disability or awkward and peculiar gait; he curses his gouty toe, or condemns his shoemaker, or applies iodine or cocaine to his painful ankle or tarsus.

Perhaps he takes a long course of "anti-rheumatic" or "anti-gout" remedies under the direction of intelligent and reputable physicians. He probably spends considerable money in obtaining temporary relief at the chiropodists, and looks in vain for the, as yet, undiscovered "anatomical" shoemaker. But the sought-for relief does not come.

Let us suppose that, under these circumstances, a person afflicted with non-deforming club-foot presents for examination. He removes his shoes and stockings, and presents his feet for inspection, occupying a seat upon a chair which is near that of the surgeon. Under these circumstances the foot falls at once, and naturally into a position of *pes equinus*, and all that one notices, unless his attention is especially directed to some other point, is the prominent "big-toe joint" with its swollen and tender surfaces, or the painful corns at different points. The real elements of the trouble are lost in the natural "toe drop" of the position taken by the patient. If, on the other hand, the patient is really disabled by "an exacerbation of the gouty symptoms," and is confined to his bed, again the equinus position of the foot is apt to deceive, and the attention of the surgeon is directed, not to the cause of the trouble, but to an effect. Rest and local applications, with or without constitutional remedies, are generally prescribed; and the rest produces relief. The patient goes about again after a few days, only, however, to inflict an injury upon the vulnerable tissues, and to suffer another relapse; when again the "gouty toe" receives attention.

Now let us see what a critical examination of a patient in this condition shows. After examining the foot as to sensitiveness, etc., and inspecting the inflamed big-toe joint, ask the patient to stand up. He will probably be able to stand erect with his feet upon the floor, in the "heel and toe" position; for the weight of the body acts as a flexor and the elasticity of the tarsal arch is not wholly lost. There is no apparent deformity, no great variation from the normal. The feet are, perhaps, not quite straight, but then the patient will tell you that it has always been so; as if this made it right. He can walk across the floor without apparent trouble. Ask him now to stand squarely against the wall, with the knees in full extension; ask him to throw the weight of the body upon one limb, while he attempts to flex the opposite ankle-joint. He will be surprised to find that he has little or no flexion. It is then that the toe extensors come into bold relief as aids to ankle-joint flexion. Test both ankles in this way. Perhaps both will show modified flexion; more generally only one will be affected to a marked degree; the other being slightly crippled only. In some cases a marked plantar resistance, accompanied only by a slight gastrocnemius contraction, permits tolerably good ankle flexion, but not enough to raise the "ball of the foot" far from the floor. Still better, put the patient in the recumbent position, and ask him to flex the ankle with the knee straight. He cannot bring the "ball of the foot" into the normal plane of the heel, the former dropping from one-fourth to three-fourths of an inch below the latter. The resistance cannot be overcome by voluntary muscular effort, though the patient concentrate all his energies in this direction. Again the toe extensors come prominently into play, and, in some cases, the phalanges assume a position nearly at right angles with the long axis of the first metatarsal bone. In this position try manual pressure. You find that the tissues, both plantar and post-tibial, form a resistance which you cannot overcome. You only render the resisting tissues more tense by your efforts. You cannot do more if you give an anæsthetic. The conditions found are those of true club-foot; the contraction and malposition are permanent. The sequelæ are there, and the condition is one that, in many instances, demands treatment.

Non-deforming club-foot may exist, and does frequently exist, without the attending evils mentioned in the foregoing remarks. I have tried in this sketch to outline a typical case, accompanied by more than simple inconvenience. There are a large number of cases, in young and growing girls especially, where inability to flex the ankle does not produce more than a slight inconvenience, or an awkward carriage or a peculiar gait. I shall refer to these cases farther on.

It will be seen that non-deforming club-foot of the class which I shall dwell principally upon on this occasion approximates the conditions found in equinus or equino-varus. There is another condition which time does not permit me to discuss, viz., simple flat-foot, that presents a valgoid condition. But here in certain conditions there is a shortened gastrocnemius with relaxed plantar tissues and a flattened arch.

Nor can we stop to consider inflammatory flat-foot. It has certain signs and symptoms which render any remarks on differential diagnosis unnecessary, for there is no primary local inflammation in the class of cases I wish to describe.

The inflammation in true non-deforming club-foot is the effect of the altered articular relations and the long-continued and abnormal pressure. The inflammation, happily, with its attendant pain, swelling, corns, and callosities, speedily ceases when the cause is removed, and the parts are restored to an approximately normal position and relation. There is only one exception, perhaps, to this rule regarding primary inflammation, and that is in chronic sprain, when we have, in certain instances, a condition which I have ventured to name traumatic non-deforming club-foot.

Non-deforming club-foot may occur at any age. I have seen it in infancy, when doubtless its etiology is the same as that of congenital club-foot. It occurs rarely as an acquired condition in children, though often the "good result" of many surgeons after tenotomy and treatment leaves behind it a condition like that I have attempted to describe. It is seen very frequently during the period of second growth—the adolescent period—in both sexes, when, at that particular age, there are not apt to be many important sequelæ. It usually does not reach its full development until adult life and full growth is attained.

It occurs more frequently in the female sex, and *when looked for*, is found sometimes in rapidly growing girls, and especially in those whose growth has been apparently arrested before the average height is reached. And what is very important, and to a certain extent remarkable is this: *it is found very often associated with true rotatory lateral curvature of the spine.*

The discovery of the co-existence of non-deforming club-foot with true lateral curvature was the result of what proved to be a logical conclusion from the study of certain muscular conditions seen in the true club-foot of children affected with unilateral arrest of development from the, as yet, obscure lesion which occurs in the motor tract of the brain. I have seen many cases of this character, and, after examining a case of this kind with Dr. Berg, the electro-therapeutist of the Orthopædic Dispensary and Hospital, in 1881, I remarked to both Dr. Ketch and Dr. Berg, "The muscular conditions found in this boy's foot remind me of the muscular conditions found in true lateral curvature;" and I further said that I would examine my cases of lateral curvature more care-

fully and find out the muscular conditions at the ankle-joint. Soon after this I was called to see a patient with true lateral curvature and marked rotation in the mid-dorsal region, Miss C. S——, eighteen years of age, who had been placed under my care by Dr. T. G. Thomas. After inspecting the curves and modifying the apparatus, I asked permission to examine the ankles. The patient had on either side a typical non-deforming club-foot. The gastrocnemii were short, the plantar tissues were contracted, the prominent toes were there, callosities were present; indeed, all the signs and all the conditions that go to make up a true case of non-deforming club-foot were found. The peculiar gait and "rheumatic pains" of the patient were accounted for, and the slight "ankle weakness" which existed in this young lady was explained. Since that time I have examined many cases of true scoliosis, and while some of them escape, there is in a large number a modified ankle-joint flexion due to muscular changes and muscular contracture. And I have examined, as opportunity presented, young girls especially, who have other troubles than scoliosis. It sometimes happens that in a case where there is no apparent cause, the non-deforming club-foot exists, though the percentage is very small as compared with the scoliotic subjects. It does not follow, therefore, that all scoliotic girls should necessarily have ankle-joint complications, but fully, or over one-half of my cases present non-deforming club-foot as a condition that accompanies true scoliosis. A portion of my notes on this subject have been mislaid, and I cannot, I am sorry to say, give accurate figures. One thing, however, may be regarded as certain; and that is, that to the mammary atrophy, the shortened leg, and the other trophic signs of true lateral curvature may be added the non-deforming club-foot, which is more frequently present, I think, than either the unilateral shortening or the mammary atrophy.

This, to say the least, coincidence is somewhat remarkable, and may yet throw some light upon the etiology of true scoliosis by directing our attention toward the central nervous system in our efforts to find the ultimate cause of this, as yet, obscure condition.

The conditions found in non-deforming club-foot of the type especially that accompanies the lateral curvature are certainly suggestive. There is no paralysis, the electrical reactions of the muscles are normal and sensation is unimpaired. There are, however, sometimes marked unilateral differences, especially at the upper and lower extremities, both as to length and circumference. There seems to be, in many cases, a unilateral difference of growth. Even if one leg is shorter than the other, muscular power, with the tests I have applied, seems to be normal. So far as the ankle and the non-deforming club-foot are concerned, it is found that as soon as the mechanical relations are restored the patient is able to perform all the movements normally. The reflexes are apt, especially the patellar tendon reflex, to be exaggerated, though in some instances this is not so. Again, it frequently happens that the non-deforming club-foot is not present in the shorter limb, but in the longer one, as if the bone had, so to speak, outgrown the muscles (see remarks under Class 4). There is no evidence of motor-spinal complications (eliminating, of course, the cases referred to under Class 1). It seems to me that some cause, congenital or acquired, has produced, in some cases, a unilateral, in others a bilateral misdirection of growth rather than a typical arrest of development, which, in some instances, shows itself at the neck (true torticollis); at the spine (true scoliosis); or, at the feet (non-deforming club-foot). In non-deforming club-foot the changes are not always apparent in early life. Like true torticollis, and, as I believe, like true scoliosis, the changes are not apparent till growth develops them. But as growth occurs, and especially as the second or adolescent period of growth appears, slight and often unnoticed defects come into prominence, and when full growth is attained, as in the conditions found in non-deforming club-foot, they become more apparent, and they are frequently disabling. In torticollis these changes are apparent in early life; in scoliosis they are noticed most frequently in adolescence; in non-deforming club-foot they are often entirely unnoticed in childhood, become apparent at puberty, and are burdensome later in life. If we accept the lessons taught us by neurology we must look, not to a peripheral lesion for our cause, nor to habit, nor to the spinal cord, but to the, as yet, little, pathologically speaking, understood motor tract of the brain for the primary lesion which causes the slowly progressive changes in the muscles, and, secondarily, in the bones, joints, and fibrous tissues.

Aside from the reasons and inferences given here, I have other grounds for my belief, as expressed above, and the best way to express them is to classify the subject as far as is possible from a pathological standpoint.

We may have a condition of non-deforming club-foot from five different causes: 1, Non-deforming club-foot seen after polio-myelitis anterior; 2, non-deforming club-foot which follows simple and uncomplicated malposition, habit, etc.; 3, non-deforming club-foot produced by traumatism, sprains, etc.; 4, non-deforming club-foot found after the infectious diseases of childhood, especially diphtheria and scarlet fever; 5, the non-deforming club-foot due, as I believe, to some remote trophic disturbance, and seen quite frequently co-existing with true lateral curvature.

As briefly and as concisely as possible I will refer to these different conditions:

1. Non-deforming club-foot seen after polio-myelitis anterior. As long ago as 1865, I noticed quite frequently that when both lower extremities had been paralyzed and one had apparently entirely recovered; or in some cases, where the history pointed to only a unilateral paralysis, as a sequel of polio-myelitis anterior, that at the ankle joint and at the tarsus of the so-called "well foot," certain abnormalities would appear. In other words, and as a matter of illustration, a certain amount of varus or equino-varus would be present. Since that time I have seen many instances of this kind, and I have frequently been consulted by my patients, in this condition, for advice regarding the "well foot." Indeed, I have come to consider it almost exceptional, after an analysis of many cases, to find a foot free from contraction, and perfectly normal after recovery from polio-myelitis in childhood and affecting one or both lower extremities. As a rule, however, the inconvenience produced by the non-deforming club-foot, under these circumstances, is so slight compared with the great disability of the affected side or limb that little or no notice is taken of it either by the patient or surgeon. But the conditions found at the ankle and tarsus of the limb which apparently has recovered have often been sufficient to produce just the troubles I have pointed out; and as before remarked, I have benefited several patients greatly by treating the apparently slight contractions found at the tarsus and calf. In many cases the amount of non-deforming club-foot, under these circumstances would be considered a great annoyance and burden if the disabled limb were a normal one in all respects.

Under these circumstance we have a well-recognized pathological condition to account for our non-deforming club-foot. The acute inflammation in the anterior horns of the spinal cord is the cause of this condition, and the imperfect recovery leaves, primarily, a slightly disturbed muscular, and, secondarily, osseous and ligamentous changes which make a complete picture of non-deforming club-foot. In some of these cases I have found deficient power in the tibialis anticus muscle, but not generally. In the majority of cases, there is no real loss of power that can be defined or measured with the faradic current, and unlike the non-deforming club-foot that I have attempted to describe in the foregoing pages, it frequently appears in childhood as soon, indeed, in some cases, as the more marked deformity and atrophy at the more extensively disabled limb. It, like the trophic non-

deforming club-foot of Class 5, becomes more annoying in adult life unless it receives early attention; and I make it my rule now to treat these contractures, however slight, in children or in even older persons.

I was inclined at first to attribute what I have since called for want of a better name, the trophic non-deforming club-foot to a slight and unobserved attack of polio-myelitis, occurring early and remaining undiscovered until adult life brought the defect to the notice of the victim. And I am not certain that, in some cases, this is not true. But the absence of early symptoms, the frequent limitation of the trouble to the tarsal tissues principally, the normal reaction of the muscles, the presence of an exaggerated tendon reflex at the knee, and the absence of specific atrophy, or rather the presence, in many cases, of large, well-formed, and strong limbs, seems to exclude polio-myelitis from the larger group of cases, nor can I find in any of my cases any history of an illness like that which marks polio-myelitis. There is in none of my cases any history which leads me to think of the spinal cord; on the contrary, the clinical picture points to another motor tract, viz., that of the brain.

Where a marked equinus or equino-varus ensues after polio-myelitis, and frequently after years of treatment, the best result often obtained leaves an ankle-joint that cannot be flexed to a right angle. Of course voluntary power over the flexors is gone, and the patient in attempting to walk, cannot bring the heel squarely upon the floor. This very seriously interferes with locomotion, especially if the quadriceps extensor muscle is impaired by the central lesion. We have here another form of club-foot which needs attention, and which can be greatly relieved without tenotomy. Indeed, I have been very greatly surprised in several cases to find considerable muscular power developed by overcoming the contractions without tenotomy, giving the patient the opportunity of flexing the ankle while standing upright, using the weight of the body as a mechanical aid to its production.

2. Non-deforming club-foot produced by malposition, habit, etc. It will be noticed frequently that patients who have been for a long time in the recumbent position, or who have a shortened lower extremity, present a slight amount of equinus. In these cases there is not much tarsal shortening, and in all of them the deformity is overcome generally very easily by manipulation, or what is better, use of the limb and joints. There is no organic trouble, or complicating inflammation, or polio-myelitis back of the contraction, and as the trouble is functional, restoration soon follows if the patient has full functional use of the limb. Habit, or continued malposition, is not, I am assured, the cause of true non-deforming club-foot; of that kind, for example, which is associated with the lateral curvature. We can, again, for example, have a lateral curvature due to habit, but not the true scoliosis that is accompanied by rotation. The non-deforming club-foot of habit is not the club-foot of scoliosis, where simple habit, I am sure, does not enter into the etiological factors at all.

A great deal has been said by both the medical profession and the laity regarding the subject of high-heeled shoes as a factor in the production of various ills. As regards this element, I may say at once that all the cases I have seen of non-deforming club-foot, due to obscure causes, have worn low-heeled boots, and have rarely worn tight shoes. High heels afford sometimes a temporary relief to the victims of non-deforming club-foot. But the advantage gained, as to the shortened gastrocnemius, is soon lost by crowding the tarsus and foot into a very uncomfortable and painful position, and high heels, if tried, are soon discarded. To those who have plantar contractions alone, these high heels produce, as one of my patients said to me, "perfect misery." Happily, the "anatomical" shoemakers are using low heels and broad soles. These are the shoes sought for by those who suffer from non-deforming club-foot.

So far as the habit of wearing high heels is concerned, it may be dismissed as a factor in the production of obscure cases of non-deforming club-foot that I have attempted to describe.

3. Non-deforming club-foot produced by simple traumatism, sprains, etc. I need not stop here to dwell upon the conditions found in chronic sprain. Suffice it to say that, as a result of the injury, seconded by the malposition and reinforced by adventitious inflammatory products, there results a condition of affairs which, after the acute symptoms subside, leaves the foot in a position of slight deformity. This deformity is almost always an equinus, with or without some slight lateral malposition, and, as is well known, complete disability frequently results.

Such a case presented at my office on May 24, 1882, having been referred to me by Dr. A. L. Loomis. Mr. S——, aged sixty-five, residing in Central New York, sustained a severe sprain of the right ankle in July, 1881. He was treated by the usual methods and by competent men, with a not unusual result. He came into my office on crutches, which he had been using ever since the acute symptoms had subsided, about nine months. He had suffered very much, and had tried almost everything, he said, and had now come to New York with the idea of having the foot amputated if he did not find relief.

It is needless to transcribe my notes in detail. I need only say that it was a bad case of chronic sprain. The foot was in a position of extension, with slight tarsal contraction. The patient was unable to stand upon the foot, or to bear any weight upon it; first, because the shortened post-tibial muscles and tissues prevented any motion whatever in the direction of flexion; and, secondly, because any attempt in that direction gave great pain. He was a man of great strength of character, and made every effort to flex the ankle, but without any success.

The indications seemed very plain; I knew that if I could elongate the shortened gastrocnemius and lengthen even slightly the plantar tissues, thus affording even slight ankle-joint flexion, the patient would have normal joint surfaces to use, and not the abnormally sensitive ones that were then in contact. I asked him if he would consent to an experiment that would probably hurt somewhat. I stated if he objected to the pain I might occasion, I could give him an anæsthetic, but told him if he remained under my care the experiment must be tried. He told me to do what I saw fit, and that he could bear any pain I might inflict. I put the foot in an extension shoe,[1] and applied traction to the extent of the patient's endurance. He walked alone and unaided that day. Eight applications of the extension shoe, covering as many days, relieved this man so completely that he returned home using only a cane. He soon discarded even that.

One more illustration of the benefit of the extension shoe in the traumatic non-deforming club-foot.

A young lady, Miss P——, aged nineteen, consulted me on May 2, 1884. She had sprained her ankle in getting out of a sleigh, in December of the previous year. After a prolonged treatment she was told that she was well, and that she must walk. She tried to walk and failed. Gradually she became able to walk a block, or, at most, two blocks. This slight effort occasioned pain of an excruciating character at the medio-tarsal joint. I saw her five months after the accident, and she was still unable to walk more than two blocks. Her general health was beginning to suffer and her friends were very anxious about her condition.

Upon examination of the foot, I found a shortened gastrocnemius and a contracted plantar fascia. The ankle could not be flexed beyond ninety degrees, and

[1] I have described the "extension shoe" in an article on "Traction in the Treatment of Club-foot," in the New York Medical Record for November 23, 1878. The present article will soon be followed by another, giving the author's more recent experience with its use, and with detailed instructions as to its management in both non-deforming and true club-foot.

any effort to carry it further gave rise to pain. The patient could not voluntarily flex the ankle above ninety degrees. With the other ankle flexion was normal, and there had been no trouble with the affected joint prior to the injury.

Nine applications of the extension shoe, covering two weeks, completely relieved this patient. She has had no return of the trouble since.

4. The non-deforming club-foot found after the infectious diseases of childhood, especially diphtheria and scarlet fever. Dr. A. Jacobi on a recent occasion (*vide* the New York *Medical Journal*, August 9, 1884) calls attention to a condition which may throw light upon certain cases of non-deforming club-foot. His remarks are upon "The Relation of Over-nutrition after the Acute Fevers of Childhood to Bone Disease." After mentioning the fact that children not only seemed, but really were taller, Dr. Jacobi says, "the body became taller by an elongation of the bones; the bones grew by a rapid proliferation about the cartilage."

I have seen two cases recently which seem to substantiate this statement, and which further seem to demonstrate that during this rapid growth of the bones the muscles do not keep pace with them. The result is a considerable non-deforming equinus in each case. It is several months since the acute infectious process subsided, and yet there remains a slight but easily demonstrated non-deforming club-foot, and more, I am quite sure, than that which results from simple recumbency. And I have seen several cases where scarlet fever and diphtheria left behind as their legacy a lesion producing a slight hemiplegia, and trophic disturbances resulting in a non-deforming club-foot. Indeed, it is well worth while for us to investigate the relation of these infectious diseases as etiological factors in the production of such conditions as those found in non-deforming club-foot, both in children and in adults.

It may be in place to remark here that in a large number of young girls that I have examined for lateral curvature, and in whose history an early attack of diphtheria or scarlet fever was the only important or tangible etiological factor, I have found an easily demonstrated non-deforming club-foot. If, as may be the case, the etiology of true scoliosis and the accompanying ankle-joint contraction are the same, we may find that the infectious diseases of childhood play an important rôle in their production.

5. The non-deforming club-foot due, I believe, to some remote trophic disturbance, and seen quite frequently co-existing with true lateral curvature. The first case of this kind of which I can furnish any notes was seen in consultation with Dr. M. Putnam Jacobi, on April 22, 1880. From exhaustive and complete notes furnished by Dr. Jacobi I extract the following:

Miss A. B—— was a tolerably healthy child. Between eleven and twelve developed insufficiency of the internal recti muscles; used glasses for a few months, and occasionally a few years later. Has only recently discarded them. Was the eighth child in a family where only eighteen to twenty-four months intervened between any two births.

Father healthy; lost one sister from epilepsy. Mother healthy and of a long-lived family. The brothers and sisters were all more or less delicate; one sister has insufficiency of the internal recti muscles.

Patient menstruated at fourteen; was extremely irregular until twenty; was subject to nervous and sick headaches. At the age of twenty, the first attempt was made to re-establish menses by leeches to cervix uteri. This was successfully accomplished in May, 1879, and continued regularly throughout the summer. In September, 1879, patient, being in the mountains, sprained her foot. Sprain supposed to be slight, but two months later attempt at walking continued to cause great pain. Patient remained confined to her room for eight months without setting the foot to the ground. During this time occasional paroxysms of neuralgiform pain in foot, radiating from inner border near scaphoid metatarsal articulation. Pressure at this point always extremely painful. Conviction gradually entertained that patient was suffering from an hysterical arthralgia supervening on a sprain which had merely been an exciting cause. It was, nevertheless, impossible to induce patient, though a very sensible girl, to use the foot, for each attempt was followed by pain often extremely severe. The general health of the patient was perfect—the first time that this had been the case since the age of twelve.

In the spring of 1880 Dr. Shaffer was asked to see her. He noted the marked malposition of the foot and partial extension and adduction, and attributed the pain to the retraction of the plantar fascia. Dr. Shaffer advised the use of a mechanical shoe, which should gradually stretch the fascia, and recommended that the patient commence to walk at once. This she did with marked relief. She went to Europe, and walked well. While there she heard news which produced quite a profound shock, and various hysterical symptoms manifested themselves. After a varied experience she returned to her home and is now quite well.

Throughout Dr. Jacobi's notes there are various comments upon the hysterical elements as presented by the patient. These I recognized when I examined the patient, and I gave them their full value. I am sure Dr. Jacobi quite agrees with me in attributing the condition of the patient at the time of our consultation to the retracted plantar fascia and shortened gastrocnemius, which rendered the foot very vulnerable. The sprain, which was slight, occurred in a foot which was in a condition of non-deforming equinus. The hysterical condition of the patient only added to the difficulties of the diagnosis and obscured the real condition. On February 20th, of this year, we again met in consultation and found our patient was still suffering from a shortened plantar fascia and gastrocnemius. Tested in standing position the patient could not flex the ankle joint. She has a true non-deforming club foot, with the danger before her, as has frequently happened, of sprains and trouble at the ankle upon slight provocation.

The case is also very instructive as showing how very vulnerable a joint and foot may become with slight contractures, and how long a person may be disabled by a sprain under these circumstances. The pain produced in these cases is sometimes very severe. In a neurotic girl, such as Miss B—— certainly was, the pain was very greatly exaggerated.

In this case there are none of the ordinary causes which can be relied upon to account for the conditions found at the ankle-joint and tarsus. There is no history which furnishes any clue. It does not come under any of the previous classifications. There is no evidence of a spinal cord lesion; nor is there any evidence of a local peripheral lesion. The contracture exists; it is permanent, and it failed to yield under an anæsthetic. Hence we may safely assume that it was not hysterical, however much the hysterical diatheses may have exaggerated the symptoms.

On December 9, 1881, I was consulted by Miss C——. She came to ask my opinion regarding her right foot and ankle. She experienced great pain in walking, and was frequently actually disabled by the pain, which was principally located at the scaphoid bone and in the plantar tissues. The extent of her walking was only one or two blocks. Her exercise was consequently very limited, and she spent most of her time when out-of-doors in her carriage. She was very liable to sprain her ankle upon slight provocation, and after one of these sprains would frequently spend a month upon her couch. She was in excellent general health, and was, when her ankle would permit, a keen enjoyer of out-door sports. There was nothing in a hereditary sense that indicated any trouble, nor was the early history of the patient sug-

gestive, save that she always remembered having had a peculiar walk from about fifteen years of age; and that while her ankle had troubled her, she did not experience any serious inconvenience, except during the three years prior to the time she consulted me.

Upon inspection of the foot there was nothing in its appearance to account for the trouble. There was nothing to indicate any articular inflammation. A high instep was noticeable, and the dorsal surface of the toes and the ball of the foot were disfigured by corns. There was only one point of tenderness on pressure and that was at the scaphoid bone. The plantar tissues were also very sensitive. The calf was large and well shaped, and the muscles were firm and solid. Upon comparing the afflicted member with its mate no gross differences were perceptible. Both feet, dropping into gentle extension as the patient sat upon a high office-chair, seemed normal. The patient informed me that the shoemaker made her right shoe upon a special last, as the instep was higher and the foot slightly shorter. The limbs were approximately of the same length; and the measurement of the calves showed that the right was slightly smaller than the left—one-eighth of an inch.

The presence of corns led me to suggest that she had been wearing tight shoes. She informed me that she had spent "nearly a fortune" in shoes and upon chiropodists. She could not wear high-heeled boots; she had tried them, and they gave her extreme pain. She had consulted several surgeons in this city and in Europe, and nearly all had accused her of high heels and tight shoes, and some had prescribed a particular shoemaker, but she had obtained no relief. I saw by the tone and manner of my patient I had better give up that line of investigation.

In examining further still with the feet in extension, as the patient sat before me, I found another tender point just anterior to the external malleolus. There was neither heat nor redness, however, and she was unaware that tenderness existed at that point until I discovered it. I began to think the patient might be hysterical. But further investigation led me to discard this as wholly untenable.

Pursuing my investigation further, I commenced to test the ankle joints as to mobility. I recalled Dr. M. P. Jacobi's case, and asked the patient to attempt voluntary flexion in the standing posture. She was entirely unable to flex the right ankle; the left one was normally flexible. In attempting to flex the right ankle, the "ball of the foot" remained as if glued to the floor. Strong manual effort on my part, with the patient in the recumbent position, failed to accomplish flexion beyond 90°. The plantar tissues were tense; the foot by actual measurement was three-eighths of an inch shorter than its mate, the test being made in the standing position, tracing the outline of the feet carefully upon paper.

The main difficulty in recognizing this condition, as in all similar conditions, arose from the fact that the examination was made with the patient in the sitting position; which means practically with the feet in the equinus position. It was only when joint motion was fully tested that the real cause was apparent.

The young lady had very strong muscles: on the affected side, the muscles seemed almost too strong to think of anything save tenotomy as a remedy. But I had succeeded in lenghtening the gastrocnemius one and a half inch with the extension shoe, in a case of equino-varus occurring in my service at St. Luke's Hospital, in a boy of sixteen, and I advised the patient to permit a trial of the extension shoe before we resorted to any operative procedure. She consented. One week later I applied the traction force with my apparatus. The first application, though painful, gave great relief. Twenty applications, covering six weeks in time, gave perfect relief, and there has been no return of the trouble. Ankle-joint flexion, though not normal, is sufficient to enable the patient to walk comfortably and without pain, and by this process the foot was lengthened three-eighths of an inch. The plantar tissues yielded as well as the tough gastrocnemius.

I might add to these cases if necessary. Time does not permit their recital, however, and I must pass on to consider a subdivision of this class, having, I believe, the same etiology as the foregoing where the conditions are somewhat different.

6. Non-deforming club-foot found in adults, especially with almost normal gastrocnemius action, but with shortened plantar tissues producing principally a changed relation of the metatarsal bones.

In two cases of this class that I have seen there was a loss of power in the tibialis anticus muscle. Most frequently there is no loss of power at all, and the muscles all respond normally to the faradic tests.

Mis N——, aged twenty-one years, a resident of New York City, came to me in October, 1884, with a letter of introduction from Dr. N. A. Roberts, of this city.

The patient's hereditary history presented nothing that would be likely to throw light upon our subject. There was no history of rheumatism or gout in the family, nor did the patient have any evidence of trouble of this nature.

She could assign no cause for her trouble. When about fourteen she commenced to have pain in her foot. This was soon followed by a swelling at the "big-toe joint." The pain and swelling increased, and she was soon confined to the house, and was unable to walk for months. She consulted several physicians, who ascribed her trouble to one of three causes, viz.: gout, rheumatism, or tight shoes with high heels. Under advice she took much medicine, and went repeatedly to different shoemakers and chiropodists. No permanent relief followed. The tranmatism occasioned by even a short walk brought back her disability. Her general health began to suffer as a consequence of her inability to take exercise.

Her condition when I saw her was as follows: There was a very considerable enlargement at the junction of the first metatarsal bone with its phalanx, which was painful to the slightest touch. The skin was very red and tense. There was no particular pain or tenderness elsewhere. The patient was not at all apprehensive regarding the parts, except as pain was inflicted by pressure. Upon examining the ankle-joint I found that normal flexion was impossible. The foot could be flexed only to a right angle. But there was only slight gastrocnemius resistance. The real resistance existed in a markedly shortened plantar fascia, which rendered the metatarsal bones more vertical than normal. There was no atrophy present, and the muscle responded normally to the faradic current. The patient walked with difficulty and with pain.

The first application of the extension shoe gave great relief. The foot was lengthened one-quarter inch by the first application. After the second application of the traction force there was complete relief, and the patient now considers herself well; though the traction is kept up occasionally.

Mrs. M—— was sent to me on November 24, 1884, by Dr. E. C. Seguin. Dr. Seguin, in his letter of introduction, states that after a very careful examination he could exclude any constitutional cause as contributing to the condition presented by the patient.

The history of the patient shows that there was no perceptible hereditary influence at work. She had suffered during childhood from only two diseases, viz.: pertussis and rubeola. At fifteen she was fully matured, and had been well all her life.

At an early age it was noticed that she had a peculiar walk. As a little girl her friends used to comment upon it, and the patient remembers that her ankles when she was a child gave her more or less trouble. At eighteen years of age her feet became more troublesome, and as she advanced in life they became still more so. She never wore tight shoes or high heels. About three years ago the "big-toe joint" on either foot became

very troublesome. Pain was experienced at that point with a "cramped feeling" at the plantar arch. Walking became very irksome. The patient says she was conscious of restraint, though she could not tell why. The "big-toe joint" became more prominent and more inflamed. Last autumn she became so disabled that she could not walk over one block without suffering very severe pain. Chiropodists were consulted, with temporary relief, and different shoemakers were tried, with uniform disappointment.

The conditions found upon examination were so like those recorded in the preceding case that repetition seems unnecessary. The slightly shortened gastrocnemii, with the very tense and contracted plantar tissues, made the distal ends of the first and second metatarsal bones, the point where much of the weight of the body fell during the act of walking, more vertical than normal. In this instance both feet were affected.

After the second application of the extension-shoe, the relief was very marked. Traction alone had made the foot very perceptibly longer and narrower, and the patient enjoys to-day entire immunity from her "gouty big-toe joints."

Further duplication of this class of cases seems unnecessary. One word regarding "gout." I have seen nine cases of non-deforming club-foot where the principal trouble has been at the "big-toe joints," the favorite seat of gouty pain and swellings. In almost every case, except the last one (Dr. Seguin's), gout or rheumatism has been diagnosticated by prominent medical men. The removal of all unfavorable symptoms by traction proves one of two things: either these were true cases of gout which were relieved, as to the foot symptoms, by the means used, or they were pseudo-gout caused by abnormal pressure upon the exposed articular surfaces. I think it likely that, in some cases, both elements were at work, and that the elongation of the foot, coupled with the new articular relations thereby resulting, has contributed to the result. I am even led by my experience to say that many cases of true chronic gout at the point mentioned may be greatly relieved by the means employed in these recorded cases.

One word, however, before closing my remarks. The celebrated mare Maud S. presents almost the same condition that I have attempted to describe as occurring in the adult and adolescent. From a recent issue of the New York *Tribune* I copy the following remarks, made by Mr. Bonner in describing the present condition of this celebrated trotter. He says, after some general remarks: "You will observe that only the imprint of her toes is visible. The heels scarcely touch the ground. She is literally walking on her toes." . . . "Maud S. has been troubled with severe corns." Mr. Bonner, in a long and scientific way, dwells upon these and other defects in his mare and prescribes for her condition. It seemed to me worth while to stop a moment and notice this very accurate description of the condition I have called to your attention, though applied to a horse rather than to the human being, especially so as my search for medical facts bearing on the subject has been fruitless. And yet there are many persons to-day who are practically walking on their toes, and who, like Maud S., have corns and other disagreeable sequelæ which, I am happy to say, are very easily relieved.

Early Ovariotomies.—In Professor William Gibson's entertaining and instructive "Rambles in Europe in 1839," page 27, we read: "After several hours spent in St. Bartholomew's Hospital wards, Mr. Lawrence took me to the museum, . . . where I saw a great variety of beautiful preparations, many of them put up by Mr. Paget, who is represented as a young man of uncommon talent and promise, and by him I was shown three or four remarkable specimens of ovarian cysts, removed successfully through a small opening into the abdomen."

SUPERFLUOUS HAIR.

The Russian Dog-faced Boy, and Facial Hirsuties in Women.

By GEORGE THOMAS JACKSON, M.D.,

Instructor in Dermatology to the New York Polyclinic, and Assistant Physician to the New York Skin and Cancer Hospital.

By hypertrichosis, hirsuties, or superfluous hair is meant a growth of hair which is either abnormal in amount or occurs in abnormal situations. While it is normal for a man to have a beard of from say four to six inches in length, it would be abnormal for him to have one reaching to his feet. Again, while normally the hair grows thick and strong upon the cheeks, chin, and upper lip of the human male after puberty, should such a growth occur upon the face of the human female it would be abnormal. In most books treating of the hair an abnormality of direction of hair growth is included in the chapter on hypertrichosis. This malady is called *trichiasis*, and is most frequent and most grave in its effects among the eyelashes, the misdirected hair growing toward the conjunctiva bulbi, and causing great annoyance and mischief by rubbing against that sensitive membrane. It belongs, however, to the domain of the ophthalmologist, and will not be further treated of in this article.

Before proceeding with our subject proper, let us stop for a few moments to consider how the hair grows. The first indications of future hair growth are met with on the face of the fœtus at about the tenth to the twelfth week of its existence, and at successive periods upon the scalp, trunk, arms, and legs, till at about the seventh month they are seen upon the backs of the hands and feet. The hair itself makes its appearance about one month later, and in the same order. The hair, roughly speaking, may be said to consist of a *shaft*, whose lower end is expanded into a bulb-shaped *root*, which rests upon and grows from a *papilla*. About the root is a sheath, called the *root-sheath*, and the whole rests in a pocket called the *hair-follicle*, at the bottom of which is located the papilla. The hair receives its nutriment chiefly from the papilla, but also to no small extent from the root-sheath. But the primitive or embryonal hairs are, as a rule, not permanent. At about the sixth to the eighth month of fœtal life a change begins and is continued after birth. This change consists in a falling out of the primitive hairs, which, as a rule, are pigmented, and in a growth of new pale hairs. If the whole process is completed before birth, which is generally the case, the child presents the usual appearance of having hair only on the head and eyebrows, and this sparse and light-colored. Often, however, the process is not complete at birth, and the child is born with long dark hair on the scalp, or it may be that the body also is more or less covered with hair. This is met with not infrequently upon the forehead, exhibiting very beautifully the manner in which hair grows from centres, to the right and left, the line down the middle of the forehead being plainly seen. In most all cases these long hairs are shed, to be replaced by the permanent hair. This is the change of type between the primitive and permanent hair.

Hypertrichosis may be general or partial, congenital or acquired. Of these the general form, hypertrichosis universalis, is very rare, while the acquired form, or hypertrichosis partialis, is the most frequent and is familiar to every one in the cases of the unfortunate bearded women.

Hypertrichosis universalis is generally congenital as well, and, in spite of its name, does not affect the whole body. Hair never develops, even in this disease, in places in which normally no hair is found. It is not met with, therefore, upon the palms of the hands, the soles of the feet, the backs of the last phalanges of the fingers and toes, the inside of the labia majora, the prepuce, and glans penis. Subjects of this malady are usually born covered more or less thickly with hair, which may be light or dark in color. This continues growing longer, coarser, and

darker till it reaches its full development. As a rule the long hair covering the body is fine, resembling more the hair of the head than of the beard, as is also the case with the hair on the face of these people. It follows a definite direction in growing, and this is away from certain well-defined centres. Thus on the back it grows on each side downward and outward from the spinal column; on the forehead away from the middle line, following the lines of the eyebrows, so also from a line running down the face, etc. With this excessive growth of hair there is usually combined a deficiency of teeth, specially marked in the upper jaw.

These homines pilosi are met with in all quarters of the world. Thus we have records of the Kostroma family from Russia, a father and son. They first attracted notice some twelve years ago, and were described in a number of European medical journals. The father died some four years ago in Paris, and the son is now on exhibition in this country in Barnum's travelling combination show. Nothing is known of the parentage of the father, nor have I found any record of the boy's mother. An excellent likeness of the father is given in the last volume of Ziemssen's "Handbuch der Speciellen Pathologie und Therapie." The special interest in these cases is in the face. The father has already been described; I would here speak of the son, whom recently I have examined. He is said to be sixteen years of age, and looks like a well-developed boy, though somewhat under the average height. He appears to be muscular, and is active and energetic in his actions. He seems intelligent, and certainly showed acuteness in the rapidity and correctness with which he gave me change for a dollar bill when I bought his photograph. He talks Russian with great rapidity, and has picked up some English and German words. His agent says that he is docile, and his health is good. His head is covered with a luxuriant growth of fine, glossy hair of blond color, and some six inches long. This extends further down on the neck than is usual. The scalp is normal, white, and soft. Coming forward, the hair grows well down on the forehead, and then continues over the whole face, though on the face it is finer and lighter in color than on the head. The facial hair does not resemble in texture the usual hair of the beard, even where it grows in the places ordinarily occupied by that growth in men, but is much softer. Upon the upper lip there is a space occupying about the middle third, where the growth is very scanty. Under the eyes the hair also is absent for a space of about half an inch. Otherwise the whole face is covered with long hair, it growing from the inside and outside of the nose and continuing all down the neck. There is also a luxuriant growth of hair from the inside and outside of the ear. Under each eye is a group of three or four black hairs. The hair of the face is some four inches long. Upon the body the most remarkable growth is down the spinal column, where the hair stands out not unlike a horse's mane. The rest of the trunk and the extremities are completely covered with hair, but not very much more so than in not a few other hairy people. The backs of the hands present nothing remarkable. On the body the hair is exceedingly fine and delicate, and more fluffy than that on the head and face. There is a cast in his left eye, and he is near-sighted. He has only five teeth, two upper canine, and two lateral and one middle lower incisor. The alveolar ridges show no sign of there ever having been any more teeth. The teeth he has are badly shaped and discolored. His father is said to have had no teeth till he was seventeen years old, and then only four in the lower and one in the upper jaw. The *London Lancet* in 1873 reported the boy as having four incisor teeth in the lower jaw, so he must have lost one.

Other instances of universal hypertrichosis have been reported. Thus the case of Barbara Ursler is cited by Stricker (*Virchow's Archiv*, 1877, lxxi., 111) as occurring in the seventeenth century. This woman's whole body was covered with blond, soft, curly hair, and she had a thick beard reaching to her girdle. In a book published in 1642 and entitled "Aldrovandi Monstrorum Historia," is an account of a hairy family consisting of the father aged forty, a son aged twenty, and two daughters aged eight and twelve. They came from the Canary Islands, and were covered with hair, excepting in the daughters, whose lips, nose, neck, breast, and hands were smooth. In the *Lancet* of 1851, Chowne reports a case of universal hirsuties occurring in a Swiss woman twenty years of age. Her body was covered with hair excepting on the breasts and chest, which were free of the growth. In Beigel's book on "The Human Hair," accounts of several cases of this deformity are given, viz.: that of Julia Pastrana, a Spanish dancer; and of Shewe Maon and his daughter Maphoon, in India. The latter's second child was hairy like its mother. In the father and daughter there was an absence of the canine and molar teeth. But it is useless to multiply examples, as the foregoing cases are sufficient.

Of *partial congenital hypertrichosis* we have an immense number of examples. This condition is apt to be of the nature of nævus. It must be held in mind that the distinction between a localized hypertrichosis and a nævus is made mostly upon the color of the underlying skin. In the former case the skin is perfectly normal, while in the latter it is pigmented and may be otherwise altered. Thus we have in the *Lancet* of 1869, ii., 276, an account of a Mexican woman who had a nævus pilosus extending, like a pair of bathing trowsers, from the umbilicus anteriorly and the sixth dorsal vertebra posteriorly, to about half-way down the thighs, covering the buttocks. Dr. Cummin (*London Medical Gazette*, 1836, xix., 263) mentions the case of a lady who was noted for the beauty of her face, whose body from breast to knee was covered with a profusion of black, thick, bristly hair. Waldeyer ("Atlas der mensch. u. thierisch. Haare") reports the case of a girl nine years of age, who had a lock of hair running from the first to the fourth lumbar vertebra, and a smaller one from the third to the fourth cervical vertebra. These localized and partial cases of hypertrichosis are most frequently met with in the sacral or lumbar region, and not infrequently are associated with spina bifida.

Partial acquired hypertrichosis is more common than is the congenital variety, and takes the form either of an excessive growth of hair in regions where it is usually found, or of the development of hair in regions usually hairless or only provided with downy or lanugo hair.

The following cases are instances of excessive growth and precocious development. Chowne (*Lancet*, 1852, i., 421) speaks of a boy eight years of age, who had the whiskers of a man. Beigel (*Virchow's Archiv*, 1868, xliv., 418) has seen a six year old girl with pudenda like a twenty year old woman, both in shape and hair. As cases of excessive growth, the following may be mentioned: Leonard ("The Hair, its Diseases and Treatment") mentions the case of a man in his neighborhood whose beard measured seven feet six and a half inches in length. Other instances of excessive length of beard are met with in medical literature, such as that of the carpenter at Eidam, whose beard was nine feet long, and who was accustomed to carry it in a pocket devoted to the purpose; and that of the Bürgermeister of Braunau, whose beard reached to the ground. Wilson met with a lady who was five feet five inches in height, whose hair, when she walked, trailed three or four inches on the floor. Many men have an excess of hair upon the chest and shoulders. Hair is generally better developed upon the forearm than upon the upper arm, and upon the legs than upon the thighs. As men grow old they are apt to have long hair grow from the nostrils and the ears. These are instances of the growth of strong hair where normally only lanugo hairs are present. But these cases are interesting as curiosities, and as subjects of study. The growth of the beard in women is the form of hypertrichosis which concerns us most, as it is the deformity

which we will be called upon to cure. As women grow old, especially after they have passed through the climacteric period of middle life, a slight mustache or a few straggling dark hairs on other parts of the face often appear. These growths seldom annoy them much, as they are accepted as evidences of advancing years. The case is very different when a young woman is afflicted with a beard, and most of the patients who apply for relief from their facial hair are between twenty and thirty-five years old. The hair generally begins to grow so as to be noticeable at about the eighteenth year of age. To get rid of the trouble the tweezers are first resorted to, and this only makes matters worse. Then depilatories are tried which have but a passing effect, and some of them leave bad scars. Sometimes burning is attempted, and as a final refuge the razor is used. All the time the hair grows coarser and more abundant. Were this all, though it would be bad enough, these cases would not so greatly need our aid. The deformity is only the beginning of evils. These women shun company, keep themselves shut up all day, their health deteriorates, and constantly brooding over their misfortune, they are prone to become hypochondriacal and melancholic. Any one devoted to dermatological practice must have seen these nervous, sensitive women, whose health is broken and spirits depressed on account of, it may be, no very formidable facial hirsuties. The amount of hair presented by these cases varies. Perhaps the commonest growth is a mustache alone. In most of my cases the hair has grown thickest and coarsest under the chin and upon the front of the throat. It is rare, even in the best developed cases, to have much hair under the lower lip. Sometimes the growth is as complete, as heavy, and as coarse as is met with in men; an excellent account of such a case is described by Duhring in the *Archives of Dermatology* for 1877, p. 193 et seq. The skin of many of my cases has been coarse, muddy, greasy, and studded with acne.

From time to time cases of transitory hypertrichosis have been reported. This has been noticed during the treatment of a fractured limb, the hair being much more prominent upon the part that has been kept quiet and warm. In some of these cases the increase is probably more apparent than real, the hair not having been rubbed off by friction. Likewise, after injury to nerves the hair sometimes becomes hypertrophied, only to fall off after recovery. Continued irritation of a part, as by blisters, may stimulate hair growth which may or may not be transitory. The most interesting of this group of cases is that comprising those of hirsuties occurring during pregnancy, and disappearing again after some months. Wilson reported a case of delayed appearance of menstruation in which hair grew upon the face. After the menstrual function was established, the hair ceased to grow and gradually fell off.

The cause of hypertrichosis is very obscure in some of its forms, while in other varieties we can more readily discover it. In universal hirsuties heredity plays an important part. Such instances as those of the Kostroma, father and son; of Shewe Maon, and his daughter and grandchild, and others like them, attest this fact. But hereditary tendencies will not explain the first appearance of these congenital cases. Virchow endeavored to account for them upon the theory of nervous influence, founded upon the fact that in the Kostroma people the lack of development of the teeth and jaws was in the same zone as the over-development of the hair on the forehead, nose, cheek, and ears; these regions all being supplied by branches of the trigeminus or fifth cranial nerve. A glance at the account of the growth of the hair at the beginning of this paper, which is taken from Unna's article on the anatomy of the skin in the last volume of Ziemssen, will, I think, furnish good grounds for accepting his theory of congenital hypertrichosis, viz.: that it is due to a persistence of the fœtal or primitive hair; the change of type between the primitive and permanent hair not taking place. At the present time it is hardly necessary for us to gravely discuss the theories of maternal impressions, fecundation of the human female by a hairy animal, and the like.

The cause of acquired hirsuties is, in some cases, not far to seek. Heat and moisture will apparently increase the growth of hair, just as they favor the growth of vegetable life. Thus the hair has grown luxuriantly under the stimulation of poultices, and on the limbs when confined in a fracture-box. To these factors must be added an increase of the flow of blood to the part. Increase of the flow of blood will stimulate hair growth independently of heat and moisture. At least Prentiss' case of hair growing more luxuriantly and coarser under the use of pilocarpin, which causes hyperæmia of the skin, would seem to indicate this. Hypertrichosis following injury to nerves is probably dependent upon vaso-motor disturbances. The growth of hair upon exposed parts, as upon the arms and chest of laboring men, sailors, and the like, is due to the local irritation of the sun and wind.

Now we come to the more obscure cause of facial hirsuties in women. To account for this numerous hypotheses have been formed. Probably the one most generally accepted is that it is in some way connected with derangement of the uterus and appendages. Because in some bearded women there has been some evident derangement of the sexual organs, it has been affirmed that some similar derangement is present in all. This is on a par with the too loosely accepted idea that too free use of alcohol is the only cause of rosacea. In the cases I have met with, the majority were as free from uterine trouble as the rest of their sex. While it is true that some of these women are of masculine build, and have a masculine voice, most of them do not exhibit these characteristics. The heaviest bearded of my female patients was the mother of three children, and this experience is not unique. In some cases, however, there does seem to be some relation between the reproductive organs and the growth of the beard. Several instances illustrative of this have been given above. Recently, I have met with a case of a woman with a dark but not very heavy beard, which began to grow about one month before the birth of her fourth child. Then the appearance of hair on the face of women who have ceased to menstruate would suggest such relationship. We may sum up the evidence on the etiology of facial hirsuties in this way: While at times there appears to be a relation between the uterine, or more properly, the menstrual function, and the growth of hair on the face, shown by a decrease or deficiency of the first, and an increase of the second, still in the majority of cases no such relation is discoverable, and it must be viewed as a deformity or freak of nature.

An interesting study of the relation between hirsuties in women and insanity was made by Hamilton (THE MEDICAL RECORD, 1881, xix., 281). He regards hair growth on the face in women as the inevitable result of the over-active and continuous exercise of the uterine and ovarian functions. He believes it to be of neuropathic origin, connected with disorders of the fifth cranial nerve; and that when it occurs upon the face of an insane person it is indicative of an unfavorable form of insanity, especially if the subject had not reached middle life.

The *treatment* of hypertrichosis is simple and efficacious, though laborious and tedious. For general hypertrichosis we can practically do nothing. This, not because we cannot destroy hair so that it will not grow again, but because of the great amount of time it would take to destroy it. Happily, a superfluity of hair on the body does not incommode the bearer of it, nor, in most cases, do him any damage. One case, however, is upon record where the consequence of too much hair resulted in serious damage. We read of a woman in old times whose face was very beautiful. She made an advantageous marriage, but the husband was disgusted to find her body covered from breast to thighs with a profuse growth

of stiff coarse hair. Upon the strength of this he was divorced from her on the next day.

The only form of hirsuties which urgently calls for relief is that occurring upon the face in women. Until recently there was no cure for this, but in 1879 Dr. Michel, of St. Louis, devised the method of removing the hairs in trichiasis by means of electrolysis, which was taken up by Dr. Hardaway, of the same city, for the removal of superfluous hair. Since then the art has been practised by a number of physicians, notably by Dr. George Henry Fox, of this city. The question is often asked: "Is the removal, by this method, permanent?" This question may be answered, "It is, without a shadow of a doubt." The object being to destroy the papilla, and that being very small and often placed at an unexpected angle to the surface of the skin, it is not possible always to accomplish this at the first attempt. The amount of success on going over the face the first time will vary with the operator, and, according to his skill, there will be a return of from twenty to fifty per cent. of the hairs removed. It will be necessary, therefore, to go over the face a second or a third time, but then there will be no return. At times, after the dark coarse hairs have been removed, there will be found a number of finer and lighter hairs. This appearance is due partly to the uncovering of these hairs and, partly it may be, to lanugo hairs becoming stronger under the stimulation of the operation. In most cases, with proper care and the use of a fine needle, the amount of scarring will be very slight, amounting to nothing more than fine punctate cicatricial spots. In some peculiarly irritable skins it is very difficult to prevent the formation of plainly visible scars. If the proper conditions are not observed, the operator must expect to produce a good deal of disfigurement.

The amount of pain experienced by the patient will vary greatly. Some women will complain bitterly of a current of half the strength that other women will bear with ease. Certain parts of the face are far more sensitive than others. The most sensitive points, I have found, are over the ridge of the lower jaw on each side of the chin, and about the upper lip. On the whole, the pain does not amount to much, and if it does, I have found that it may be greatly lessened by rubbing the oleate of cocaine into the skin for some five or ten minutes before beginning the operation. After a time the skin seems to become tolerant of the action of the current and the patient no longer complains. Hyperpigmentation may be produced by the operation. This is a very rare complication, and is only mentioned by way of warning. I have seen it in only one case, a hypochondriacal woman, and here, instead of the redness which is always produced about the point of puncture, fading away in a few days, it gave place to a dark brown stain which remained for a number of months.

The instruments needed for the operation are a good twenty cell zinc-carbon (galvanic) battery, a sponge electrode, a proper needle-holder, a fine needle, a pair of epilating forceps, and, if the operator's eyes are not good, a lens of low power. The battery which I have been using for the past year, and which has given me great satisfaction, was made by Messrs. Waite & Bartlett, 204 East Twenty-third Street, of this city. Its current is even, and it is exceedingly easy to keep in order and to manage. Any sponge electrode will answer. There are various patterns of needle-holders, any one of which may be used. I prefer one which is not longer than three or three and a fourth inches, with a diameter of about three-sixteenths of an inch. It should be long enough to be held with ease, and not too long to be readily manipulated. If the woman has a large bust, a high chest, and a short neck, a short holder will be found a great convenience when working under the chin. The most essential instrument is the needle, and for the best success this must be carefully chosen. At first the finest cambric needle was used, and it did fairly well. Dr. Hardaway, in the April number of the *Journal of Cutaneous and Venereal Diseases*, speaks of a needle which recently he has had made, of iridium and platinum. He claims that it will follow the direction of the hair follicle, and more surely hit the papilla than will a steel needle. I have had most satisfactory results with a jeweller's instrument called a "steel broach." These may be had of any dealer in jewellers' supplies. Mine I obtained from Messrs. L. H. Keller & Co., 64 Nassau Street, in this city. These come in many grades; that known as No. 3 is a serviceable one. Their cost is trifling—a few cents a dozen. I would recommend care in selecting them, as they are so fine that their points are sometimes broken while in the packages. A lens is generally not needed. Dr. Piffard has invented a needle-holder with lens attachment, which he has found useful.

A good light is necessary for the operation, and a cloudy day is a bad one for working. An operating or reclining chair is a comfort, and the patient should be so placed that the part to be operated on is on a level with the operator's eye. The operation is done in the following manner: The patient, being in position, is to be given the sponge electrode attached to the positive pole of the battery, and told to hold it in one hand. The hair to be extracted is then seized with the forceps, and put slightly on the stretch *in the direction in which it naturally grows*. The needle, attached to the *negative pole* and held like a pen-holder, is then inserted parallel with the hair and into the follicle. One soon learns to know whether the follicle is entered or not by the sense of touch. When the follicle is entered the needle glides along smoothly; when it is not entered a sense of resistance is communicated to the fingers as the skin is punctured. The depth to which the needle is to be thrust will vary with the case. Roughly speaking, it is from one-sixteenth to three-sixteenths of an inch. The needle being inserted, the patient is told to place the palm of the disengaged hand over the sponge electrode. Watching the effect on the skin, a slight hyperæmia will be noticed about the point of insertion of the needle, which almost instantly gives place to a blanching of the tissues. In a few moments there will be frothing about the needle, and in from half a minute to a minute or more, the hair will come away upon *the very slightest traction*.

Such is the operation. Care must be taken to use the negative pole, for otherwise, instead of an electrolytic action a charring of the tissues will result, and permanent blackish spots will be left in the skin. The hair must not be pulled on with any force, for the ease with which it leaves the follicle is a guarantee of the completeness of the operation. The hairs must not be extracted in close proximity, because the inflammatory action thus set up will lead to more or less deep ulceration and subsequent prominent scars. At first, at least, some three-sixteenths of an inch should be left between the hairs; later, when the susceptibility of the skin is known, they may be taken out nearer to each other. It is best only to extract the coarser hair and to leave the lanugo hairs alone. The strength of the current to be used will depend upon the quality of the patient's skin and the recentness of the filling of the battery. Eight cells are the fewest I have used, and fifteen the greatest number.

The immediate effect of the operation is the production of a number of wheals. On the next day only red points are seen, and in a few days the skin shows minute cicatricial points, but only when examined with the greatest care. The finer the needle is, the less the reaction will be. The patient should be directed to bathe the face in *hot* water and to anoint it with cold cream.

If these directions are carefully carried out, and the requisite skill in the introduction of the needle is acquired by practice, an absolute cure will be the result.

14 East Thirty-first Street.

The Fever at Plymouth, Pa.—Several new cases of typhoid fever have occurred during the past week.

THE TREATMENT OF ACUTE RHINITIS.

By J. M. W. KITCHEN, M.D.,
NEW YORK.

It is to be supposed that most practitioners have felt with the writer their lack of power in being able to control an ordinary "cold in the head." Many will say that it is impossible to cut short such an attack—that it must run its course of from three to ten days. Even so eminent an authority as Morell Mackenzie states that if the attack has lasted for two or three days it is hopeless to abridge its course. I cannot agree with this opinion, because my experience has shown that it can be done. Very few patients think it desirable to apply for treatment for so self-limited a disorder as an attack of acute rhinitis; and yet in most cases, if the patient will submit to the necessary restraints of treatment, the attack, if not aborted, may generally be restricted to at least one-third of the time of its natural duration; and in any case, the discomforts of the attack may be greatly alleviated.

Predisposition to such attacks may be much decreased by surgical correction of abnormalities in the structure of the nasal cavities; by the adoption of better hygienic habits and practices calculated to improve the general nutrition; and by invigorating exposures to hardening influences, which include regular out-of-door exercise, cold sponge-baths, and breathing cool, pure air indoors. This latter requisition necessitates the use of the open grate fire, and sleeping in a cool, well-ventilated room having a temperature in the winter season of about 50° to 60° F. Very cold sleeping apartments are not desirable.

Acute rhinitis may be frequently *aborted*. If taken in time, a large dose of alcohol or other medicament producing flushing of the general peripheral surfaces of the body will frequently be found effective. A full dose of opium or other general sedative will also usually suffice to prevent the attack. But the practitioner rarely meets a case for treatment, outside of his immediate family, that is not already fairly started in its course. A speaker or singer may be the applicant, and wants relief so that professional duties may be acceptably performed in a few hours. What, then, should be done for such cases? These patients will usually submit cheerfully to the necessary treatment. The indications to fulfil are as follows: To quiet the circulation by means of aconite and absolute muscular repose; to soothe the general system with sedatives; to avoid reflex influences by remaining quietly in a recumbent position in a moderately warm apartment, well protected by sufficient covering; and to seek the advantages of derivation by heat applied to the feet, the other parts of the body being also kept warm while the nose is kept continually cool by external applications. This can be conveniently done by placing a small, thin rubber bag of cool water across the bridge of the nose for several hours. The water should not be so cold as to be painful. Cold sponging of the nose and inter-orbital space is good, but not so desirable as the other method. Lastly, frequent intranasal mild astringent and sedative applications may be made; and in carrying out this procedure in past times the chances were that the inflammatory action would be aggravated.

It is almost impossible to make an application in these cases with a spray or insufflated powder, without irritating the already inflamed swollen tissues, or to make an application to the whole of the inflamed surfaces, because of the occlusive tumefaction. If the spray is used, the anterior portions of the turbinated tissue receive the forcible impact of most of the application, and are much irritated; while if a powder is insufflated, though it requires an air-current of slight force to carry it into the cavities, in almost all cases it acts as an irritant. Liquid medicaments are less irritating than powders, after the application is made. Furthermore, another difficulty in properly medicating the nasal mucous membrane arises from the presence of the large amount of blood contained in the sponge-like erectile tissue in its inflamed state — blood which seems to dilute and make impotent such applied medicament as may haev been deposited on the disordered membrane. To overcome these difficulties, the writer has devised a very simple and satisfactory nasal bather for making applications to the nasal cavities. It is in no sense a nasal douche. If a beneficial application is to be made in these cases, it has to be done in the most gentle and guarded manner. To effect this purpose the bather (see Fig. 1) is constructed so that the fluid used can only flow

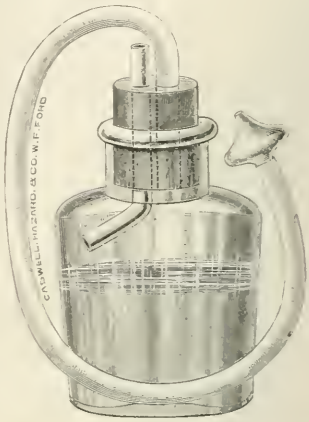

FIG. 1.

from the bottle in a very gentle current, and at a very low hydrostatic pressure.

Fig. 2 shows the method of application. The nose-piece is held tightly to the nostril, and the bottle raised the few inches allowed by the length of the flexible rubber tube, care being taken to keep the bent glass air-duct at the top, so that the liquid will only escape through the outlet. The bathing fluid then slowly flows from the

FIG. 2.

bottle and insinuates itself gently over all the surfaces of the mucous membrane in such quantity that even mild unirritating solutions if allowed to remain for some moments, produce a decidedly satisfactory effect, and with great economy as to the amount of solution used. Of course even ordinary functional use of the nose should be discontinued during the treatment, and violent blowing of the nose, or snorting, or forced inspiratory or expiratory blasts through its cavities should be avoided. Steam inhalations in these cases, though comforting, are not curative. General diaphoresis does more harm than good in the average case. Cocaine is also undesirable. It is

anæsthetic and constringing, but its appllcation is followed by an irritable reaction. I have found a very mild solution of alum and morphia with cherry-laurel water, to act best.

After the more acute symptoms subside, stronger solutions may be used in the bather.

This simple little device will be found of great service in the palliative treatment of hay fever. It is hoped, though, that the general public may be soon so thoroughly alive to the advantages of a skilful application of the galvano-cautery knife to the irritable parts of the nasal mucous membrane, that mere palliative measures will very seldom be called for in the treatment of that disorder.

168 West Fifty-eighth Street.

Progress of Medical Science.

The Operative Treatment of Knock-knee.—In a communication addressed to the Società di Chirurgia Italiana, and published as a reprint from the *Archivio e Atti della Società*, Dr. Pietro Panzeri gives the results obtained by him in upward of four hundred operations for the relief of genu valgum. In his first operations he followed Chiene's method of removing a wedge-shaped piece from the femur just above the internal condyle. This answered well in the case of children, but in a young man, twenty-one years of age, upon whom it was practised, the internal condyle was broken off, and the patient died from subsequent septicæmia. After this experience Dr. Panzeri abandoned Chiene's operation and adopted Macewen's in the case of adolescents. For children he had recourse to *redressement forcé*, and even employed this method frequently in the treatment of knock-knee in adolescents, contrary to the usual practice. He operated in this manner in more that three hundred cases, and expresses himself as thoroughly satisfied with the results. Many, if not most, of these cases would no doubt have recovered in time if provided with the ordinary mechanical supports, but the author believes that, taking into consideration the ignorance and carelessness of dispensary patients, it is the wiser plan to resort at once to forcible reduction. The operation, he states, almost always excited a moderate amount of reaction in the knee; in four cases the inflammation was severe, but all resulted in recovery. The writer never met with excessive lateral mobility of the articulation as a consequence of *redressement forcé*. A few relapses were noted, but they were confined to those cases which had been operated upon prior to the age of six years, and never reached a degree as great as that of the original deformity. In six adolescent cases paralysis of the peroneal nerve occurred as a result, the author thinks, of pressure from the retention apparatus applied after redressement. The patients treated by this method were able to walk without supports in from two to three months after the operation.

Fracture of the Patella.—Dr. Delbastaille reports a case of fractured patella successfully treated by silver-wire sutures. In forty-eight days after the receipt of the injury the patient was allowed to walk with the aid of a cane. The sutures became encysted, and caused no inconvenience.—*Annales de la Société Médico-Chirurgicale de Liége*, No. 2, 1885.

Sprain of the Superior Tibio-fibular Articulation.—Dr. Bouilly relates the following case in the *Annales Médico-Chirurgicales* for April, 1885: "A gentleman, sixty years of age, of good muscular development, made a misstep, falling nearly on his knees, but recovering his equilibrium by a violent muscular effort. At the same time he felt severe pain in both knees, but was able to walk to his home. During the following two or three days the pain increased in severity so that the patient was unable to walk about his room. The pain was located, not in the knees, but at a point to the outer side and below the joint over the anterior part of the tibio-fibular articulation. There was slight ecchymosis at this point and also a moderate degree of swelling. The sprain was evidently caused by the violent antagonistic action of the biceps and quadriceps at the time of the accident; the joint being partly flexed, the biceps pulling on the head of the fibula was working at its best advantage, and the violent action of the quadriceps in the effort to prevent a fall excited also a contraction of the biceps, with consequent strain or rupture of some of the ligamentous fibres over the anterior surface of the tibio-fibular articulation."

Cure of Malignant Pustule by Corrosive Sublimate.—The following are the conclusions of Dr. Romei from the observation of a number of cases of this affection (*Gazzetta degli Ospitali*, March 4, 1885): 1, The external employment of corrosive sublimate is almost always successful, provided the disease be not too far advanced; 2, its application is simple and easily made, and is not at all painful; 3, bichloride of mercury does not produce the cicatricial retractions which follow other methods of treatment; 4, its use is preferable to that of the thermo-cautery, since it does not frighten the patient and is painless; furthermore the hot iron leaves an eschar on which the infecting germ may develop; 5, it is a rational method, taking into consideration the infectious nature of the disease and the antiseptic action of the remedy.

Treatment of Typhoid Fever with Large Doses of Bismuth.—Dr. Real treats typhoid fever on the disinfectant plan by giving bismuth in huge doses. He begins by giving an enema containing two and a half drachms of subnitrate of bismuth, and then administers the same remedy internally in doses of five to six drachms per diem. This quantity is divided into twenty-four portions, one of which is given suspended in mucilage every hour. If constipation occur, three or four drachms of sulphate of soda are given either by the mouth or the rectum. The patient is made to drink two to three quarts of milk a day and some Vichy or other effervescing alkaline water, and may also take two pints of beer or one or two ounces of brandy. Of sixty-two patients treated by this method but two died.—*Raccoglitore Medico*, April 10, 1885.

Treatment of Endocarditis.—When endocarditis is found to be present, Dr. C. Paul applies a large blister over the region of the heart, orders rest, and prescribes some cool acidulated drink. If the disease occurs with articular rheumatism and salicylate of soda or sulphate of quinine is found efficacious, its use is continued as long as the pulse is not too rapid and irregular. If, however, the heart's action is disturbed, tincture of digitalis is to be given in doses of twenty drops twice a day, and gradually increased to sixty or eighty drops. The dose should not be increased until two days have elapsed, and as soon as the heart's action becomes regular the remedy may be diminished in quantity or suspended. The tincture of convallaria maialis, in doses of seventy-five minims per diem, may be given in place of the digitalis. As soon as the pulse becomes regular, recourse must be had to tonics, and especially the soluble ferruginous preparations.—*L'Union Médicale*, March 31, 1885.

Milk from an Aged Breast.—Dr. F. H. Nichols, of Atlanta, Ga. (*Atlanta Medical and Surgical Journal*), reports the case of an infant, born just as the mother expired, the womb contracting well while the mother was *in articulo mortis*. This infant was taken and adopted by the grandmother, a woman over sixty years of age, who, to appease its crying, accustomed it to nurse at her dried-up breast. The milk returned. The child thrived, and is now a promising five-year-old boy.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, May 23, 1885.

THE OPERATIVE TREATMENT OF CONGENITAL DISLOCATION OF THE HIP.

THE treatment of congenital luxation of the head of the femur is usually, and with justice, regarded as one of the most unsatisfactory tasks with which the surgeon finds himself confronted. Many attempts have been made to devise some method by which the head of the femur could be returned to the acetabulum and maintained in that position until the parts had so adjusted themselves that a permanent cure would result. Perhaps the most promising of these efforts were those of Pravaz, father and son, yet it is very doubtful whether they were actually successful in restoring the head of the femur to its normal place on the ilium. In most, if not all, cases of congenital dislocation, certainly after the lapse of a few years, the cotyloid cavity no longer exists, or at most is merely a shallow depression on the ilium, utterly incapable of holding the femoral head, even could it be drawn into it. Hence it is that patients suffering from this deformity are usually advised to procure a high-soled shoe for the affected side, if the luxation is unilateral, or are told that their trouble is incurable, if it is unfortunately double.

Within a few years, however, some essays looking to the cure of the affection by operative measures have been ventured with results which are certainly very encouraging. E. Rose [1] appears to have been the first to practise resection of the articular end of the femur in a case of congenital dislocation. This he did in 1874, being led to perform the operation by reason of excessive mobility of the joint in a case under his observation. C. Reyher [2] removed the head of the femur in two cases of unilateral luxation, and having freshened the surface of the acetabulum, brought the extremity of the neck into apposition with it, retaining it there by an immovable bandage. At the end of about four months the patients were able to walk. Heusner,[3] of Barmen, reported an interesting case at the Congress of German Naturalists and Physicians, held last year at Magdeburg. The patient was a young woman, twenty years of age, with double congenital dislocation of the hips. She had suffered great pain in the left hip for seven years, and extension by weights and by a hip-splint had brought no relief. Heusner removed the head, neck, and a portion of the shaft of the femur, and, having deepened the cotyloid cavity with the chisel, brought the parts into apposition. At the time that the patient was presented to the Congress, nearly three months after the operation, she was able to walk a considerable distance with the aid of a stick, without fatigue. Margary,[1] of Turin, in a communication presented to the International Congress of Copenhagen, states that he has performed seven exsections of the head of the femur for the relief of this deformity, three for unilateral and four for bilateral dislocations. He opens the joint by means of a straight incision passing from the great trochanter to the posterior superior spine of the ilium, the thigh being adducted and flexed to an angle of 45°. If the capsular ligament is not freely opened by the primary incision, the aperture is enlarged upward by a probe-pointed bistoury, and downward to the upper margin of the neck by a straight resection knife. The round ligament is then divided, and the soft parts being protected by blunt hooks, the head is severed from the neck by an Adams saw. A drainage-tube being inserted, the wound is then closed by sutures and the dressing applied with antiseptic precautions. Immediate extension is then made upon the limb by the weight and pulley, beginning usually with about seven pounds. The results in the two cases which the author reports at length were very good. The patients were able to walk well with the aid of a cane, and in one case, twenty-two months after the operation, the boy had discarded the stick and walked with a scarcely perceptible limp. The deformity was also markedly lessened; the trochanters were no longer prominent, and the lordosis had disappeared. Considerable joint motion was possible.

Another operation which Margary [2] performed in 1882, upon a boy fifteen years old, would seem to be preferable in many cases to exsection, although it was unsuccessful in this instance. It consisted simply in opening the joint through a T-shaped incision, and chiselling out the acetabulum to a depth sufficient to receive a little over half of the head of the femur. The luxation was then reduced and the capsular ligament was strengthened by a strip of periosteum removed from the posterior superior margin of the acetabulum toward the iliac fossa. The patient unfortunately died on the eleventh day, from pyæmia which was caused apparently by septic cat-gut, since suppuration was found to have occurred at each point of suture.

These few cases, while by no means sufficient to place the operation among those of recognized utility, are yet of value as demonstrating the practicability of restoring the obliterated cotyloid cavity and of reforming a useful hip-joint. We shall look with interest for the reports of further trials of coxectomy in congenital dislocation of the hip, and we cannot but hope that the promise thereby held out of relieving the unfortunate subjects of this malformation may be realized to the full. We should then have no more desperate and ludicrous suggestions as that of Mayer,[3] who actually excised a portion of the femur of the normal limb, in a case of unilateral deformity, in order to equalize the length of the two extremities.

[1] Cited by Krönlein in Die Vehre von den Luxationen. Deutsche Chirurgie.
[2] Protokol Obshchestr. Chirg. Pirogoff (Russian). 1882–1883.
[3] Centralblatt für Chirurgie, No. 45. 1884.

[1] Archivio di Ortopedia, December, 1884. [2] Loc cit.
[3] Das neue Heilverfahren der fötalen Luxationen durch Osteotomie. Würtzburg, 1855.

DEATH FROM FALLS.

People have been killed by a fall of a dozen feet. Others have fallen from heights of thirty to fifty feet, striking the ground, and have not been seriously injured. It is not possible to say how high a fall must be to be fatal. This is known, however, that children, drunken men, and sleeping men sustain falls and shocks well, owing to the greater elasticity and the more relaxed condition of their tissues.

Jumps and falls into water may be made, it appears, from very great heights without necessary loss of life. Sam Patch jumped safely into the Genesee River from a height of 100 feet. In jumping from a height of 125 feet he lost his life. In 1876, a rope-walker at Niagara Falls dropped from his rope a distance of 130 feet into the river below and successfully repeated the operation a dozen times or more. In 1882, a half-drunken man jumped from High Bridge into the Harlem River, a distance of 145 feet, and was picked up alive. The unfortunate man who lost his life by jumping from Brooklyn Bridge this past week had already, a year or two ago, jumped safely from a height of 110 feet. He had some reason to believe, therefore, that he could perform his last feat with success also.

The prevalent belief that in falling from great heights respiration is stopped and that unconsciousness occurs before the ground or water is reached is not based upon any physiological grounds whatever. The death or the injury, when it occurs, is the result of the concussion. This may not only break bones and rupture internal viscera, but it may bring the heart to an instant rest by acting reflexly upon the vagus. Naturally, the only way to avoid this most serious danger is to have the body strike the water upon an insensitive part like the feet and lower limbs. Jumpers, like Sam Patch and Odlum, kill themselves because they are bunglers, not educating themselves to their feats as circus acrobats do. With some preliminary training a jump from the East River bridge, barring strong winds, need not be fatal. That it is foolish, dangerous, and profitless goes without saying.

THE CONDITION OF GENERAL GRANT.

During the past week, General Grant has been in a comparatively comfortable condition. He obtains his full amount of sleep, takes his nourishment without difficulty, and is quite free from pain. At the consultation, May 17th, Drs. Sands, Shrady, and Douglas being present, it was found that the swelling under the angle of the jaw on the right side had increased in size; that the glands were still indurated and deeply fixed, also that there was a tendency toward diffused infiltration into the adjoining tissues of the upper and anterior portions of the neck. There was consequently some rigidity of the jaws, preventing the wide opening of the mouth, thus in a measure interfering with the examination of the throat. The palatal curtain was somewhat swollen, but the destructive processes at the side of the uvula had not markedly extended. No change had been noted in the appearances of the right tonsillar region, nor in those of the posterior part of the pharynx. The ulceration on the right side of the base of the tongue showed a tendency to extend backward, was more excavated, and had an elevated and indurated border. At the examination on Wednesday, made by Drs. Douglas and Shrady, the local conditions we e found to be unchanged.

SPLENOTOMY, AND THE INDICATIONS FOR ITS EMPLOYMENT.

The experiences of the surgeon and the physiologist in connection with the removal of the spleen have already borne considerable fruit, and we are in a position now to speak quite definitely as to many points bearing on this subject. It was known to the ancients that animals who had by injury been deprived of their spleens might survive, and both Aristotle and Pliny expressed their belief that this organ was not essential to life. Many observers in recent times have confirmed this view.

The careful experiments of Zésas (*Langenbeck's Archiv*, Band xxviii., p. 815, and of Winogradoff (*Wratsch*, 1883, Nos. 6 and 7; *Revue de Chirurgie*, 1885, p. 318) show best the results of extirpation of the spleen in lower animals. Zésas found that in rabbits, after extirpation, there was an increase in the number and the size of white corpuscles, and a diminution in the number and size of the red cells. These changes progressively increased until the tenth week, when they reached their maximum. The mesenteric, and in some cases the subclavicular lymphatic, glands were enlarged. In two cases there was hypertrophy of the liver. Winogradoff found in dogs substantially the same changes as had Zésas, the lymphatic glands being increased in size from sixteen per cent. to twenty-six per cent. of the weight of the animal.

In man the spleen has been removed on account of injuries in 18 reported cases, and on account of diseases in 37 cases, making a total of 55. In the splenotomies for traumatic lesions the patients in all cases recovered. In the operations for disease there have been 29 deaths and 8 recoveries, or about twenty-one per cent. This does not, however, present the matter fairly, as Dr. H. Gilson shows, in a careful review of the subject prepared for the *Revue de Chirurgie* of April 10, 1885. It is probable that many cases in which the spleen has been removed for injury have not been reported. On the other hand, the results of removal of the spleen depend much upon the condition of the diseased organ and of the patient.

The spleen was removed in 2 cases for cysts, in 2 cases for mobility, and in 1 case for lympho-sarcoma, in all 5 cases with success. The spleen has been removed 19 times for leucocythæmia, and with only one successful result, obtained by Franzolini, of Turin, in 1882. It seems, therefore, that leucocythæmia is a contra-indication for splenotomy. The spleen has been removed 12 times for non-leucæmic hypertrophy, with two successes.

The indications for splenotomy, therefore, are traumatisms, wandering spleen, cysts of the spleen, and primary splenic hypertrophy.

Of the patients who have survived after the removal of the spleen, there are histories given of only five. These histories are so imperfect, however, that no positive deductions can be drawn as to the effects upon the human system of the removal of the spleen. There ap-

pear to be sometimes enlargement of the lymphatic glands and of the thyroid body, and there are temporary changes in the number of the blood-cells, such as have been observed in the lower animals.

In performing splenotomy a median incision is preferred. There is no special technique, but the rules governing abdominal surgery must be applied. The great source of danger is from hemorrhage.

In connection with this subject, it will perhaps interest our readers to learn the latest views of the physiology as given by Professor Alex. Tauber, of Warsaw, in a recent number of *Virchow's Archiv*.

The deductions Tauber draws from experiments and from clinical observations are: 1. That the spleen must be regarded as one of the main reservoirs of the blood; its removal therefore exerts a great influence on the circulation, as seen in the occurrence, shortly after the excision, of congestion of the liver, kidneys, and especially of the lymphatic glands. 2. No physiological affinity exists between the thyroid and the spleen. 3. An animal of middle age bears splenotomy much better than an old animal, hemorrhages being liable to occur in the latter. 4. Animals deprived of the spleen can bear living young, in whom the spleen is present. 5. The removal of the spleen does not impair the digestive function or nutrition. 6. After removal of the spleen the animal becomes anæmic; the relative and positive number of white corpuscles notably increases, while the size and number of the red corpuscles diminish.

News of the Week.

The Degree of F.R.C.S.—Dr. G. W. McCaskey, of Fort Wayne, Ind., writes us, referring to a statement made by a correspondent in The Medical Record of March 25th, that he has received the following note from Mr. Henry A. Pitman, Registrar of the Royal College of Surgeons of London. It reads as follows: "Dear Sir: In reply to your letter stating that a degree of F.R.C.S. can be passed in twelve hours by a physician in good standing, I beg leave to inform you that there is no truth whatever in the statement."

An Anti-vivisectionist Disposed of. — Mr. J. Rendel Harris, Associate Professor of New Testament Greek and Paleography, at the Johns Hopkins University, seems, says the correspondent of the *Boston Medical and Surgical Journal*, to have found his field of instruction too restricted, and to have fallen foul of the laboratory work of the biological department. As a consequence, Professor Harris's connection with the university has been severed. He announced that he "would rather resign all advantages of a connection with the university than compromise in the least degree his freedom of speech," which is apparently to be interpreted that he does not care to teach New Testament Greek unless he can preach anti-vivisection. Mr. Harris is said to be of the strictest sect of English anti-vivisectionists.

Cancer and Cigar Smoking.—Tobacconists in this city admit that since publicity was given to General Grant's case, there has been a considerable falling off in the number of cigars sold in this city.

The Point of View.—Our esteemed contemporary, the *Louisville Medical News*, thinks it would be "better a thousand times" to have no International Congress than to make any concessions to the "bolting specialists of Gotham."

We would have the Committee of Arrangements keep in view the points "that the International Medical Congress has an independent existence with a permanent organization more interested in medical science in the abstract than in local medical politics; that the drawbacks of coming such a distance across the ocean at much expense, especially to men less accustomed and less able to travel than many Americans, can only be overcome by a united and hearty support of the representative men who have thus far been cordially co-operating with Dr. Billings and the members of the Committee of Invitation; and lastly that the 'new code' nonsense had best be allowed to pass into ready oblivion and not be given fictitious importance by further discussion."—*Boston Medical and Surgical Journal.*

"When the feelings of the Association toward the New Code men are remembered, it will be no surprise to learn that the reinforced committee have deposed from any positions of prominence which they may occupy, any gentleman whose record in regard to the Code of Ethics is assailable. Such action at this stage of organization must, however, be contrary to the interests of the Congress."—*The Medical Age.*

A French Prize Awarded to an Englishman.—The French Academy of Medicine has awarded a prize to Dr. Murrell, of the Westminster Hospital, London, for his discovery that nitro-glycerine is a remedy for angina pectoris.

Placebos.—The *Peoria Medical Monthly* criticises as "queer" and dangerous our comments on the ethics of placebo-giving; and it quotes us as saying with reference to the subject: "We feel strongly opposed, however, to erecting such a permissive measure into a canonical fracture," etc. We have never made any such statement as this, and we are profoundly in the dark as to what a canonical fracture is. Our views were frankly, and we thought clearly, stated. Physicians and intelligent laymen know that the former cannot always tell the plain facts to a patient without injuring him. It should be the rule of his life, however, to be straightforward and candid. Therefore, we say that placebos should be, and need be rarely, if ever, prescribed. There is no casuistry about this, nothing "queer" to honest minds, and nothing that need be kept from the public. *Per contra* our valued contemporary feels that there is something in "The Physician Himself" which it would be wise to hide. So far, we agree with him. Against the too obtrusive worldliness which pervades the work in question, we would like to set the maxims which Professor Gairdner has laid down for the guidance of him who would be the ideal physician: "He must have a soul above mere money-grubbing; must, on no account, degrade his profession into a trade; but must be, as far as is possible to human nature, the disinterested friend, the companion, the good genius, I had almost said, of all his patients. He must be a man endowed with a deep sense of moral responsibility, so as to beget confidence

and unfailing trust in him on the part of his fellow-men. Responsibility, therefore, to them in the first instance; but underlying that—and sustaining it as surely as the root and the stem sustain the flower—a deeper and more latent responsibility to Him who is the source of all good, and therefore of all moral principle and moral responsibility whatever." We venture to say that such a man would not find it necessary to keep a polychromatic assortment of sugar pills in his closet.

The Preservation of Chloroform.—Professor Regnauld recently communicated to the Société de Biologie the results of the prolonged researches which he has been engaged in as to the preservation of chloroform. From these it follows: 1, That if absolutely pure chloroform be exposed to solar light, whether direct or diffused, it gives the first indication of decomposition after two days during the high temperatures and intense radiations of July, and only after five days in December; 2, the same chloroform may be preserved pure in contact with the air for more than fifteen months, on the condition of its being scrupulously kept away from solar radiation; 3, the same chloroform, exposed alternately to direct or diffused solar light, may be preserved for more than fifteen months, on the condition of its remaining in contact with the azotized atmosphere completely deprived of oxygen; 4, it has been an error to attribute the changes which take place in chloroform to the presence of a certain amount of free chloral; the oxygen of the air suffices to produce them when the mixture of this gas and the vapors is exposed to insolation; 5, chloroform may be preserved unchanged, even when submitted to the simultaneous influence of air and light, by the addition of a hundredth, a five-hundredth, or a thousandth part of ethylic alcohol; 6, the intervention of ordinary ether ($C_4H_{10}O$) also proves entirely efficacious, since a thousandth part suspended the action of oxygen and light during several months.—*The Practitioner*, May, 1885.

Natural Recovery from a Therapeutical Point of View.—In these days of profound scepticism regarding the efficacy of many of our therapeutical endeavors, it is refreshing to read that all faith in the potency of drugs is not yet dead. Under the above title Dr. J. Mitchell Bruce (*The Practitioner*, April and May, 1885) presents an able and interesting argument to show that therapeutics rests on as sound a foundation as physiology and pathology, because the foundations of the three sciences are essentially the same, and all of them natural. Dr. Bruce concludes his article in the following words: "The morbid anatomist confronts us with a specimen of diseased aortic valves, and asks us what could treatment do for that. We point him to the hypertrophied wall of the left ventricle for the answer. That man is not a pathologist who fails to recognize remedy, not disease, in the thickened parietes. He may show us a phthisical cavity, and we demonstrate to him the evidences that excavation is a process for expelling a foreign and destructive organism, and that repair and localization have been active at every part of the vomica. In the case of those slighter changes in the structure, or it may be only in the functions of organs, which happily do not come under the observation of those who study disease only *post mortem*, we know that many of the phenomena are referable to the reaction of nature against a morbid influence. One and all of these methods are carefully studied and copied by the intelligent therapeutist in the practise of his art, and copied with success, whether by the application of medicinal or of non-medicinal measures. But even more important than this immediate application of the methods of natural recovery is the confidence with which the study of it inspires us, that the science of therapeutics, however backward it still may be, rests on a sound foundation, on the great law of the evolution of all things, and will assuredly one day be reared into a noble structure."

Dr. Robert Koch has been officially gazetted as Professor of Hygiene in the Medical Faculty of the University of Berlin, and has been appointed "Geheimer Medicinalrath."

Death of Professor Panum.—We regret to have to announce the death of Dr. P. A. Panum, the distinguished Professor of Physiology in the University of Copenhagen. Dr. Panum, who was well known for his practical attainments, presided over the International Medical Congress held last year.

The Conference on Cholera at Berlin.—The Conference on Cholera, which met last August, reassembled in Berlin on Monday, May 4th, to hear the result of recent experiments with the cholera bacilli which have been made by Dr. Koch since the last meeting. Professors Virchow, Bergmann, Leyden, Hirsch, Bardeleben; Drs. Skrzeczka, Kersandt, Pistor, Struck, Wolffhügel, Coler, Eulenberg, Fränkel, Gaffky, Neumann, and Schubert, who were present at the last meeting, again attended, and in addition, Professors Pettenkofer, of Munich, and Günther, of Dresden, took part in the present meeting. The Berlin correspondent of the *British Medical Journal* telegraphs that Dr. Koch began by discussing and refuting the views of Finkler and Prior, Klein, and Emmerich. He demonstrated pure cultivations of comma bacilli from France, Italy, and Germany; all these resembled one another. Of one hundred and fifty medical men who attended Dr. Koch's courses of practical instruction, one got "cholerine," and in his dejecta comma bacilli were found. The pure cultivations from Germany, mentioned above, were obtained from this case. Dr. Koch considered that the cholera bacilli belonged exclusively to cholera, that they were easily distinguishable from other bacteria, and hence were serviceable as a diagnostic. He then proceeded to describe the successful experiments on guinea-pigs made with pure cultivations. In the discussion, of which the final reports have not reached us, Professor von Pettenkofer declared himself as yet unconvinced.

The Two Detroit Medical Colleges are to consolidate into one.

An Exhibition of the Bacilli of Syphilis was given by Dr. William H. Porter at the Clinical Society of the Post-graduate Medical School recently. The bacilli were found in a syphilitic lung. This is the first confirmation of Lustgarten's discovery in this country.

Adulterations in Cocaine are already complained of by French surgeons.

At the Thirty-fifth Annual Session of the South Carolina Medical Association, held at Charleston, April 21, 1885, under the presidency of Dr. A. A. Moore, the following officers were elected for the ensuing year: Dr. O. B. Mayer, Jr., of Newberry, President; Dr. Thomas J. McKie, of Edgefield, First Vice-President; Dr. W. P. Porcher, of Charleston, Recording Secretary; Dr. J. L. Dawson, Jr., of Charleston, Corresponding Secretary; Dr. H. W. De Saussure, Jr., of Charleston, Treasurer.

The Mississippi State Medical Association held its Eighteenth Annual Meeting at Greenville, April 15th and 16th. The following officers were elected for the ensuing year: Dr. J. B. Gresham, of West Point, President; Drs. I. B. Pease and S. R. Dunn, Vice-Presidents; Dr M. S. Craft, Corresponding Secretary; Dr. W. E. Todd, of Clinton, Recording Secretary. The Society meets next year at Jackson.

Mamma Aberrans.—Under this title Dr. Cohn, at a meeting of the Berlin Medical Society, recently gave some account of wandering mammary glands, and described a case in which one gland was displaced into the axilla, the child nursing under the arm. Curiously enough, under a similar title, a daily paper gives an account of a mamma who incontinently wandered off and married a second husband, for which act she was indicted.

The Puget Sound Sanitarian is the title of a new journal published at Seattle, W. T., in the interests of hygiene and prohibition. We would call attention to the fact that the editorial statement, "that alcohol has no dietetic value, and that its action on the healthy body is invariably that of a poison, is no longer an open question but a scientific fact," is absolutely false, and it makes a bad beginning for a new journal.

Safe Milk.—Boiled milk.

Death of Professor Frederic Henle.—Professor Frederic Gustave Charles Henle, the well-known German physiologist and anatomist, died in Berlin on Monday, May 18th. Dr. Henle was born in Bavaria in July, 1809, and studied medicine at Heidelberg and Bonn, receiving his medical degree at the latter place. Going thence to Berlin, he entered the College of Anatomy, where, later on, he held an official position. Accused of affiliation with the Socialists, Dr. Henle was thrown into prison. He was soon pardoned, however, and in 1837 he was made a Professor in the Berlin University, where he devoted himself to anatomy and general pathology. Three years later he accepted a chair in the University of Zurich. From 1844 to 1855 he was a Professor in the Heidelberg University, going thence to Göttingen. Dr. Henle was best known for his anatomical writings.

The Inoculations Against Cholera.—The news comes by cable that over 4,700 persons have been inoculated with cholera microbes by Dr. Ferrán in the province of Valencia as a preventive of the disease. The new system is said to be entirely successful, and the epidemic is disappearing. Dr. Ferrán intends to visit England within a few weeks. A commission has been appointed by the British Government to go to Spain and study Dr. Ferrán's methods.

Reviews and Notices.

A Practical Treatise on Nasal Catarrh and Allied Diseases. By Beverly Robinson. Second Edition, pp. 276. New York: William Wood & Co. 1885.

This second edition comes to us in the usual excellent dress of the publishers, Messrs. William Wood & Co., profusely illustrated with wood-cuts representing the appliances and instruments employed in making applications to the nose, or in divesting this useful and ornamental appendage of the defects naturally supplied with so liberal a hand to the rhinologist's skilful manipulations. And as regards instruments, it may truthfully be said that no region of the body affords the surgeon's cutler such a field for the display of his skill, unless, indeed, exception be made in respect to that much favored organ, the uterus. But since the most enterprising gynecologist has thus far failed to discover the uterus in the male, rhinology may be congratulated that man has its analogue in usefulness to him.

In the introductory chapter, it is very properly stated that practitioners stand much in need of a reliable guide in respect to their practice in the diseases of the region under consideration, their confused notions respecting the subject leading to faulty medication, the results of which are often truly deplorable. It gives us pleasure at the onset to say that the requisite familiarity with the rhinologist's armamentarium cannot better be attained than by consulting this reliable manual, since the author has not left the representation of the instruments recommended to the uncertain catalogue of the instrument-maker, but has selected them from numerous reliable sources.

The book is divided into fourteen chapters, the first six referring to the division of the subject, anatomy, physiology and pathology, the examination of the nose, and the instruments required. Chapter VII. is on taking cold; chapters VIII. and IX. on hypertrophy of the turbinated bones and post nasal catarrh. The rest of this interesting work is devoted to aural complications, anomalies of the nose, ulcerous coryza, adenoid growths in the pharynx, and polypi.

The chapters devoted to deflections of the nasal septum, and to hypertrophy of the turbinated bodies, in which the methods in vogue for improving the interior architecture of the nose are presented, are alone worth the price asked for the book. One can but regret, however, that fuller credit is not given the pioneers in this field, since, previous to the ingenious appliances devised by Messrs. Sass and Goodwillie for working in this region, local procedures were much restricted.

The author has availed himself of the assistance of an aurist in arranging the excellent chapter on aural complications. Among other valuable suggestions it is stated that some patients, on coming under the care of the specialist in rhinology, are unwilling to recognize their deafness and appreciate its real gravity, until convinced by examinations, tests of the hearing power, and even close questioning and insisting upon the nature and importance of the aural disorder. Dr. Robinson, being deeply impressed with this indifference of some patients, urges upon rhinologists the necessity of guiding and directing their patients in regard to the hygiene of their ears, and of giving them "the careful, judicious, and learned attention their cases imperatively require, or else direct them to some prominent otologist, who shall do for them what is *most* important for their welfare."

One can but wish that patients belonging to all special branches were more frequently thus aided in comprehending the importance of their symptoms by the kind suggestiveness of those well qualified to advise, and liberal enough to direct them, when thus educated up in regard to their ailments, to the "prominent" specialist.

The profession is very much indebted to the author

for undertaking a treatise covering the ground embraced in the title, and only to the truly envious person could it ever occur that, in taking so much in hand, a greater field for research had been sequestrated than subsequent mastication could properly prepare for the reader's digestion; such thought, if ever entertained, must quickly be dispelled by the intelligent reader on perusing the work, which has the impress throughout of the writer's most lucid and instructive style, a statement which leaves nothing more to be said in its favor. No physician's library can be considered complete without this book, and a large demand for it is predicted.

THE NATURE OF MIND AND HUMAN AUTOMATISM. By MORTON PRINCE, M.D., Physician for Nervous Diseases, Boston Dispensary, etc. 12mo, pp. 173. Philadelphia: J. B. Lippincott & Co. 1885.

THIS work is an elaboration of a thesis written some eight or nine years ago, during the author's days as a medical student, and its scope is well expressed in its title. Our space forbids an adequate criticism of the book. It is replete with matter of interest to the specialist in nervous diseases. Its characteristics are clearness of expression and candor in argument.

Reports of Societies.

ILLINOIS STATE MEDICAL SOCIETY.

Thirty-Fifth Annual Meeting, held at Springfield, Ill., May 19, 20, and 21, 1885.

(By Telegraph to THE MEDICAL RECORD.)

FIRST DAY—TUESDAY, MAY 19TH—MORNING SESSION.

THE meeting was called to order at 10.20 A.M., by the President, DR. J. S. BOOTH, of Sparta.

Prayer was offered by REV. J. S. MUSGROVE.

THE ADDRESS OF WELCOME

was delivered by the present Governor of the State, R. J. OGLESBY. The profession were to be congratulated, he said, in their efforts, as they were purely for the advancement of public health and good. While he knew nothing of medicine as a science himself, he did know that the science could only be promoted by clinical investigation, interchange of opinions, etc. The objects were to separate as far as possible the profession from empiricism and quackery. He knew of no ministers of public good that have it in their power to do so much good as the medical profession. He therefore, on behalf of the citizens of Springfield, heartily commended and welcomed them.

DR. COOK, of Mendota, in a few well-timed remarks on behalf of the Society thanked the Governor for the hearty welcome.

The report of the Committee of Arrangements was, on motion, received and adopted.

The first order of business was the President's address, entitled,

HASH.

He said as life is short we should attend to its duties promptly. Those under our teaching and guidance in the professions should be started out on their professional career properly, but to be able to improve others we must first improve ourselves. We learn in medical societies our duties to our friends, to each other and to ourselves, we learn also to respect the opinions of others, as it is easier to see faults in them than in ourselves. He recommended

STATE LEGISLATION TO REGULATE THE PRACTICE OF MEDICINE, ALSO A STATE BOARD OF EXAMINERS.

Nothing short of common sense would make a good physician, but that alone would not do it. It required the necessary education, etc. He severely condemned the practices adopted with a view to the prevention of conception as well as destroying gestation after once established. All such procedures were not only wrong but pernicious.

The address was received and referred to the Committee on Publication.

The Society then adjourned.

FIRST DAY—TUESDAY, MAY 19TH—AFTERNOON SESSION.

The Society was called to order at 2.30 P.M.

The first paper was the

REPORT BY THE COMMITTEE ON GYNECOLOGY.

by DR. DAVID PRINCE, of Jacksonville. The paper contained a general *résumé* of the recent advancements and inventions in that branch. It had reference principally to the various new instruments which he exhibited.

On motion, the report was received and referred to the Committee on Publication.

The next paper was the

REPORT OF THE COMMITTEE ON OBSTETRICS,

by DR. CHARLES WARRINGTON EARLE, of Chicago. The paper consisted essentially of abstracts, notes, and remarks upon the therapeutics, pathology, and practice of obstetrics. In his remarks on therapeutics, reference was first made to the use of cimicifuga racemosa during parturition, in which he claimed it had a sedative and antispasmodic effect, thereby relaxing the soft parts and making labor shorter and more easily borne. He said recently equal parts of chloroform and sweet oil, applied over the symphisis and on the abdomen, on flannel cloths, had had good results. He thought cocaine could be used on the os uteri with advantage. Bichloride of mercury had, to a certain extent, taken the place of carbolic acid, but experience had shown that it required to be used with caution. The prevalence of opinion favored the idea that puerperal convulsions were the result of kidney derangement. He favored the use of forceps in breech presentations, as also immediate operation in lacerated perineum. In extra-uterine pregnancy he thought the best procedure was to destroy the life of the child with the faradic current, one pole in the rectum and the other over the abdomen.

DR. PRINCE thought the best means for controlling post-partum hemorrhage was to pour ice-water from a distance so that it gradually fell on the abdomen of the woman.

DR. TRUESDALE, of Rock Island, favored postponing the operation for lacerated perineum.

DR. WAXHAM, of Chicago, had never used the curette nor placenta forceps, but used his finger instead for retained placenta, and never lost a case.

The paper was referred to the Committee on Publication.

DR. THOMAS M. MCILVAINE, of Peoria, read

THE REPORT OF THE COMMITTEE ON MATERIA MEDICA AND THERAPEUTICS.

He thought many physicians relied too much on drugs, and it was a fact that the more sanguine they were in their belief in drugs the more they were liable to neglect other important details. There should be more reliance placed upon non-medicinal measures.

DR. S. N. DAVIS, of Chicago, thought it scarcely just to intimate that we had any physician in the profession who thought drugs would cure all diseases. Some, however, had too much faith and some too little.

The paper was referred to the Committee on Publication.

The next paper was

THE REPORT OF THE COMMITTEE ON OPHTHALMOLOGY,

by DR. W. T. MONTGOMERY, of Chicago. He said his results with jequirity were about as follows: Ten per

cent. were cured the first time; twenty-five per cent. were cured the second time; thirty per cent. were improved; fifteen per cent. were not benefited. Allusion was also made to the good results from the use of muriate of cocaine.

Dr. S. J. Jones said so much had been claimed for cocaine that he was afraid it would fail to do all claimed for it, and would therefore fall unjustly into disfavor.

The Society then adjourned.

Second Day — Wednesday, May 20th — Morning Session.

The Society was called to order at 9 A.M.

Professor Henry J. Reynolds, of Chicago, read a paper

ON THE TREATMENT OF ECZEMA.

He said an intelligent knowledge of the principles upon which treatment should be based always suggests the form of treatment that will be applicable to each case regardless of its name or location. The pathological condition being absolutely identical in no two cases, so the treatment must always vary, and a knowledge of specified lines of treatment or combinations of drugs said to be useful, with a neglect of consideration of the principles upon which treatment should be based in each individual case, in this, as in all other diseases, is liable to mislead. Therapeutically speaking, he regarded the disease as always either acute, subacute, or chronic, regardless of its clinical name or location, and arranged the treatment accordingly. In the acute, as in all other acute inflammations, the great principle necessarily involved was rest, which implied not only quietude of the member, or part, but rest from all irritating influences, as scratching, irritation of lice, friction, dirt incident to the calling of the individual, too frequent washing, etc. Soothing and protecting measures, therefore, were indicated in this stage, among which might be mentioned carron-oil, poultices, etc.

In the subacute, as in all other stages or forms, scratching must be strictly prohibited, as it was the most fruitful of all sources of aggravation. He used in this and the chronic conditions (either of which may at any time develop acute symptoms, and require the treatment changed accordingly) pure, impalpably fine boracic acid as a dusting powder, having first gotten rid of crusts and scales by soaking with oil and washing with soap and warm water. In the chronic, however, he used greater stimulating measures, in the way of green soap, frequently rubbed in during washing. To relieve intense itching he had found nothing so effectual as a first-class letting alone. He thought bandaging and strapping advisable whenever practicable, and preferred the cotton roller to the rubber where there was much exudat on or maceration of the skin. He reported two cases, of twelve and twenty years' standing respectively, of eczema rubrum of the leg associated with varicose veins and ulceration, where many remedies had been tried without success, that he cured by the application of boracic acid and bandaging.

He said, as certain constitutional conditions predispose to the disease, and therefore necessarily aggravated or prolonged it when once established, these conditions must be sought after and corrected. He had but little faith in the popular skin remedy, arsenic, in this or any other disease. All he knew positively of the remedy was that harm could be done with it. Chrysarobin internally, as recommended by Stoquart, he had tried without any benefit.

A report from the State Board of Health was received, and referred to the Committee on Publication.

Several bills now before the Legislature in the interest of the people of the State, as well as the medical profession, were discussed by Drs. Rausch, of Springfield, N. S. Davis, and A. B. Strong, of Chicago.

The report of the Committee on Necrology was read by Dr. M. F. Bassett, of Quincy, and referred for publication.

Dr. J. P. Mathews presented a case of a young man in whom typhoid fever had been followed by an

ULCER JUST BELOW THE VOCAL CORDS,

with great obstruction.

TRACHEOTOMY WAS PERFORMED LAST JANUARY, AND THE TUBE WORN EVER SINCE,

as he could not breathe freely without it till recently. There was no evidence of syphilitic or tubercular trouble.

The paper was discussed, and similar cases reported by Drs. Ingalls and Waxham, of Chicago, and Dr. Pruitt.

Prof. Hoadley, of Chicago, read a paper on

TOO OFTEN FEEDING

as a cause of disease, and a protest against one cow's milk. Several cases were reported by the author, showing the very beneficial results when the frequent feeding was discontinued, and the child fed at regular intervals. He said there were a great many reasons why the milk should be changed if the child did not do well, especially if the cows are kept in town.

Drs. Byford, Jr., and Waxham made remarks in the discussion.

Dr. Truesdale, of Rock Island, then made the report on "Traumatic Tetanus," which was read and referred.

THE REPORT ON NOMINATIONS

was received and adopted.

THE REPORT ON INSANITY

was read by Dr. R. J. Patterson, of Batavia, and referred to the Committee on Publication.

Dr. M. F. Bassett, of Quincy, read a paper on

ALCOHOL AS A THERAPEUTIC AGENT,

in which he claimed that, while admitting the drug to be useful in many instances, the bad moral effect so frequently caused by it more than offset its good.

It was referred for publication.

The report on "Physiology" was read by Dr. A. Wetmore, of Waterloo, and was referred for publication.

Professor E. Fletcher Ingalls, of Chicago, read a paper

ON RECURRENT LARYNGITIS,

and its relations to hypertrophic catarrh, in which he concluded as follows:

"1, The affection was usually dependent upon nasal obstruction; 2, the obstruction, in the majority of cases, was due to deflection and thickening of the septum or hypertrophic catarrh; 3, to effect a permanent cure, local remedies were unreliable, and the obstructing tissues must be removed; 4, operative procedures for removal of these obstructions may be made painless by the use of hydrochlorate of cocaine; 5, this method of treatment, properly carried out, may be relied on to cure the catarrh, and the laryngitis of which it was the cause; 6, great improvement in the general health of the patient often immediately follows the removal of the nasal obstructions; 7, in acute catarrh immediate relief may be obtained by insufflation of small quantities of cocaine."

The paper was referred for publication.

Dr. D. R. Brower, of Chicago, read a paper on the

TREATMENT OF EPILEPSY.

Dr. Byrd thought that when trephining was not successful, a larger portion of bone should be removed.

The paper was referred for publication.

Dr. H. R. Guthrie, of Sparta, read a paper on

MEDICAL EDUCATION,

which was referred to the Committee on Publication.

(To be Continued.)

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Eighty-seventh Annual Session, held in Baltimore, Md., May 12, 13, 14, 15, and 16, 1885.

(Continued from page 551.)

THIRD DAY—THURSDAY, MAY 14TH.

DRS. GEORGE J. PRESTON, W. J. Jones, Samuel T. Earle, William T. Councilman, E. E. Mackenzie, and B. W. Goldsborough were elected members. Drs. E. J. Williams and M. B. Billingslee qualified as additional delegates from the Medical and Surgical Society of Baltimore.

REPORT OF THE SECTION ON PRACTICE OF MEDICINE.

DR. JOHN S. LYNCH presented a report on

ANTIPYRIN

Its discovery, he said, was scarcely less important than that of quinine. By it febrile temperature, under whatever circumstances it occurs, can be absolutely controlled. He had used over fifteen ounces of it since last November, and in a great variety of affections—phthisis, rheumatism, typhoid fever, pneumonia, malarial fever, etc. With but two exceptions he found it certain, safe, and reliable. In rheumatism, he found it quite as curative as salicylic acid. In malarial fever it hastens defervescence, converting a remittent into an intermittent fever, and rendering quinine much more efficient; it has no curative power, however, in malarial affections. No giddiness, headache, or tinnitus aurium follow its use; in two cases it produced vomiting, which readily ceased on its discontinuance. Ordinarily fifteen to twenty-two grains every two to three hours are sufficient. Its effects ensue rapidly—in one or two hours; it thus possesses great advantages over quinine. But its action is much more transient than the latter, and hence it must be given longer and more frequently. The first dose usually causes sweating, which is sometimes copious. Given during the paroxysm of intermittent fever, it prolongs the intermission. It is soluble in its weight of water, and is not disagreeable to take (as quinine and salicylate of sodium are). If continued in some cases, it causes an inconsequential eruption.

DR. R. H. THOMAS referred to the

ANTIPYRETIC POWER OF KAIRIN

in phthisis, acute rheumatism, etc., in five to ten grains every hour. It will reduce a temperature of 103°–104° F. in two or three hours to 99°; when it reaches this point he suspends. An experience of eighteen months convinced him of the necessity of using caution, as alarming depression may result from a negligent use of the drug. When the temperature has been once reduced quinine will often keep up the effect.

DR. R. WINSLOW had employed kairin in a boy with typhoid fever in five-grain doses. It produced alarming but not fatal collapse.

The Report from the Section on Materia Medica and Chemistry was, on motion, referred to the Publication Committee, on account of the unavoidable absence of the Chairman, Dr. Eugene F. Cordell.

REPORT OF THE SECTION ON ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

DR. WILMER BRINTON presented a report on pathology, giving a review of the researches regarding the cholera bacillus, the micrococcus of pneumonia discovered by Friedlander in 1883, Eberth's bacillus of typhoid fever, and Lustgarten's syphilis bacillus.

RECTAL MEDICATION.

This was the title of a paper by DR. D. W. CATHELL, author of "The Physician Himself." The advantages of rectal suppositories not only in pelvic but other affections were advocated, especially in administering morphia and belladonna.

REPORT OF THE SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

DR. FRANK DONALDSON read a paper from this section on "Personal Observations on the Value of Hydrochlorate of Cocaine in Nose and Throat Surgery." He had used it daily since its discovery by Koller last September, and found it of great value as an astringent, a hemostatic, and a local anæsthetic in removing nasal polypi and other operations about the nose and throat. Its value was conspicuous in the dysphagia of tuberculous laryngitis. It was also very valuable in the thickening of the nasal mucous membrane, rendering operations by knife, snare, and galvano-cautery painless.

DR. JOHN N. MACKENZIE did not think much was to be expected from it in acute and chronic congestion of the nasal mucous membrane, as its effects were very transient.

DR. R. H. THOMAS referred to its value in facilitating examination of the nasal cavities by shrinking the membrane.

DR. HERBERT HARLAN presented a report on Ophthalmology from the same Section.

FOURTH DAY—FRIDAY, MAY 15TH.

Drs. G. T. Atkinson, of Crisfield; H. H. Biedler, of Baltimore; and B. R. Benson, of Cockeysville, were elected to membership.

REPORT OF THE SECTION ON SANITARY SCIENCE.

DR. W. CHEW VAN BIBBER read a paper on

TRAVELLING AS A TONIC.

DR. GEORGE H. ROHÉ, of the same Section, read a paper on

THE NON-NECESSITY OF ANY RADICAL CHANGE IN THE PRESENT SYSTEM OF DISPOSAL OF THE DEAD.

In this paper Dr. Rohé undertook to prove that burial was a harmless method; the opposition to it, he said, emanated from some "supposed" sanitary authorities. There is very little trustworthy evidence that cemeteries are injurious to the health of those living near them. The good health of workmen in them and in knackeries contradicts the opinion that gaseous emanations from decaying animal matter are dangerous to health. Micro-organisms are not moved by air-currents when attached to a moist surface. Wells near cemeteries, as a rule, furnish water as pure as that from places inhabited by living human beings where the soil is more or less polluted. There is no safe basis for the conclusion that infectious diseases and epidemics may be communicated through air, water, or soil of cemeteries. The evidence of the dangers of burial during epidemics lacks accuracy. The greatest violence of disease in several yellow-fever epidemics and in the small-pox epidemic in this city in 1883, was not in the vicinity of cemeteries. He maintained that the expense of cremation would be as great as a first-class funeral. It is claimed that during epidemics bodies can be disposed of more rapidly and effectually by cremation than by burial. There are twenty-three deaths daily in this city (Baltimore), which would require four crematories.

Suppose the number increased to one hundred, would it be possible to reduce that number to ashes with ordinary arrangements? A fatal objection to burning bodies is that in cases of criminal poisoning cremation would destroy all evidences of the crime. When bodies are buried in suitable soil the decay goes on rapidly and without offensive emanations.

The following were Dr. Rohé's conclusions: 1. Cremation is not necessary as a sanitary measure under the conditions prevalent in this country. 2. It has no ad-

vantage on the score of economy over interment. 3. It fails to meet the requirements of epidemics or wars as well as burial. 4. It is objectionable from a legal point of view, as criminal poisoning would often pass undetected if incineration were general. 5. It fails to comply with the emotional demands of our nature by substituting a harsh and unseemly procedure for the more poetic and sentimental slow dissolution going on in the grave.

Dr. John Morris said that after the refutation of Dr. Rohé's views at the meeting of the American Public Health Association in St. Louis, he did not expect to hear from him. Crematories are valuable in epidemics; fire is the great purifier and will be to the end.

Dr. Van Bibber suggested that a body could be held for examination when there was suspicion of crime.

Dr. J. C. Thomas said embalming by the use of poisons was open to the same objection.

Dr. James Carey Thomas, from the same Section, presented a paper on

THE IMPORTANCE OF THE SPECIAL TEACHING OF SANITARY SCIENCE AND PREVENTIVE MEDICINE.

Physicians, he said, should be able to advise the municipal and district authorities on matters relating to public health as well as to so study the constitution, habits, and surroundings of the families and individuals committed to their care as to be able to hinder them from falling a prey to preventable sickness. The disastrous epidemic of typhoid fever at Plymouth, Pa., is a recent example of the fatal effects of the disregard of the obvious sanitary precautions in the pollution of drinking-water. It is proposed to introduce the study of elementary physiology and hygiene into the public schools of Maryland, and it is important that physicians educated in our medical colleges should keep in advance of public intelligence in this direction. The Illinois State Board of Health place hygiene among their minimum requirements, and state that in 1883 it was taught in sixty-four medical schools in the United States.

There was no report from the Section on Microscopy, Micro-Chemistry, and Spectral Analysis.

REPORT OF THE SECTION ON PSYCHOLOGY AND MEDICAL JURISPRUDENCE.

The report was presented by Dr. J. S. Conrad, Chairman, who took for his subject "Insanity." Dr. Conrad quoted statistics to show the great growth of insanity in this country. During 1870–1880, according to the census, the increase of population was 30 per cent., while the number of insane increased 155 per cent. It would appear that there are 400,000 persons in this country either insane, or in institutions of some kind for their safe-keeping. During 1875–1880, the number of institutions for the reception of the insane increased from 68 to 139, with 40,942 in hospitals, costing nearly double as much as in 1875. The State Insane Hospital of Maryland in 1875 contained 170 patients, in 1884 it had 494; Mount Hope had in the former year 279, and in the latter 477. He knew of no harder worked men and women; hence neglect of patients. The remedy is to separate the acute and chronic cases, with cheaper accommodation for the chronic, who chiefly need only custodial supervision. At present the superintendents are unable to give medical attendance in consequence of their executive duties; consequently treatment is left to assistants—young men, as a rule, unqualified for the duties, and frequently appointed for political preferment, as are nurses and attendants. There is almost a complete absence of any systematic study of brain diseases. How many in this learned body ever heard a lecture on insanity in any medical school? How many ever read a systematic work on insanity, and how many ever saw or studied half a dozen cases of the disease in its different forms? Suppose these questions could be asked of you as to other branches of medicine or surgery with similar results, and who would consult with such a person? The graduate student may be in theory informed as to the significance of a mitral or aortic murmur, but if his ear is not educated by experience is it not a serious question if he really can recognize them?

The sounds which come from the brain are far more complicated than those from heart or lungs. How, then, can we expect one without instruction and experience to form an intelligent idea as to what the mental condition of an insane patient may be. What is the difference between an hallucination and an illusion of sense—an hallucination and a delusion? Why is it that an hallucination may be a delusion, and the latter not the former? What is the difference in point of knowledge between a doctor who has not studied the subject of insanity and a layman, when they give opinions on the subject? Not one whit, except that one has an M.D. to his name, and the other has not; that is all. Yet there are many medical men who will dare assert an opinion on the witness stand in a question of insanity which he has never studied. A noted gynecologist in the Guiteau case was positive of the prisoner's insanity. Such self-assertion often brings the profession into contempt. We have two medical schools in this State—one of them one of the oldest in the Union. Each has a faculty of acknowledged ability. One has only in the last two years taught the subject of insanity in its curriculum; the other never has. But in this our State is not far behind other States.

Dr. Conrad also replied to the statements made by Mrs. Packard, the lady who had addressed the faculty at the second day's session (as already mentioned). Mrs. P. had asserted that there was a large number of persons confined in insane asylums who were perfectly sane. The assertion was supported, he said, only by herself. No such case came under Kirkbride's notice in over fifty years' experience with the insane, nor under that of the superintendents of asylums convened in Washington in 1878. Her charge that persons are buried from knowledge of friends for years is unfounded; does she forget the habeas corpus act, or that asylums are under the government of State Boards of Directors? Were the alleged falsely-confined persons examined by an expert there would be found good cause for their detention—as in the Lyman case and others.

If the law required security for safe-keeping of those removed by process of law there would soon appear another side to these cases. A few years ago a Captain Ames was committed to Mount Hope Retreat. He was discharged by habeas corpus, a jury deciding he was sane; but shortly after he fired three shots at two persons in the dining-room of his boarding-house, one of whom he had never spoken to. If those securing his release had been obliged to give security they might have had more regard for the opinion of others who had some knowledge of insanity. In another case, where a husband removed his wife, she soon after shot him fatally while sleeping by her side. A third case which has brought calamity on two prominent families of this State by the death of a gentleman at the hands of an insane man will also be recalled. There can be no objection to the placing of mail-boxes in all the wards, provided letters are overlooked by the board of managers or a lunacy commission as in Massachusetts and other States. If there were no supervision, patients would constantly expose themselves and frequently use such obscene language as would give pain to their friends and to the patients themselves in case of recovery. Outcries against insane asylums came often from that class of insane persons who are sane enough to deceive those who know nothing about the subject, but crooked philanthropy and humanitarianism is all nonsense when we hear of the murder of some of our best citizens and innocent children by the insane in almost every issue of the daily press.

Dr. Gundry had heard from Mrs. Packard before. He had not the slightest objections to postal conveniences for patients, but if a superintendent will read letters improperly, will he not tamper with boxes? For twenty-

five years his patients have had their letters unopened. On the whole he thought it best not to break the seals of the letters, yet there is now a patient whose letters he would not for the world let go out as written.

Dr. Randolph Winslow read a volunteer paper on "Six Cases of Gunshot Wounds of the Abdomen."

Dr. John N. Mackenzie read a paper entitled

OBSERVATIONS ON THE ORIGIN AND CURE OF THE DISEASE CALLED "HAY ASTHMA" (CORYZA VASOMOTORIA PERIODICA),

of which the following is an abstract: Ignorance of intranasal pathology on the part of those investigating the complaint, false theories, and especially the pollen theory, have, by drawing attention to less essential conditions, been barriers to therapeutic progress and have contributed to the sufferings of the patient. After criticising the various theories on the subject, Dr. Mackenzie proceeded to show that the disease called hay fever is no new affection, but has descended through the centuries under the guise of the convulsive asthma and nervous coryza of the older writers and nosologists, and that the so-called idiosyncratic influence in its production may be traced in all probability to the time of Galen. Dr. Mackenzie does not regard the disease as an affection of any particular century, or confined to any condition of mankind. According to his conception the affection commonly known as "hay fever" is simply a grouping together of certain prominent and frequent symptoms of a particular form of nasal inflammation to which he has given the name *rhinitis sympathetica*, characterized by a peculiar excitability of the nasal cavernous tissue possibly linked to an exalted state of the nerve-centres (see abstract in *Maryland Medical Journal*, April 11, 1885; see also on pathology of the affection, *Trans. American Laryngol. Assoc.*, 1884, p. 113, and articles in New York Medical Record, for July 19 and October 18, 1884).

To the intelligent treatment of such cases certain principles should be borne in mind which underlie the etiology and mechanism of the paroxysms. It should be borne in mind that the excitability of the turbinated tissue is a secondary phenomenon dependent, as a rule, upon a direct impression made upon the sensitive nerves of the mucous membrane and upon the terminal filaments of the olfactory; or an indirect influence conveyed or reflected through the vaso-motor centres from a distant organ; or finally, from some excitation starting in the centres themselves. This stimulation of the nerve-centres, from whatever cause originating, is reflected outward probably through the sympathetic filaments which reach the turbinated structures with the spheno-palatine nerves. Now, as these nerves are distributed over the posterior and inferior portions of the nasal fossæ (sensitive reflex area), the turgescence of the erectile tissue is most noticeable over this particular area, and it will be found that this surface represents the most sensitive spot to the reflex-producing impression.

Destruction of the terminal filaments of the sensitive nerves accomplishes thus one result—it closes one door against *ab extra* irritation of the nerve-centres. In order to exclude completely the influence of the latter, it is necessary in addition to remove all sources of local irritation, from whatever cause originating. In this way the production of paroxysms from external agents acting directly on the nasal mucous membrane is prevented. The above measures alone are obviously insufficient to protect from paroxysms due to agencies operating within the organism, or from reflected irritation from other parts of the body. The indication here is to remove the cause and diminish or abolish the reflex excitability of the erectile tissue—mark it, not to produce artificial contraction of its muscular elements, whose inevitable result will be permanent weakening and dilatation of the intercellular walls, but so to alter the nutrition of the nerve-centres that they may not respond so easily to impressions which awaken the reflex. Failing in the above methods, the destruction of the cavernous tissue should be undertaken. In the majority of cases it is neither necessary nor advisable to destroy a large portion of the cavernous bodies; the amount to be sacrificed depends upon the exigencies of the particular case. Dr. Mackenzie does not usually wait for the interregnum of immunity, but operates between the paroxysms, and by this means has succeeded in preventing their return, even when the individual has been exposed to the exciting causes of the paroxysm. He makes a stellate incision with the cautery knife in the tissue to be removed, the advantage of which resides in the resulting cicatrix and the greater potency of the nostril secured therefrom.

The prognosis depends not only upon the special predisposing and exciting causes of the disease and the facility of their removal, but also upon the amount of structural injury done to the respiratory organs, to the central nervous system, and to other parts of the body subjected to the reflex disturbances to which the frequency of the paroxysms has led. In general, it is good, relief can always be secured, and in a fair proportion of cases a cure may be effected.

TUMOR OF PYRIFORM SINUS.

Dr. John N. Mackenzie exhibited a tumor about the size and shape of the testicle, removed from the right anterior inferior segment of pyriform sinus of a clergyman, who for eight months had had symptoms of obstruction of the throat and nightly suffocative attacks. Tumor filled sinus, riding over epiglottis, depressing it, and hiding greater part of larynx. Deep situation of its broad pedicle made operation with mirrors difficult. Retching took place, whereupon the growth was seized with forceps; an écraseur was passed over forceps to base of tumor and growth was completely removed. No bad after-symptoms. Microscopic examination by Dr. Councilman showed areolar connective tissue in which small areas of lymphoid cells similar to the "lymphoid" corpuscles were embedded, the masses being most abundant under the epidermis covering the growth. There was no trace of glandular structure.

Fifth Day—Saturday, May 16th.

Dr. C. O'Donovan, Jr., read

A REPORT OF FIVE CASES OF OVARIOTOMY

from the records of the Hospital for the Women of Maryland, of Baltimore City. These cases had occurred in the service of Dr. William T. Howard, one of the attending surgeons. Four recovered and one died.

Dr. Howard, who was present, said that the death of the fatal case was almost a foregone conclusion, no hope being entertained of her recovery. The autopsy revealed malignant disease. With regard to the significance of albuminuria, he did not consider Bright's disease in moderate degree as a contra-indication to the operation. If we rejected all cases of albuminuria we would reject many that recover. Wherever there is congestion there will be albuminuria. All forms of casts known may be found during pregnancy, yet recovery may be complete, and instances of patients living many years with evidences of structural disease of the kidneys are not uncommon.

Dr. Lynch urged the importance of examining the urine before all surgical operations. If the kidneys are found to be structurally affected, no serious surgical operation should be undertaken.

Dr. Christopher Johnston read a paper sent him by a former member of the Faculty, Dr. David Stewart, now of Port Penn, Del., upon "Carbon as an Antiseptic Dressing for Wounds."

Dr. Tiffany thought the use of this substance objectionable, on the ground that it would be likely to occasion discolorations of the surface, not unlike those produced in tattooing with india-ink.

Dr. F. Donaldson, Jr., presented a paper, "Abstract

of a Paper on Tonsillar and Labial Chancre in a Woman, constituting a Syphilitic Reinfection."

Dr. J. H. Branham read a paper on "Stricture of the Urethra," with specimens.

Dr. J. E. Michael read a paper for Dr. W. S. Maxwell, of Still Pond, Kent Co., Md., on "A Case of Pericolitis due to Perforation of Bowel." An abscess behind the colon on left side, due probably to some foreign body which had escaped from the intestine, burst into the peritoneum with fatal peritonitis.

This concluded the reading of papers, and the remainder of the session was devoted to receiving reports and transaction of business.

The Committee of Trustees of Building Fund, having accomplished nothing, was discharged.

Dr. T. Barton Brune reported that the Directory for Nurses was not in a flourishing condition. There were only sixty nurses on the register. There was a cash balance for the year of $33.33.

Dr. Christopher Johnston thought the advent of the Sisters of Bon Secours, who were skilled nurses, accounted for the paucity of results.

Dr. Brune thought not, as there were only fourteen of the Sisters, and there ought to be employment in a community like this for several hundred nurses. He had endeavored to have the Sisters register, but ineffectually.

The Committees on Legislation relating to the insane, to sale of poisons, to practice of anatomy, to instruction of feeble-minded children, were continued.

Dr. George H. Rohé, of the Committee on the Relations of the Medical Profession to Certain Sanitary Needs of the Community, made a report, in which the deficiencies of legislation in regard to purity of water, food, and medicines, the professional standard, a sanitary survey of the State, regulation of the social evil, etc., were discussed.

In accordance with the recommendations of the report a Committee on Public Hygiene, to be the medium of the Faculty in its intercourse with the public or its legal representatives, but without power to act finally until its conclusions have been ratified by the Faculty, was appointed, consisting of Drs. Geo. H. Rohé, E. G. Waters, and J. Carey Thomas.

Dr. J. E. Michael's amendment to the constitution, changing the word "gentleman" to "person," the object being to make female physicians eligible to membership, was adopted without dissent.

On motion of Dr. R. Winslow a committee of five was appointed to memorialize the Legislature with regard to the passage of a law regulating the practice of medicine in Maryland, the Committee's report to be first submitted to the Faculty before presentation.

The Committee on Precautions against the Threatened Cholera Epidemic made an incomplete report; among other things the measures recommended in the address and report of the American Public Health Association had been adopted by the Committee.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:

President—John R. Quinan.

Vice-Presidents—E. C. Baldwin and J. Edwin Michael.

Recording Secretary—G. Lane Taneyhill.

Assistant Secretary—Robert T. Wilson.

Corresponding Secretary—T. Barton Brune.

Treasurer—W. F. A. Kemp.

Executive Committee—T. S. Latimer, P. C. Williams, L. M. Tiffany, H. P. C. Wilson, and Christopher Johnston.

Board of Examiners of Western Shore—Chew, Opie, W. M. Kemp, Friedenwald, Cathell, Ashby, and C. H. Jones.

Board of Examiners of Eastern Shore—Atkinson, Bayly, Chamberlaine, Bordley, and Maxwell.

Delegates to Medical Societies—Virginia: Drs. Wm. Lee, Chisolm, and H. P. C. Wilson. West Virginia: Drs. McComas and Brinton. Alabama: Lynch and Browne. Pennsylvania: Barron and Taneyhill. New York: Morris and Perkins.

THE FOURTH GERMAN CONGRESS OF INTERNAL MEDICINE.

Held in Wiesbaden, April 8, 9, 10, *and* 11, 1885.

Professor Gerhardt, President, in the Chair.

(Special Report for The Medical Record.)

The success which had attended previous meetings of the Congress for Internal Medicine was more than equalled on this occasion. More than two hundred and fifty physicians were present, representing Germany, Austria, Switzerland, Holland, and America. Prominent among these were Binz, of Bonn; Donders, of Utrecht; Filehne, of Erlangen; Fraentzel, of Berlin; Gerhardt, of Würzburg; Hack, of Freiburg; Immermann, of Basel; Koerte, of Berlin; Leube, of Erlangen; Leyden, of Berlin; Liebermeister, of Tübingen; Meynert and Nothnagel, of Vienna; Preyer, of Jena; Senator, of Berlin; Vierordt, of Tübingen; Weigert, late of Leipzig; and Ziegler, of Tübingen.

First Session—April 8th, 9 A.M.

Professor Gerhardt, of Würzburg, in the Chair.

In opening the meeting, the Chairman paid a glowing

TRIBUTE TO THE MEMORY OF THE LATE PROFESSOR FRERICHS,

who had presided at the first three meetings of the Congress.

The list of Vice-presidents and Secretaries was then announced, and the first paper of the meeting read, on

THE TREATMENT OF CORPULENCE,

by Professor Ebstein, of Göttingen. The essential elements of the Ebstein method consist in the withholding of all carbo-hydrates, and, as far as possible, fluids, from the diet of the patient. Fats are allowed. Not the least advantage of the method is the fact that the patients suffer little or no inconvenience, and the treatment may be kept up indefinitely. Excellent results are reported; but marked success is not to be expected under several months.

Professor Henneberg, of Göttingen, followed with a paper on the same subject. In the discussion Bauer (Munich), Zuntz (Berlin), Meinert (Dresden), Unna (Hamburg), Baelz (Japan), Leube (Erlangen), and Jürgensen (Tübingen), took part.

Second Session, April 8th, 3 P.M.

Professor Mosler, of Greifswald, in the Chair.

Professor Hack, of Freiburg, read a paper on

THE SURGICAL TREATMENT OF ASTHMA.

The importance of treating any lesions of the nasal mucous membrane, as polypi, etc., was emphasized. Discussion postponed.

Dr. Lustgarten, of Vienna, gave a demonstration of the

SYPHILIS BACILLI

recently discovered by him. The bacilli, which resemble those of tuberculosis and lepra, occur constantly in syphilides. They are always enclosed in cells, probably wandering cells.

Dr. Pfeiffer, of Wiesbaden, gave a demonstration of the

CHOLERA BACILLUS.

Professor Bostroem, of Giesen, read a paper on

ACTINOMYCOSIS.

Dr. Unna, of Hamburg, presented a patient who had been successfully treated for

LEPRA TUBEROSA

with pyrogallol, chrysarobin, and ichthyl, successively, the remedies being exhibited both internally and externally. Ichthyl was regarded as possessing the most favorable action. In the discussion which followed, Baelz (Japan) and Schultz (Kreuznach) took part.

Professor Immermann, of Basel, read a paper on

LATENT ARTICULAR RHEUMATISM.

The disease is characterized by obstinate neuralgia of the second branch of the trigeminus, accompanied by high fever, occurring during epidemics of articular rheumatism, and resisting all ordinary treatment, but yielding promptly to sodii salicylicum. In the discussion Edlefsen, of Kiel, corroborated these observations.

Third Session, April 9th, 9 A.M.

Professor Gerhardt in the Chair.

Professors Filehne, of Erlangen, and Liebermeister, of Tübingen, read papers on

ANTIPYRESIS,

the former discussing the chemistry of the antipyretics, the latter treating the subject from a clinical standpoint. Discussed by Jaksch (Vienna), Zuntz (Berlin), Strümpell (Leipzig), Bauer (Munich), Rossbach (Jena), Hintzing (Munich), Heubner (Leipzig), Thomas (Freiburg), and Jürgensen (Tübingen). There was but little difference of opinion among the speakers, the general verdict being exceedingly favorable on the action of antipyrin. This remedy and the cold bath were regarded as the most reliable means of combating the most dangerous symptom in febrile diseases. The drug is to be given in doses of one and two grammes.

Zuntz, of Berlin, then exhibited specimens and charts in illustration of the

NEWLY DISCOVERED CENTRE IN THE NUCLEUS CAUDATUS,

a lesion of which is followed by hyperpyresis.

Fourth Session, April 9th, 3 P.M.

Professor Körte, of Berlin, in the Chair.

Professor Meynert, of Vienna, read a paper on the

MECHANISM OF INSANE IDEAS,

a paper which it would be impossible to adequately notice in brief here.

Dr. Edinger, of Frankfort, gave a demonstration of the

COURSE OF THE SENSORY FIBRES OF THE BRAIN.

Dr. Liebig, of Reichenhall, read a paper in which the favorable action of high

ATMOSPHERIC PRESSURE IN ASTHMA

was explained mechanically as due to the forcible dilatation of the small air-passages and vesicles.

Professor Rossbach, of Jena, followed with a paper, giving the results of experiments on dogs, on

MOVEMENTS OF THE STOMACH

in different conditions of dilatation with solids and fluids.

Fifth Session, April 10th, 9 A.M.

Professor Gerhardt in the Chair.

Dr. Curschmann, of Hamburg, read a paper on

BRONCHIAL ASTHMA.

The speaker emphasized the differentiation of asthma into two groups: Primary, in which the lesion is to be sought in the nerve-centres; secondary, in which the lesion is peripheral. The latter is again divided into two varieties: Those cases in which there is and those in which there is not an observable lesion of the respiratory organs. The treatment is divided into two classes: That directed toward relieving the patient during an attack (narcotics, belladonna, lobelia, etc.), and that aimed at removing the causal conditions of the disease. For the latter, arsenic, quinine, and the persistent use of iodide of potassium were recommended. The speaker was followed on the same subject by Professor Riegel, of Giesen. Discussion by Professors Donders (Utrecht), A. and B. Fraenkel (Berlin), and Drs. Schmidt (Frankfort) and Ungar (Bonn).

Sixth Session, April 10th, 3 P.M.

Professor Fraentzel, of Berlin, in the Chair.

Dr. Pfeiffer, of Wiesbaden, demonstrated a case of

RHEUMATISMUS NODOSUS,

in a boy nine years of age. Only twenty-seven cases of this rare disease have been reported.

Professor Fürbringer, of Jena, read a paper on

ALBUMINURIA IN SYPHILIS.

The speaker called attention to the frequent occurrence of albuminuria in secondary syphilis. Of two hundred cases eight per cent. of those which were treated with mercury became albuminuric; while in twelve per cent. of the cases not treated with mercury, albuminuria occurred in the roseola stage. In the latter, the albuminuria disappeared on the commencement of treatment with mercury. These cases were regarded as aborted forms of acute infectious nephritis—the former being probably cases of toxic glomerulitis.

Dr. Schuster, of Aix-la-Chapelle, reported similar cases.

Professor Fleischner, of Erlangen, read a paper on

URÆMIA,

in which he occupied himself with advancing proofs against the theories of Traube, Frerichs, Voit, and Oertel.

Professor Edlefsen, of Kiel, presented statistics of eight hundred cases of

ACUTE ARTICULAR RHEUMATISM,

occurring during several years, in Kiel. But little new was added to our knowledge of the subject, except that the disease showed a tendency to show itself in particular sections of the city, many cases appearing even in the same house.

Professor Jürgensen, of Tübingen, and Dr. Friedlaender, of Leipzig, reported similar experiences, the disease occurring often as an epidemic in barracks and garrisons.

At the seventh and last session, April 11th, 9 A.M., after a brief report by Professor Binz, of Bonn, on new remedies, and the report of progress from the Committee on Infectious Diseases, the result of the

ELECTION OF OFFICERS

for the ensuing year was announced, and Wiesbaden was appointed as the place of meeting for the next Congress, in 1886.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

OPENING OF THE SUMMER SESSION—THE LECTURE SYSTEM—CHANGES IN THE CURRICULUM—THE NEW LIST OF FELLOWS AT THE COLLEGE OF PHYSICIANS.

LONDON, May 2, 1885.

THE summer session nominally commenced yesterday. Next week it will begin in real earnest, and by the time this reaches you eleven sets of lecturers will be hard at work doing what could be accomplished with equal efficiency by half their number. I refer here merely to the lecture system. There is no fear of any real surfeit of practical teaching in London any more than elsewhere. With so many as eleven schools of medicine in the metropolis it is scarcely possible to secure first-class teachers for all, and the smaller ones necessarily suffer. Where there are but a few students, it is not possible to pay enough to obtain the best teachers, or to retain them when they have been secured. Many men join the teaching staff of a small school for a year or two, and leave when "they can get something better." In some respects the larger schools possess obvious advantages. With ampler funds at their command, they can offer sufficient salaries to induce the professors of the more scientific parts of the curriculum to devote the whole—or, at any rate, a large portion—of their time to teaching or research. The smaller hospitals cannot do this, and the lecturers on anatomy, physiology, and cognate subjects can only afford to give up a fraction of their time to scientific work. Their chief aim is to obtain practice, and they only spend some of their time in instructing for the sake of a little augmentation of their incomes while waiting for practice.

Signs are not wanting that the lecture system is doomed—at any rate, in its present form. The "Conjoint Board" have issued regulations, according to which attendance on lectures on the following subjects, viz., chemistry, botany, and materia medica, is no longer compulsory. All that they demand is that the student must present certificates showing that he has "received instruction" in each of these subjects. In accordance with this rule, students now entering will be allowed to present themselves before the Conjoint Board in July, for examination in chemistry and chemical physics, materia medica, pharmacy, and medical botany. Now there are no *lectures* on chemistry in the summer session, but only a practical course. The systematic lectures on that subject are given in the winter session.

The "Conjoint Board for England" has been received with a good deal of opposition, especially from the medical journals here. It is, however, a reality now. Its practical effect will be to render the entrance to the profession more difficult. Ten or fifteen years ago it was not at all uncommon for a certain proportion of students to take advantage of the rule of the College of Surgeons, whereby eighteen months out of the four years were permitted to be spent either at a provincial hospital or in apprenticeship to a general practitioner. In this case only the minimum of time—three winter and two summer sessions—was spent in London. Now, however, with increasing complexity and stringency of the examinations, it is by no means uncommon for an additional year to be spent at a London hospital over and above the full four years. The commencement of medical study by a period of pupilage is, too, decidedly less frequent.

Fresh heartburnings are rife just now among London physicians in consequence of the new list of Fellows published by their college. Some affect to consider it a liberal list, but any one can see with half an eye that it is quite the reverse. Twenty members are promoted to the fellowship, the annual average being a dozen; but it should be remembered that last year the list proposed by the Council was too illiberal for the most illiberal of all the corporations, and the Fellows refused to pass it, so that last year no Fellows were made.

The new list is therefore for two years, and consequently far below the average for numbers. It would be invidious to point to any one of those now selected as less worthy than the others. No one of them is perhaps absolutely undeserving of the honor, but it is rather hard that older and more distinguished physicians should have had to stand aside while personal friends of the officials walk in. Probably some of the new names are quite unknown on your side of the water, while among those who have been passed by are many physicians whose names are "household words" in America.

OUR PARIS LETTER.

(From our Special Correspondent.)

EXPERIMENTS WITH THE COMMA-BACILLUS—CHOLERIZATION—A NEW EXTRACT FROM COCA LEAVES—THE MYDRIATIC PROPERTY OF HYGRINE—EXPERIMENTS WITH CAFFEINE AND THEINE—THE GLUCOSIDE OF BOLDO AS A SUBSTITUTE FOR COCAINE.

PARIS, May 1, 1885.

DR. FERRÁN, of Tortosa, lately read a paper at the Academy of Sciences, in which he gave an account of the cultivation of the comma-bacilli which are met with in such large quantities in choleric dejections, and also of the experiments that he had performed with them. Guinea-pigs inoculated with this virulent culture were not only not killed, but were rendered capable of resisting the doses which previously would certainly have killed them. The same effects were produced in different persons who had the courage to submit themselves to this dangerous experiment. From these facts the author considers himself justified in concluding: 1. The possibility of "cholerization" in man as well as in the guinea-pigs, by means of hypodermic injections. 2. That the prophylaxis of cholerization is obtained by means of injections of virulent quantities, or of gradually increased doses. But the question that here suggests itself is whether the microorganisms employed by Dr. Ferrán were really those that are said to be found only in cholera; and even admitting that they were, it is still a matter of doubt as to whether the comma-bacillus is the pathogenic element of the disease.

M. Héricourt, who has occupied himself a good deal with the question since the late epidemic, is not of this opinion, as he has endeavored to show in a communication lately made by him at the Academy of Sciences, and which may be summarized as follows:

1. That all waters, whatever their quality or origin, contain curved bacilli, among which the type described as cholerigenic are constantly found.

2. The curved bacilli as such do not exist in the air, but they are to be found there in the form of spores.

3. The presence of curved bacilli in the waters, and of their germs in the air, would explain how it is that they are to be met with wherever water is accessible to them, or where the air can deposit its dust. Their presence has also been detected in the intestinal dejections of simple diarrhœa, in dysentery and typhoid fever, as well as in the broncho-pulmonary secretions of the various diseases of the chest, from the simple catarrh to the tuberculous cavity, pus exposed to the air, human saliva, whether healthy or not—in fact, all substances capable of serving as nutriment to bacteria contain curved bacilli, and sometimes in much greater number than other bacteria with which they are found associated in these different media of culture.

4. These micro-organisms are strongly aërobied and are only to be found at the surface of these liquids.

5. In fine, they are the same which are met with in all secretions, whether normal or pathological, on the only condition that the latter has been in contact with

water in which curved bacilli are constantly found, or with the air which conveys the germs.

Since the discovery of the anæsthetic properties of cocaine by Dr. Koller, who, however, employed it only in ocular therapeutics, it has rendered immense service to general surgery, and even to medicine, but it is still only obtained at great cost. In order to make its use more generally applicable, chemists and druggists have endeavored to utilize the residue of the coca leaves, after the extraction of the alkaloid so much sought after, by subjecting the leaves to further coction, etc., and thus obtaining a second extraction of cocaine. During the process, however, it was found that instead of cocaine another substance was discovered, and this new substance is a derivative of hygrine which does not possess the same properties as those of cocaine. In applying this new substance to the eye under the impression that it was cocaine, Professor Panas found that it determined a great and persistent dilatation of the pupil, which effect was rather different from what he was in the habit of obtaining with the hydrochlorate of cocaine. Moreover, while cocaine, in addition to its mydriatic property, was a powerful local anæsthetic, hygrine was a powerful mydriatic, but did not possess any anæsthetic quality. The mydriatic property of hygrine was at least equal to that of atropine, the effects, however, lasting a much shorter time, and in trying the action of eserine, Professor Panas found that while this substance overcame the dilatation of the pupil produced by atropine, and only for a short time, it completely abolished the mydriasis due to hygrine.

Many attempts have been made to find a less expensive substance as a substitute for cocaine. Among other investigators, M. Laborde tried some experiments with theine and caffeine, with a view of ascertaining whether these alkaloids possessed the same anæsthetic properties as cocaine; but he was always disappointed, as their application to the cornea, even in a saturated solution, did not produce the least anæsthetic effect on that membrane. In connection with this subject, I may mention that Dr. Dujardin-Beaumetz considers that the degree of anæsthesia produced on the cornea by cocaine is the best test of its purity.

The glucoside of boldo is another substance proposed as a substitute for cocaine, and in some experiments with this substitute M. Laborde found that, in certain proportions, the ocular anæsthesia produced by it was as well marked and altogether comparable to that resulting from the application of cocaine.

Dr. Combes lately submitted a paper to the Academy of Medicine on the effects of morphianism on the teeth. The author observed that, when a patient had taken morphia for some time, dental caries set in so rapidly that it sometimes affects the whole set in one year. The caries was generally accompanied by the falling off of the hair. Dr. Combes offered no explanation for this state of things, but proposed as a remedy that the morphia injections should be gradually discontinued, hydrotherapy resorted to, and the local treatment should be that of caries of the teeth in general. The commission charged to report on the paper were of opinion that the dental lesions were the result of alterations in the function of nutrition similar to the gangrenous and suppurative processes observed in morphiamaniacs.

COPPER TESTS IN THE QUALITATIVE ANALYSIS OF SUGAR.

To the Editor of The Medical Record.

Sir: From the phraseology that my friend, Dr. Fowler, has used in his "Note on the Detection of Sugar in the Urine," in your issue of May 2d, I judge that he expects a reply from me, though it seems to be clear that after charging me with "one statement which is incorrect," he practically refutes this very charge in a subsequent paragraph. He objects, apparently, to my statement "that Trommer's and Fehling's methods are thoroughly satisfactory in most cases where sugar is present, though on the whole the latter is less apt to be misinterpreted;" the force of his opposition being chiefly directed against the satisfactory character of Trommer's test, which I have alleged. The answer to this charge appears, however, to be embodied in Dr. Fowler's own words, that "certain ingredients of the urine, therefore, probably the coloring matter, interfere with the reaction of Trommer's test, and the custom formerly was first to filter the suspected urine through animal charcoal, whereby it is deprived of all color, and will thus react perfectly well."

According to this admission, then, Trommer's test *is* satisfactory, so that we are in agreement upon the matter after all.

But Dr. Fowler wishes it understood that the proper way to avoid error is to employ the test under rules that he lays down, which, however, do not appear to involve any radical improvement over other modifications already in use. If the reader and Dr. Fowler will consult the ordinary books of reference on urinary analysis, it will be seen that "Trommer's test" is not a uniform one as to the strength of the ingredients, or as to the order, even, in which they are combined to make the test. Each person has, doubtless, formed his individual plan upon certain ideas of convenience that have occurred to him. Personally, I am in the habit of using a strong solution of the copper sulphate (℥j. to ℥j.). Others in my laboratory use it in the proportion of forty grains to the ounce. I use liq. potassæ, U.S.; others use liq. sodæ., U. S. I take twenty minims of the suspected urine, add to it four to five minims of the copper solution, when a dirty green deposit is observed, and I then add thirty minims of the liq. potassæ, agitate, and get a transparent Prussian blue solution. This method is usually successful in detecting sugar if present in abnormal quantity. I still call it *Trommer's method*, though it differs from that accredited to Trommer in some of the books. And I am not alone in regarding it as a highly satisfactory test. It is also extremely delicate, and will indicate sugar in the proportion of one grain to the ounce, and in the presence of a five per cent. solution of albumen—an amount of albumen that will make a nearly solid precipitate in the test-tube. I do not find that Fehling's test gives any better reaction under such circumstances.

There are fashions and traditions in medicine as in every other professional avocation, and we are now in the habit of extolling Fehling's test for qualitative analysis—and are forgetful of the objections to be placed against it. For instance, if we employ Fehling's solution, as put up in drug stores, it is known to throw down the sub-oxide of copper after standing awhile, through the decomposition of one of its organic constituents. As a result, some of us have been in the habit of keeping the three ingredients in separate vials, the solution to be made as required. But Fehling's solution is not always reliable, even if freshly made, for a urine that contains a large amount of uric acid will throw down the sub-oxide after some minutes' boiling; besides, tannic acid in saturated solution will do the same thing, and very promptly. In fact, the number of organic and other substances that can be made to throw down the sub-oxide of copper in Fehling's solution, after considerable boiling, is probably quite large. While, however, I urge these objections against Fehling's solution, I hold it in high estimation for the promptness and sharpness of its reaction. Still, in the hands of persons accustomed to Trommer's test, it is "thoroughly satisfactory in most cases." Where there is any doubt about a specimen, several tests should be applied, as a matter of course, and albumen and coloring matter, or both, can be removed by appropriate means. As a third test I should name that with bismuth. There is, unfortunately, much confusion in the minds of practitioners on the matter of sugar, but the error lies chiefly with the chemists, who have led the practitioners astray by

their experiments upon sugar as an abstract substance, rather than as an ingredient of a complex substance—the urine. There are some other points in Dr. Fowler's communication in which I might take issue with him, but I have made mention only of those that seemed of most practical importance. I am respectfully,

THOMAS E. SATTERTHWAITE, M.D.

50 EAST THIRTY-FIRST STREET.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 10, 1885, to May 16, 1885.

VOLLUM, EDWARD P., Lieutenant-Colonel and Surgeon. Granted leave of absence for three months, to take effect when his services can be spared by his Department Commander. S. O. 110, A. G. O., May 14, 1885.

SMITH, A. K., Lieutenant-Colonel and Surgeon; HAPPERSETT, J. C. G., Major and Surgeon; KIMBALL, JAMES P., Captain and Assistant Surgeon. To constitute a board of medical officers appointed to assemble at the United States Military Academy, West Point, N. Y., on June 1, 1885, to examine into the physical qualifications of the members of the graduating class and the candidates for admission to the Academy. S. O. 106, A. G. O., May 9, 1885.

MCKEE, JAMES C., Major and Surgeon. Sick leave of absence still further extended four months, on surgeon's certificate of disability. S. O. 105, A. G. O., May 8, 1885.

BROWN, JUSTUS M., Major and Surgeon. From Department of the East to Department of the Platte.

DEWITT, CALVIN, Captain and Assistant Surgeon. Ordered to Department of the East. S. O. 105, A. G. O., May 8, 1885.

CORSON, JOSEPH K., Captain and Assistant Surgeon. Leave of absence extended ten days. S. O. 109, A. G. O., May 13, 1885.

DE LOFFRE, A. A., Captain and Assistant Surgeon. Assigned to duty at Fort Sisseton, D. T. S. O. 46, Department of Dakota, May 4, 1885.

KANE, JOHN J., Captain and Assistant Surgeon. Leave of absence for seven days extended one month. S. O. 109, A. G. O., May 13, 1885.

CARTER, E. C., First Lieutenant and Assistant Surgeon. Leave of absence extended one month. S. O. 106, A. G. O., May 9, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 16, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 9, 1885	0	9	74	8	133	52	0	0
May 16, 1885	5	8	72	6	107	34	0	0
Deaths.								
May 9, 1885	0	4	12	7	24	22	0	0
May 16, 1885	1	2	16	6	16	20	0	0

TREATMENT OF ACUTE EARACHE.—Mr. H. B. Hewetson, of Leeds, recommends the slow injection of "glycerinum acidum carbolicum" into the external auditory meatus as a remedy for earache. It invariably stops the pain if poured carefully into the meatus.

FOR PHOSPHATES IN THE URINE.—A good pill can be made with five grains of benzoic acid and one minim of glycerine. This is a convenient way for giving it in phosphatic deposits.

SPECIFIC MEDICATION FOR WHOOPING-COUGH.—Dr. C. R. Illingworth writes, in *The Lancet*: "I have found a popular remedy very efficacious in the treatment of whooping-cough. I refer to picked oakum, worn by the patient either round the neck in muslin or on the chest as a pad stitched to the underclothing. Locally I apply the glycerine of tannic acid with a laryngeal brush two or three times a day, and internally I prescribe one-, two-, or three-grain doses of chloral, one, two, or three minims of belladonna, one grain of alum, and one minim of carbolic acid, in syrup, every two or three hours. A liniment of turpentine, acetic acid, and yolk of egg is an excellent application for the chest, back, and neck, night and morning, with the liniment of belladonna added in the proportion of 1 to 7. In children of two years or more, I have applied carbolic acid and glycerine, in the proportion of 1 to 15, to the larynx with success, each application checking a paroxysm at once. With the above-mentioned treatment I cure the worst cases in from seven to ten days."

ACTINOMYCOSIS.—A specimen illustrating this disease was recently shown by Dr. T. E. Satterthwaite at a society in this city. It was obtained from a New Jersey cow.

KERATIN PILLS, now much advertised in German journals, are pills covered with a coating of keratin, which is insoluble in the gastric juice but readily soluble in the alkaline juices of the intestine.

APIOL.—This is a product obtained from parsley (*apium petroselinum*) and possessing therapeutical properties analogous to those of quinine. It is given in doses of fifteen grains to a drachm.

DR. EDWARD A. WHALEY, one of the most prominent physicians in Brooklyn, died at his residence in that city on May 14th. Dr. Whaley was born in Avon, N. Y., in 1827, and graduated at the College of Physicians and Surgeons in 1850.

AT A MEETING of the New York Ophthalmological Society, held on Monday, May 11, 1885, the following report, in regard to the death of Dr. E. T. Ely, was adopted by the Society and ordered to be placed on the minutes, and a copy sent to his family and to THE MEDICAL RECORD and the *New York Medical Journal*:

"The members of the New York Ophthalmological Society herewith record their deep sense of the loss they have suffered by the death of their late associate, Edward Talbot Ely. Doctor Ely was elected a member of this Society in 1876. He became Secretary in 1880, and discharged the duties of that position with exactness and ability. His contributions to the discussions of the Society were always well considered and of value. In all their relations with Dr. Ely, the members of the New York Ophthalmological Society found him an interesting companion and a worthy representative of scientific medicine, and while they deplore his untimely death, they felicitate themselves that he lived long enough to add something to the vast and ever-growing structure of human knowledge, and to leave behind him an honored name.

"D. B. ST. JOHN ROOSA,
DAVID WEBSTER,
JOHN D. RUSHMORE,
Committee.

"J. B. EMERSON, *Secretary.*"

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 22 NEW YORK, MAY 30, 1885 Whole No. 760

Original Articles.

UNUSUAL MANIFESTATIONS OF MALARIA.

By ANDREW H. SMITH, M.D.,

PHYSICIAN TO THE PRESBYTERIAN HOSPITAL, NEW YORK.

THE term malaria will be used in this paper to denote a peculiar poison of telluric origin, whose typical action is manifested by periodical accessions of fever followed by intermissions or remissions, and which is more or less subject to the control of the class of medicines known as antiperiodics, and especially of quinine. Thus restricted, the term excludes the poisons which result from defective house drainage, or from overcrowding, or are in any way directly or indirectly of animal origin.

While the diagnosis of the usual manifestations of malaria, that is to say of frank intermittent or remittent fever, is easy, there are unusual or obscure manifestations of its poisonous action which are not so readily recognized. There are cases even in which the most experienced observer may remain in doubt as to whether the phenomena present are or are not due to malarial intoxication.

The doubt in these cases arises from the fact that there is no one symptom pathognomonic of malarial poisoning, and that it is only by the presence of a group of associated symptoms that the affection can be positively diagnosticated. If, then, some of the symptoms belonging to this group are absent, and if furthermore other symptoms not belonging to the group are present, it may not be possible to arrive at anything more than a probable diagnosis, about which equally competent observers may well differ.

Referring to the definition of malaria already given, it may be remarked that the cases in which fever is absent, or at least is a wholly subordinate factor, are so numerous that we cannot insist upon it as necessary in any given instance. A host of manifestations undoubtedly malarial and mostly of a neurotic character are not marked by a greater degree of fever than might fairly be considered symptomatic of the prominent condition present. This is especially true of intermittent neuralgia, which, even in its severest form, is often accompanied by no more fever than the pain itself might be expected to occasion. Still, if the thermometer is employed instead of relying upon other signs, we shall often obtain from it information as unexpected as it is valuable; and it is to be noted in this connection that in these cases internal temperatures alone are to be relied upon, as the vaso-motor disturbances so intimately associated with malaria render axillary temperatures utterly untrustworthy.

Periodicity is a much more reliable test of malarial influence. Indeed, if we leave chronic malarial cachexia out of view, I do not believe that malarial poisoning can be positively made out in any case in which periodicity is wholly absent. The assertion that this or that affection is "malarial," without even inquiring as to the existence of intermissions or remissions, is too often a cover for ignorance or indolence. But the trouble is that, while in typical cases of malaria the periodicity is strikingly regular, in atypical cases it may be very irregular. Now in many affections not malarial irregular and even regular periodicity is a prominent feature, as, for example, in pyæmia and hectic fever. Hence, while the absence of periodicity is strong negative proof, its presence does not afford equally strong positive evidence. In cases in which there is but a single paroxysm the difficulty is still greater.

There still remains the diagnostic indication to be derived from the action of antiperiodic medicines. This, too, is beset by uncertainties, for, aside from the inevitable question of *post hoc* and *propter hoc*, quinine will not always put a stop to malaria, while it will relieve many morbid conditions not malarial.

In view of all these difficulties, the question may well be asked, How are we ever to know whether any but a typical case is or is not malarial? The answer to this is that, while in some cases there is no way by which we may arrive at absolute certainty, yet in most instances, by carefully weighing all the circumstances, we may come to a pretty definite conclusion.

The first point to be considered is that of exposure to the infection. If the patient has been for a lengthened period in a locality in which malaria is unknown, and if he has not suffered from malaria during a period of several years, the chance of its being a factor in an otherwise doubtful case would be almost nil. But the localities so free from paludial poison as not to afford a possible source of infection are, at least in this country, extremely rare: and with the nomadic habits of the American people, there are very few who do not expose themselves frequently to the chance of meeting the poison.

In this city, it is safe to say that the opportunity for infection is *always* present. The long period during which the poison may remain latent, extending, according to some writers, to one or two years, comes also into the account.

A history of former attacks lends great probability to the malarial character of a doubtful case. Susceptibility in the past argues susceptibility in the present, and conversely, one who has been often and freely exposed to malaria without becoming infected may be supposed to have a certain degree of immunity.

The manner of attack comes next in importance. If a patient in his usual health is suddenly taken ill, without any obvious cause, and if, after a period of four to twelve hours, the illness passes away, and especially if the latter part of the attack is marked by perspiration, the suspicion of a malarial causation in a case not otherwise explainable is warranted, even before a second attack.

The attack may have any one of a vast variety of forms, and may simulate almost any known disease; still, its abrupt accession, its brief duration, and its sudden termination, taken together, will suggest the idea of a malarial paroxysm. A repetition of the attack, particularly if it occur at the same hour of the day, adds the element of periodicity to strengthen the suspicion.

The effect of antiperiodic medication may aid materially in the diagnosis of doubtful cases. But the result must be promptly attained, else we shall be exposed to the danger of mistaking the simple tonic effect of the remedy for a specific antiperiodic action.

A neuralgia which yields promptly to one or two full doses of quinine would in so far be liable to the suspicion of a malarial parentage, while one that requires a long course of the drug for its removal is more likely due to an atonic condition, not at all connected with malaria.

Enlargement of the spleen is tolerably constant in malarial paroxysms, and when present aids materially in deciding the nature of an otherwise doubtful attack. But it is sometimes absent, or at least so slight in extent as to leave room for doubt as to its having any real significance, for slight splenic enlargement will take place whenever, from any cause, there is the least hindrance to the portal circulation.

Although some authorities have attached a good deal of diagnostic importance to certain appearances of the tongue, yet, beyond the fact that the organ is apt to be somewhat œdematous, there is nothing in its condition which can be considered distinctive of malaria.

The following cases which have occurred in my practice are brought forward partly to illustrate various forms of malarial manifestations and partly to show the difficulties which may lie in the way of diagnosis :

Case I.—Some seven or eight years ago, when the tunnel was being constructed in East Forty-second Street, I was called in consultation to see a child living in that vicinity which was supposed to be suffering from acute meningitis. There was a high degree of fever, injection of the conjunctivæ, wild delirum, and vomiting. Another child in the same family had died a few days before with precisely similar symptoms, and after an illness of only a few hours.

I was struck, however, by the fact that while the symptoms never fully intermitted, there were periodical exacerbations, and in view of the prevalence of malaria in the vicinity, I advised that a large dose of quinine be given by the rectum, the stomach being too much disturbed to retain it. The effect was immediately beneficial, and by following up the treatment the child promptly recovered.

In this case congestion closely simulating meningitis was excited by the malarial poison. Where head-symptoms of this character are promptly relieved by quinine, I think there can be no doubt as to the presence of malaria, for in a case of acute meningitis a large dose of quinine could only intensify the symptoms.

In the next case the result was not so satisfactory, although some degree of betterment resulted from the quinine, and I am in doubt as to the extent of the rôle played by the malarial element.

Case II. was that of a child in which a diagnosis of tubercular meningitis had been made. There was intense headache, corrugation of the forehead, photophobia, vomiting, and flatness of the abdomen with constipation. But the headache was confined to the right frontal region and was periodically worse, the pupils were symmetrical, the vomiting was not projectile, and the abdomen, though empty and collapsed, was not retracted and hard. The temperature as taken morning and evening was normal. When I saw the child no urine had been passed for twenty-six hours and percussion showed the bladder to be empty. There was an abscess of the hip-joint which had been discharging for six months. This fact, together with the suppression of urine, made me suspect uræmia depending upon surgical kidney, and which might account for the headache and vomiting. But hot applications and dry cups to the kidneys soon brought on a flow of urine, which when examined gave no evidence of renal disease.

By this time the third or fourth day of the attack had been reached, and it was noticed that there was a marked exacerbation of the symptoms each day at about the same hour, half-past two in the afternoon. I now requested that the temperature should be taken at 3 P.M., as well as in the morning and at evening, and the result showed a decided febrile accession which lasted two or three hours. I should have mentioned that there was at all times an extreme irregularity of the pulse both as to force and frequency, about as lawless a pulse as it is possible to imagine, but there was no cardiac murmur. I now became impressed with the conviction that the case was essentially malarial, and at my suggestion a liberal dose of quinine was given. The effect was very marked. The child soon ceased to complain, declared that he was "all right," and joined readily in the conversation of his fellows. The improvement in this respect, however, was not maintained to its full extent, the headache recurring in a milder form in a few hours. But the most singular fact was that persistence in the use of quinine brought about within twenty-four hours a complete restoration of the regularity of the heart's action. Nevertheless the patient continued to lose strength, and eventually convulsions set in, strabismus occurred, and death took place. An autopsy could not be obtained. The irregularity of the heart's action in this case and the suppression of urine will be referred to in another connection.

Case III.—In November last I was called to see a lad ten years of age living in a notoriously malarial region. He had been slightly ill in an indefinite way for ten days, had lost his energy, was dull and listless, and complained of feeling weak. His appetite remained fairly good, but his tongue was white and pasty. He was better and worse by turns, but his mother had not observed any well-defined periodicity.

The first touch of the finger to the pulse showed an excessive irregularity of the heart's action, both as to rhythm and force, and on auscultation a loud, harsh systolic murmur was found, confined to a small space about the apex and over the left ventricle. The cardiac impulse was felt in the normal situation, and the area of cardiac dulness was not increased.

The spleen was enlarged to twice its natural size.

Full doses of quinine were administered, and in twenty-four hours the action of the heart had decidedly improved. Within ten days no trace of cardiac trouble remained, the health in every particular was restored, and the boy has continued perfectly well up to the present time.

Here, as in the preceding case, we have a disturbance of the cardiac innervation, causing altered rhythm of the heart, and in addition in this case such inequality in the action of the papillary muscles as to result in very decided mitral regurgitation. The cardiac symptoms in Case III., and the effect of quinine upon them, go to reinforce in my mind the conviction that Case II. was largely influenced by malarial poisoning.

Case IV.—I have recently had under my care a delicate girl, twelve years of age, who had whooping-cough rather severely, and in about the fifth week was taken with measles. The temperature at the outset reached 105.5° ; the eruption was scanty. During the first four or five days there were accessions of high temperature from time to time without any regular periodicity, the fever nearly disappearing in the intervals. A severe bronchitis followed, with a little lobular pneumonia at the base of each lung. The temperature during the day was seldom above 101° or 102°, but each morning at about three o'clock it ran up to 104° or 105° ; the cough became very violent and continuous, and very large quantities of muco-pus were expectorated. Three or four hours after, the temperature fell two or three degrees, the cough became only an occasional hack, and the expectoration nearly or quite ceased. The spleen was found to be slightly enlarged.

Constantly increasing doses of quinine were given, but it was not until eighteen grains were administered daily that the morning accession of fever was in any measure controlled. It was finally entirely subdued, and with it the excessive cough and expectoration. From this time the patient improved rapidly and convalescence was soon established.

In this case the malarial influence seemed to expend its force upon the pulmonary mucous membrane, inducing hyperæmia and excessive secretion.

The next case presents some analogous features.

Case V.—Mrs. ——, living in a locality noted for malaria, had a slight chill at half-past two in the afternoon, accompanied by pain under the right shoulder-blade.

Careful examination of the lung two hours later gave only a negative result. At the same hour on the following day, the fever returned with great violence, the temperature reaching 106°. There was intense pain throughout the abdomen, with severe purging and vomiting, and great prostration. There were abundant mucous râles in both lungs, but especially in the right, where slight dulness on percussion could be made out. Bronchial breathing if present was masked by the râles. At one time the patient was nearly moribund. Thirty grains of quinine were given by the rectum (the purging having ceased) every three hours until ninety grains had been taken. There was a prompt fall of temperature and an improvement in all the symptoms. The following morning the physical signs indicated pneumonia, limited to the right upper lobe. The patient was kept fully under the influence of quinine for several days; the temperature remained moderate, resolution took place at the usual time, and convalescence was complete.

Here we have apparently a malarial chill coinciding with the chill of approaching pneumonia, and followed at the same hour next day by a pernicious paroxysm, the force of which fell upon the lungs and the abdominal viscera.

Case VI.—Some years ago I was called in great haste early one morning to see a little girl two years of age, who had been brought, as usual, to the bed of her father and mother, and while playing with them suddenly became unconscious, and passed into a state resembling catalepsy. I found her lying with her eyes open, her face having a natural expression, respiration and pulse normal, temperature very slightly raised. But for half an hour or more no effort could rouse her to any sign of consciousness. When at last she awoke from this singular sleep she was a little feverish, but by the afternoon she appeared as if nothing had happened.

The following morning, at precisely the same hour, all the phenomena of the preceding day were repeated, to be followed by the same feverishness and malaise. I then considered that the attacks were caused by malarial poisoning and made every effort to get the system fully under the influence of quinine before the next period should arrive. In this I was successful, and there was no return either of the cataleptic state or of the febrile paroxysm.

I judge this case to have been one of malarial poisoning, because I can conceive of no other cause which would act so suddenly and so transiently, and because of the two paroxysms occurring at the same hour on two successive days. To these reasons may be added the failure of the paroxysms to recur after the system had been brought under the influence of quinine.

The following case I cannot explain, except on the supposition that it had a malarial origin:

Case VII.—A child, aged sixteen months, a patient of Dr. Cosgrave (who called Dr. Bruce in consultation), was put to bed in his usual health at seven o'clock in the evening, and soon fell into his usual natural sleep. At nine o'clock the mother's attention was aroused by hearing him breathe in a peculiar manner, and on attempting to rouse him, she found him comatose. Dr. Cosgrave was immediately summoned, and found the child entirely unconscious, the chest full of mucous râles, the churning of which could be heard through the open door in the next room. The face was pale, lips livid, both eyes turned outward and upward, pulse 160, temperature 104½°. I saw the case at ten o'clock. The symptoms had not changed, except that the respiration had become gasping and very infrequent, so that each breath seemed as if it might be the last. Although the case appeared hopeless, it was determined to try the effect of hypodermic injections of brandy. Ten minims were given, and in fifteen minutes the dose was repeated with the addition of one drop of tincture of digitalis. The respirations began to increase in frequency, the lividity of the lips became less marked, and the radial pulse, which had been lost, returned. The brandy and digitalis were continued, and the child was gradually restored to consciousness. It being considered that the case was malarial, quinine was administered liberally. The bronchitis so suddenly developed continued, but ran through a favorable course, and in a week the child was fully convalescent.

In this case the brain and the lungs received the brunt of the attack through paralysis of their vaso-motor nerves. From this the brain recovered when the paroxysm had spent its force, but the lungs were left with a severe acute inflammation of the bronchial membrane.

In the second case cited, among the features which I considered malarial was a suppression of urine for twenty-six hours. In the following case the suppression continued five days.

Case VIII.—A young servant girl, for whom I prescribed while in the country last summer, and who was of a malarial habit, had a chill, followed by fever and headache, every morning at ten o'clock. She was a very intelligent girl, and very determined, and insisted upon continuing her work. During this whole period there was not a drop of urine passed, if her statement can be credited. A few large doses of quinine disposed of the chills and the anuria together.

In regard to this case it may be said that there are many instances on record in which hysterical anuria persisted much longer than the anuria in this case. There may have been an hysterical element in this case, also, though the usual emotional symptoms were wanting. But if so, it was intimately associated with the chills, and ceased when they were broken up.

SOME OF THE IRREGULAR MANIFESTATIONS OF MALARIA.[1]

By L. EMMETT HOLT, A.M., M.D.,

PHYSICIAN TO THE NORTHWESTERN DISPENSARY; INSTRUCTOR IN THE NEW YORK POLYCLINIC.

In the study and discussion of a subject like the one chosen for this evening, there are two errors into which we may fall. The first is, to attribute to malarial poisoning all of that vast number of ill-defined ailments which cannot properly be classed as belonging to any one of the organs. The second is, never to admit the diagnosis of malaria unless a distinct history of a typical paroxysm is found to be present. This latter position, it seems to me, is just as wide of the truth as the first one stated, although it may not be so commonly taken.

Malaria in one form or another is just now the popular disease. It is a convenient term for the layman to apply to his indisposition, and, as a rule, he feels quite gratified to have his physician confirm his diagnosis, which the latter too often does without any well-grounded reasons. In medicine, as in most other things, we find what we look for. The malarial bias is as easy to acquire as it is hard to shake off. For, when one has watched cases, with symptoms pointing to grave disease of the brain, lungs, or kidneys, when he has used the ordinary therapeutic measures without the slightest effect, and then seen how all difficulties were cleared up, when malaria was found as an underlying or modifying cause, it is hard for him not to believe that almost any group of symptoms may be produced by malaria.

Still the profession has a right to be sceptical regarding many symptoms put forward as masked intermittents. Something more than mere dictum must be offered. What then shall we insist upon as the criteria of malaria?

This is the most difficult point to settle, and the one upon which, it seems to me, the whole discussion hinges. I remember that Dr. Janeway called our attention, several years ago, in Bellevue Hospital, to the fact that cases

[1] Read before the Section of Practice of the New York Academy of Medicine, May 19, 1885.

of typical intermittent fever *originating* in New York City were exceedingly rare. Those seen here would, on close questioning, be found to have contracted the disease in New Jersey, Long Island, or in the South. This is an important point, which should not be lost sight of. Among over three hundred cases of malaria of which I have records, there is scarcely a single exception to this rule. Those who insist on the presence of the regular chill, fever, and sweat, will see but little malaria in New York.

In my own cases I have been rarely willing to make a positive diagnosis of malaria unless at least two of the following conditions were present: 1, Periodicity in the symptoms; 2, prompt curability by quinine; 3, enlargement of the spleen. I have placed them in the order of their importance, as I have come to regard them.

There might be also added, the presence of fever, as determined by careful thermometric observations made morning and evening. Taken alone, of course, this symptom amounts to little or nothing.

Periodicity of malarial symptoms, as we see them in New York, is by no means always so marked as at once to be apparent. It may require very close observation on the part of the physician to establish this fact.

To the therapeutic argument, from the effect of quinine, I am inclined to give a good deal of weight, particularly in those cases where other measures have signally failed, and where prompt improvement is noticed to follow the use of the drug. Although quinine was much vaunted a few years ago in pneumonia, erysipelas, tuberculosis, septicæmia, and other allied febrile diseases, further experience has, I think, shown conclusively, that it is of little value in reducing temperatures not malarial. In my own cases with high temperature, in which the exhibition of quinine in full doses was without result, I have found, I think, invariably, that malaria was neither the primary cause, nor a potent factor in producing the fever.[1]

The question of splenic enlargement is a difficult one to settle in many cases undoubtedly malarial. In nearly all the acute, severe cases it is, I think, demonstrable. In a large number of those of a milder type, I have been unable to satisfy myself of its presence, especially in first attacks; while most of the cases of chronic malarial cachexia show a marked degree of enlargement.

Besides these fundamental symptoms, if we may so term them, there are others which are highly suggestive, and which may lead us to look for a malarial element in cases where it might otherwise escape us. Among them may be mentioned: 1, Marked drowsiness; 2, headaches, usually supra-orbital; 3, anæmia and cachexia; 4, vertigo; 5, digestive derangements, anorexia, thickly coated tongue, and constipation.

Drowsiness, heaviness, and apathy, especially when coming on at some regular time in the day, usually toward evening, are most characteristic symptoms in children. Constipation I have found present much oftener than diarrhœa, although several very striking cases of the latter, in malarial cases, have fallen under my observation.

In general, however, it is rather by the combination of symptoms, than by the invariable presence of single ones that a diagnosis is reached.

A peculiar form of incontinence of urine I have seen associated with so many cases of malaria as to convince me that it was not a coincidence. The patients were children, from seven to twelve years of age, who had, as a rule, never before suffered from this affection. The incontinence was only present during the day. It seemed to depend upon extreme vesical irritability. Micturition was very frequent, sometimes every fifteen minutes, and unless immediate response was made to the call, the clothing was wet. Examination of the urine threw no light upon these cases. The incontinence did not outlast the malarial symptoms.

Periodical attacks of gastralgia may occur with fever and other symptoms of malarial poisoning, or may constitute the principal complaint of the patient. The pain seems to have no relation to the taking of food. It is often associated with epigastric tenderness.

General cutaneous hyperæsthesia has been prominent in several cases. The patients have usually complained of being "sore all over." Handling the muscles often gave so much pain that they cried out. Locomotion seemed to be painful. The hyperæsthesia was more marked in the thighs and legs than elsewhere. It occurred in the mild rather than in the severe cases.

I have written elsewhere[1] regarding pulmonary symptoms occurring with malarial fever, which may very closely simulate pneumonia, both in its symptoms and physical signs. The breathing is often more rapid even than in pneumonia; the temperature is equally high or higher, and the invasion is just as acute. The severity of the symptoms mentioned is strikingly out of proportion to the amount of general disturbance which the patient shows. If the temperature is carefully watched for twenty-four hours, a marked remission will always be found to occur, if the case is one of malaria; and with the fall in the temperature the pulmonary symptoms greatly subside or disappear altogether.

In a former paper[2] I have referred to six cases of spasmodic asthma which were supposed to be due to malarial poisoning. Although constantly on the lookout for further clinical evidence in support of this view, I am compelled to say, in the light of a much wider experience, that it has been wanting. This leads me to believe that I may have been mistaken, and that the connection between the asthmatic attacks and malaria was not so close as I was led to think.

As additional evidence to that which has been lately adduced, of a connection between malaria and diseases of the ear, two cases of severe otalgia occurring with what was in other respects an ordinary malarial attack deserve to be mentioned. Both were in children and seemed to be purely neuralgic.

A malarial manifestation in which I have been particularly interested of late is spasmodic torticollis. In going over my records for two and a half years I have found notes of twenty-one cases of torticollis, excluding those dependent upon bone disease. In seven the symptom was accounted for by cold, scarlet fever, measles, or traumatism. In the remaining fourteen, evidence of malaria, to my mind satisfactory, existed. In eight distinct periodicity was observed. The symptom would come on every day about the same hour, generally toward noon, and last until the patient went to bed. On rising the following morning, the neck would either be perfectly free, or only a little stiffness was left. In the remaining six the malarial symptoms accompanying the torticollis were quite as marked, but they were not under sufficiently close personal observation to enable me to settle positively the point of periodicity. These cases have been treated in a great variety of ways in order to settle beyond a doubt the fact of their malarial character. Generally I avoided giving quinine for three or four days until I had a chance to observe recurring paroxysms. In some of the least severe I withheld quinine altogether, and found that they gradually recovered spontaneously. The more marked ones showed a strong disposition to recur with the same severity until quinine was given. The universal experience was prompt and permanent relief by quinine, no matter whether the cases were of two days' or ten days' standing. Local applications were tried in most of the cases, but were useless. There was great similarity in the cases, though all degrees of severity were seen. All came on with quite an abrupt invasion; all were walking cases, with a temperature, I think, never

[1] Does Quinine Abort Pneumonia? New York Medical Journal, February 21, 1885.

[2] Malaria in Children, American Journal of Obstetrics and Diseases of Children, Nos. i.-iv., 1883.

higher than 102°. Two or three complained of pain about the neck, but in most of the cases this was only present on an attempt to rotate the head actively or passively.

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HYDROCHINON, A NEW ANTIPYRETIC.

By FRANCIS KINNICUTT, M.D.,

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Medical literature has been enriched during the past two years by a number of important papers on the antipyretic powers of several coal-tar derivatives. Kairin, antipyrin, thallin, successively have been brought into notice as efficient antipyretics, and within the past several months hydrochinon has been added to this list.

Hydrochinon is known to chemists as a dihydroxylbenzole, with the formula $C_6H_4(OH)_2$, and is isomeric with resorcin and brenzcatechin. It crystallizes in rhombic, colorless prisms, is slightly soluble in water, easily so in alcohol and ether, and has a sweetish, not unpleasant taste. Its physiological action was first determined by Brieger,[1] in the Physiological Institute in Berlin, in 1879. Frogs and rabbits were used in his experiments. In the former, 5 c.ctm. of a 1–1,000 solution of hydrochinon produced convulsions after some minutes, with death in four and a half hours. Warm-blooded animals bore relatively larger doses. Quarter-gramme doses were given to rabbits with no effect. A half gramme produced slight convulsions after a half hour, with subsequent recovery; while three-quarters of a gramme caused general clonic convulsions, dyspnœa, dilatation of the arterioles, an increase in the salivary and lachrymal secretions, diminution of reflex irritability, a rise in temperature of 2.7° F., death in one and a half hours. Convulsions were produced in a larger rabbit by a gramme dose, but with subsequent perfect recovery. The urine was darkened during its use, but contained no free hydrochinon. The toxic effects of hydrochinon closely resemble those of phenol and comprise stupor, collapse, muscular tremors followed by severe reflex convulsions which increase in intensity, dyspnœa, subsidence of the convulsions, sudden death.

Brieger also was the first to test the effect of hydrochinon upon human beings. He found that an almost unfailing and marked antipyretic effect could be obtained by doses which were unattended with any injurious results. In the *Berliner klin. Wochenschr.*, 1884, No. 29, Dr. Siefert[2] publishes an interesting clinical paper on the results obtained by him in thirty-eight cases of pyrexia treated with hydrochinon; of these, fifteen were cases of typhoid fever. He found that single doses of fifteen grains caused a fall of temperature of 1.8° to 3.6° F. with sweating; in some cases 5° to 6° F.; that the lowest point was reached at the end of two or three hours; that the temperature then gradually rose during another hour, with sometimes slight shivering, to its former height. No disturbing symptoms of any kind, with the exception of very occasional vomiting, were observed during its administration. In children the results obtained were quite as favorable as in adults.

During the past three months I have been able to make a careful study in my wards at St. Luke's Hospital of the effects of hydrochinon. The points which I planned personally to ascertain were its effects upon the body in health, upon the pyrexia of different diseases, the degree and duration of its effect, the most efficient mode of administration, and, finally, the contra-indications, if any, to its employment.

To the co operation and labor of Drs. Sherman, Mabbot, and Tieman, the very efficient house staff of the hospital, I am largely indebted for the interesting facts which I have been able to obtain. The above gentlemen volunteered to ascertain the effect of the drug upon themselves in a state of health. Ten and twenty grain single doses produced no appreciable symptoms. The pulse, respiration, and temperature were unaffected. A single dose of forty grains, taken by Dr. Sherman, was followed in ten minutes by a feeling of slight fulness in the head and slight dizziness, wholly disappearing in fifteen minutes. No appreciable diaphoresis occurred in any instance.

Its elimination by the kidneys was tested by careful urinary analyses, with results which will be mentioned presently.

Effects upon the pyrexia of different diseases.—The number of cases treated was fifteen, and embraced three of pulmonary tuberculosis, one of general tuberculosis (autopsy), two of pleurisy with effusion (with high temperature curve), three of acute lobar pneumonia, one of acute inflammatory rheumatism, one of acute rheumatism with pleurisy, one of intermittent fever (malarial), one of puerperal septicæmia and pyæmia, one of facial erysipelas (with high temperature curve), one of pelvic cellulitis.

Fifteen and twenty grains were the standard single doses adopted. A marked reduction of the temperature was obtained, *without exception*, in all the cases after each administration of the above dose. By repeated observations it was ascertained that after a single dose the temperature begins to fall, as a rule, within fifteen minutes.

The minimum level is reached in two to two and a half hours; the temperature then again gradually rises during another hour to two hours to its former height. The degree of reduction was observed to vary somewhat, being dependent, apparently, rather upon individual idiosyncrasies than upon the nature of the disease. The minimum fall obtained was 1.5° F., the maximum 5.2° F.

The following tables, among many others carefully recorded, well illustrate the above points:

Case I. General Tuberculosis.—Female, aged thirteen.

Time.	Temperature.	Pulse.	
4.00 P.M.	103.2°	132	Hydrochinon, gr. viij.
4.19 P.M.	101 8°	130	
4.34 P.M.	101.5°	129	
4.50 P.M.	101.2°	124	
5.05 P.M.	100.8°	120	
5.25 P.M.	99.9°	120	
5.35 P.M.	99.4°	118	
6.03 P.M.	98.8°	118	
6.20 P.M.	99.6°	123	
6.38 P.M.	100.2°	125	
6.55 P.M.	101.1°	...	
7.30 P.M.	103.8°	144	

No sweating, nausea, or vomiting; no chills or chilly feelings.

Case II. Facial Erysipelas.—Male, aged seventy.

Time.	Temp.	Pulse.	Resp.	
11.33 A.M.	104.0°	108	24	Hydrochinon gr. xx.
11.50 A.M.	103.5°	100	24	
12.10 P.M.	101 6°	88	22	
12.40 P.M.	101.0°	83	18	Sweating.
1.10 P.M.	100.8°	84	18	
1.40 P.M.	101.3°	106	18	Slight chill.
2.10 P.M.	102.4°	...	..	

No nausea or vomiting.

Case III. Puerperal Septicæmia and Pyæmia.

Time.	Temperature.	
5.40 P.M.	103.6°	
7.00 P.M.	100.2°	Sweating.
8.00 P.M.	98.5°	
9.00 P.M.	99.0°	
10.00 P.M.	100.6°	Slight chill.
11.30 P.M.	104.0°	

No nausea or vomiting.

[1] Archiv für Anat. und Physiol., 1879, Supplement-band, p. 67.

[2] Dr. Siefert's paper, so far as I am aware, is the only one thus far published on the clinical use of the drug.

Neither nausea nor vomiting occurred in any case during the use of the drug. Moderate sweating was observed in the majority of cases accompanying the fall of temperature; it was rather a relief than a source of discomfort to the patient. In the case of puerperal septicæmia and in one case of pneumonia, it was profuse.

In the case of general tuberculosis, it was on no occasion present. A slight chill occurred in two cases during the rise of temperature, following the minimum level reached. Slight chilly feelings were described by other patients on close questioning. They were wholly absent in two cases in which six hundred and two hundred and thirty grains, respectively, were given in the course of the disease. There was an entire absence of the disagreeable symptoms (fulness of the head, dizziness, ringing in the ears, etc.) accompanying the use of large doses of quinine and the salicyl compounds. The effect of hydrochinon upon the pulse was, in a measure, proportionate to that upon the temperature; its frequency constantly diminished with the fall of temperature, and its quality apparently improved. The number of the respirations fell coincidently with the temperature and the pulse, in cases where their frequency evidently was dependent upon the pyrexia alone. In cases of pulmonary disease the respiration was affected slightly, if at all.

The most efficient mode of administration.—Single doses of fifteen to twenty grains of hydrochinon by the mouth were found amply sufficient to produce the effects above described. In cases of pulmonary tuberculosis, such a dose administered at the time of the usual afternoon rise of temperature readily controlled the pyrexia, with great relief to the patient.

In cases where there was a tendency to a continuously high temperature, three or four single doses were given in the course of the twenty-four hours, with the effect of maintaining the temperature at a moderate level. The latter method of administration would seem suitable in cases of typhoid fever. At this season of the year our hospitals contain few cases of this disease, and I, therefore, am unable to report any personal observations bearing upon this point.

The comparative effect of the drug given by the mouth and rectum was observed. It was found that doses of thirty grains, given in a little starch-water in the form of enemata, were required to produce the results obtained from fifteen grains administered by the mouth.

Contra-indications to the use of hydrochinon.—From the fact that no unpleasant symptoms occurred during its use in many and widely differing pathological conditions, I am disposed to believe that the contra-indications to its employment must be exceptional. With the doses used there was never any indication of cardiac depression; on the contrary, the quality of the pulse seemed rather to improve coincidently with the diminution in its frequency.

The effect of hydrochinon upon the urinary excretion was very carefully observed by the gentlemen of the house staff, in their own persons, and in the patients under treatment. After a single dose of the crystals, the urine, when voided, was normal in color. It assumed a greenish-brown, often a dark-brown hue after standing for twenty-four hours. A similar dark discoloration was observed at *the time of voidance*, in the urine of patients kept continuously under the influence of the drug. It was found that nitric acid alone and nitric acid with heat, used as in testing for albumen, could be relied upon for detecting the presence of the products[1] of hydrochinon in the urine. With nitric acid, an orange-red color appears at the line of junction of the acid and the urine in the test-tube; above this, layers of green and purple successively. On the additional application of heat, a dark—almost black—cloud appears in the upper levels of the column.

[1] Braumann and Preusse have shown that the discoloration of the urine is due to the presence of higher oxidation products of hydrochinon. Archiv. für Anat. und Physiologie, Phys. Abtheil, 1879, III. und IV. Heft, pp. 245-249.

Elimination of hydrochinon products, after single doses of twenty grains, was ascertained to begin in from thirty to forty-five minutes, and to continue for about sixteen hours. A gradual diminution and increase of the sulphates corresponded with the increase and subsidence of the products of the substance in the urine.

I am unable at present to give accurate results of the analyses for urea.

Neither albumen nor casts were ever detected in urine which previously had been free from them.

From my experience with the use of hydrochinon I would draw the following conclusions:

1. That in hydrochinon we possess a new and most efficient antipyretic.

2. That its use is apparently unattended with any injurious effects.

3. That the antipyretic effect of single doses is comparatively temporary, resembling in this respect that of kairin, thallin, and antipyrin; that the maintenance of moderate temperatures in hyperpyretic conditions can be safely obtained, however, by repeated doses.

4. That while apparently without effect in arresting a specific disease-process, its employment is conservative and productive of a marked amelioration of many of the symptoms incident to high temperatures.

5. That with our as yet limited experience with the drug, it should be given prudently and its effects carefully observed.

IS THE OPERATION OF TRACHEOTOMY IN DIPHTHERITIC CROUP DANGEROUS?

When Should the Operation be Performed?

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Having been honored in The Medical Record with a criticism on my article on the above questions, I desire to re-state some points which seem not to be clearly understood.

Early or late operation, and the danger of the operation, seem to be the two burning questions. We will first consider the former.

How does prolonged croup influence the pulmonary circulation? When there is obstruction at the rima glottidis, a limited supply of air enters the lungs with every inspiration, the lungs are less expanded, the aspiration force is lessened, the air in the lungs and bronchi becomes rarefied, and the blood not finding the same resistance in the air-cells and small bronchi, enters more freely and circulates more slowly than it does when sufficient air enters the lungs and there is proper expansion and retraction of these organs. The blood in the pulmonary capillaries is imperfectly aërated, and becomes charged with carbonic acid, producing increasing distention of the capillaries; carbonized blood tending to accumulate in the capillary system.

This slowing of the circulation in the pulmonary capillaries leads to stasis, splenization, and œdema. The blood accumulates, therefore, in the trunk of the pulmonary artery, in the right heart, and in the systemic veins. The cutaneous capillaries become engorged, producing the well-known bluish tint of the external surfaces, especially the violet hue of the lips and nails. The bronchial veins through the vena azygos on the right side, and the superior intercostal on the left, opening respectively into the superior vena cava and the left innominate, early feel the influence of this retrograde engorgement, and this causes serous exudation into the bronchial tubes. This exudation impedes the entrance of air to the air-cells, and then follow all the well-known changes which occur in broncho-pneumonia. In contiguous lobules, and especially at the upper and anterior portions of the lungs, vicarious emphysema occurs. These emphysematous portions of the lungs are anæmic. But these are secondary, compensatory changes.

At that part of the lungs where air reaches, there is but little blood to act upon, and where there is blood, air cannot penetrate. When the thorax is opened the lungs do not collapse, owing to vicarious emphysema, and because the air in the bronchi is prevented from escaping by the mouth, by the large quantities of secretion in them. For this reason the *superficial* observer at once concludes that he has to do with emphysema pure and simple; whereas a *very* little reflection would convince one of his error. Where there is prolonged croup, congestion of the lungs is inevitable.

Dr. Rupp, quoting Dr. T. A. Barker to prove that laryngeal obstruction does not produce pulmonary congestion (be it marked that this was of a case of intralaryngeal growth), says:[1] "The child died asphyxiated, presenting the symptoms of croup."

The child having been leeched, tartar emetic and hydrarg. cum creta administered, blisters applied, and mercurial inunctions used, Dr. Barker's exact words are:[2] "Each report, on November 9th, 10th, and 11th, states he had improved; the breathing was easier, the respirations remained about twenty-two in the minute, but were less labored, and there was an *interval* between expiration and inspiration, the pulse ranging from 80 to 95; but on the 12th, after a restless night, he died *very* suddenly. The statement of the sister of the ward was that he appeared much better when she had seen him on the night of the 11th; and the night-nurse asserted that, although he had been restless, there had not been more *wheezing, cough*, or *difficulty of breathing* than she had noticed on former nights." (Italics mine.)

Dr. Barker says *nothing* about the child's "dying asphyxiated, presenting the symptoms of croup."

When, in the vain and delusive effort to prove a *theory*, the truth is put to such a strain as this, every statement must be suspected; and this feeling is strengthened by the misquotations from my own article.

Observe Dr. Barker's comment: "It is almost superfluous to allude to the mischief which may arise in other parts when the operation [tracheotomy] is needlessly or unavoidably delayed; so that whatever may be the immediate result, the operation fails to give permanent relief. The chief danger, of course, is that of congestion of the lungs."[3]

Dr. Fuller is quoted as supporting the theory of anæmia of the lungs. Let us examine his post-mortem records. These will include every autopsy recorded by Dr. Fuller. Cases 1 and 2 recovered. Case 3 died soon after operation.[4] "The lungs were very œdematous, and the lower lobes on either side hepatized. The bronchial mucous membrane was vascular throughout, and was covered to a great extent by the same sort of soft albuminous matter which existed in the trachea. Many, even of the smallest bronchi, especially those leading to the inflamed and hepatized portions of the lungs, were full of this deposit." Case 4 died about twenty-four hours after operation. "The lungs were congested, and the smaller bronchi contained a good deal of thick mucus, mixed with blood." Case 5: death twenty-six and a half hours after operation. "The bronchial lining membrane congested and covered with thick mucus, and the right lung in one part passing into the early stage of red hepatization." Remarks by Dr. Fuller as to the *influence of delay in operating:* "Each minute that is lost afterward is so much against the patient's recovery; for with approaching suffocation the strength fails rapidly, and passive congestion of the lungs takes place." This is very bad support for those who would fain find anæmia of the lungs resulting from neglected croup!

The citation of the case from Bretonneau, with its *attendant treatment*, to bolster up the theory of anæmia of the lungs, is—pardon the expression—silly twaddle.

[1] The Medical Record, March 21, 1885, p. 314.
[2] Med.-Chirurg. Tr., vol. xxxviii., p. 43.
[3] Ibid., p. 231. [4] Ibid., vol. xl., pp. 43 et seq.

Passavant has been quoted in The Record, with protective caution, however, on the changes in the pulmonary circulation in untracheotomized croup. He says:[1] "The cause of the excess of blood in the lungs of croup patients is exactly the same as on the skin to which cups are applied. The consequences are bulging of the mucous membrane toward the rarefied space, overfilling of the capillaries, and consequent slowing of the circulation in the same, leading to stasis, splenization, ecchymosis, and increased secretion from the mucous membrane. The excess of blood in the lungs farther causes bloodstasis in right heart, filling up of the cervical veins, and livid countenance. Finally the hyperæmia of the lungs leads to pulmonary œdema."

To Niemeyer's pathology this is strikingly similar.

Hasse[2] says: "The lungs generally do not collapse, are dark-colored, turgid with blood, and occasionally exhibit isolated patches of inflammation."

It has been said, at the Pathological Society in this city, that anæmia followed instead of congestion, when the entrance of air to the lungs was partially prevented, and that this view "was certainly accepted by pathologists in general."[3] There are pathologists who seem to *accept* this view, but there is not one who *describes such changes*.

I would strongly urge those who would not feed upon blind illusions, but who are still trying to possess themselves of the *theory* of prolonged croup producing pulmonary anæmia, to read Niemeyer on "Croup," and Steiner in "Ziemssen," with comments on Niemeyer's article.

If the sage advice of Morgagni, "We should weigh, not *count* our cases" [italics mine], had been followed, the theory of anæmia of the lungs, with other equally preposterous and mistaken notions concerning croup and tracheotomy, would never have been concocted.

The following are a few additional authors who may be referred to as having found that croup leads to congestion of the lungs: Vogel, Oertel, Steiner,[4] Gerhardt, Bohn, Bartels, Bouchut, Stokes, Loomis, Watson, Cheyne, Copland, William Squire, Porter, Condie, Thomas King, Chambers, Henoch,[5] Tanner, Evanson and Maunsell, Cohen, Parker, Johnson, J. Lewis Smith, Henry Smith, Goodhart, Pilcher, Morell Mackenzie, Conway Evans, and others.

I am criticised for not mentioning Krönlein's autopsies, in which there were cases of laryngo-tracheal diphtheria, without discoverable disease in the parts above. Finding post-mortem laryngo-tracheal diphtheria without any accompanying exudation in the throat or nose furnishes no evidence that the disease had *not* involved those parts, for the post-mortem examination does not reveal the progress of, but rather the completed disease only; and all of us know from clinical experience that, as the disease invades the larynx, it not infrequently disappears from the throat.

I quoted Krönlein no farther then, for the obvious reason that I was considering the progress of the disease, and the prevention of the same. Dr. Latham's excellent words are here highly applicable: "So far as morbid anatomy contemplates the last or latest results of disease that are fixed and irremediable, and unalterable, its value is very small. But so far as morbid anatomy contemplates *disease in progress*, and scrutinizes and explains its organic processes, its value is very great."

I suggested that early operation in croup might prevent the spread of the disease into the deeper air-passages, and this suggestion was based on the fact that, in my own cases, there has been no tendency to an extension of the disease below the tracheal wound, *when it had not done so prior to the operation*. Passavant has since made the same suggestion. Guttman has since

[1] Deutsche Zeitschrift für Chirurgie, vol. xiv., pp. 364, 365.
[2] Pathological Anatomy, by Charles Ewald Hasse, Professor of Pathology and Clinical Medicine, University of Zurich, Syd. Soc. Trans., p. 281.
[3] The Medical Record, January 24, 1885, p. 108. [4] Ziemssen's Cyclopædia.
[5] Diseases of Children, Wm. Wood & Co., 1882, p. 136.

reported one hundred and sixty five autopsies, in which the disease did not, in any instance, leap the larynx in extending into the trachea and bronchi, but always first involved the larynx in travelling downward. I have shown that tracheotomy, by securing for the diseased larynx entire rest, is promotive of the cure of croup. Based on these facts, have we not every reason to hope that early operation will prevent the spread of the disease into the passages below the larynx?

If we weigh the reasons for and against early or late operation, everything is in favor of early operation.

"Performed early it [tracheotomy] snatches from certain death fully two-fifths of all the cases" has been termed by Dr. Rupp a "bald assertion," and yet he knows that this conclusion was based on the statistics of a great number of operators in different countries—not including America, where the general practice is to *neglect* the patient until the operation offers but a forlorn hope.

The statements made in my article *are* in accord with every careful essay on croup and tracheotomy which is based upon experience and a careful study of pathological findings, and it does not contain one statement which contradicts the teachings of one *accepted* authority; and that it is in accord with the present state of feeling on the subject is evidenced by a notice of it in the London *Medical Press and Circular* for April 29, 1885.

Everything that has been recently said on this subject in France and Germany has corroborated and verified every position which I have taken.

As to tracheotomy for croup in its imminent peril to life being one of the most dangerous operations in surgery, sufficient has been said, and it has been negatived. Dr. Rupp seems to find it a very bloody operation, for he says: "I have tracheotomized once. . . . I had been ably assisted by Dr. Stubenbord. . . . I think more than two ounces of blood were lost."

I have seen Dr. Stubenbord tracheotomize a two-year-old child that was much cyanosed, and certainly not more than half a teaspoonful of blood was lost. More than thirty physicians in this city have on as many occasions witnessed the performance of this operation by myself, and in no instance did they see their patient lose a drachm of blood. In my essay *I* said nothing about the operation being one of the "easiest things in the world," or being "simple and easy," but on the contrary I urged early operation, so as not to encounter engorged veins, etc. I said: "Operate early, very slowly, deliberately, and carefully." No greater caution could be enjoined than is found in these few words. I said: "Tracheotomy of itself, performed with care, involves little, if any danger to life;" and he who will make tracheotomy a bloody and dangerous operation is not competent to perform it. Much more skill is required in the safe administration of chloroform in advanced croup than in tracheotomizing, and if my own child were to be tracheotomized, I should be much more concerned as to who would administer chloroform than as to who should perform the operation.

Dr. Rupp's stricture on Professor Letamendi for saying, "In the days of more knowledge and less nonsense, tracheotomy will be ranked among the minor surgical operations," is a prophecy which was considered of sufficient value and importance to be at once quoted by THE MEDICAL RECORD, and has since appeared in many of the medical journals throughout the world. Dr. Rupp speaks highly of Passavant's work as a tracheotomist, and he (Passavant) says:[1] "Early tracheotomy does not belong to the dangerous operations."

The *critic* says: "We all praise Bretonneau's works on tracheotomy." Bretonneau says:[2] "We ought to hasten to perform an operation which of itself does not expose the patient to any danger."

[1] Deutsche Zeitschrift f. Chirurg., v. xix., p. 361.
[2] Memoirs on Diphtheria, Syd. Soc., Third Memoir, p. 132.

Progress of Medical Science.

SYSTEMATIC EXAMINATION OF WET-NURSES FOR PREVENTING THE TRANSMISSION OF SYPHILIS. — Several years ago a bureau was started in Moscow (*Jahrbuch für Kinderheilkunde*), where wet-nurses could be examined by specialists with reference to old or recent syphilis. The examination was intended to be a very searching one, on account of the latency which characterizes this disease, and the possibility of future outbreaks in such cases. A certificate of immunity was withheld if suspicious glandular swellings, scars in certain places and of a certain character, suspicious pigmentations, or swellings of the bones were present, or if there was a history of repeated miscarriages. The condition of the nipples was especially noted. Of 490 women, who were examined in the course of three years, seventeen per cent. were refused certificates of immunity. In an additional four per cent. of cases the evidences of syphilis were unmistakable. It is gratifying to know that this bureau appears to have met with the approval of Russian physicians. But in our own country the establishment of such an institution is hardly practicable.

CIGAR-MAKERS' CRAMP.—Dr. Torino describes a condition of tetanic spasm and pain, occurring in a patient who for nine years had been employed in rolling cigars. In consequence of the spasm attacking the muscles of those fingers only which were used in his occupation, the complaint is likened to scriveners' palsy. Dr. Torino fully describes the malady, which in its gradual onset and general progress shows a marked resemblance to ordinary writers' cramp, with the difference of the muscles affected. In a well-marked instance, the patient was unable to go through the manipulations of cigar-making more than twice or thrice, without producing pain situated in the left wrist and the back of the left thumb, index and little fingers, while at the same time the last-named was forcibly extended by a tetanic spasm, and the thumb and index-finger so strongly separated that they could not be brought together. The spasm commenced in the thumb, then attacked the index, and then the little finger, which last sometimes escaped; the middle and ring fingers were not affected. The cause of the extension was shown to be a spasm of the extensors, and not a paralysis of the flexors; for, when the attack passed off, the latter were quite normal in their action. The right hand was not affected. In analyzing the manual movements of cigar-making, Dr. Torino finds that the left hand is used much more than the right, and that the thumb and the index-finger are the parts chiefly employed. The little finger, however, has an especial duty to perform in fashioning and pointing the end of the cigar. Dr. Torino calculates that, in making each cigar, the workman's thumb and index-finger make three distinct movements; so that, at the rate of manufacture of 300 cigars a day, during nine years of 290 working days in the year, the particular movements concerned in the production of the painful tetanus must have been performed 2,470,500 times. — *The London Medical Record*, April 15, 1885.

A NEW-BORN INFANT OF EXTRAORDINARY SIZE.—Dr. Eddowes reports the birth of a male child, weighing twenty pounds and two ounces, and measuring twenty-three inches in length, with a circumference of fourteen inches and a half around the chest. The monster was well developed and healthy.—*Lancet.*

FOR GASTRIC VERTIGO, with disturbed circulation, Professor Da Costa administered, in the case of a man:

℞. Argenti oxidi ..... gr. ss.
Ext. hyoscyami ..... gr. ij.
M. Sig.—In pill form ter die.

He also prescribed pepsin at meals.—*Col. and Clin. Record.*

Eucalyptus in the Treatment of Typhoid Fever.—Leighton Kesteven, of Brisbane, Queensland (*The Practitioner*, May, 1885), having made an extended trial of eucalyptus in the treatment of typhoid fever, both in hospital and private practice, was so pleased with the favorable results obtained that he now warmly commends the drug to the profession for further trial. Of two hundred and twenty cases of the disease which he attended in about eighteen months, there were only four deaths. He gives ten minims of the drug every four hours. "Without being absolutely nauseous, however, this medicine does not agree well with all stomachs, but this difficulty can be entirely overcome by careful emulsification, and the addition of half a drachm each of aromatic spirits of ammonia, spirits of chloroform, and glycerine, the latter entirely removing the rough semi-resinous taste of the oil. The effects of this medicine are, in brief, the following: First, it steadily and permanently reduces the force and frequency of the pulse. Indeed in one or two cases I noticed this result obtained with almost marvellous rapidity: in one case in particular, the pulse, from being a sledge-hammer pulse of 120, went to 90 within an hour of the first dose of the medicine, and never went above 90 again. Secondly, lowering of the temperature. This occurs less rapidly, and (it has occurred to me) might be entirely secondary to, and dependent on, the lowering of the pulse. Thirdly, the beneficial effect on the tongue is very marked, almost immediately alleviating the distressing dryness so universal in typhoid, and removing the thick brown coating, leaving but proportionately little fur, and frequently cleaning the tongue entirely in a very short time. Fourthly, the skin, along with the reduction in its temperature, becomes moist and soft in contrast with the harsh, dry, hot skin so frequent and persistent, conferring a corresponding increase of comfort to the sufferer, who has previously felt as if his skin had been drawn tight all over his body. This alone is a boon to the patient of no small import." Concerning diet and general treatment, the author says: "In all severe cases I order whiskey from the commencement of the case till normal temperature is attained, giving on an average five to ten ounces per diem, usually in milk and soda-water. In ordinary cases I feed the patient on milk thickened with isinglass, beaten-up eggs, milk and soda, cocoa, and —where diarrhœa exists—ground rice and milk. In asthenic cases chicken-broth (concentrated to ten ounces of clear broth from a whole fowl) given in ounce doses to avoid filling the stomach with too large a quantity of fluid for weak digestion, the juice of half-cooked mutton, or beef tea made in a pot without water and strained through fine muslin. For the abdominal tenderness frequently-changed ice-cold compresses, and ice to suck; ice to the shaved head for cephalalgia; and frequent cold packs from the head to the knees at any rise of temperature. All the linen is changed morning and evening, without ever altering the patient from the horizontal position. All nourishment is given in small quantities at short intervals, thus receiving better digestion than when given in larger quantities at longer intervals."

Aneurism of Splenic Artery Rupturing into Stomach.—At a recent meeting of the London Pathological Society, Dr. S. West showed an interesting specimen, illustrating the above accident (*Lancet*, March 21, 1885). It was taken from a male subject, aged fifty-six, who had suffered from hæmatemesis and was given to drink. He had had a similar attack of hæmatemesis fourteen years previously. He suffered from great pain and flatulence with looseness of the bowels. When he was admitted on January 18, 1885, he was weak and faint, and passed much blood in the motions, which were long afterward of a tarry aspect. The patient was anæmic; there was slight enlargement of the liver and some tenderness of abdomen. On January 28th a pint of bright blood was vomited, and in half an hour the patient died. The stomach was found at the autopsy to be full of blood; there was an ulcer one inch in length, and situated midway between the œsophagus and pylorus. An aneurism of one of the chief branches of the splenic artery was found to be adherent to the stomach on the one hand, and on the other to the pancreas; there was much chronic inflammatory tissue around the aneurism. A prominence projected through the base of the ulcer in the stomach. There were two slight losses of substance at other parts of the stomach, which were of old date. The liver and kidneys were cirrhotic; the pleuræ were adherent.

The Treatment of Sclerosis of the Coronary Arteries.—Leyden has published in the *Centralblatt für die Ges. Therapie* the plan of treatment which he adopts in cases of sclerosis of the coronary arteries. He recommends first of all some hygienic precautions, such as moderate diet and exercise, and the avoidance of hard work and violent emotions. Some weeks may be spent very profitably every year at Carlsbad, Marienbad, or Kissingen. When the symptoms of angina pectoris have appeared, the treatment must be directed chiefly against them. During the paroxysm complete rest is essential, and means must be taken to prevent paralysis of the heart; hot drinks, champagne, camphor, ether, musk, valerian, etc., are all useful, while digitalis and bromide of potassium are dangerous. The former, however, is to be given where there is œdema of the lungs, and when the arterial tension is much diminished. Narcotics must generally be avoided, but an exception can be made in favor of morphia, which is useful when there is much dyspnœa. Inhalations of chloroform and ether are not exempt from danger. Inhalations of nitrite of amyl give excellent results, but only when the vessels are contracted. As for the nitrite of sodium, Leyden has not seen any benefit from its use. When the quantity of urine is diminished, saline diuretics, scilla, and caffeine are indicated. Warm baths often do more harm than good, but a poultice on the chest is generally agreeable to the patient.

The Treatment of Pleuritis in Children.—Biedert believes that in a given case of this disease, when crepitation of the opposed pleural surfaces announces that exudation has begun, an attempt should be made to shorten the disease, if this be possible. One measure which is suggested, with this end in view, is the immobilization of the diseased side of the chest by the firm application of strips of plaster. Ice-bags are approved to reduce temperature and benumb pain. Quinine and salicylate of soda are also approved in the febrile stage, and digitalis if the fever is accompanied by a weak and rapid pulse. Resorption of the exudate is the rule, and this action may be assisted by the use of proper vesicants and irritants to the skin, cold water applications, and digitalis. If absorption does not begin within a few days, an exploratory puncture should be made with a fine disinfected needle. If the pleural cavity is found to contain serum, it should be withdrawn by aspiration, a fine trocar being used. Should the disease process extend through three or four weeks, the exudate will probably become purulent, and demand an operation for its removal. This operation should be aseptic, the incision should be made in the posterior axillary line, and along the upper border of the eighth or ninth rib. If resection is required, the incision must be made along the middle of the rib. The main object is the securing of good drainage, and having introduced the tube in the most dependent position possible, it is advised that it be made sufficiently long to have its extremity rest in a basin by the side of the bed, containing a four per cent. solution of boric acid. The wound should be covered with strips of collodion gauze. Drainage will usually cease after three weeks. The dressings should be changed every day at first, but after a few days the intervals can be longer. Washing out the pleural cavity is not recommended, and in most cases is thought to be ill-advised. If the drainage is what it ought to be, no washing out will be necessary.—*Archives of Pediatrics*, April 15, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, May 30, 1885.

THE MEDICAL CHARITY PROBLEM.

WITH feelings of some interest, we have recently examined the last annual reports of our leading dispensaries and hospital out-patient departments, to see what progress, if any, has been made in the work of discriminating between worthy and unworthy applicants for aid. The result of our examination is, on the whole, disappointing. The usual allusions are made to the "deserving poor," and it is stated that "careful efforts" have been made to withhold charity from all those able to pay, or from any cause unworthy; but the record of specific effort in this direction is most meagre. The most decisive step has been taken by the managers of the German Dispensary. From its report we learn that a special committee was appointed "to consider what ways and means could be devised to stop the abuse of our institution by patients who are able to pay." During the month of December last, the circumstances of every new applicant were inquired into with special reference to this fact, and we note with interest the committee's findings. "Eight per cent. of all applicants had to be dismissed as being fully able to pay, and the cases of seven per cent. were doubtful;" and it has been decided that during the present year, all applicants shall be submitted to a liberal examination in regard to their ability to pay for the service they ask.

Referring to the whole number of patients treated in this institution, we find that eight per cent. represents nearly twenty-five hundred persons. It is not erroneous to regard these figures as applicable to any other similar institution. It is not possible to form any accurate estimate of what percentage of the whole population seek dispensary treatment. It varies in the reports from eight in some cases, to sixteen in others. We are inclined to regard the latter figure as expressing more nearly the truth, and, judged by the figures of the reports, it is indeed too low. Our city and floating population (which latter class often seek aid) numbers at least one million three hundred thousand. During the year 1884 eight institutions alone (exclusive of two of the largest, from which reports have not been received) treated about one hundred and fifty thousand patients. If we could gather the facts and figures concerning all the smaller, private, and church institutions, the total number of persons aided would probably amount to a quarter of a million. The paying population then is reduced to about ten hundred and fifty thousand.

What is the supply of physicians to minister to this number of people? The edition of "Wilson's Business Directory" for 1885, gives as the number of persons in New York City, legally qualified to practise medicine, about twenty-two hundred and fifty, or one to about every four hundred and sixty inhabitants. The foregoing figures give some idea of the extent of our charity to those whom we may consider our "walking cases." This is exclusive of those treated at their homes by dispensary physicians, and those in the beds of our large hospital wards.

The conclusions from these facts are not altogether assuring. Indeed they are quite disagreeable; but unpleasant revelations ought not to divert us from our search after the bottom truth. From the foundation of the world, true charity has always suffered from sentimentalism, and the effect thereof has been unfavorable upon both the bestower and the recipient. Says Spencer: "Self-sacrifice passing a certain limit, entails evil upon evil: evil upon those for whom sacrifice is made as well as upon those who make it. . . . The continual acceptance of benefits at the expense of another is morally injurious. Just as much as unselfishness is cultivated by one, selfishness is cultivated by the other." We hardly suppose that our dispensary managers would regard the above language as applicable to themselves. "All this is said of altruism," they would say, "but we are not altruists." Perhaps not in name, but a very casual glance at any one of our institutions will carry conviction that scores of people are being treated free who could pay moderate fees. In some institutions a small charge is made for medicine; in others, tickets are issued entitling the holder, on payment of a small sum, to attendance for a specified time. Both of these plans (though the latter is not free from objection) are good as far as they go, but the trouble is, that they do not go far enough. We have enough and more than enough dispensaries in New York. Our colleges, also, will always attract clinical material. A valuable suggestion made some time ago by a contributor to THE RECORD, was, that the clinical material in the various dispensaries should be rendered available (so far as was necessary) for the colleges. Impracticable as this may seem, we may yet be forced to do it.

Our charitable work must be more systematic. The circumstances of patients must be more clearly inquired into. The longer we defer this work the more surely are we sowing the wind and becoming liable to reap the whirlwind, and the more difficult will be the inauguration of that reform which is demanded both by justice to the profession and by the best interests of the community. At present we are shirking the task.

"A NEW DISCOURSE ON A STALE SUBJECT."

IT may be that the truly epochal events in the world's history take place quietly, unnoticed by contemporaries, and only brought to their merited prominence by the discerning hand of later historians. We believe that there is before us an illustration of this. In the domestic history of man we see at one end two forked sticks supporting a pole; at the other the porcelain basin, traps, toilet paper, and all the other Sybaritic appliances of a modern closet. Standing half-way between is the herete

fore unknown figure of Sir John Harington, who, in 1596, gave the world the earliest description of a water-closet, in a small pamphlet entitled "A New Discourse upon a Stale Subject." We are indebted to our ever-enterprising contemporary, *The Sanitary Engineer*, for a republication of the important document. Sir John wrote in a rude age, but the sensibilities of the people had not then been materialized and deadened by modern science, which now discusses with equal freedom the arrangements of a water-closet and the adulterations in candy. Sir John, therefore, introduces his subject in a periphrastic and half-apologetic manner.

He remarks: "For when I have found, not only in my own poor confused cottage, but even in the goodliest and stateliest palaces of this realm, notwithstanding all our provisions of vaults, of sluices, of grates, of pains of poor folks in sweeping and scouring, yet still this same whoreson, saucy stink, though he were commanded on pain of death not to come within the gates, yet would spite of our noses, even when we would gladliest have spared his company, prease to the fair ladies chambers; I began to conceive such a malice against all the race of him, that I vowed to be at deadly feud with them, till I had brought some of the chiefest of them to utter confusion; and conferring some principles of philosophy I had read, and some conveyances of architecture I had seen, with some devices of others I had heard, and some practices of mine own I had paid for, I found out at last this way that is after-described, and a marvellous easy and cheap way it is; and I dare speak it upon my credit, not without good experience, that though it be neither far-fetched nor dear-bought, yet it is good for ladies."

Having thus given a brief review of reasons and effects, Sir John describes in a vivid and realistic style the state of the closets of that period, and the methods which had so far been employed to avoid the malodorous results of defective sewage. It is interesting to note that our author is moved entirely by æsthetic feelings to gain the object which he seeks. There is no word regarding disease, but only of stenches and their unpleasantness. After many trials Sir John devised a water-closet, very much in principle like the modern ones. A tank of water above, a pan, a stop-cock, etc., are among the features of his invention, which is illustrated with some mediæval cuts. Whether his device became widely adopted historians do not say. These learned gentlemen tell us much of kings and battles, and but very little of the things that really occupied the thoughts and time of the people. But at any rate, we have Sir John Harington's invention at the present perfected and adopted to an extent no doubt far beyond the dreams of the philosophical student of the "Stale Subject." And certainly some credit should be given to a man who was the first apostle of sweetness, if not of light.

VIDERE QUAM ESSE.

Dr. J. B. Murdoch, of Pittsburg, Pa., has been calling the author of "The Physician Himself" to account for the unsound ethics which crops out in some places in his work. The spirit of its teachings, says Dr. Murdoch, is to give too great prominence to appearances. The *suaviter in modo* is everything. The following extraordinary passage from the book is quoted:

"Take care to be neat in your personal appearance; above all else wear a clean shirt and clean collar; for if you dress well people will employ you more readily, accord you more confidence, expect a larger bill, and pay you more willingly. You never heard of a bank swindler, or a confidence man, or a gambler, or a counterfeiter, or pseudo-gentleman of any kind, who dressed shabbily or appeared coarse. Such people are all students of human nature, and no matter how abandoned they are, no matter how tarnished their characters, or how blackened their hearts, they manage to hide their deformities as with a veil, from all but the few who know their true characters, by assuming the dress and manners of gentlemen."

Appreciating the curious logic of the above, the author tries to turn it by saying that if genteel dress does so much for a bad man, how much more will it do for a truly good one, like the physician.

Another curious passage is the following:

"Do not lend yourself too freely to other physicians and surgeons; never make a habit of playing second fiddle by giving chloroform, etc., in surgical cases. If you go and do some secondary part in a surgical case you will be looked upon as a lesser light to the one you assist; and you will take a position of neither honor nor profit, and will reap nothing but responsibility."

We call attention to these points because it has happened that Dr. Cathell's book has been widely circulated and almost uniformly endorsed. A little thought will convince any one that its teachings are not perfectly safe, and that the principle *videre quam esse* pervades it to an unpleasant and dangerous extent.

AN EDITORIAL JUBILEE.

The first number of the hundredth volume of *Virchow's Archives* has been issued. "It was a jubilee day," says Professor Ewald, "not only for Virchow and his associates, but for the whole medical world."

Professor Virchow takes the occasion to call attention to the history and growth of his journal, and he shows that his success as an editor is esteemed not the least among the many triumphs of his life. The *Archives*, writes Virchow, are now read in every civilized land. The articles which they contain are everywhere quoted and reproduced. The series of one hundred volumes embraces contributions which have had an influence of unexampled importance in determining the progress of medical science, and, in writing the history of medicine, their pages must be continually consulted.

Virchow started his *Archives* thirty-eight years ago, being assisted at the time by a number of friends, of whom all, we believe, are now dead. The new journal soon established itself as a periodical of remarkable scientific merits. Its articles were always carefully prepared, and generally contained the results of fruitful, original research in physiology, pathology, or medicine. The editor impressed upon it the stamp of his own vigorous personality. To publish an article in Virchow's *Archives* became somewhat of a distinction.

In one thing, at least, Virchow's journal is unique. Although purely scientific in character, containing only weighty original articles, it has obtained a very large

circulation, perhaps as great as that of any medical journal in Germany. At the present day it does not perhaps hold quite so prominent a position as the organ of the best medical thought of Germany as formerly, but it still maintains, in every way, its high standard, and we trust that it will continue to do so.

THE VALUE OF STATISTICS ONCE MORE.

At the recent meeting of the French Ophthalmological Society, held in January of the present year, M. Vacher, of Orleans, read a paper on "Astigmatism and Cataract," in which he concluded, from a study of upward of fifty cases, that astigmatism was a predisposing cause of cataract. He thought it very probable that the crystalline sclerosis was due to the excessive action of the ciliary muscle occasioned by efforts to correct the astigmatism. In the discussion which followed, M. Martin, of Bordeaux, said that he had for a long time examined every case coming under his observation, with the special view of determining this relationship. His conclusions were, however, not exactly in accord with those of M. Vacher, for he had found that astigmatism hindered the development of cataract. Which is correct? Perhaps the two conditions bear no relationship to each other. Who knows?

AUSCULTATORY-PERCUSSION AND AMERICAN PRIORITY.

We are accustomed to think, in these days of many medical journals and rapid mail communication, that whatever of value is advanced by workers in any part of the world cannot long escape the notice of all the rest, in whatever part of the footstool their lot may be cast. That this is true, as far as the readers of The Medical Record are concerned, we venture to affirm with all becoming modesty. But we are occasionally grieved to see that our brethren across the water are not always as well informed as it is the privilege of our readers to be.

In a recent number of the *Rivista Clinica* Dr. Aurelio Bianchi has published an excellent article on "The Stethoscopic Auscultation of Percussion," in which he describes the method very clearly and defines its application. The author says that he was led to study the subject from some American and German publications, which hinted at the possibility of some such method of physical investigation, but which contained nothing of practical applicability. In a later number of the same review Dr. C. Bonfigli takes the writer to task for claiming originality in a method that was not new. Dr. Bonfigli asserts that he had mentioned the combined method in a note to a translation of Guttmann's treatise in 1873. He very modestly disclaims any desire of having the procedure called Bonfigli's method, but he protests against giving it the name of Bianchi.

To us on this side of the water, it would seem more proper, if any name other than the excellent one of auscultatory-percussion be desired, to call it Cammann's method; for certainly the late Dr. G. P. Cammann's title to priority can hardly be disputed, since he published a description of the procedure, as elaborated by himself and Dr. Alonzo Clark, in *The New York Quarterly Journal of Medicine and Surgery* for July, 1840. This article was at the time extensively noticed in both American and European journals, a particularly good abstract appearing in the *Archives Générales de Médecine* for February, 1841. Dr. McBride, of this city, also published a paper some five or six years ago on auscultatory-percussion, and described a new solid binaural stethoscope for convenient use in the combined method.

Dr. Bianchi is one of the most prominent upholders of Pacini's claims to priority in the discovery of the comma-bacillus, and has just published some previously unedited notes of Pacini in substantiation of these claims. And we are therefore convinced that, did he know of the articles above referred to, he would be the last one to withhold the credit due to American physicians for discovering this valuable method of physical examination, which he himself has done so much to popularize in his own country.

THE REST TREATMENT FOR MASTITIS.

Most physicians of experience have learnt that in a threatening inflammation of the mammary gland, rest is the best single therapeutic agent which can be employed. The older methods, still advised, unfortunately, by some doctors and by many nurses and old women, of rubbing down the swelling, applying various liniments, and of persistently trying to empty the breast, can be very readily shown to be harmful and irrational.

Dr. Philander A. Harris has recently drawn attention to this subject (*American Journal of Obstetrics*) by a forcible advocacy of bandaging and rest in the treatment and prevention of mastitis. The bandaging is done so that it involves not only some support to the breast, but produces a slight compression, while the "rest" means rest from friction by nurses and from suckling by the child. In bandaging, Dr. Harris uses cotton batting and roller bandages, which latter he believes preferable to adhesive plaster. By the treatment which he advocates, he has succeeded in preventing the supervention of abscesses in all of the fifteen cases in which it was applied. It appears evident, however, that in some of these cases no abscess would have occurred in any event under ordinary care. In other cases the fact that no abscess occurred after the development of the symptoms recorded is little less than marvellous.

There is no doubt that rest of the gland and proper bandaging are proved to be the best measures for preventing and treating mammary abscess. They will not always succeed, however, for in some cases there is a constitutional vice that no roller bandage can touch. On the other hand, mild and careful friction to the surface of an irritated and painful gland are sometimes grateful and harmless. Beware only, we say, of trusting to drugs which are affirmed to check or hasten secretion or to soften the breast, for the existence of such has no scientific demonstration.

Dr. Harris makes another point worthy of being more fully examined, viz., that in obstinately sore and painful nipples, the best treatment is to bandage up the gland and rest it until the nipple is well. Then apply the child to the breast again and the milk will return.

The conclusions of the author referred to are as follows:

"1. That the breasts soon after delivery are strongly disposed to secrete milk, and will usually continue to

do so for a few days, even if they be not nursed. If no attempt be then made to nurse or withdraw the milk, the secretion rapidly diminishes and they return to their normal size and condition of inactivity.

"2. That, as a rule (to which there are probably few if any exceptions), the retained secretion does not undergo changes which convert it into an irritant fluid, but instead it remains innocuous to the walls of the ducts and acini which contain it, and under favorable conditions is finally absorbed without trouble or embarrassment to either the normal or inflamed adjacent tissues.

"3. That, as a rule, the secretion of milk continues only while the natural stimulus, as nursing or other means of emptying the breast, continue to be employed. That the secretion, either in the normal or inflammatory condition, begins to abate when such stimulus is withdrawn, and will entirely cease after a week or two.

"4. That an abundant secretion of milk which has recently and entirely ceased as the result of a complete withdrawal of stimulus, may be again recalled upon the reapplication of the child.

"5. That the presence of a decided inflammatory movement in the breast greatly diminishes secretion in the gland.

"6. That the sympathetic relation between the two breasts is almost, if not wholly, a sensory one. That neither the function of secretion nor the condition of the circulation in one breast is appreciably and directly affected by either physiological or pathological processes which may be going on in the other."

We would add that the pain and agony which are so vividly depicted by some writers as the inevitable consequence of mastitis are not always in reality excessive, the suffering being often as much mental as physical.

News of the Week.

Dr. E. Darwin Hudson's Article on "Limitations of the Diagnosis of Malaria," read at the recent meeting of the Section on Practice of Medicine, of the New York Academy of Medicine, has been unavoidably crowded out of the present issue, but will appear in our next.

The American Climatological Association held its second annual meeting at the Academy of Medicine, in this city, on May 27th and 28th. The following papers were read: Address by the President of the Association, A. L. Loomis, M.D., of New York; "The Climate of Mexico," by H. D. Didama, M.D., of Syracuse, N. Y.; "Antiseptic Inhalations," by Beverley Robinson, M.D., New York; "Catarrhal Affections of the Nasal Cavities as a Cause of Pulmonary Phthisis," by W. C. Jarvis, M.D., of New York; "The Home Treatment of Consumption," by F. C. Shattuck, M.D., of Boston, Mass.; "Further Consideration of Pneumatic Differentiation, with Demonstration of the Pneumatic Cabinet," by H. F. Williams, M.D., of Brooklyn, N. Y.; "A Rule for the Even Division of Climate, based upon the Average of the Combined Atmospheric Humidities in the United States," by C. Dennison, M.D., of Denver, Col.; "Elements of Climate and their Relations to Pulmonary Consumption," by J. H. Tyndale, M.D., of New York; "Geographical Distribution of Phthisis in Michigan, with Sketch of Topography," by E. L. Shurley, M.D., of Detroit, Mich.; "The Treatment of Laryngeal Tuberculosis," by E. F. Ingalls, M.D., of Chicago, Ill.; "The Problem of Acclimatization," by J. H. Platt, M.D., of Brooklyn, N.Y.; "Tampa Bay as a Health Resort," by J. C. Wilson, M.D., of Philadelphia, Pa.; "The Results of the Home Treatment of Consumption Contrasted with those of Changed Residence and Climate," by E. D. Hudson, Jr., M.D., of New York; "Hay Fever and Allied Affections," by F. H. Bosworth, M.D., of New York; "The History of the Stethoscope, with the Presentation of a Modification of the Cammann Stethoscope," by D. M. Cammann, M.D., of New York.

An Episode in the Hoyt Will Case.—Dr. Millard testified that Miss Hoyt had many imaginary ailments, among them a belief that she had diphtheria and that she had coagulated blood upon her brain. The doctor testified that to humor her he called a professional cupper and leecher, a man named Hansen, who conducted an employment agency for nurses. This man bled her a trifle behind the ear and then showed her a clot of blood on a plate, and she after that considered her head all right. "Did the nurse obtain the blood from her head?" General Butler asked. "He wasn't a nurse," answered the witness; "he only kept a nurse agency." "If he kept a nurse agency," returned the Massachusetts statesman doggedly, "he was a nurse." "Then I suppose if a man keeps a stable he's a horse," suggested Senator Evarts wearily. "Or if he drives an ice-wagon he's a cold in the head," murmured Mr. Root sadly.

Typhus Fever.—Several cases of typhus fever have appeared in the city since the 4th inst.

Bills Passed by the New York Legislature.—A bill establishing a hospital for the treatment of wounded, north of One Hundredth Street. Exempting from taxation the property of Mount Sinai Hospital, and of the Montefiore Home for Chronic Invalids, and of increasing the salaries of police surgeons. Incorporating the New York College of Medicine and Surgery. Amending and incorporating the Long Island College Hospital. For the better protection of public health and drainage of land. Appointing twenty additional sanitary inspectors.

Regulating Dental Practice.—The Legislature of Wisconsin has passed an act creating a State Dental Board, the intent of which is to prevent incompetent persons from practising dentistry, and among others the Governor has appointed Dr. Edgar Palmer, of La Crosse, son of Walter Palmer, of this village, to be one of the Board.

The Congress of the Italian Medical Association is to be held at Perugia in September.

The French Association of the Advancement of Science meets at Grenoble, beginning August 13, 1885.

The New Surgeon-General with the Government of India.—Surgeon-General Benjamin Simpson, M.D., has succeeded Dr. J. M. Cuningham as Surgeon-General and Sanitary Commissioner with the Government of India. Dr. Simpson entered the Bengal Medical Service in the year 1854.

THE WAVE OF CHOLERA IN CALCUTTA.—Since the year 1881, cholera in Calcutta has shown a tendency to increase to the rate which obtained some years before the introduction of filtered water. Mr. Cotton, the municipal member of the late Government Commission, has carefully analyzed the cholera statistics of Calcutta as compared with those of the surrounding districts, and he thus traces the increase in cholera to a general epidemic wave passing over the neighboring districts as well as Calcutta itself.—*Indian Medical Gazette.*

VACCINATION WITH FEVER VIRUS.—The following telegram comes from the city of Mexico: "The Government of Mexico has permitted the garrison of Vera Cruz to be vaccinated with yellow-fever virus, according to Dr. Carmona's system. Experiments were first made on prisoners who volunteered for the purpose. Persons vaccinated with the virus have all the premonitory symptoms of the fever. It is thought that the inoculation will serve as a complete protection for four or five years. Great interest is felt in the discovery, and the system will be tried on the west coast and in Sonora."

DISFRANCHISING DISPENSARY PATIENTS.—The English Government has passed a law disfranchising all English voters who have accepted medical relief from the parish. This, throughout England, will bar probably two hundred thousand, or one-tenth of the whole number of voters.

CHOLERA IN FRANCE.—A few cases of genuine cholera are reported in Marseilles.

A NEW UP-TOWN HOSPITAL IN NEW YORK.—The corner-stone of the Manhattan Hospital, at One Hundred and Thirty-first Street and Tenth Avenue, was laid last week. The hospital is being built by the Manhattan Dispensary Association.

DR. HERBERT E. SMITH, of New Haven, has been appointed Professor Silliman's successor in the Chair of Chemistry in the medical department.

THE INTERNATIONAL SANITARY CONFERENCE, which met at Rome during the past week, is reported to have declared against the utility of land quarantine.

OFFICERS OF THE INTERNATIONAL MEDICAL CONGRESS.—A full list of the officers of the prospective Medical Congress, as arranged by the executive committee, has been published in the *British Medical Journal* and other foreign journals.

DISTINGUISHED HONOR CONFERRED ON A NEW YORK SURGEON.—The King of Greece has recently conferred on Dr. Morris H. Henry, of New York, the Gold Cross, and created him an officer of the Royal Order of the Saviour. The honor was conferred for services rendered to medical science, on the recommendation of the Faculty of the University of Athens.

CIVIL SERVICE AND THE HEALTH DEPARTMENT.—For the information of applicants for employment in the Health Department, the operation of the existing Civil Service laws, as they affect appointments by the Board of Health, are thus explained: Every applicant must be examined and recommended by the Civil Service Examiners before his application can be considered by the Health Commissioners, and for every vacancy to be filled by them the Civil Service Commission must submit three names. Thus the power and discretion of the Board of Health begins and ends with the selection of one of these three candidates nominated to fill any one existing vacancy. Pursuant to a recent requisition of the Board of Health, the Civil Service Commission will submit, on or before June 1st, prox., a list of qualified candidates, from which the Health Commissioners may appoint fifty assistant sanitary inspectors for the summer service of this department, the service being of two months' duration, and the pay one hundred dollars per month. Candidates for such service may at any time present themselves for the Civil Service examination, which is, as already explained, the indispensable preliminary to consideration of their qualifications, personal and other, by the Health Board.

THE NEW YORK NEUROLOGICAL SOCIETY.—At the last meeting of this Society the following officers were elected for the ensuing year: W. R. Birdsall, M.D., President; L. Weber, M.D., First Vice-President; C. L. Dana, M.D., Second Vice-President; G. W. Jacoby, M.D., Recording Secretary; W. M. Leszynsky, M.D., Corresponding Secretary; E. C. Harwood, M.D., Treasurer; E. C. Seguin, M.D., T. A. McBride, M.D., E. C. Wendt, M.D., A. D. Rockwell, M.D., B. Sachs, M.D., Councillors.

AN IMPOSTOR.—The profession is warned against an impostor who has been "doing" the city for some months past. He claims to be a graduate of the New York College of Physicians and Surgeons, 1877. His plan is to tell a piteous story of a lost pocket-book, and borrow as much as he can on the strength of it. Result to the compassionate lender—as usual. He is almost a mulatto in appearance, and gives various addresses. This warning is given to possible future victims.

THE MEDICAL SOCIETY OF NEW JERSEY will hold its next annual meeting at Long Branch, June 9th and 10th. The Oregon Medical Society meets on same dates at Portland, Or. The Ohio Medical Society meets at Dayton, O., on June 4th and 5th.

Reviews and Notices.

TRANSACTIONS OF THE NEW YORK STATE MEDICAL ASSOCIATION FOR THE YEAR 1884. Vol. I. Edited by AUSTIN FLINT, JR., M.D. Pp. 615. New York: D. Appleton & Co. 1885.

THE Association is certainly to be congratulated on the appearance of this, their first official publication. To the future student of the medical history of the Empire State, it will furnish probably the most complete *résumé* of the events leading to the formation of the new organization that has yet been published. The position of the Association on the ethics question is of course too well known to call for special comment. The papers published are all meritorious, and cover a wide range of topics of practical interest to the profession. The one by Dr. Lynde on "The Function of the Auricles" introduces several new ideas on cardiac physiology. He maintains that the auricles are but the expanded terminations of the veins, and do not contract. The paper called forth an interesting discussion. The compactness of the volume, with the high scholarship of its contents, combine to make it a valuable addition to medical literature.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Thirty-sixth Annual Session, held at Scranton, Pa., May 27, 28, and 29, 1885.

(By Telegraph to THE MEDICAL RECORD.)

FIRST DAY—WEDNESDAY, MAY 27TH.

THE meeting was called to order by the President, DR. EZRA PALLEN, of Bradford County.

REV. R. C. MULLER made the prayer.

PRESIDING JUDGE HAND made an address of welcome, referring to the important relations of the legal and medical professions.

A telegram was received that the Legislature had passed the bill creating

A STATE BOARD OF HEALTH.

It is hoped it will be signed and become a law before the Society adjourns. The crying need of State sanitation is shown by the Plymouth epidemic, which has only been combated by individual benevolence and devoted physicians.

DR. H. H. SMITH offered a resolution, which was adopted,

FORFEITING THE CONNECTION OF A COUNTY SOCIETY WITH THE STATE SOCIETY

when the former seeks general legislation without consent of the State organization. This will probably be a damper on the bill pushed by the Philadelphia Society to create a licensing board, which implied a step toward the divorce of the licensing and teaching powers.

DR. S. S. SCHULTZ, Superintendent of the State Hospital for Insane, Danville, read

A PAPER ON MENTAL DISORDERS.

Insanity is only an index of brain-lesions, the name is analogous to the terms dyspepsia, dropsy, etc., meaning not an entity, but a symptom or group of symptoms produced by structural lesions in the organ concerned. Apoplexy, acute meningitis, etc., produce structural changes without necessarily causing insanity, while the congestion of typhus, etc., produce it at least temporarily. There is no sharper line between sanity and insanity than between health and disease generally. Probably no causes can produce insanity without some original peculiarity of nerve-structure. This predisposition, hereditary or acquired, explodes into insanity when some severe stress is laid upon the patient. Insanity may exist for years unrecognized, even by the patient's intimates. In such case, if fortune smiles, the patient may live and die a real but unrecognized lunatic, while a business reverse or great disappointment may demonstrate his insanity and recall many previously unnoted evidences of the disease. This is analogous to other histories, as that of atheroma.

In the treatment of insanity the vital point is the removal of the cause, if possible. This cannot be done at home. The religious monomaniac requires his emotional side to be rested and his reasoning powers called into action. Though a brain-lesion producing insanity may heal, it will leave a structural change analogous to pleurisy, etc., and chronic insanity may remain.

DR. J. G. RICHARDSON, of Philadelphia, read

AN ADDRESS ON HYGIENE

and State Medicine. The doctor looked hopefully upon the ability of sanitary science to vastly reduce mortality from future epidemics. He referred to the claim of English sanitarians that more lives had been saved in their army in ten years by better observance of sanitary laws than were lost at Waterloo. He spoke of the value of meteorological observations, as inaugurated and illustrated by the Government service in this country, where the conditions are so favorable for gathering valuable data from an immense area. The data so obtained should be practically utilized, as in determining what time convalescents and children shall be moved or taken out of doors, etc.

THE TEACHING OF SANITARY SCIENCE IN THE SCHOOLS

is important. The law of the survival of the fittest should become the foundation of a wide scheme of sanitary and hygienic improvement. While deploring agnosticism, the doctor thought its spread would induce better appreciation of sanitary laws, by the additional importance which the things of this world obtain by the extinction of the hope of a better.

The address in

OTOLOGY

was given by DR. CHAS. S. TURNBULL, of Philadelphia, with particular reference to the treatment of the ear in children. He said that ophthalmology is exalted while otology is too much neglected.

EARS ARE DAMAGED BY INDISCRIMINATE DRENCHING AND SWABBING;

soapy solutions irritate, milk ferments, and with cotton, causes inflammation.

THE MAJORITY OF CASES OF OTORRHŒA IN CHILDREN UNDER TWO YEARS WOULD RECOVER WITHOUT DAMAGE TO HEARING IF LET ALONE.

The doctor characterized the sponge with handle, sold by druggists under the name of "aurilave," as a dangerous implement. Impacted cerumen should be first soaked by warm alkaline solution, then syringed with warm water. Serum, mucus, or muco-pus should be wiped out with absorbent cotton. If the discharge be fetid, boracic acid in solution, or suspension, or as an insufflated powder is best. The most essential point is freeing the middle ear from secretion. This should be done in adults by Valsalva's experiment or Politzer's method; in children, by forcible inflation by the essayist's method, as follows: one nozzle of an auscultation tube, protected by a perforated lead-pencil rubber cap, is held in the patient's nostril, the other nostril closed, and as the child cries or blows out the surgeon blows a short blast through the tube, which inflates both ears.

After eczema, chronic otorrhœa, and removal of wax keep the canal greased. A peculiar deafness in old people, caused by atrophy of the ceruminous glands, itching, scratching with hair-pins, etc., until the membrana tympani is badly relaxed, can be relieved by frequent applications of an ointment of morphia, yellow oxide of mercury, and cosmoline to the meatus, with a strong alkaline gargle for the throat, with perhaps use of artificial teeth. In plastic inflammation of middle ear, chronic deafness, and tinnitus aurium, treatment remains unsatisfactory. For treating tinnitus aurium erythroxylon coca is recommended for its anæsthetic effect on throat and Eustachian tube. He uses Squibb's hydrobromic acid and bromide of sodium in the auditory nerve disease, from the noise of machinery, etc. Where one hears distinctly only in a noise, treatment is unavailing; the patient can only leave the noise and seek outdoor employment. For wax, soak and syringe; for children's earache, hot foot-bath and aconite; for pain in ears, use dry heat and anodynes. Submaxillary ticking calls for throat treatment.

DR. EDWARD JACKSON, chief of eye clinic, Philadelphia Polyclinic, read a paper on

DIAGNOSIS OF INCIPIENT CATARACT.

He said cataract is dreaded because credited with the effects of other diseases. This implies faulty diagnosis. Subjective symptoms are negative. The ophthalmoscopic mirror eliminates error; its use requires little experience, and any perforated mirror will answer. Recognition of lens opacity only begins the diagnosis, the

share of cataract in causing symptoms must be determined. Eyes presenting cataract are apt to have more serious lesions. It is of practical importance to ascribe to cataract the things that belong to it, and to glaucoma, nerve-atrophy, choroiditis, or ametropia, the things that belong to them.

Dr. F. D. Castle, of Philadelphia, read a paper on

SOME POINTS IN OPHTHALMOLOGY.

First, how to determine whether a case of blindness is due to cataract or not if the appearance of the pupil is such as to warrant the belief that the lens is opaque; second, the probable diagnosis of cases of eye-strain in which the symptoms may be relieved by the adaptation of suitable glasses; third, the necessity of an early recognition of acute glaucoma, and the avoidance of atropia in the treatment of such cases. It is now becoming recognized that iridectomy cures only inflammatory glaucoma in which there are inflammatory symptoms in the anterior portion of the globe. This is cured by iridectomy and cannot be mistaken for cataract, while simple glaucoma is rarely benefited by operation, and requires the ophthalmoscope to diagnose from cataract. Aged pupils are grayish, from senile changes in the lens and, perhaps, atrophic changes in the choroid, reflecting more light from the fundus, suggesting cataract, while the lens may be transparent. Therefore, disregard diffuse opacity in the pupil when focal illumination is used, and do not mistake a grayish shimmer for a defined opacity contrasting strongly with its background. Diagnosis is still more difficult where there is some opacity and yet the principal disease is in the nerve and retina. Here the visibility of the posterior capsular image of a reflected candle-flame is of great diagnostic importance, as is also the amount of perception of light.

EYE-STRAIN

is exceedingly common, and in the child and young adult generally recognized at a glance, but care is needed with the aged, as incipient cataract, etc., may be present. Symptoms: Slight redness, weariness, headache, blurred vision on reading, scrofulous ophthalmia. Marginal blepharitis and *phlyctenular* conjunctivitis are often caused by eye-strain, all curable only by suitable glasses. Early diagnosis of acute glaucoma is important to avoid atropia and other mydriatics, as Loquacurs says: "Whatever dilates the pupil may cause this disease."

The society was banqueted on Wednesday evening by the Lackawanna County Society.

(We are under great obligations to Permanent Secretary Dr. W. B. Atkinson for reportorial facilities.)

(To be continued.)

THE FOURTEENTH CONGRESS OF THE GERMAN SURGICAL SOCIETY.

Held in Berlin, April 8, 9, 10, *and* 11, 1885.

Professor v. Langenbeck, President, in the Chair.

(Special Report for The Medical Record.)

The first session was called to order shortly before one o'clock in the large hall of the Royal University, which was crowded almost to overflowing by the number of delegates in attendance.

THE OPENING ADDRESS

was delivered by the President, who welcomed the members in the usual terms. He announced that, in accordance with the resolution taken at the last meeting to admit a limited number of

HONORARY MEMBERS,

the Council had nominated Sirs James Paget and Joseph Lister. The nomination was received with much enthusiasm, and the candidates were elected by acclamation.

THE ELECTION OF OFFICERS

was then held, with the following result: Vice-President —Herr Volkmann; Secretaries—Herren Gurlt and Schönborn. As the President positively declined a re-election by reason of ill-health, it was voted to postpone the nomination of his successor until the last session, Herr v. Langenbeck consenting to preside until the end of the present congress.

Herr Volkmann, of Halle, began the scientific work of the session with a most interesting and elaborate paper, entitled

SURGICAL EXPERIENCES IN TUBERCULOSIS.

There were two points, the speaker said, in regard to tuberculosis about which most physicians are in accord: 1, the almost invariably fatal termination of tubercular disease of the internal organs, especially of the lungs, larynx, and intestines; and 2, the infectious nature of the malady. But the experiences of physicians are of little value in enabling us to judge of tuberculosis of other organs and tissues which are found under more favorable physiological conditions and which have no direct bearing upon the preservation of life. Hence it happens that the experiences of physicians and of surgeons as regards tuberculosis differ in many points. Experimental inoculation teaches us little in respect to surgical tuberculosis, since the local disease leads to general infection in only a small proportion of cases. The number of surgical diseases met with every day, which, in the past fifteen years, have come to be recognized as tubercular in character, is now so great that the surgeon has really more to do with the affection than has the physician. For this reason, the speaker said, many problems concerning tuberculosis must fall to the surgeon to solve, and he therefore thought it expedient to present, as briefly as possible, the various affections falling in this province. The first division of his subject was

TUBERCULOSIS OF THE SKIN AND CELLULAR TISSUE.

Lupus is a sure tuberculosis of the skin, but constituting a special variety of the same, and affecting chiefly those individuals in whom there is little or no hereditary predisposition to tuberculosis. It is distinguished clinically from other tuberculous skin affections through its tendency to local relapse, and through its commencement as small brown nodules.

Tubercular abscesses are distinguished by a peculiar violet or yellowish gray membrane which constitutes their wall. This membrane attains, after a short time, a thickness of several millimetres, and is filled with countless numbers of miliary tubercles. It is easily dissected away from the neighboring tissues, which, except for a slight induration, are healthy. This membrane is found only with tubercular abscesses, and is of absolute diagnostic value.

In the discussion of this portion of the paper Herr v. Langenbeck said that he had always been of the opinion that lupus and tuberculosis of the skin were identical affections, since both showed the same bacillus.

Herr Volkmann replied that, though they were identical as regards the bacillus, there was clinically a great difference between the two conditions, and this difference was of great importance from a prognostic point of view.

Herr König agreed in the main with the author of the paper, but he did not regard the presence of a membrane containing miliary tubercles as characteristic, since a similar membrane was often formed secondarily in osteomyelitis.

Herr Doutrelepont, of Bonn, recognized a difference between lupus and other tuberculous skin affections, and agreed with Neisser in his classification of lupus, scrofuloderma, and tubercular ulcers. The latter were

met with in subjects of tuberculosis toward the end of life, and were to be regarded as secondary metastatic processes.

Herr Lassar, of Berlin, thought it unsafe to affirm that lupus was a true tubercular affection. Individuals in apparently perfect health often suffered from a circumscribed infiltration in the skin of the face, without ever becoming the subjects of general tuberculosis. And again, when this patch of lupus was scraped away it always returned, but other local tuberculosis could be cured by operation.

Herr Esmarch, of Kiel, stated that lupus often appeared in the immediate neighborhood of caseous cervical glands, scrofulous eczema of the face, conjunctivitis, and phlyctenular keratitis, which offered ready means of ingress for the bacilli. The frequent relapses after operation for lupus he thought to be due to the presence of bacilli in the sweat-glands, and could be prevented by a free use of the cautery or by excision of the entire thickness of the skin.

The second division of the paper was upon

TUBERCULOUS AFFECTIONS OF THE ACCESSIBLE MUCOUS MEMBRANES.

Tuberculosis of the tongue exists under the form of ulcerations, or as deep-seated nodules, which after a certain time become caseous in their centre. Other parts of the mouth may be the seat of tuberculosis, which is often mistaken for congenital syphilis. There is also a tuberculous ozæna due to the presence of ulcers on the nasal mucous membrane. This affection is to be carefully distinguished from the so-called scrofulous rhinitis, a very common affection and one dependent upon catarrhal inflammation. Upon the lips the author had twice seen tubercular ulcers. Fistula in ano may arise from tubercular ulcers. Fistulæ of this sort are characterized by a tendency to fungous granulation and to extensive undermining of the mucous membrane and integument. Finally perityphlitis may arise from perforation in intestinal tuberculosis.

Herr Maas, of Würzburg, said that it was often extremely difficult to distinguish between tuberculosis and carcinoma of the tongue, since the former often reached such a degree of swelling as to be readily mistaken for cancer or gumma. The prognosis of lingual tuberculosis was relatively good.

Herr König referred to a form of tuberculosis of the nose which the author had not mentioned, namely, tubercular fibroma. This was a tumor composed of fibrous tissue containing numerous tubercles. It often bore a close resemblance to a mucous polypus.

Herr Riedel, of Aachen, had removed such a growth from the nasal cavity, and a similar one from the substance of the tongue.

TUBERCULOSIS OF THE URINO-GENITAL ORGANS.

Tuberculosis of the testicle occurs with greatest frequency in early or middle age, but is not unknown even at a later period. Both testicles are usually affected, though not always simultaneously. Secondary disease of the spermatic cord presents either as an uniform thickening or as little granular swellings in the course of the vas deferens. Tuberculosis of the bladder, ureters, and kidneys was one of the most typical and serious forms of the disease. As to whether operative interference in tuberculosis of the kidney was of any real advantage to the patient, the author was not decided. The presence of tubercle bacilli in the urine offers an early and certain means of diagnosis. Tuberculosis of the mamma is of very rare occurrence. It should be treated by amputation of the breast and removal of the axillary glands.

Herr König thought a distinction should be made in tuberculosis of the testicle between the primary and secondary forms. The former is of more favorable prognosis. When the disease occurs secondarily to tuberculosis of the kidney castration is useless.

Herr v. Langenbeck was opposed to castration in children and young persons, and favored it in older individuals only when there was a great amount of suppuration. An anti-scrofulous treatment by iodine, cod-liver oil, sea-baths, etc., offered the best hopes of cure. If an operation was insisted upon, he preferred that of Malgaigne, who removed the diseased lobules, only leaving the sound portion of the testis intact. He had done this himself in one instance with success.

Herr Schede, of Hamburg, thought castration was the most certain means of ensuring against a relapse, yet in many cases it would suffice to remove the diseased portion. It often happened that the disease was a tuberculous periorchitis, and the testicle itself was but little, if at all, involved in the morbid process.

Herr Güterbock, of Berlin, had never seen a case of tubercle of the testicle in which the prostate gland, bladder, and kidneys were not also implicated. He favored castration in the case of adults when the testis was extensively diseased, yet he regarded the prognosis as bad.

Herr Volkmann did not agree with the last speaker. He had performed castration in many cases, and had obtained a definite cure.

TUBERCULOSIS OF THE BONES, JOINTS, AND TENDON-SHEATHS.

All these conditions are now, with few and decreasing exceptions, recognized as truly tuberculous which were formerly designated as caries of the bone, pseudarthrocace, spina ventosa, scrofulous inflammations of the bones and joints, white swelling, strumous joint disease, or fungous inflammations of the joints and bones. Tuberculous joint disease may begin either in the bone or in the synovial membrane; the former is more frequent in children, the latter in adults. Tuberculosis of the bones, without involvement of the large joints, is represented by the following clinical forms: 1, Spina ventosa (pseudarthrocace); 2, tuberculous suppuration and necrosis of the orbital portion of the superior maxilla with the secondary characteristic ectropion of the lower lid; 3, cold abscesses of the scalp; 4, caries of the ribs; and 5, Pott's disease of the spine. Tuberculosis of the long bones in adults almost never occurs in the shaft of the bone, and chronic osteitis and periostitis at the diaphysis may usually be referred to other causes than tubercular infection. Abscesses connected with tuberculous bone and joint disease may be freely opened under antiseptic precautions without danger. An operation for the removal of tuberculous portions of bone seems occasionally to give rise to a general infection through entrance of the virus into the blood-channels.

TUBERCULOSIS OF THE LYMPHATIC GLANDS.

In all the above-mentioned affections the neighboring lymphatic glands may become secondarily infected. In scrofulous individuals, however, there may be a hyperplastic or inflammatory swelling of the lymphatic glands which is not tuberculous. Whether there may be a caseous degeneration of the glands which is not tuberculous is as yet a matter of dispute.

Discussion on the greater part of Herr Volkmann's paper was postponed, for lack of time, to the next Congress.

Herr Braun, of Jena, then read a paper on the

OPERATIVE TREATMENT OF INTESTINAL INVAGINATION.

From a study of the statistics of the different operations the author came to the conclusion that a reduction of the invaginated portion should be attempted as soon as possible by means of laparotomy. If this did not succeed, excision of the strangulated portion or the construction of an artificial anus was to be recommended in the case of adults or of older children, but neither of these measures was permissible in very young children.

Herr Grimm, of Berlin, presented a communication on

CHYLURIA.

The author had, in conjunction with Herr J. Munk, instituted a number of experiments upon a patient suffering from this disease. They found that the fats excreted in the urine corresponded exactly to those introduced into the intestine, and they concluded, therefore, that the fluid was chyle and not lymph, as had been supposed by Manson.

Herr König, of Göttingen, then read a paper on

RESECTION OF THE ANKLE

for tuberculosis of that articulation. After passing in review the diverse opinions held by different surgeons as to the operation most suitable for disease of the ankle-joint, and detailing the indications for resection, the author proceeded to recount his method of operating. He made two incisions intended to embrace the entire anterior insertion of the synovial sac. The first began on the anterior surface of the tibia, about three centimetres (one and one-fourth inch) above the articular cartilage, curving around the joint over the neck of the astragalus, and terminated at the articulation of the astragalus with the scaphoid. A corresponding incision was then made on the other side of the joint. The flap was now turned back and the anterior surface of the tibia exposed. The anterior portion of the synovial sac was removed and the affected portion of the tibia chiselled away, care being taken, however, to leave the malleoli *in situ*. The astragalus should, if possible, be spared, as its removal increases the deformity and prevents a restoration of joint mobility. Any tubercular foci in the bone should of course be removed, but the speaker preferred to do this with the gouge and sharp spoon, rather than to sacrifice the entire astragalus. Some patients were presented to show the results of this operation.

Herr Volkmann said that all that was new about this operation was the preservation of the malleoli, but he doubted whether this contributed very much to preservation of motion in the joint. He warned against a too early resection of the joint, as the operation was by no means always necessary, and, indeed, in children was seldom required.

Herr v. Langenbeck was astonished at the favorable results obtained by the author of the paper, for his experience had been very different. He had usually found it necessary to resort to amputation in the end, and he always advised that operation in the first instance.

Herr Volkmann suggested that perhaps the better results now obtained were due to the fact that the joint capsule was entirely removed, whereas formerly it was the custom to leave the greater part of it untouched.

Herr v. Langenbeck said that he had been very careful to remove as much of the capsule as possible.

Herr König thought that his success was in great measure due to the free use of iodoform.

Herr Riedel gave the results of the resections of the ankle performed by him, and said that he favored König's operation. It was not popular because there was an impression that it was very difficult of performance, but it could be simplified without sacrificing any important details.

Herr Bramann, of Berlin, then read a paper on an operation for

VARICOSE ANEURISM.

The varix in the case reported was situated in the axilla. It was removed with some difficulty after ligature of the vessels above and below the sac.

Herr Fehleisen, of Berlin, presented a communication upon the

HIGH OPERATION FOR STONE.

He showed by a number of frozen sections that the prævesical fold of the peritoneum was pushed up farther by a distended rectum than by a full bladder. He therefore urged upon his hearers the necessity of tamponing the rectum prior to the performance of the high operation.

Herr v. Antal, of Budapesth, described a

MODIFICATION OF THE HIGH OPERATION,

which consisted in an oblique instead of a straight incision through the wall of the bladder. In this way, he contended, healing of the vesical wound by first intention is favored, since the opposing surfaces are broader and unite more readily.

Herr Maas, of Würzburg, presented a paper on

THE MEDIAN OPERATION,

which he considered preferable to the supra-pubic. The chief danger of the latter lay in the impossibility of keeping the bladder aseptic, notwithstanding thorough disinfection at the time of the operation. The median operation was safer and more easily performed and was to be the operation of the future for vesical tumors or calculi.

It was decided to postpone the discussion on the various operations for calculus to the next Congress.

Herr Sonnenberg, of Berlin, related two cases of

PARTIAL RESECTION OF THE BLADDER,

one performed for removal of a tumor, the other on account of rupture of the organ. Both patients died, and the specimens were exhibited to the Congress.

Baron von Hirsch, of Vienna, related a case of

EXTIRPATION OF THE KIDNEY.

The patient, a woman aged forty, had suffered for two years from a tumor of the right kidney. The organ was removed, and the patient made a good recovery.

The same gentleman related a case of

EXTIRPATION OF THE SPLEEN,

with a like favorable termination. Examination of the blood some time after the operation showed an increase in the number of red, and a decrease in the number of white, corpuscles.

Herr Credé said that, in a case operated upon by him some three years ago, he had found a change in the relative proportions of red and white globules exactly the reverse of that found by the last speaker.

Herr Claus, of Elberfeld, related a case of

REMOVAL OF A RENAL TUMOR THROUGH LAPAROTOMY.

The case was supposed to be one of ovarian tumor, and the diagnosis was not rectified until the abdomen was opened. The patient recovered. The author referred to the statistics of v. Bergmann, according to which, of twenty-four laparotomies for extirpation of tumors, there were twenty recoveries, and he thought that the proportion of successful cases would continue to increase.

Herr König had performed abdominal section twice in the past year for tumor of the kidney. He had made a large incision through the posterior layer of peritoneum, and experienced no difficulty in completing the operation.

Herr Claus thought it was easier to remove a tumor of the kidney than an ovarian cyst, since the adhesions in the former case were not so close.

Herr Schönvorn related another case in which he had successfully performed this operation.

Herr Landau was opposed to extirpation of the kidney for hydronephrosis. He much preferred the establishment of a fistulous opening.

Herr J. Wolff, of Berlin, read a paper on

URANOPLASTY AND STAPHYLORRHAPHY.

He related a case in which he had successfully closed the cleft, but without obtaining any improvement in the voice. This had led him to the construction of an obturator made of rubber which could be inflated whenever desired, and by means of which the patient was enabled

to speak with a natural voice. He thought that in such cases, in addition to the operation and the use of the obturator, it was necessary to train the patient to speak in a natural way.

Herr König spoke in praise of the obturator, and instanced one case in particular in which the most brilliant results were obtained from its use.

Herr v. Langenbeck thought that the trouble was often in the palatal muscles, and advised the use of electricity without the obturator.

Herr Rydygier thought that proper training in articulation and lip movements was the most important thing.

Herr Schede agreed with the last speaker, and said that he was often astonished to note the improvement in patients in the course of a year. Time and training were absolutely necessary.

Herr Winiwarter recommended a sort of massage of the lips and pharyngeal muscles in addition to the other methods. He had never been obliged to use an obturator in his cases.

Herr Gärtner read a paper on the

DISINFECTANT ACTION OF WATERY SOLUTIONS OF CARBOLIC ACID.

The author had made experiments to determine the destructive action of carbolic acid upon various forms of micro-organisms, and concluded that a three per cent. solution was sufficient to kill every form of inferior organism with which the surgeon had to do. The disinfectant must, of course, be brought into actual contact with the microbes.

Herr Kümmel then presented a communication, entitled,

INFECTION BY CONTACT AND THROUGH THE ATMOSPHERE IN PRACTICAL SURGERY.

He detailed a number of experiments showing that immersion of instruments for a brief period in disinfectant solutions was often insufficient to render them aseptic. He advised that they be first washed in ether, or warm water and soap, and then laid in the antiseptic solution. Infection through the air was not so greatly to be feared in ordinary cases, yet it was impossible to obtain an atmosphere entirely free from micro-organisms.

Herr v. Bergmann read a paper on

COMPRESSION OF THE BRAIN SUBSTANCE,

in which he opposed the views of Adamkiewicz.

Herr Tillmanns, of Leipzig, presented a communication on

OSTEOMA OF THE NASAL CAVITY,

and another on the

UNION OF SEPARATED NERVE ENDS.

In cases in which the two ends of a divided nerve were separated widely, he had succeeded in restoring its function by cutting strips from each end, leaving them attached at one extremity, turning them over so as to overlap each other and then uniting them by suture.

Herr Albrecht, of Brussels, read a paper on the

MORPHOLOGICAL SIGNIFICANCE OF PHARYNGEAL DIVERTICULA.

These existed normally in certain quadrupeds, and hence the author concluded that Ziemssen and others were wrong in attributing their occasional presence in man to the effect of pressure from a foreign body or of retraction from a cicatrized gland.

Herr v. Hacker presented a communication on

RESECTION OF THE STOMACH AND GASTRO-ENTEROSTOMY.

He advised, in cases in which the tumor was movable, that both the stomach and the duodenum be closed, and that communication be established through a gastro-cæcal fistula. He related a case in which he had performed this operation with temporary success, although the patient had begun to have trouble again and was probably suffering from a return of the carcinoma.

Herr Lauenstein then read a paper on

RESECTION OF THE PYLORUS.

He recommended the employment of the continuous suture as one that would save much time in the operation. He also thought it preferable, when adhesions were present, to ligate and divide the duodenum first, and then to dissect away the adhesions.

Herr Kraske read a paper on

EXTIRPATION OF CANCER OF THE RECTUM.

In those cases in which the disease was located so high as to preclude the possibility of extirpation from below, he had succeeded by removing a portion of the sacrum.

Herr Bessel Hagen then read a communication on

EXSECTION OF THE ASTRAGALUS IN CLUB-FOOT.

The author favored total extirpation of this bone in both congenital and acquired talipes. He exhibited two cases in which he had overcome the deformity by means of this operation, although the patient walked with a decided limp.

Herr Hirschberg did not think that this was the best operation for talipes. He removed a wedge-shaped piece of bone and believed that he thereby obtained better results.

Herr J. Wolff did not regard extirpation of the astragalus with favor. He thought club-foot could be cured without this and exhibited a case in support of his opinion. The patient was nineteen years old, and the only operation performed was tenotomy of the tendo Achillis.

Herr Kümmel presented a paper on

OSTEOPLASTIC RESECTION OF THE FOOT.

The scientific work of the Congress was now completed, and the only remaining business was the

ELECTION OF A PRESIDENT.

Professor v. Langenbeck having consented to accept a renomination, he was re-elected by acclamation. The Congress was then declared adjourned.

ILLINOIS STATE MEDICAL SOCIETY.

Thirty-Fifth Annual Meeting, held at Springfield, Ill. May 19, 20, *and* 21, 1885.

(Concluded from page 580.)

THIRD DAY—THURSDAY, MAY 21ST.

The meeting was called to order by the President at 9 A.M.

The following officers were elected: Dr. W. A. Byrd, of Quincy, President; Dr. W. T. Kirk, of Atlanta, First Vice-President; Dr. A. Wetmore, of Waterloo, Second Vice-President; Dr. S. J. Jones, of Chicago, Permanent Secretary; Dr. Herman Luce, of Bloomington, Assistant Secretary; Dr. Walter Hay, of Chicago, Treasurer.

Dr. Kreider, of Springfield, read a paper on "Education Preliminary to Study of Medicine," which drew out considerable discussion by Drs. Mileham, Byford, Jr., Wetmore, Earle, and others, and was referred to the Committee on Publication.

Dr. Waxham, of Chicago, read that portion of the report on Practice of Medicine which referred to intubation of the larynx, with exhibition of the tubes used.

The remainder of the report, which was read by Drs. C. W. Earle and W. T. Montgomery, of Chicago, referred favorably to the use of hydrochlorate of cocaine, trypsin, and other new discoveries. The report, in referring to the treatment of typhoid fever, went to show that about as good, if not better results were obtained by the expectant plan of treatment as by specific remedies. The whole report was received and referred to the Committee on Publication.

Dr. Norred, of Lincoln, read a paper on

THE DOCTOR IN COURT,

which was received and referred for publication.

THE REPORT OF THE COMMITTEE ON SURGERY

was next read by Dr. W. A. Byrd, of Quincy, in which he reported a method of amputation at the hip-joint without hemorrhage, by the use of an elastic tourniquet, having himself operated on two patients in that manner without loss of blood and with one recovery, the other case living four days. He also reported a case of psoas abscess, which he opened below Poupart's ligament, and passed a long probe up to the seat of the abscess through the opening. He then cut down in the lumbar region on to the point of the probe, thereby secured free drainage, and got good recovery. The report otherwise contained a general *résumé* of the last year's progress in that branch.

The report was received and referred for publication.

Papers on "Obstruction of the Bowels," by Dr. W. H. Veach, of Carthage; "Ophthalmology," by Dr. Robert Tilly, of Chicago; and on "Simple Renal Catarrh," by Dr. I. N. Danforth, of Chicago, were read and referred for publication.

The Society then adjourned, to meet at Bloomington on the third Tuesday of May, 1886.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, May 25, 1885.

Daniel Lewis, M.D., President, in the Chair.

The *Comitia Minora* made its final

REPORT ON THE QUESTION OF RESIGNATION,

and that members can resign by complying with Art. 6, Chapter XII., of the By-laws of the Society. The report was based upon action taken by the Medical Society of the State of New York with reference to the same question, and included the opinion that a member "can voluntarily sever his connection by resignation or withdrawal, but by so doing he puts himself into the position in which he is liable to the infliction of the penalties prescribed by the statutes; that is, that his license becomes forfeited, and he is subject to the consequences of such forfeiture."

The report was accepted and adopted.

NON-PAYMENT OF DUES.

The *Comitia* also recommended that the names of all members in arrears in dues three years be dropped from the roll.

Dr. Roosa moved as an amendment, that this recommendation applies to all except to those members whose dues the *Comitia* may unanimously remit. Carried.

The recommendation of the *Comitia* as amended was adopted.

Dr. George A. Seibert read a paper on

THE ATMOSPHERICAL RELATIONS OF FIBRINOUS PNEUMONIA.

The paper was a report based upon collective investigation under the auspices of the Committee on Hygiene, and contained the substance of information derived from general practitioners, from statistics from the German and Austrian armies, and from German hospitals, etc. It was illustrated by elaborate charts.

The results of those observations were embraced in the following conclusions:

1. The origination of fibrous pneumonia is greatly favored by certain meteorological conditions, thus explaining the difference in the frequency of its occurrence during the twelve months of the year.

2. A low or falling temperature, a high or rising humidity, and high winds, are each one capable of exerting this influence.

3. If two of these weather constituents are found together, high wind and cold air, or falling temperature and high wind, etc., more cases of pneumonia occur than when either atmospherical condition is found alone.

4. If these three constituents are found together, then the frequency of pneumonia will be found astonishing.

5. The frequency continues to follow as long as these conditions prevail.

6. The same meteorological influence is found to originate bronchial catarrh, and the existing catarrh predisposes to fibrinous pneumonia.

Dr. Seibert did not claim that fibrinous pneumonia was or could be brought on by weather influences alone.

The discussion was opened by Dr. A. Jacobi, who said that remarks on the question were unnecessary, because the report and the charts by which it was illustrated, contained simply facts, undoubtedly well founded, bearing on the etiology of the disease. He had been specially interested because of the relation which Dr. Seibert's labor sustained to the projected work of the International Medical Congress instituted at Copenhagen last year, and of which this and other societies would hear more presently, and would be asked to co-operate in carrying out the plans of the Congress.

Dr. Jacobi then spoke of the relation which pathology, microscopy, bacteriology, and clinical observation bear to each other, and believed that it was only when they were combined and their united efforts closely analyzed, that the best results could be obtained.

Dr. A. G. Caille said that if the author of the paper meant that there might be other causes of fibrinous pneumonia than atmospherical, then he could agree with him; but if he meant that exposure to cold never caused pneumonia, but only catarrh, then he disagreed with him.

Dr. Putzel called attention to the fact, seemingly well established, that pneumonia was an acute infectious disease; that many conditions might enter into the etiology that had not been discussed. He believed that temperature and humidity were not sufficient of themselves to cause the disease.

Dr. Seibert said that he had abstained from theorizing in his report. What he had given were facts as he had found them, and they must be taken as they were. In connection with Dr. Putzel's remark, he would refer to Jürgensen, who laughed at the results reached in his first report on this question, but a year later acknowledged that he was mistaken, and then reported that, out of seventy autopsies after pneumonia, he found catarrh in sixty-eight cases.

Without giving any theory, Dr. Seibert said his belief was, and yet he was unable to prove it at present, that atmospherical influences caused a catarrhal hyperæmia of the bronchial mucous membrane that prepared the patient for the poison of pneumonia; that there was no pneumonia without preparatory catarrhal hyperæmia; that pneumonia was not due to weather influences alone, but that they have a decided influence in the origination of the disease.

Dr. Caille moved that a vote of thanks be tendered to Dr. Seibert for his valuable report. Carried.

Dr. C. Heitzman then delivered a worthy

MEMOIR OF LOUIS ELSBERG, M.D.,

and on motion by Dr. Leszynsky the thanks of the Society were tendered to the memorialist.

Dr. Joseph W. Howe was elected a delegate to the British Medical Association.

Dr. O. B. Douglas offered a preamble and resolutions tendering the thanks of the Society to Hon. J. S. Van Duzer, member of Assembly from Chemung County, for his invaluable aid and persistent efforts in behalf of all measures affecting the Medical Society of the County of New York, during the last session of the Legislature. Unanimously adopted.

The Society then adjourned to meet in September.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 21, 1885.

A. JACOBI, M.D., PRESIDENT, IN THE CHAIR.

PHYSICIANS DO NOT REPORT CASES OF CONTAGIOUS DISEASES.

THE PRESIDENT read a letter received from Dr. E. H. Janes, of the Board of Health, calling attention to the fact that many physicians had failed to report cases of contagious diseases to the Board until after death, and further to the effect that the Board did not desire to prosecute those physicians if the neglect to comply with the law could be corrected by milder means.

DR. T. HERRING BURCHARD then read a paper entitled

OBSERVATIONS ON THE TREATMENT, MEDICAL AND SURGICAL, OF ACUTE PERITONITIS.

Peritonitis might well be regarded as the most fatal of the acute inflammatory diseases. After a careful compilation of various hospital statistics, etc., its mortality might be set down when all varieties of the disease were considered, at about from fifty to sixty per cent., and from twenty to thirty per cent. higher when so-called "idiopathic cases" were excluded.

All treatment to rise above mere empiricism must rest upon a three-fold conception—a conception of the cause of the disease, a conception of the natural history of the disease, and finally the natural tendencies of the disease, or a foreknowledge of the mode of recovery or death.

It would suffice to know that peritonitis might originate from *external traumatisms*, from *internal traumatisms*, by extension of inflammation from contiguous parts, from septic causes and certain blood diseases (as rheumatism, Bright's, etc.), and possibly, though rarely, from causes that were purely miasmatic and climatic, constituting the so-called idiopathic cases.

What were the causes of death? According to the text-book, collapse and asthenia. According to clinical and pathological observation, first, *collapse;* second, *asthenia*, which might be more intelligently expressed by (*a*) heart-failure, (*b*) respiratory failure; third, by inflammatory changes in the lungs; fourth, by inflammatory changes in the kidneys; fifth, by hyperpyrexia as a special cause superinducing any or all the above.

In no other disease was an early knowledge of the causation of the attack so essential. It was in the incipiency of the attack, before excessive tympanites had disturbed the normal configurations of the abdomen and fatal asthenia had developed, that the golden opportunity for successful diagnosis existed.

Under a systematically conducted examination, which necessitated the interrogation of each abdominal viscus, and which sought to find a satisfactory explanation for each abnormal symptom, it was surprising how the difficulty would disappear. It was to a want of thoroughness in the examination and a lack of the judicial element in weighing symptoms, rather than to inherent difficulties, that the diagnosis often seemed so obscure.

The diagnosis being made, and a local lesion amenable to surgical interference being demonstrated, surgical relief should be rendered at the earliest moment practicable.

What, under the circumstances, were the indications for treatment? Were the irritation located elsewhere in the body than in this much-dreaded locality, sound surgical judgment would advise the immediate removal of the irritant. Why, then, should the peritoneum, a region which was daily proving its immunity to surgical manipulation by giving to surgery its brightest triumphs, not be subjected to the same wise principles that guided us elsewhere in our operative procedures?

Dr. Burchard then referred to the paper read in this very hall, by J. Marion Sims (*British Medical Journal*, December 17, 1881), who sounded the keynote of the future treatment of such cases when he said, "Given a case of perforation of the intestines, and given an accurate diagnosis, which is by no means difficult, what are we to do in the present state of our knowledge? Why, of course, we should open the abdomen promptly, clean out the peritoneal cavity, search for the perforation, pare its edges and bring them together with sutures, and treat the case as we now treat other cases involving the peritoneum. "Rest assured," he says, "that the day will come—and it is not far off—when an accurate diagnosis in such cases followed by prompt action will save life that must otherwise quickly ebb away."

The point raised by Dr. James R. Wood, in the discussion on Dr. Sims' paper, to which reference had already been made, viz., that "pathological surgery, or operations done for tumors and disease, was very different in its result from traumatic or acute surgery, and that this was specially true regarding manipulation of a large serous membrane that resents all impertinent interference," did not, it seemed to him, afford a sufficiently logical basis for doing or not doing the operation. As a clinical fact, the peritoneum was exceedingly tolerant of interferences, provided the proper precautions were observed.

Dr. Burchard then read the histories of forty cases of laparotomy performed for injuries done to the abdominal viscera, either from external or internal violence, many of which were suffering at the time of the operation from acute peritonitis, including sixteen in which the operation was performed for the relief of acute peritonitis with purulent collections. The following is an abstract of the above cases: Laparotomies performed for internal traumatism, 21, with 12 deaths and 9 recoveries; laparotomies performed for external traumatism, 3, with 1 death and 2 recoveries; laparotomies performed for peritonitis, 16, with 3 deaths and 13 recoveries.

After which he read the history in full of his own case, which occurred in a man, twenty six years of age, in whom an omental abscess burst into the peritoneal cavity during an acute peritonitis. Laparotomy was done, and the patient made a good recovery.

If these 40 cases with 24 recoveries teach anything, they teach not merely the feasibility of such operations, but, more than that, they give us legitimate ground for encouragement in fully sixty per cent. of these otherwise hopeless cases.

THE MEDICAL TREATMENT OF PERITONITIS.

Concerning this there were some points of special interest, and first, the opium treatment, which, while it was our sheet-anchor in the treatment of peritonitis, there were certain conditions in the course of the disease in which the drug could only be used with the greatest caution. The indiscriminate use of opium, even in peritonitis, was quite capable of doing more harm than good.

The symptoms of peritonitis varied with its extent, severity, and the causes which produced it. When the disease developed gradually, as from a pre-existing visceral inflammation, for some time there might be little or no constitutional disturbance. When it developed suddenly, however, and particularly if from internal traumatism, as hernia, perforation, or other intestinal injury, the condition of shock entered as a very important element in the development of symptoms, and the treatment must be varied accordingly. This initial collapse of peritonitis was a subject upon which too little has been said, and yet its treatment was of most signal importance.

In speaking of treatment, the text-books generally recommended that "as soon as the unmistakable symptoms of peritonitis were developed, at one dose from two to five grains of opium be given, or from one-half to one grain of morphine."

But collapse was a condition of the system in which opium, even in moderate doses, was poorly borne. Infinitesimal doses of morphine in conjunction with atropia, by mitigating pain and securing nervous tranquillity, undoubtedly exerted a favorable tonic influence upon the

heart. Large doses increased the paralysis of the cardiac inhibitory centre, and still further crippled that organ.

Another and very important fact to be noticed in the commencement of peritonitis—and governing greatly the freedom with which opium may be used—was the perplexing discrepancy that ofttimes existed between the severity of the pain and the apparent hard-time wiry pulse on the one hand, and on the other the very great heart-feebleness. Under such circumstances every dose of opium given, unless guarded by atropia or digitalis, jeopardized the heart, and no dose should be administered under such circumstances without previous careful cardiac auscultation.

There is another condition, developing later in the history of the disease, in which the administration of morphia in large doses was equally prejudicial; and upon which condition current literature is likewise, unfortunately, silent—namely, hypostatic pneumonia, which, owing partly to the patient's asthenic condition and partly to pressure on the lungs from excessive tympanites, was so apt to develop at that time. At this stage a slight over-dose of morphine might arrest entirely the respiratory act.

Regarding the use of opium, freedom from pain was the ideal condition to be secured, irrespective of the quantity of the drug administered. When this was attained, sleep, from which a patient could be readily aroused, followed as a natural consequence. Opium, or its alkaloid morphine, should be administered. Personally he preferred the hypodermic administration of morphine, not alone from the simplicity and certainty of its administration, but what was of more consequence, the absolute knowledge it gave of the exact quantity of the drug the patient was receiving.

Objections had been raised against the combination of atropia with morphia. Undoubtedly, atropia did produce a marked change in the patient's appearance, and certain very characteristic changes in the phenomena of the disease, but these changes, he believed, were in every way favorable to the patient. There was no one drug, in the treatment of collapse, whatever be its cause, whether traumatic or from disease, in which more implicit confidence could be placed than in atropia.

EXTERNAL APPLICATIONS.

Much had been said of the efficacy of external applications, used either hot or cold. Poultices were still used by many. Until within the last two years, he employed them exclusively. Upon what therapeutic principle their use was based he didn't know then, and don't know now. Poultices are not curative.

Cold, judiciously employed, lowered temperature, reduced inflammation, relieved tympanites, and secured nervous tranquillity. There was but one way of employing cold, and that was by the *ice-coil*. This could be readily extemporized from either lead or rubber tubing.

DIET.

For diet nothing was comparable with peptonized milk, to which additional cream might be added if desired.

TYMPANITES.

For the relief of tympanites much depended upon whether the gas was within the cavity of the peritoneum or in the intestines. If the former, a fine aspirating needle might be introduced and with immediate relief; if the latter, a long tube might be passed up the bowel and an ounce or more of some warm aromatic solution injected. Gas must not be expected to escape through a tube occluded with fæces. Pneumatic aspiration of the intestine he regarded as neither surgical nor safe. Turpentine stupes he resorted to, more out of respect to a tradition than because of any very positive benefi the had ever seen follow their use in general peritonitis. When turpentine was pushed to any considerable extent, he feared damage to the kidneys.

Last, but by no means least, the successful treatment of peritonitis demands a personal devotion and attention involving complete abnegation of self.

The discussion was opened by Dr. A. L. Loomis, who said it hardly seemed proper that a physician should be called upon to discuss a surgical paper, yet his interest in the subject, and the frequency with which he had urged surgeons to undertake to save the life of patients with acute peritonitis, was his excuse for making a few remarks. The first important point before any surgical procedure should be resorted to was to determine exactly, if possible, the cause of the peritonitis. He was one of those who did not believe in idiopathic peritonitis, and he had not seen a case in which he had been unable to find either a local or a constitutional cause.

All the cases could be grouped under three general heads: First, constitutional, in which the peritonitis, either acute or chronic, depended upon blood-poisoning of some kind; second, those in which the inflammation extended to the peritoneum; third, those which depended upon ulceration and the discharge into the peritoneal cavity, of intestinal contents, the contents of abscesses, cysts, etc.

As to the cases in which there was intestinal perforation as a cause, he had yet to see one in which recovery had taken place after intestinal gases had entered the peritoneal cavity. He recognized this as one of the most certainly fatal causes of peritonitis, but it was often difficult to determine exactly the point where such an opening into the intestine had been made, or what portion of the intestine was involved. He did not believe that by localizing the usual symptoms of peritonitis the portion of intestine involved could always be determined, because the normal position of the abdominal contents was very likely to be changed by a variety of causes, such as displacements following old peritonitis, etc.

If, however, the exact portion of the intestine involved could be determined—that is, the exact starting-point of the peritonitis—he could readily approve of all that had been stated concerning the adoption of surgical procedure in acute peritonitis. He believed that he had seen more than one case; indeed, he had recently seen a case occurring in a member of our own profession, in whom he believed that, if an operation had been performed when he first saw the patient, there would have been a good probability of his being alive to-day, for the symptoms were not active when he first saw him. In all these cases, when ulceration had taken place and symptoms were slowly developing, there were almost always signs of localized peritonitis, and these were fixed pain, increased by firm pressure, arrest of abdominal respiration, and a feebleness of heart-power which did not correspond to the amount of peritonitis. With such symptoms, and the condition manifesting itself locally in the right iliac fossa, it seemed to him that the surgeon would be justified in cutting down and preventing the fatal peritonitis which would develop when a perforation occurred: or, if not to do that, to stand by the patient and be ready, as soon as the first symptoms of perforation did occur, to proceed with the surgical operation and open the peritoneal cavity. In two or three instances he had stood by surgeons and urged them to open the peritoneal cavity and endeavor to find out the cause of peritonitis. In one hospital case, in which he specially urged the propriety of this procedure, the autopsy proved that there was a narrow fibrous band constricting a portion of the small intestine, which might have been easily divided and the obstruction relieved. It seemed to him that the experience of surgeons proved that it was not so dangerous to interfere with the peritoneum as had heretofore been supposed; but when there was general peritonitis with shock and collapse, the pulse 160, respirations altogether thoracic, then if an operation were performed the chances of success were very small. It was in the early

stage that an operation was indicated to obtain a knowledge of the cause at the earliest possible moment, and so thoroughly convinced was he upon this point, that, if he felt sure of the existence of this condition in his own person, he would find some surgeon to open his abdominal cavity immediately. It was true that some patients recovered without the formation of abscess, and some recovered after the formation of abscess; but they were so few in comparison with the number in which death took place that he thought the points brought forward by the author of the paper were well taken.

With regard to the opium treatment of peritonitis, those who knew of his practice knew well that he believed in it; but he believed in it with restrictions, and all the restrictions set forth in the paper were important and should be borne in mind. Indiscriminate use of opium at first was dangerous, and it should always be guarded by the use of atropine. When the first stage of the peritonitis had passed, and the symptoms had become established and were pursuing their course steadily, then the free use of opium was indicated, and he was not so particular with reference to the combination with atropine.

The discussion was continued by DR. R. F. WEIR, who said that in many of these cases the surgeon was called upon to exercise his art as directed by the diagnostic skill of the physician. He thought Dr. Loomis had touched the key-note in the statement that there was no such disease as idiopathic peritonitis. He would also go further perhaps than the author of the paper, and would say that no case of peritonitis should be allowed to die without an exploratory incision into the peritoneal cavity. He thought this statement had as much value as it had in connection with cases of strangulated hernia.

An important paper had been written upon this subject recently by Dr. Treeves, of London, in which he had proven that in nearly all these cases of local inflammation involving the vermiform appendix, perforation took place into the peritoneal cavity, and the idea that there was a meso-colon which led to the formation of connective tissue behind the peritoneum was incorrect, and the author insisted that surgical interference in cases of so-called perityphlitic abscess should be earlier than has been heretofore resorted to.

It had been the practice among surgeons to wait until pus in these cases could be obtained by the hypodermic needle, but Dr. Weir thought that this was wrong, and that operative interference should be resorted to earlier.

But a very grave question arose. Could a surgical operation be resorted to in the condition of collapse? Experience in this direction had not been large. Two important cases had been reported, one by Mikulicz and the other by Kocher, in both of which the abdomen was opened and the patients recovered. Of course, in traumatic cases, we could not tell positively whether the collapse was due to the first invasion from the intestinal gases or from hemorrhage, and therein was exhibited the value of an exploratory incision. In twenty-four cases in which Billroth had made an exploratory incision and closed the wound all of the patients recovered, and Mr. Tait reported that of ninety-four cases of exploratory incision only three terminated fatally. An exceedingly important feature of the exploratory incision was that it enabled us always to say when *not* to do anything. He was entirely in accord with the author of the paper with reference to the propriety of surgical procedure at the onset of the disease.

THE PRESIDENT said it might be a question whether in every case of perityphlitis an operation should be performed very early. He believed that all were not fully prepared to operate at once, even though a diagnosis was satisfactorily made, simply because it was well known that in a large number of cases the local inflammation had remained localized. It was also known that recoveries from perityphlitis took place, and recoveries also after the perityphlitis had become general peritonitis. For the general practitioner it was certainly a very responsible position and an important question to decide whether he should advise an operation at once or whether there were not sound reasons for waiting perhaps for some time. He had seen such a case within the last two weeks, that of a boy sixteen years of age, with all the history of peritonitis, sudden pain, localized swelling, some dulness on percussion, slight elevation of the thigh, moderate amount of fever, but no collapse, and the condition confined to the right iliac region. There was typhlitis, and the question arose whether an operation was justifiable at once, or whether the case should be permitted to go on for awhile. The treatment consisted in the use of morphine combined with atropine, and local application of ice, ice, ice. The peritonitis became general, but the general symptoms were not urgent; the temperature was usually about 102° F., often below, only once reaching 104° F.; there was thoracic respiration and extensive pain. Even in that case he hesitated to propose an operation, because the general condition of the patient appeared to be such as to justify a little further delay. The question would be whether, when the operation was not proposed, there would be just blame and reproach due to the physician. Here was one of the difficult points to decide whether the operation should be performed or not. He had seen recovery take place in several such cases, and still further he fully agreed with the statements which had been made that there was scarcely any such thing as idiopathic peritonitis. But even after having listened to the paper of the evening and to the remarks which had been made, he was not prepared to say that he should propose laparotomy at once; he should propose it in every case where it set in suddenly—within a few hours, half a day, or perhaps a day—after a diagnosis of perityphlitis had been made; but when the progress of the case was slow, he still would hesitate to recommend the operation.

With regard to the time when the operation should be performed, Dr. Loomis had recommended that it be resorted to when the first signs of perforation occurred. Dr. Jacobi believed that the perforation was frequently the first thing which did occur, when the patient was suddenly attacked with acute pain repeated in instalments, although there were undoubtedly changes in the intestine before that; but the sudden pain was simply a symptom of perforation. He believed that a large number of cases began with perforation. He should propose an operation in every case where peritonitis sets in very suddenly after perityphlitis had been diagnosticated.

DR. LOOMIS wished to say that the surgeon should be prepared to perform the operation as soon as the evidence of perforation had appeared. He should beg to differ with the statement that perforation was the beginning of perityphlitis. The case to which he referred was one in point. On a Thursday morning he saw the patient with localized pain in the region of the ileo-cæcal valve. There was scarcely any elevation of temperature, and only slight acceleration of the pulse, but there was the facies which indicated some serious form of disease. On Friday morning the patient was so well that he got up, and said that he felt all right, but on Saturday morning there was a sudden collapse, and the signs of general peritonitis followed immediately. At the autopsy there was a large quantity of lymph, nearly half an inch in thickness, surrounding the portion of vermiform appendix where there was a slough. All the intestines about that point were covered with a thick layer of plastic material which was evidently two or three days old, and there was evidence of recent general peritonitis, showing that for the first two days the peritonitis was unquestionably localized, and that there was no free communication with the peritoneal cavity, and it was during that time that the surgeon should be urged to operate.

Again, the history of repeated attacks was one with which all were familiar, and if the operation were performed at the first attack there was no doubt that the

patient would not be exposed to the danger of a second attack, perforation, and sudden death.

The President would like to ask Dr. Loomis if there were not in many cases several such perforations? Did we not often find several small perforations, and finally a very large one? Did not Dr. Loomis remember cases, seen at autopsies, in which there was a large amount of exudation of lymph, and below it traces of a small perforation; or had he not seen cases in which general peritonitis had followed perityphlitis, and in which the patient lingered on for some time, appearing to get better, and all at once new symptoms of perforation developed, attended with collapse and death? It was to be remarked that the cases differed so much in appearance at the autopsy that the clinical histories must also vary very considerably. He could not help believing that, in most cases, a small perforation was the first thing which occurred. When the perforation was large, collapse might set in at once, but when it was small it might heal, and the most urgent symptoms might not develop until very much later, if they developed at all.

Dr. Weir said that in urging earlier operative interference for ordinary forms of perityphlitis, he did not mean to resort to laparotomy, but to make the ordinary incision, and to put in a drainage-tube instead of waiting for the more complete development of the abscess.

Dr. Loomis said that at the beginning of his first remarks he stated that there was nothing so fatal as an escape of the intestinal gases into the peritoneal cavity. He could understand how the vermiform appendix might be closed at the intestinal opening, and that ulceration further on might set up an inflammation in the connective tissue which would give rise to thickening and the formation of a tumor, etc.; but where the ulceration was sufficiently near to allow of the escape of the intestinal gases into the peritoneal cavity he could not see how it was possible not to have general peritonitis.

Dr. Burchard, in closing the discussion, referred to six cases of typhlitis and perityphlitis which he had already reported, accompanied by perforation, and in five he had the opportunity to verify the diagnosis by autopsy. In every one of these cases, before the perforation which caused the death of the patient, there was a history of one or more attacks of perityphlitis. He believed that that was strong evidence with reference to an absolutely positive diagnosis. If a patient was found in collapse or partial collapse, who gave a history of preceding typhlitis, he believed that the surgeon was justified in the interference, that the patient was suffering from perforation of the intestine, especially so if the attack had been preceded by constipation, as was almost always the case, and almost without exception the acute symptoms had followed the taking of some active purgative.

The rapidity with which the collapse developed gave an important clue to the nature of the injury which the gut had received. If there was only slight collapse it might be inferred that, if there was perforation, it was so minute it could not be diagnosticated at all; if collapse was very profound and developed rapidly, we were justified in the inference that perforation of considerable size had taken place.

The Academy then adjourned.

Medical Prizes.—The Société Protectrice de l'Enfance de Lyon offers two prizes, to be awarded in 1886 and 1887 respectively, for the best essays on the following subjects: 1. On the different methods of vaccination: the age at which it is proper to vaccinate; and the prejudices against vaccination which are to be overcome. 2. On the influence of maternal occupation upon the fecundity of women, the course of pregnancy, and the vitality and health of the infants. The prizes will consist of gold medals, and the competing essays are to be given to the Secretary of the Society by the end of January in each year.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON PRACTICE OF MEDICINE.

Stated Meeting, May 19, 1885.

Alfred L. Loomis, M.D., LL.D., Chairman.

Dr. Andrew H. Smith read a paper (see p. 589) entitled *Irregular Manifestations of Malaria.*

The discussion was opened by Dr. E. D. Hudson, and was continued by Dr. L. Emmett Holt (see p. 591).

The hour for closing the discussion having arrived, the topic for general discussion by the Section was taken up:

"THE SOURCE OF INFECTION AND LIMITS AS TO TIME OF INFECTION OF SCARLET FEVER AND MEASLES."

Dr. R. C. M. Page said the two diseases under discussion, measles and scarlet fever, were variously described by different authorities as being contagious or infectious, or both. All agreed, however, that neither originated spontaneously. The source of infection or contagion, therefore, must lead back to some infected individual from whom the poison had been conveyed. There were various ways in which the contagious principle might be transmitted, not to mention inoculation and actual contact or close proximity to the patient; that is, these diseases might be conveyed in fluids, such as milk, etc., or in clothing, upholstering, etc., which had been saturated with the poison of the sick-room. Nurses and others more or less constantly in contact with such patients were much more likely to carry the disease about than were physicians, who made only occasional visits, and generally aired their clothing before seeing other patients. Animals were also said to be capable of carrying the poison about, a notable instance of which had been related in Dr. Loomis' recent work on "Practice of Medicine." It was also probable that the poison of scarlet fever, in some instances at least, might be conveyed from one house to another along sewer-pipes which admitted the infection without allowing its free exit, and thus there originated what had been regarded as new sources of infection.

In 1832 Percival, of London, called attention to the possibility that man might become affected from a similar disease occurring in horses. During the past year Dr. J. C. Peters, of this city, had written more fully on that subject, and had brought forth additional evidence in support of the theory advanced by Percival.

The sources of infection of the two diseases were comparatively well known, but the limits as to time had not been so clearly defined. The susceptibility to the contagious principle of measles was much more general than to that of scarlet fever, but the poison of scarlet fever was much more durable than that of measles. In Reynold's "System of Medicine" reference had been made to a case where the person became infected from the use of a flannel bandage twelve months after it had been worn by a scarlet fever patient; also, further, where a patient was poisoned through the medium of a cloak which had been packed away for eighteen months. These cases brought to his mind one occurring in the practice of the late Dr. F. D. Lent, where the poison of diphtheria was carried from this city to Pulatka, Fla., by means of clothing of a diphtheritic patient.

The question then naturally arises. Are physicians likely to carry these diseases about with them and infect other persons? Dr. Page had never known an instance of this kind, and had always acted in these as in other diseases in going from one patient to another. But there should be an exception made in obstetric practice, especially in those cases requiring instrumental delivery.

It had been stated on good authority that after surgical operations, or after severe injury and shock, the liability to the transposition of scarlet fever was increased. In those cases, therefore, he thought physicians should be particularly careful in changing their clothing, and in other ways disinfecting themselves, if called upon to de-

liver a woman with forceps soon after having examined a scarlet fever patient. In ordinary cases such extra precautions appeared to be unnecessary. He would, however, suggest that visits to such patients should be as widely separated as possible.

Dr. C. E. Billington said that it was difficult to bring forward facts bearing upon the points under discussion which were sufficiently definite to be of positive value. With regard to the limits of time during which the disease is communicable, he thought they were quite well settled, and he had already given his views on this point in another place.

It had seemed to him that the uncertainty of the contagion of scarlet fever was an important point. Of ninety cases occurring in families where there had been more than one child sick with the disease, he had found that forty-seven had escaped. Of these forty-seven, four were so young as to render it improbable that they would have contracted the disease under any circumstances, and this left forty-three patients who had not taken scarlet fever. The practical point which he had in view in making these observations was with reference to the question of prophylaxis. If any preventive remedy had been used among these children it would have probably been considered as a triumph for the drug employed.

One point in the consideration of these two diseases was the fact that measles usually goes through an entire family, while the occurrence of isolated cases of scarlet fever was not uncommon.

With reference to the time which elapses between the exposure and the development of the disease, he had seen cases which led him to believe that it was sometimes exceedingly short, not more than twenty-four hours having elapsed after the exposure before well-marked symptoms of the affection were developed.

Dr. Billington then referred to a case occurring in the person of his assistant at the out-door department of the Demilt Dispensary, who had been repeatedly exposed to the poison of scarlet fever and had escaped, but while attending a patient who had scarlet fever with very severe anginal symptoms, and in a small, close room, he was attacked with scarlet fever, which developed within four or five days after seeing this child. At the time of making his visits the physician had a coryza, and had had one attack of epistaxis.

The Chairman remarked that there were two points worthy of special consideration: First, the time which will elapse before one with scarlet fever or measles can communicate the disease, and second, how long shall children be kept away from home or prevented from coming in contact with those who have had either of these diseases.

Dr. Page inquired whether any physician had ever carried the diseases about with him.

Dr. Hudson contributed one case, and gave the history, in which, after having visited a patient in whom the desquamation of measles was exceedingly abundant, he communicated the disease to a person who had not been exposed to measles in any other way. He had always made it a rule, after having visited a patient sick with measles or scarlet fever, to make a circuit in the open air, and on arriving at home, before seeing any of his own children, to take special pains to sponge his clothing with carbolized water, also to brush his hair with the same and to take a sniff into the nose, and in this way he thought he had avoided carrying the disease.

Dr. Caldwell asked whether any of the gentlemen had had any experience with reference to conveyance of scarlet fever by the cat. He referred to a case in which it seemed conclusive that the disease was so carried, and he believed from his observation and experiments on animals that the disease could be conveyed in that way, although it might not be possible to prove it absolutely.

Dr. J. C. Peters said that some time ago he published an article, in the *New York Medical Journal*, with reference to the conveying of scarlet fever by cats and dogs, and he then cited the experience of Dr. Hadden and Dr. Bates, who had seen several such cases. He had seen one case in which the suspicion that the disease was carried by a pug-dog was very well founded. Many years ago he carried measles from a child six or seven years of age, in Eighth Street, who was in the period of desquamation, to a child in Thirty-fifth Street. He had handled the hand of the child in Eighth Street and had left the house without washing his hands. On his arrival in Thirty-fifth Street he found a child suffering from symptoms which rendered it necessary for him to put his fingers into the patient's mouth, and in ten or twelve days the child had measles. He was unable to trace the disease in the second child to any other source than to the fact that he had carried the disease on his hands from Eighth Street.

Concerning the long duration of the poison of scarlet fever, he referred to four cases in one family which he attended some years ago. After the occurrence of these cases another child was born, and it was probably six or eight months old before it was brought back to the city and to the house where the scarlet fever had previously occurred. The room in which the former children had been sick had been thoroughly renovated. The only article which had not been disposed of or thoroughly disinfected was a stuffed sofa, which was put up into the upper room where the children played during bad weather. The youngest child was taken into this room and placed upon the sofa, where it pounded it after the usual fashion, and raised a dust. This child was taken with scarlet fever and died within thirty six hours.

Dr. J. E. Winters said that the questions, how early and how long the poison of scarlet fever might be infectious, were most important. He believed that during the pre-eruptive and the post-febrile periods scarlet fever was more freely conveyed than during any other period of the disease. It was not often that children were exposed to the disease during the eruptive period. He thought the disease was contagious from the very first moment that the initiative fever began, and cited two or three remarkable cases which sustained the view that it could be communicated as soon as the first symptom developed which showed the process of elimination of the poison of the disease. During the period of eruption the disease was most likely to be conveyed from the breath, exhalations from the skin, vomited matter, and all discharges, and during this time special attention should be given to the disinfection of these discharges. In the tenement-houses in New York the discharges were probably not disinfected, and he thought it was a subject which should receive the attention of the Board of Health. It had been long recognized in hospitals for contagious diseases, especially scarlet fever, that unless thorough disinfection was resorted to the disease would be carried to the healthy through the medium of clothing, etc., etc.

As to the duration of the contagium of scarlet fever, he felt that the best advice which could be given was included in that given by Watson in his lectures, namely, to "say that you do not know." It had been said recently in this city that scarlet fever was not contagious more than four or five weeks, perhaps during a shorter period of time than this. The contagious principle, however, in the post-febrile period existed especially in the scales shed from the skin, and therefore during the entire period of desquamation, no matter how long it might exist, there was a possibility that the disease might be communicated. The higher the fever the greater the irritation, congestion, and œdema of the surface, and the greater the amount of desquamation. The protection of the period of desquamation, which was largely affected by the constitution of the patient, season of the year, and the care which the patient received. Children in feeble health, greatly exhausted bodily disease, especially scrofulous and phthisical children, children suffering from catarrh of the alimentary canal, have a long period of

desquamation. Children who are neglected during the time of desquamation have a long period in which the poisonous scales are shed from the skin. If the period of desquamation extend into weeks, it will be weeks during which the child will be capable of conveying the disease, and he believed that these were points which should be taken into special consideration in studying the question of contagion. Dr. Winters also believed that otorrhœa could convey the contagion for weeks, possibly for months. He cited a case in which the patient had scarlet fever in Florida. Several months afterward the patient returned to this city. The desquamation was complete, but the child had an otorrhœa. That child was taken to the country, where it came in contact with a child that had not been previously exposed, and who contracted scarlet fever within forty-eight hours after the arrival of the child that had had the disease in Florida. The attending physician was of the opinion that there was no source of infection except that conveyed by the patient coming from the South.

Another source of contagion in scarlet fever after the febrile period was the throat. Those children with enlarged tonsils where a catarrhal condition remained for a long time after scarlet fever, he had reason to believe, could convey the disease, and therefore such children should not be allowed to sleep with other children for several months.

Dr. Peabody said it had seemed to him that a grave error had been committed with reference to the danger of conveying scarlet fever to lying-in women. He would ask if there were any facts which bore upon the following points: First, is the lying-in woman especially susceptible to scarlet fever, and, second, is it possible to convey any other disease to her except scarlet fever, such as septicæmia, after having visited a patient sick with scarlet fever? He had studied the question somewhat, and had not found a single well-defined case in which the scarlet-fever poison had been carried to the lying-in woman. He thought that the same blind authority had been followed with regard to this opinion as had been followed with regard to going from an autopsy-room.

The Chairman remarked that the lying-in woman was more susceptible to contagion of all kinds than she would be under other circumstances.

Dr. Peabody said that he had no doubt but that she was, but he would like to ask the Chairman if it was not an adherence rather to superstition to lay so much stress upon the statements to which he had referred, as had been frequently done.

The Chairman said he had had no experience which would lead him to believe that scarlet fever was conveyed more frequently to the lying-in woman than to others. He thought that scarlet fever was not readily taken by adults who had not had the disease in childhood.

With regard to the danger of physicians carrying scarlet fever to their patients, it seemed to him that Dr. Hudson's statements were rather strong. He did a general practice for many years, and was accustomed to take his own children to ride with him in the coupé, which was closed, and had never hesitated to visit patients sick with scarlet fever, perhaps two or three in the same room, and going directly to his coupé where his children were, and from there to visit other children who did not have scarlet fever; he had not taken the pains to change his clothing, or treat it in any special way, and had never had any fear of carrying the disease, nor had he known that he had ever propagated either scarlet fever or measles by neglecting to take the precautions which had been mentioned. His own experience would lead him to believe that it was a rare exception for physicians to carry these diseases from one house to another in their ordinary visits.

Dr. Andrew H. Smith had had one singular observation with reference to the period of incubation of measles, showing how a person might be exposed to the contagion and escape, and then be exposed at another time and take the disease. A young physician contracted measles. During the period of incubation he was in the house of his sister and around her children. Exactly fourteen days after he broke out with measles his sister's youngest child broke out with measles; exactly fourteen days after this child broke out with the disease the oldest child showed the eruption; and precisely fourteen days afterward a young lady who was staying in the house came down with measles. The series of cases was interesting because of the fact that the second and third persons attacked took the disease from each other, and not from those first sick with the measles.

As to the portability of measles and scarlet fever, it seemed to him that it was the duty of the profession to disabuse the public of the absurd ideas concerning their communicability which were prevalent. He then referred to the excessive fear manifested by many persons with reference to taking these diseases, carrying it even to the neglect of patients who suffered from the affections.

Dr. L. Emmett Holt referred to an article published in March last in the Glasgow *Medical Journal*, by Aikman, in which he reported an epidemic of measles in the island of Guernsey, where the disease had not prevailed for many years. Three or four thousand cases occurred, and among these there was noticed a striking immunity among lying-in women throughout the entire epidemic.

The Section then adjourned.

Correspondence.

THE INTERNATIONAL MEDICAL CONGRESS.

CONCERNING THE THREATS OF NEW CODE MEN AT COPENHAGEN — CORRESPONDENCE BETWEEN DR. A. JACOBI, OF NEW YORK, AND DR. J. V. SHOEMAKER, OF PHILADELPHIA.

110 West Thirty-fourth Street,
New York, May 3, 1885.

Dr. J. V. Shoemaker, Philadelphia.

Dear Sir: The *Medical News* of May 2d contains on p. 494 the following: "Dr. J. V. Shoemaker said new code men had made threats at Copenhagen in his presence, hence the statement that he had made was true, as men who had made these threats were now on the committee." As far as I know, the only "new code man" on the General Committee of the Ninth International Congress is myself. It is natural, therefore, that I should be anxious to know if you accuse me of having made threats. Very respectfully yours,

A. Jacobi, M.D.

Philadelphia, Pa., May 5, 1885.

Dr. A. Jacobi.

Dear Sir: The account in the *News* was not exactly as I made the remarks. As near as I can remember, the concluding sentence was, the statement that I had made was true, as the new code men were fully represented on the Congress, which was the very best evidence of their recognition by the Committee.

Yours, respectfully, J. V. Shoemaker.

New York, May 7, 1885.

Dr. J. V. Shoemaker.

Dear Sir: Beside the *Medical News*, to which I referred you in a previous note, you are reported, in The Medical Record of May 2d, to have said that "the Committee . . . yielded to the threat made by the new code men at Copenhagen, that unless they were recognized, they would use their influence to prevent the Congress from coming to the United States."

I cannot repeat, that I must request you—as I am the only "new code man" on the Committee—to explain what induced you to make the statement you are credited with, or what may have been the cause of the uniform reports in the journals.

Very respectfully yours, A. Jacobi, M.D.

PHILADELPHIA, PA., May 9, 1885.

DR. A. JACOBI.

DEAR SIR: I stated in my remarks, which have not been fully reported in any of the accounts that have appeared, the predictions made at Copenhagen, which have been verified by the present arrangement of the Congress.

Yours truly, J. V. SHOEMAKER.

110 WEST THIRTY-FOURTH STREET,
NEW YORK, May 11, 1885.

DR. J. V. SHOEMAKER.

DEAR SIR: The *Boston Medical and Surgical Journal* of May 7, 1885, p. 456, has the following sentence: "Dr. Shoemaker repeated that the new code men had made threats at Copenhagen."

The *New York Medical Journal* of May 2, 1885, p. 500, writes as follows: "Dr. John V. Shoemaker . . . alleged . . . that the new code men present" (at Copenhagen) "had openly threatened that they would prevent the acceptance of the invitation unless they received full recognition; as a consequence, they had been recognized, as was shown by the fact that they had been given some of the prominent positions with reference to the Washington meeting."

These reports agree fully with those I quoted in my previous notes, from the *Medical News* and THE MEDICAL RECORD.

Thus you will pardon me for saying that your two notes did not answer my questions concerning the language quoted.

Permit me to ask again:

1. Did you say the new code men had made threats at Copenhagen?

2. If so, what are the facts supporting such a statement?

3. If not, what was the remark you made?

Pardon me for requesting an answer, for I have to repeat again that I am the only "new code man" on the General Committee who can have been referred to.

Very respectfully yours. A. JACOBI, M.D.

PHILADELPHIA, PA., May 13, 1885.

DR. A. JACOBI.

DEAR SIR: Your letter of May 11th is before me. It affords me pleasure to assure you that in my remarks at New Orleans I said nothing that was intended to personally implicate you. You need offer no apology for your persistency, as this explanation would be due any gentleman who regards himself compromised.

I infer from your letter that a personal explanation is what you want, and I am glad of this opportunity to place in your hands such documentary evidence as will exonerate you, if you have been wrongfully accused by others.

If you want any further information for public purposes, I have but to add that it will be *forthcoming* at the *proper time* and *place*. You will agree with me that your claim upon me can only personal not all (? A. J.) affecting individuals. So let me again assure you that I shall be most happy to make any explanations that will relieve you of any censure that my remarks may have brought upon you personally.

Yours respectfully, J. V. SHOEMAKER.

May 14, 1885.

DR. J. V. SHOEMAKER.

SIR: Your note of May 13th convinces me that you mean to persist in evading a straightforward and honest answer. I asked a few direct and intelligible questions, and you refuse to give anything but circumlocution.

When you spoke in New Orleans you knew you said what was untrue. And now that you are called upon for an explanation of your conduct, you try to wriggle out of your responsibility.

You are altogether mistaken if you think—which I do not believe you do—that I need or desire any justification or exoneration at your hands. You know that what you said in New Orleans about threats being made was not true, and your letters show that you have not the courage to stand up to it. A. JACOBI, M.D.

NOTE.—A letter of Dr. Shoemaker's which arrived two or three days afterward, was returned to its writer, unopened. A. JACOBI.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 17, 1885, to May 23, 1885.

DE LOFFRE, A. A., Captain and Assistant Surgeon. Relieved from duty at Fort Sissiton, D. T., and ordered to Fort Totten, D. T. S. O. 52, Department of Dakota, May 14, 1885.

BRECHEMIN, LOUIS, Captain and Assistant Surgeon. Ordered for temporary duty at Fort Omaha, Neb. S. O. 44, Department of the Platte. May 18, 1885.

MUNDAY, BENJAMIN, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Klamath, Oregon, and ordered to Fort Walla Walla, W. T. S. O. 72, Department of Colorado, May 12, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 23, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 16, 1885	5	8	72	6	107	34	0	0
May 23, 1885	5	18	75	5	104	58	1	0
Deaths.								
May 16, 1885	1	2	16	6	16	20	0	0
May 23, 1885	0	4	20	5	14	22	0	0

THE MISSOURI STATE MEDICAL SOCIETY.—(Condensed from a special report to THE MEDICAL RECORD.) The annual meeting was held this year at St. Joseph, and was attended by an unusually large number of delegates. At the opening session addresses were made by the Mayor of the city and the Chairman of the Committee of Arrangements. Dr. B. F. Trader, of Sedalia, read the first paper, on "Cholera." Having once inadvertently given a large dose of carbolic acid to a woman in the stage of collapse, with the result of curing his patient, the author was led to make an extended trial of this remedy, and was greatly pleased with its effects. He regarded hypodermic medication as of especial value in this disease. Quite an animated discussion followed the reading of this paper, and a great variety of opinions was expressed both as to the nature of the disease, and as to its treatment. Dr. Stringfellow advocated the use of corrosive sublimate as a prophylactic on theoretical grounds. Dr. Prewitt thought that the stage of collapse was a condition identical with that known to the surgeon as shock. He regarded the hypodermic use of morphine and atropine as a method of treatment that promised the best results. Dr. J. C. Mulhall, of St. Louis, then read a paper on "Atrophic Nasal Catarrh." He regarded this affection as of neurotic origin, not consequent upon hypertrophic disease, and not due to syphilis. It was progressive and incurable, and the cases which were apparently cured were simply those in which the morbid

process had advanced so far that the mucous glands were completely destroyed. His plan of treatment might be summed up in the one word, "cleanliness." He employed the nasal douche, and had never seen any ear trouble resulting from it. Dr. C. H. Hughes presented a communication on "Neglected Precursory Symptoms of Brain Disease," laying especial stress upon apparently causeless changes in the disposition, habits, or ability to work. He dealt simply with the psychical, and not the physical, manifestations of cerebral disease. The paper was discussed by Drs. Catlett, Mudd, and Hanna. Dr. J. H. Thompson, of Kansas City, presented the report of the Committee on the Progress of Ophthalmology, referring especially to the use of jequirity and cocaine, to stretching of the infratrochlear nerve in the treatment of glaucoma, and to the increasing use of small probes instead of cutting instruments in stricture of the lachrymal duct. Dr. J. F. Lutz, of St. Louis, read a paper on the "Diseases and Treatment of Cicatrices," and exhibited a bone specimen showing an epitheliomatous growth which had developed in the cicatrix formed after a compound fracture. Dr. Prewitt thought that the fact of malignant disease occurring in scars and ulcers was an evidence of the primary local nature of carcinoma. Dr. J. P. Kingsley then read a paper on "Malaria in Children." He had seen malarial fever in children from a few days to a few weeks old, and he believed the poison could be taken in through the mother's milk. Distinct chills in little children are rare, and sweating is absent in infants under one year of age. Malarial cachexia develops quite early in young children, and enlargement of the spleen is more common in them than in adults. In infants the author had seen convulsions occur as the first stage of a malarial paroxysm, and in older children chorea and epilepsy seemed in some cases to be referable to the same cause. He relied chiefly upon quinine in the treatment of malaria in children, but had also used Fowler's solution, tincture of iodine, and carbolic acid, with good results. Dr. Mudd had been pleased with the results of using a pad in which about a drachm of quinine was quilted; this was dipped in alcohol or whiskey, and bound upon the epigastrium of the child. Dr. F. M. Johnson believed that children do have chills, as evidenced by coldness of the nose, fingers, toes, etc. Dr. Stringfellow was very sceptical as to the occurrence of malaria in little children, and he had entirely abandoned the use of quinine in the fevers of early childhood. He employed small doses of calomel with satisfactory results. Dr. G. C. Catlett read an interesting paper on "The Asylum Treatment of the Insane," which was referred to the Committee on Publication without discussion, owing to the lateness of the hour. The President, Dr. Middlekamp, then delivered the annual address. He advocated the elevation of the standard of medical education, and said that the profession at large was primarily responsible for the present low standard. If physicians would recommend for the study of medicine only such men as were morally and mentally fit, and would send them only to schools which imparted a thorough education, the schools would quickly raise their standard in accordance with the demand. Dr. Hanna, on behalf of the sub-Committee on Diseases of Children, then read a very interesting paper on the "General Management of Disease in Children." He advocated the giving of medicines very sparingly, careful watching, tender nursing, the removal, when possible, of sources of irritation, and special attention to nutrition. Dr. Wilson, of Salisbury, followed with a paper on "Typhoid Fever," in which he opposed the antipyretic treatment, believing that the rise of temperature was an essential feature of zymotic disease, and that any successful attempt to prevent it simply prolonged the fever and increased the danger of enteric lesions. He relied chiefly upon opium and alcohol in the treatment of the disease. The reading of this paper gave rise to a prolonged discussion, in which, though many diverse views were expressed, the general consensus of opinion was that quinine was injurious and served only to prolong the fever. The next paper was by Dr. R. M. Funkshauser, of St. Louis, who presented therein his theory of "The Determination of Sex." From a number of experiments upon animals he had been led to the belief that spermatic fluid from the right testicle will beget male offspring, and that from the left female. The ovum had little or nothing to do with the sex of the fœtus. These views were opposed by several members who took part in the discussion. Dr. Brooks, of Carthage, then read a report of a number of cases of "Injuries of the Larger Joints," giving results which he had obtained in his own practice. The election of President was now in order, and was the occasion of quite a spirited contest. Several names were put in nomination, and a decision was reached only after a number of ballots had been taken. The successful candidate was Dr. George C. Catlett, of St. Joseph. The other officers chosen were: Vice-President—Dr. C. A. Todd, of St. Louis; Secretaries—Drs. J. H. Thompson, of Kansas City, and J. C. Mulhall, of St. Louis; Treasurer—Dr. C. A. Thompson, of Jefferson City. St. Louis was decided upon as the place of the next annual meeting. On the evening before the last day's session the delegates partook of a banquet at the Pacific House. Addresses were made by the Mayor of the city, the retiring President and the President-elect, various members of the Association, and other invited guests.

Impaction of the Bowels.—Dr. W. A. McDonald, of Lynn, Mass., writes: "Dr. Fred. L. Kingsbury, of Samorov, Bulgaria, reports a case of impaction of the bowels, and asks what was the cause of death. In reply I would say that *impaction of the bowels* with improper treatment of the case on his part brought about the fatal termination to the patient. It is the duty of every intelligent and capable physician to first determine, in such cases as the one in question, as to whether the rectum is or is not impacted with fæces. If it is impacted the proper course to take before administering purgatives is to thoroughly remove by the finger or a large smooth spoon-handle, or some other such implement, the contents of the rectum, and then by tepid soapsuds injections and careful and persistent manipulations of the colon through the abdominal walls, work the hardened masses along, removing them from the rectum, as they reach there, with the finger or spoon-handle, as already stated. To administer croton-oil or any other drastic purgative in such a case as Dr. Kingsbury's, without first removing the *boulder* from the *gateway* would be bad, bad practice. The Doctor says he gave *copious rectal injections*, after giving strong purgatives; and in the same breath states that the rectum was so impacted that the water simply ran back. By this I would infer that he simply tried to give 'copious injections,' but failed entirely, because of his lack of practical judgment in treating such cases. In addition to what I have already suggested as proper treatment in cases of impaction of the bowels, I would also recommend the use of electricity to promote the peristaltic contractions by placing the negative pole in the rectum and the positive pole over the epigastrium, varying the position of the latter pole occasionally by passing it over the track of the colon."

As a Useful Prescription in Common Colds, Professor Bartholow offers the following:

℞. Codeiæ ..... gr. j.
Syrup. scillæ comp.,
Syrup. tolu .....āā f ʒ ss.
M. Sig.—A teaspoonful pro re natâ.

—*Col. and Clin. Record.*

The Crying Medical Error of the day is the mistaking nerve disease for womb disease. From this widespread delusion it has come to pass that no organ in the human body is so overtreated, and consequently so maltreated, as the womb.—*William Goodell.*

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 23 NEW YORK, JUNE 6, 1885 Whole No. 761

Original Articles.

THE LIMITATIONS OF THE DIAGNOSIS OF MALARIA.[1]

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THE diagnosis of a disease, or a conclusion as to the morbific influence which has determined a group of existing symptoms, should be reached by study of the laws and phenomena of the malady or of the materies morbi in question, as presented in typical cases. There is so much room for indefinite inference and unconfirmed theory in medicine that conservative physicians will always receive with caution, and only after careful scrutiny, all diagnoses of irregular or typical forms of disease.

This conservatism should be exercised nowhere, perhaps, with more vigor than with reference to malaria and malarial disease, since in malaria we have an unseen and impalpable agency. It is true that the discovery of the *bacillus malariæ* in marsh air in 1879, by Klebs and Crudeli, its culture and transmission by inoculation to lower animals, and the further detection by them and later observers of this bacillus in the human blood, give promise of a future possible means of exact diagnosis of malarial toxæmia.

But at present the malarial bacillus is exceptionally demonstrated in the blood of pronounced malarial cases, and by different microscopists with such discrepancies as to appearance that it cannot be included as a factor in diagnosis. Like the waxy infiltrate, which neither chemistry nor the microscope have yet detected in the blood, though its blood origin is inferred unerringly from its method of deposition and relation to visceral nutrition, so malaria, though undefined and undescribed, as an entity or potentiality, still is positively recognized by its typical manifestations as having invaded the system.

Its origin in the earth, its relation to decaying vegetation, its presumably cryptogamic nature, the laws of its dissemination by air and water are recognized; but as yet malaria itself has not been detected. The several designations *intoxication tellurique*, *malaria*, marsh miasm, however, apply to a cause of disease, which is accepted with singular unanimity by scientists, and by all classes of practitioners, and the public.

In hazarding a diagnosis of malaria, we must be guided by well-formulated rules and closely adhere to them. They must refer to evidence of exposure, the usual method of its invasion, the usual sequence of its symptoms, its progress by periods and stages, its sequelæ, and the confirmatory evidence of physical diagnosis, as to change in size and structure of the viscera. These evidences may all be present, associated or consecutively, or only in limited number characteristically grouped, or finally there may be but a single isolated symptom or sign possessing diagnostic value.

It would be undesirable to review all the features of typical malarial fever, as present in the quotidian or tertian intermittent, or in remittent fever. Suddenness of onset, rigor, subsequent fever, with an elevation of temperature disproportionate to the short period of sickness and amount of tissue waste, a speedy subsidence, with sweating, a notable relief of acute symptoms in the intermission, periodicity of recurrence, and enlargement of the spleen, are the essential features. Many others may coexist and strengthen the history of the disease. The diagnosis of typical malarial disease is thus made with unerring certainty. But when only lesser symptoms, individually or in groups, are present, and especially symptoms which may result from other causes than malaria, we have need to exercise the utmost scrutiny, and should eliminate each and every such cause before asserting the toxæmic presence of malaria. It may be stated thus: Before diagnosticating a morbific origin in an invisible, inappreciable, and inferred cause, which, if present, is manifested by its typical symptoms, we must search for other and known causes of these same symptoms, causes which, if present, are demonstrable. The exclusion of these definite causes leaves the just inference that the less demonstrable cause exists.

I would also protest against giving undue weight to the therapeutic argument. The cure of a sickness or the alleviation of its symptoms by a remedy or remedies which specifically cure malaria, does not warrant a diagnosis of malaria, when the symptoms are atypical, and when the medicine is known to be beneficial in other morbid processes, as in fever and inflammation. In most systematic treatises it has been customary to group the atypical cases of malaria under two heads: 1, Masked intermittent; 2, chronic malarial infection. The former group includes cases in which there is less danger of error or a hasty inference of malaria than in the second, since periodicity is the characteristic feature and chiefly determines the diagnosis.

A reference to numerous authors will disclose an extended list of general symptoms and local disorders, regarded, by reason of their periodic recurrence, as dependent either wholly upon malaria, or as regularly aggravated by its influence. Thus of the nervous system, malaria may cause periodically: convulsion; coma; coma-vigil; hallucination; delirium; mania; insomnia; aphasia; aphonia; hemiplegia; paraplegia; paralysis of tongue; paralysis of deglutition; anasthenia of nerves; neuralgia, trigeminal, occipital, intercostal, sciatic, lingual, cardiac, gastric, intestinal, and indeed neuroses of almost every nerve in the body. It is pretty generally conceded that trigeminal neuralgia, especially of the ophthalmic division, either periodically present or aggravated at definite intervals, is the most frequent form of the masked intermittent.

Of the diseases of the eye, malaria has been asserted to be causative, in individual cases, of amaurosis, amblyopia, nyctalopia, iritis, ophthalmia.

Periodic deafness has been noted.

Of the respiratory diseases, there are enumerated instances of asthma, pleurisy, pneumonia, hæmoptysis, phthisis directly attributable to malarial poison.

The heart rhythm, it is conceded, is often notably deranged, its force and frequency inhibited by malarial influence upon the nerve-centres. Exacerbations marked by typical periodicity, or the periodic recurrence of the disease in full, stamp as malarial many cases of indigestion, vomiting, diarrhœa, dysentery, icterus.

So, too, dermatologists have noted cases of erysipelas, purpura, roseola, urticaria, pemphigus, which have presented evidences of dependency upon malarial infection.

Renal engorgement with intermittent hæmaturia is a

[1] Read at the Section on Practice of Medicine, New York Academy of Medicine, May 19, 1885.

common feature of malaria in some parts of this country, especially in Mississippi.

Indeed, it is hardly necessary to enumerate the varied disorders to which malaria may lead, since it is recognized as a ferment vitiating the blood, provoking fever, and increasing tissue-waste. The irritation of nerves by vitiated blood, and the local hyperæmia consequent upon raised temperature and vascular excitement, will account for the widest distribution of neuralgic pains, for paresis, paralysis, and various general and limited visceral inflammations.

In each and every one of the above enumerated and all other maladies the presence of malaria, as a cause or as a complication, may be inferred: First, when other and usual causes are not apparent; second, when periodicity and other evidences of malaria, as dusky face and increased splenic area, co-exist. But without these or other recognized malarial symptoms the diagnosis is but a surmise.

I am averse to the prevailing fashion of the day, to ascribe vague symptoms—such as bodily languor, morning lassitude, persistent yawning, soreness of the muscles, bilious tinge of the skin and conjunctiva, coated tongue, eructations, torpid liver, sluggish bowels — to malaria. The diagnosis, in the last generation, of "liver disease," or "biliousness," was equally a makeshift to cover inexact knowledge, but was often much nearer the truth, since the indigestions are most frequently the cause of all the above-named symptoms.

The second group of atypical malarial disease, that of chronic malarial infection, is made to include most of the above vague symptoms. Whether symptoms are definite or indefinite, if splenic enlargement alone can be demonstrated, a diagnosis of chronic malarial toxæmia is fully justifiable; the association of fulness of the liver, of cachetic facies, bilious hue, indigestion and general innutrition, debility, and malaise further strengthens the conclusion.

But in many sections of our country, but slightly infected, as New York, these manifestations of chronic malaria are less pronounced, the spleen is questionably increased in size, the liver is unchanged. The diagnosis, then, is difficult, and demands a review not only of prominent symptoms, but of every point touching the possible presence of malaria.

What are the reasonable proofs of malarial infection?

1. The history of a residence in a malarial district, or some known exposure to malarial emanations.

Where malaria exists in a virulent form, constantly developing numerous typical intermittents and remittents, the inference is warrantable that many or most other diseases and all cases of indefinite type are influenced by the prevailing infection. Such a region was Batavia, N. Y., which, as described by Waring, was threatened with depopulation by malarial disease, though subsequently rendered healthy by efficient drainage. Certain suburbs of New York, as portions of Staten Island, the valley of the Hackensack, the Palisades, are so malarial as to develop all the pronounced evidences of chronic malaria.

In our city limits it was once customary to state that malaria was rarely engendered below Fiftieth Street. But there are evidences of the incorrectness of this statement. Isolated and grouped cases in various parts of the city point to local sources of malaria. The extensive belt of filled land which surrounds the city, with consequent extension of the sewers out through marshy land, has added a source of infection. Constant excavations—as for deep cellars, for the columns of the Elevated Railroads, for the large water-pipes—are constantly provoking malarial seizures in the workmen exposed and in the residents at the exposed points. We cannot doubt that the same influences to some slight extent leave a chronic malarial contamination. We have another possible source of danger from malaria in our water-supply. Investigation will show that the residents along the water-shed of the Croton River and in the region of the Croton Lake suffer from malaria. My attention was first called to this fact by private patients who had summered at the Croton Lake until driven home by severe chills. I believe that malaria may reach us by our water-supply. We are warranted in this opinion by data as to the Mohawk and many other valleys, to which malaria has been conveyed from its habitat to places receiving the water-shed of a malarial region, yet having no swamps or other soil of their own favorable to malaria. The cerebro-spinal fever of 1872 in this city was associated with a remarkable presence of decayed leaves and vegetation in our water.

The present season has witnessed an unusual prevalence of "winter diarrhœa," so characterized by elevation of temperature and evidences of periodicity as to warrant a malarial element. The geographical distribution of the cases in different parts of the city, and the circumstances as to habits, occupation, diet, etc., of the patients, have left but one inference, or as the most plausible inference, the water-supply. During the past year I have advised families, especially those having young children, to boil drinking-water as a means of further security against sickness, and in several instances with most notable absence of slight ailments and indefinite febrile disturbances, which had in previous seasons been present.

Maclean, in his article in Quain's "Dictionary," speaks of water from malarial coasts, taken on shipboard, as a cause of malarial fever, in persons consuming it, who had not been exposed.

The exposure of milk, in cans, to the night air, on the many valley railroads converging in New York, at the milk stations, and as peddled around our streets in the early morning air, is another possible cause of infection. For this reason, sealed cans direct from the dairy are desirable, at least for invalids and delicate children susceptible to slight malarial influences.

2. The second reason for inferring malarial toxæmia is the occurrence of a characteristic malarial seizure—an initial chilliness, chill, or rigor; sudden elevation of temperature, fever of an hour or two duration, subsidence with sweating. Or initial chill, with pronounced fever, marked by remissions, with or without local congestions with each return of fever.

These two are the typical intermittent and remittent. The latter, it is well known, ultimately becomes intermittent, as convalescence is being established. The phenomena are not materially different in method of production or in sequence in the two diseases—chill is proportionate to the shock of malarial toxæmia, the fever period represents the disturbance of tissue metamorphosis resultant from the miasm in the blood; sweating or other colliquative change, as diarrhœa or diuresis, represent an effort at elimination. In intermittent, the fever is shorter, the interval long. In remittent, the fever persists and the remission is brief, or even not obvious, but ultimately lengthens as nature, either unaided or aided by medication, completes the elimination of malaria from the system.

3. We are warranted in diagnosticating malaria, quite independently of the nature of the special symptoms, if they are clearly marked by periodicity of recurrence, or by periodicity of exacerbation.

4. A demonstrated periodicity of the temperature line, even though slight — fractional — if continued without other marked symptoms, plainly denotes malaria.

5. Changes in the size of the spleen and liver as shown by percussion and auscultatory percussion, when associated with history of malarial exposure, or former malarial seizures, lead to the inference of chronic malarial infection. But it must not be forgotten that without such history, especially if the enlargement of the liver be great, the two organs are more likely to be invaded by the waxy infiltrate. Both waxy spleen and ague cake are painless.

6. I place sixth and last the therapeutic argument.

Invariable benefit derived from the use of antiperiodics, whether derivatives of cinchona bark, salicin, eucalyptus, or arsenic, goes to confirm the diagnosis. But if no periodicity in symptoms has existed, if no enlargement of spleen is present, even though lesser symptoms suggest malaria, the cure of the case does not prove that malaria is present. Quinine not only antagonizes or neutralizes malaria in the blood, but also controls hyperæmia, inflammation, and febrile temperature. It also acts as a stimulant to the nervous system and a tonic to the mucous membrane of the stomach and intestines.

Having stated the chief diagnostic rules for determining malaria, I desire to submit a list of diseases which are constantly being confounded with malaria by many practitioners. The error is one which may threaten any physician, however expert as a diagnostician, if a case be hastily observed, or infrequently visited, or carelessly recorded.

(*a*) Phthisis will certainly rank first in diagnostic importance. The most frequent error, and one which is hardly justifiable in the case of adults, is to mistake the daily hectic of phthisis for quotidian intermittent. In this vicinity intermittent is so infrequently quotidian in the adult, as to always create scepticism as to the malarial nature of a daily chill and fever. Careful exploration of the chest will usually detect the tuberculization, the softening or cavity which create the pyrexia. In phthisis not only do patients long mislead themselves with the supposition that they are suffering from malaria, but physicians very frequently, either by oversight, or by being too willingly biassed by the patient's statements, fall into the same error. Acute miliary tuberculosis and marasmus also are occasionally, but less often, misinterpreted as forms of low continued malarial fever.

(*b*) The next frequent error, and a common one, at least in this community, is to overlook follicular tonsillitis, at least for one or two days, and mistake the sudden accession of chill, high fever, and general soreness of the muscles for an attack of acute malaria. The ultimate development of a painful throat is apt to correct the diagnosis. Follicular tonsillitis is in no true sense malarial. In endemics it is the common product of foul streets and gutters, and of sewer and house-pipe emanations; it is septic, not malarial. Individual cases are the result of catching cold, checked perspiration with associated indigestion. During the present season I have, at two different times, treated groups of eighteen and twenty cases of follicular tonsillitis in a child's day nursery; no inmate being exempt, yet no case of intermittent, or any symptom or group of symptoms characterized by periodicity, occurred either during or subsequent to these cases.

(*c*) The fact that continued fevers and the exanthemata at their outset are liable to be confounded with intermittent and remittent, all practitioners know. We are constantly compelled to exercise discretion, to defer the diagnosis until the special evidences of each disease have developed.

Typhoid will often present no typical temperature line, and remittent or malarial typhoid is inferred. But the second week will develop the typhoid spots, ochre-colored diarrhœa, and other symptoms of undoubted typhoid fever. Relapsing fever can scarcely be distinguished from remittent until the first respite, with subsequent recurrence, corrects the diagnosis. In children the passage of the time for the development of each exanthem successively clears the diagnosis.

(*d*) Inflammations of the pleura and pulmonary parenchyma may often be insidious, and at first devoid of pronounced physical signs. The diagnosis of malaria is then made, and often, in a degree, correctly, since malarial poison is a frequent cause of atypical pneumonia, either centric or localized, and is especially a cause of local dry pleurisy and pleuro-pneumonia. But if the subsequent full development of these inflammatory diseases is not marked by a continued periodicity, I should infer that the first diagnosis of malarial chill and fever was an error, to be retracted in favor of that of a non-malarial inflammation. Empyema, especially in children, and when localized, is often overlooked, and malaria diagnosticated. Physical examination. Bronchitis is not likely to be mistaken for any development of malaria, since it has so slight an initial chill, and so moderate elevation of temperature; and the substernal oppression and cough point to the true disease.

(*e*) Acute indigestion, especially in children and young adults, and those with mobile pulse and temperature will frequently produce a vascular excitement, with associated fever and even delirium, which simulate a more serious seizure, and which is often regarded as malarial. It is well in all such sudden cases to ascertain if the tongue be coated, the breath loaded, the stomach foul; if vomiting, diarrhœa, or constipation exist, and if errors of diet have been committed. A dose of oil or other quick purge is indicated, and the cure is instantaneous; whereas, resort to quinine in such cases will not particularly reduce temperature, and will indefinitely protract an otherwise speedy cure.

(*f*) But more frequent than the above-named, and perhaps than all other sources of error, indeed an everyday error in this community, and, so far as I can learn, in all sections of the country, is the habit of ascribing the manifold symptoms of chronic indigestion, of sluggish liver, and constipated bowels to malaria.

Ladies who are languid, tired, who suffer from cold extremities, vitiated appetite, and headache, are treated with quinine and its analogues, when they require only exercise, mild laxatives or enemata, regulated diet, and possibly a stomachic tonic for a brief time. Cases of lithæmia, with nervous flashes, confused head, depressed spirits, sense of fatigue, yield promptly to lactic acid, buttermilk, kumyss, or to nitro-muriatic acid, after previous long-continued and unavailing antimalarial medication.

(*g*) Anæmia, debility from overwork, nervous exhaustion, all characterized by the vague discomforts and localized pains, or neuralgia, which result from impoverished blood and deranged circulation, are too often hastily ascribed to malaria. The expenditure of more time and patience in analyzing chronic cases will obviate most of these mistakes.

(*h*) Lastly and with much emphasis, I refer to the error, largely of the past, yet still too prevalent, of misinterpreting post-partum chills and assuming their malarial nature. Most authors specify that women are more liable to malaria subsequent to confinement than before. With this assumption it has been customary until recently to interpret pronounced chills or alarming rigors, and sudden elevations of temperature in puerperal women, to malaria. I do not refer to the chills incident to the influx of the milk, inaugurating the so-called "milk fever." Even the latter seems to be materially lessened under the recently inaugurated system of obstetric antisepsis. It may be pretty safely stated that in non-malarial districts and residences, the occurrence of chills and fever in the parturient woman is not determined by malaria, but invariably by sepsis, either from membranes or clots retained in utero, or by poisonous lochia. Heroic doses of quinine, it is true, will bring down the temperature in these cases, but it will speedily rise—having been influenced by quinine as an antipyretic, not as an antiperiodic—and will remain high or fluctuate at a dangerous elevation, until thorough antiseptic douching of the uterus and vagina secures its reduction. Even in malarial regions, and in women who have previously had malarial chills, the practitioner will do well not to ignore the greater probability that he is dealing with the results of sepsis from the secundines or lochia.

In attempting to formulate the conditions which justify a diagnosis of malaria, and in detailing the many diseases which are daily mistaken for malaria, I am not to be understood as underestimating the widespread influence of

malaria in nearly all sections of the country, and the presence in every section of individuals who are suffering not only from its pronounced and typical forms, but also from varied atypical manifestations. It is too true that the error also is constantly made of treating anæmia, debility, neuralgia, and many other diseases without recognizing malaria as a possible cause. But the error is less serious in this direction, since the class of ailments so mistaken usually are not grave, nor the symptoms urgent, whereas the errors previously cited involve great hazard to life, as in the course of unrecognized phthisis or forming febrile and inflammatory diseases, or involve a protracted misconception of methods of diet and living, as in the indigestion and nervous exhaustion, or the needless sacrifice of a life as in puerperal septicæmia.

The physician who is undecided as to the merits of this argument, and strongly biassed in favor of malaria, certainly can afford to pursue the conservative course of more careful observation, and of rigid differential diagnosis, without abandoning his use of antimalarial agencies. Much good must result from a closer study of the classes of cases which have heretofore been carelessly ascribed to malaria; if still found to be truly malarial, a more precise symptomatology of malaria will be created; if not malarial, new sources of septic infection may be disclosed, or further light thrown upon the still obscure laws of assimilation and excretion.

CHLOROFORM AND THE FIFTH PAIR OF NERVES.

By G. W. WELD, M.D., D.D.S.,

NEW YORK.

Under the head of "Current News and Opinion" in the March issue of the *Independent Practitioner*,[1] there appeared a short notice relating to "Chloroform and the Fifth Pair of Nerves." The article in question briefly referred to W. E. Buck, Physician to the Leicester Infirmary, whom it would appear had stated in the London *Lancet* that "if a patient be not thoroughly under the influence of chloroform, any irritation of the fifth nerve will produce slowing of the heart's action and final stoppage through the pneumogastric nerves. He thinks this may account for many deaths in dentists' chairs, and advises that in any operation involving the fifth nerve, the anæsthesia should be pushed until the patient is completely under its influence."

This article is not only somewhat meagre in its details, imparting but little information regarding the shock which may occur during chloroform administration, but in some respects is calculated to mislead if at the same time some other points be not considered. And although I may not add anything new to what is already known regarding the influence which the fifth pair of nerves may have in connection therewith, it is, nevertheless, in relation to these points that I wish particularly to invite your attention this evening.[2]

That chloroform, when employed, should be administered until the patient is completely under its influence, *i.e.*, oblivious to pain, is self-evident and requires no comment. Under some peculiar morbid conditions it is perhaps true that incomplete anæsthesia is a condition of danger. Bartholow[3] refers to this and says that "numerous accidents have occurred from the use of anæsthetics for trivial operations—notably for extraction of teeth—in which but a partial degree of insensibility is induced. In such cases, the heart, enfeebled by chloroform narcosis, is suddenly paralyzed by the reflex action proceeding from the peripheral injury. The district of tissue supplied by the fifth nerve is an especially dangerous region, owing doubtless to the intimate connection of the nucleus of the fifth with the nucleus of the pneumogastric nerve. By far the largest number of fatal cases have resulted from a neglect of this rule. It is never safe," continues this writer, "to proceed in a surgical operation with anæsthetics, unless complete insensibility has been produced." But Trousseau and Pideux have attributed the number of cases of fatal chloroform narcosis, which have occurred in England, to the fact that "the just mentioned rule is adhered to by English surgeons." These words are as follows: "En Angleterre, les chirurgiens portent l'éthérization jusqu'à l'abolition de toutes les facultés animales, jusqu'au commencement de la période d'éthérisme organique. Plus prudents sous ce rapport que leurs confrères de la Grande-Bretagne, les chirurgiens français ont l'habitude de s'arrêter dès que la sensibilité aux excitations de la peau est abolie et que la résolution musculaire commence. Cette prudence explique comment les chirurgiens français ont éprouvé moins d'accidents graves et compté moins de morts subites" (vol. ii., p. 322).

But the impression which is likely to be conveyed in the article referring to Dr. Buck is that by pushing the chloroform until the patient is completely under its influence the chances of heart-failure may be avoided.

The fact is that chloroform, and especially if its administration be pushed, sometimes results in a fatal termination, irrespective of any irritation which may be conveyed to the pneumogastric centres through the fifth pair of nerves. Heart-failure has taken place during chloroform administration prior to the surgical operation, or the extraction of a tooth, and consequently before either the fifth pair of nerves or the pneumogastric centres, so far as the surgical shock is concerned in the matter, had become involved. Moreover fatal results from chloroform narcosis are more frequently due to cerebral anæmia induced by the upright position of the patient, who sits or reclines in the dental chair. Hence a position as near horizontal as possible is always advised whenever chloroform is administered.

It is apparent, therefore, that although the chloroform be pushed, the chances of cerebral anæmia and fatal syncope occurring during its administration still remain.

In connection with the fifth pair of nerves, and the shock occurring under chloroform administrations, the views of Bruton are worthy of consideration.

Bruton states that the blood, when it reaches the veins, is useless for nutrition of the tissues, as we see in the corpse, when the whole of the blood in the body is contained in the veins, the arteries being empty: only so long as it is in the arteries, can it maintain the vitality of the tissues. The blood is kept in the arteries, 1. By fresh supplies being pumped out of the venous system into the arterial by the heart. 2. By the contraction of the arterioles, which prevent it from running back too quickly into the veins.

When a tooth is drawn without chloroform, the irritation is carried by the fifth nerve to the nerve-centres; it irritates the vagus roots, and also the vaso-motor centre. The irritation of the vagus may depress or arrest the heart's action, so that no blood is sent into the arterial system for several seconds; but this is counterbalanced by the irritation of the vaso-motor centre, which causes contraction of the arterioles, and thus correspondingly diminishes the outflow. In a person thoroughly under the influence of chloroform, both nerve-centres have their reflex sensibility abolished, and so the irritation has no effect on either, but with partial anæsthesia (and this is doubtless the idea Dr. Buck intended to convey), the vaso-motor centre may be rendered insensible before the vagus centre, and consequently, when the irritation is applied to the fifth nerve, the vagus centre only is excited, the heart is depressed or stopped, and the inflow of blood into the arterial system is diminished or arrested, while there is no contraction of the arterioles, and therefore no corresponding diminution of the outflow. The arterial system therefore becomes more or less empty, *i.e.*, it approaches more or less to the condition of death, and fatal syncope may result.

[1] A monthly journal devoted to dental and oral science.
[2] Read before the First District Dental Society, State of New York.
[3] Bartholow, Robert: Materia Medica, p. 362. Philadelphia, 1881.

With nitrous oxide gas, however, by which the blood in the arteries is brought into venous condition, and thus acts as a stimulus to the vaso-motor centre, the danger from syncope is reduced to a minimum.

Thus we find that during the administration of chloroform for dental operations there are numbers of factors which tend to produce a failure in the heart's action.

1. A depression of the functions of the heart by chloroform narcosis, *per se;* in other words, when the paralyzation of the cardiac ganglia is due entirely to the effects of the chloroform.

2. The upright position of the patient which induces central anæmia.

3. The supposed reflex action of the pneumogastric nerve upon the heart through the irritation of the fifth pair of nerves.

These causes may of course act either separately or simultaneously, but in either case the heart's action is depressed or completely arrested. The sudden deaths which sometimes take place at the beginning of the inhalation of chloroform have been accounted for on the theory that the cardiac ganglia are in an abnormal state of susceptibility. Whether this supposition be correct or not we cannot say. We only know that there appear to be certain morbid conditions which tend to syncope. These conditions are found in alcoholic subjects, in persons who have sustained a severe shock from an injury, or are afflicted with a fatty heart; and it has also been observed that children and women (especially those in labor) are better subjects than adults and men.

It would appear from what has been said that ether or nitrous oxide gas should be used in preference to chloroform in all dental or surgical operations. In fact, it is maintained by a large majority of observers at the present day that only in extremely hot climates and in expeditions where ether, on account of its bulk, cannot be carried, is its administration fully justifiable. Statistics show about one death occurring in every three or four thousand cases—a condition of things which, if the statistics are of any value, certainly imposes an immense responsibility on the administrator. But chloroform has been used quite extensively in England, and is now used by many of the English surgeons in preference to ether.

In this country, as well as in Germany and Italy, it is used but little in general surgery. It has, however, been employed to a small extent in some of the wards of Bellevue Hospital, and, so far as known, without fatal results. It is, however, almost universally used as an anæsthetic in obstetrical cases. Dr. Alexander B. Mott, of this city, may be considered the progenitor of chloroform narcosis in this country, he being the first to administer it on this side of the Atlantic. This occurred in 1849, when it was administered for the removal of a cancer from a woman's breast, the operation being performed by Dr. Mott's father. Singular to relate, although the cancer has returned and another similar operation been performed, this woman is still alive, and, so far as known, free from the disease.

If it were possible to remove all danger from cerebral anæmia and heart depression, chloroform would doubtless be the most agreeable if not the best of all anæsthetics for capital operations. It has many advantages over ether. It produces less emotional excitement. It is as much quieter in effect than ether, as ether is than alcohol. Then the unpleasant after-effects of ether are entirely absent, the patient coming out of a state of unconsciousness apparently like sleep.

In view of these facts, it is important to ascertain, if possible, when it is found necessary to administer chloroform, the best means to employ to prevent the shock or depression which the heart appears to sustain, to a greater or less extent, whenever it is administered, and especially so if the heart be depressed by any irritation conveyed to the vagus centre on account of any peripheral injury.

Dr. Alexander B. Mott, of this city, has been in the habit, during the past thirty years, of using chloroform to a greater or less extent in his practice, and up to this date has had no fatal results. He attributes this to the careful manner of administration and the prompt and efficient remedies employed to resuscitate the patients when it is observed that their breathing is impaired or that they appear to be in danger of heart-failure or cerebral anæmia. But with him this seldom occurs, a circumstance which may reasonably be attributed to the precautionary measures taken to prevent such an occurrence before the inhalation; for he is in the habit of giving to his patients before each surgical operation a moderately large dose of whiskey or brandy and furthermore is prepared to administer it subcutaneously if necessary.

It must be considered somewhat doubtful whether the many deaths which have occurred in dentists' chairs from the effects of chloroform can be reasonably ascribed to any condition of incomplete insensibility. What seems more probable, in the light of modern investigation, is that the slowing and final stoppage of the heart is induced alone by the effects of the chloroform and the upright position of the patient rather than to any reflex action of the pneumogastric nerve upon the heart.

It is very likely that in many cases of heart depression and failure the result would have been entirely different had the above precautionary measures been taken; and in many other cases where heart-failure occurred the patients would have survived had prompt and intelligent efforts been made to resuscitate them. It is thus apparent that the present statistics relating to the number of deaths due to the administration of chloroform are of little or no value.

A number of expedients have been proposed to prevent the heart depression coincident with chloroform narcosis, but for various reasons, principally because ether is a cardiac stimulant and in consequence comparatively free from danger, no reliable formula has been proposed or at least accepted by the medical profession.

As above stated it has been suggested to give the patients a dose of whiskey or brandy before the inhalation has begun. But it is apparent from what has already been said that for one class of patients, viz., those with an alcoholic history, this remedy alone must prove uncertain and unreliable in its effects.

Nussbaum, a celebrated German surgeon, proposed to administer a subcutaneous injection of morphia. It has also been proposed to mix a small quantity of the nitrite of amyl with chloroform at the time it is given.

Sulphuric ether in conjunction with chloroform (mixed vapors) has often been administered in the same manner and with the same purpose in view.

It is a well-known fact that ether, when administered internally, is a cardiac stimulant. Thus it has been observed that in sudden and dangerous forms of syncope ether, or Hoffmann's anodyne, given internally, has had the effect to arouse a flagging heart and so prolong life.

When ether is used as an anæsthetic the heart is supposed to be the last organ affected; and if a patient dies during its administration the fatal result may be attributed to asphyxia or paralysis of the respiratory muscles. It is probably due, as just stated, to the stimulating effect which ether has upon the heart's action, that it is generally administered in a great majority of operations pertaining both to surgery and vivisection. But deaths have occurred from the effects of the administration of chloroform and ether combined, which fact tends to show that ether when mixed with chloroform is not, as an antidote, powerful enough to prevent or arrest the depressing influence which chloroform seems sometimes to hold over the heart's action. There is one other point to be considered in this connection, viz., that when chloroform is properly administered it is inhaled by the patient under a napkin and adulterated with at least ninety-five per cent. of air.

Formerly when chloroform and ether were administered together the proportions were equal parts. At the

present time, however, it is customary to use three-fourths ether and one-fourth chloroform.

The element of danger, which is coincident with the administration of chloroform and ether combined, lies in the fact that the methods prescribed for the proper administration and adulteration of the chloroform are not strictly observed. In other words, the mixture is administered by a cone as ether is administered, and so the patient receives more chloroform than if properly administered by itself.

It is obvious that whatever drugs or combination of drugs which have a tendency to paralyze the pneumogastric nerve, or remove the restraint which this nerve has over the heart, thus increasing the heart's action, or whatever agents have a tendency to stimulate the vaso-motor system, thus contracting the arterioles, must serve to produce an antidotal effect, and correspondingly diminish the chances of a fatal syncope occurring during the inhalation of chloroform.

It is true that physiological chemistry has not as yet given us any absolute antidote for the depressing effects produced by chloroform, but clinical medicine teaches us that by the administration of morphia and atropia combined we can to a great extent abolish reflex irritability, increase the power and number of beats of the heart, and maintain the elasticity and contraction of the arteries.

Bartholow says that "the subcutaneous use of atropia before the administration of chloroform lessens the dangers of paralysis of the heart and of respiration."

If from a physiological standpoint the theory of nerve inhibition be questioned, it must, nevertheless, be admitted that, so far as the heart is concerned, the use of atropia in conjunction with the administration of chloroform is inclined to ward off at least any influence which tends to depress or arrest its action. This is precisely what is required when chloroform is administered, or when, from whatever cause, the pneumogastric nerve is irritated. But beside the tendency which atropia has to increase the number of heart-beats or ward off any influence which tends to stop the action of the heart, it stimulates the vaso-motor centres and, it is said, "produces a contraction of the muscular fibres between the elastic layers of the arteries, and also of the external muscular layers of the capillaries."

When the nerves which preside over the functions of the arterial contractility are paralyzed, there is in consequence a stagnation of the blood-current, a condition which necessarily devolves more duty upon the heart. In fact, the heart is called upon to force a stream of blood through a series of paralyzed vessels, instead of vessels endowed with life and contractility, and which, as already intimated, afford assistance in circulating the blood.

Morphia adds to the efficacy of atropia, inasmuch as morphia in small doses is a cardiac stimulant.

Atropia and morphia combined have recently been suggested as a remedy for cholera,[1] on the theory that "cholera dejections and vomiting are due to a paralysis of the vaso-motor system, and that the serum of the blood transudes the mucous membrane of the stomach and the intestinal tract in consequence of these meeting with the least resistance, and that, if proper medicaments and restoratives can be administered to keep up the heart's action and the respiratory functions, the patient might survive what otherwise would be a fatal attack."

In connection with the treatment of cholera, and the effect of these two drugs combined on the heart and blood-vessels when administered hypodermically, this writer further observes that "atropia dries up the mucous membranes from the fauces to the rectum. Whether it be in consequence of its control of the inhibitory nerves of the heart, or a tonic spasm of contraction of the muscular layers of the blood-vessels, I cannot say, but that it is a dryer of mucous membranes there is abundant evidence to show. Furthermore, we know that morphine controls spasm, that it subdues pain, that it promotes quiescence, and that it has a tendency to keep the blood-vessels, and more especially those of the spinal cord, in a distended state, thereby, for the time being, maintaining the spinal cord in a state of vascular plenitude, which stimulates to proper functioning."

But what is equally important in this connection is that, after the administration of morphine, reflex action seems to be less pronounced. Again, the hypodermic administration of these two drugs combined, before the inhalation of the chloroform has begun, not only increases their physiological and antidotal effect by preventing or arresting the depressing influence on the heart's action, but the disagreeable features of both, as observed when employed by themselves, are materially lessened.

With a view of ascertaining just how far the reflex action of the pneumogastric nerve affects the heart through the irritation of a sensory nerve, the writer has recently experimented on animals with the following results: In a sheep (which had been chloroformed), after the heart had been carefully exposed, five teeth were extracted under various stages of chloroform narcosis, without producing any visible effect in the frequency of the cardiac pulsations. But a subcutaneous injection of morphine and atropine had a marked effect upon the heart's action, the number of heart-beats being perceptibly increased, and a more forcible impulse of the ventricular systole indicated.

This experiment was repeated on a dog (four teeth being extracted), with almost similar results.

So far as it is possible to judge from the experiments just alluded to, there seems to be no good reason for believing that a reflex action of the pneumogastric nerve upon the heart, through the irritation of a sensory nerve, at least the fifth pair of nerves, ever takes place during the administration of chloroform.

The special point to be noted is that, in a great majority of instances, fatal results from chloroform inhalation may be attributed to cerebral anæmia, and some fault in the administration, rather than the effects produced by giving less than the usual quantity of chloroform, or producing incomplete insensibility. Whether morphine and atropine combined, and employed subcutaneously, will prove to be an effectual antidote for the paralyzing effects induced by chloroform, time and experience alone can determine. One point, however, seems to be clearly settled, viz., that whatever the cause of fatal syncope during chloroform narcosis, the remedies most likely to prove of any value must embrace those remedies which are calculated to ward off an attack of heart-failure, rather than those remedies which are generally adopted for resuscitation, after an attack.

This is made apparent by the fact that many deaths occur suddenly, and, consequently, the agents which strengthen the cardiac and respiratory functions are applied when it is too late, and, of course, prove to be useless.

Dr. Johnson on Microbes.—All anticipation of future knowledge, and suggestions which those who come after find to be correct, have a peculiar kind of interest and are worth noting, even though the scientific basis on which they are founded may be questionable. There is an observation of Samuel Johnson's on the subject of dysentery which fairly illustrates this. In a letter to Mrs. Thrale, dated November 12, 1781, he says: "If Mr. —— will drink a great deal of water the acrimony that corrodes his bowels will be diluted, if the cause be only acrimony; but I suspect dysenteries to be produced by animalculæ, which I know not how to kill." Johnson used the word "animalculæ;" a modern writer would say "microbes."

[1] Cholera as Regards Quarantine, and its Prevention, Pathology, and Treatment, by Montrose A. Pallen, A.M., M.D., LL.D., The Medical Record, vol. xxvii., p. 253.

TRAUMATIC GASTRIC FISTULA OPENING INTO THE PANCREATIC DUCT, RESULTING IN DEATH AFTER FORTY YEARS.

By E. F. BRUSH, M.D.,

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In July, 1881, Dr. Horton, of Morrisania, sent to me for some kumyss for a patient of his who was suffering from an uncontrollable vomiting, due to some obscure disease. The kumyss was retained and the patient continued to consume five bottles daily for seven days, when the vomiting again took place, and kumyss as well as everything else was rejected. On July 15th, with Dr. Horton's permission and at the patient's request, I took the case in charge. On my first visit I found the patient, who was sixty-three years of age, tall, gaunt, with all his teeth gone, and his false teeth removed, giving the face a greatly sunken appearance. He was in bed, answered questions very feebly, had just ceased vomiting when I arrived. The temperature was 97°, pulse weak and thready, bowels normal, and tongue clean. From his wife I got the following history: In the year 1842, after eating a hearty dinner, he had attempted to lift a very heavy stone; he felt something tear in the stomachal region which he compared to the tearing of calico. He immediately fell, did not lose consciousness, but expected instant death. There was no pain immediately following this occurrence; his feelings were of a nature which he could not describe, one of the most marked being a painful anxiety to move cautiously. Three months after the occurrence he was married, and about this time consulted a physician in Boston, who pronounced the injury a diaphragmatic hernia. A year after the accident he began to experience pain in the right hypochondriac region; the pain was not severe, but very depressing. At that time he was a music teacher and was able to practise his vocation while suffering pain. This pain became periodic, occurring every three or four weeks. During the next five years he changed his occupation frequently: for one year he manufactured shoes, then became the leader of a brass band and a choir-singer, and afterward engaged in the manufacture of pianos, continuing this business till the time of his death. For three years the pain was of the same character, after which it became more intense and frequent, and about this time was accompanied with vomiting without nausea. He said he learned to vomit, thinking the act would relieve the pain. About a year later the vomiting became uncontrollable, and always followed the pain, without, however, usually giving relief. He called in at this period a homœopathic physician, who diagnosed cancer of the pylorus. He received no amelioration, but his condition remained unchanged till about ten years before his death. About this time he had an ecstatic spasm lasting about half an hour; on recovering, he stated that during the attack he thought he was dying, and would have liked to remain in that condition forever. After this occurrence he fainted frequently while suffering pain, but never had a recurrence of the ecstasy. Henceforward to his death he was always hungry and thirsty. His teeth began to decay and trouble him, and they were all removed except the stomach teeth. Two years before his death, he had a severe attack of intermittent fever which responded to treatment in a few days. While lying sick with the fever, he fancied the stomach teeth caused the whole trouble, and while still very weak from the intermittent trouble, and hardly able to walk, he arose one morning and, without saying anything to the family, had the teeth —which were sound—removed. After this he became hysterical, querulous, and constantly complaining, but insisted on working when not completely prostrated by pain and vomiting. He was convinced that his case had never been correctly diagnosed. For this reason, a few months after the attack of intermittent fever, he went to one of the large New York City hospitals for treatment. He stated that the entire medical staff examined him, but did not communicate to him their conclusions, notwithstanding his earnest requests. He overheard the order that he should be treated hypodermically with morphine and atropia. As he had always objected positively to the use of morphine, having a terrible dread of the morphine habit, he took the first opportunity after the physicians had left his ward to dress himself and quit the institution, returning home much to the astonishment of the family.

Such was the history of the patient when I paid my first visit, on July 15, 1881. All the known remedies had been used and failed, after some had afforded temporary relief. Some weeks before I saw him the pain and vomiting had occurred every three or four days, but ceased for the space of fifteen days while subsisting on kumyss. There was no other article of food or drink which made any difference in the intensity or frequency of the pain or vomiting. He would sometimes eat a hearty meal of corned beef and cabbage, or baked beans, and suffer no inconvience, and again, while subsisting on the lightest diet, would suffer terribly. A few months before I first saw him he drove to City Island; on the way from his home in Tremont he was attacked with vomiting and excruciating pain, being obliged to get out of the buggy and roll in the grass, crying out in agony. The intensity of the attack subsided in about an hour; still suffering somewhat from pain he continued his journey; in a fit of desperation he went to a restaurant, ordered baked clams for two, and, as his wife did not like clams, he ate the entire lot himself, drinking also two bottles of lager beer. From this he suffered no inconvenience whatever. These last facts he related to me himself with his feeble, querulous voice. On attempting to prescribe for him, every remedy I suggested he objected to, as having been tried in vain. I finally decided to apply a mustard plaster on the epigastrium, and after some redness was produced, the reddened area to be rubbed with chloroform. This afforded him some relief from the pain. I directed him to eat a hearty meal of beefsteak, baked potatoes, bread, butter, and ale, and if vomiting occurred to save the rejected matter, likewise the fæces and urine voided during the next twenty-four hours. When I visited him the following day, I found that vomiting had taken place about eight hours after the hearty meal, which he said he enjoyed very much. The vomited matter, about two quarts, was thoroughly digested, not a single fibre of the meat being visible to the naked eye; there was no odor to it whatever. In character it was a thick chyly-looking mass, floating on a whey-like fluid. Under the microscope there were seen numerous pus-globules, free fat, disintegrated meat-fibre, and starch-granules. The fæces also, on examination, exhibited an abundance of free fat. No other abnormality was detected. The urine, with the exception of an excess of phosphates, was normal. After this examination I made a diagnosis of *pancreatic abscess*, with a sinus leading into the stomach, and I reasoned that this abscess was stimulated by a full stomach pressing on it, and when the pyogenic sac became full it emptied itself into the stomach and caused the vomiting, while a distended sac in this region might account for the pain. Therefore I directed the patient to take little food at a time; an ordinary slice of bread and butter, half a teacupful of oatmeal gruel, or any of the lighter nutritious soups which he wished, every two hours, and to avoid meat or other fleshy foods. He followed the directions for some time with good results, but the craving for a satisfying drink and a stomachful of food was more than he could resist, and he reverted to his old habits. I stopped my regular visits and only saw him occasionally. He would come into my office at times, and tell me all about his trouble over and over and over again, and would ask me if I still adhered to my diagnosis. When I assured him that I did, he seemed pleased, and expressed the hope that I would at some time think of some way to relieve him. He would add that he also had made a diagnosis of his case,

and, like myself, he still adhered to it; his opinion was that wind in the bowels caused all the trouble.

On July 3, 1882, he came to me the very picture of misery: he threw himself on the lounge and begged me for pity's sake to do something to relieve his pain. I gave him one drachm of chloroform in a little water by the mouth; this relieved the pain a little, but caused a severe burning in the stomach. I helped him into his carriage and told him to diet himself again as I had directed the previous summer. Two days later he sent for me; I found him seated in the veranda groaning with pain; his teeth were removed and he presented the appearance of a dying man; his voice was almost inaudible, pulse, 50, and very weak; temperature, 97⅗°. I had him put to bed and directed that he receive no food whatever by the mouth, except a little kumyss to quench the thirst of which he was complaining. I gave him immediately an enema composed of one raw egg, one pint of beef solution, and a tablespoonful of brandy. He objected strongly to the injection, saying the idea was very repulsive to him. I ordered him to have an enema given every six hours, night and day, composed as above. This treatment was continued for fourteen days, during which time vomiting took place once on the fifth day, but without pain. The vomited matter consisted of green viscid mucus and pus. At the end of fourteen days, owing to his earnest solicitation, he was allowed to sit up, and in lieu of the enemata, which continued to be repulsive to him, a small porterhouse steak with boiled rice was given. This he enjoyed very much. After twelve hours the pain returned with great intensity, but there was no vomiting. I proposed the use of actual cautery over the seat of pain, but he objected so pitifully that we abstained, and used in its place mustard and chloroform, as we had done a year ago. Toward evening the pain subsided sufficiently to enable him to sleep; about midnight he aroused the family with piercing screams; he asserted that he was dying, but this had occurred so often before that the family did not enter into his convictions. Very early in the morning they sent for me. The moment I saw him I was convinced that he was actually dying, and I thus stated to the family. Dr. Campbell was sent for as consultant, and together we employed all the known means to stimulate the absent pulse, warm the cold extremities, but he failed to rally and died very quietly at 11 A.M.

After much difficulty, and the body lying in the room where death took place, without ice for two days, we finally got permission to hold an autopsy, providing we did not take away any part of the remains. Dr. Horton was invited by the family to be present at the autopsy, but was unable to come. The autopsy was performed by Dr. Campbell and myself.

Autopsy: Rigor mortis well marked; abdomen distended (with gas), below the umbilicus very much discolored; the peritoneum dull vermilion color, very much thickened, and the entire posterior portions covered with a thick firm plastic exudation; the entire intestinal tract dark red; the omentum bound down firmly to the epigastric region; the veins of the lesser omentum enlarged and distended with blood; the stomach reddened and completely bound to the peritoneum posteriorly; the spleen firmly bound to it at the greater curvature. On opening the stomach there was discovered a fistulous opening at the posterior part of the pyloric end, about four inches from the pylorus. Passing the finger through this opening, it led into the much enlarged pancreatic duct; the pylorus was completely closed, but there was no evidence of cicatrices or adventitious disease, it was simply closed tightly and would not admit the passage of a probe. The stomach was covered with ash-colored catarrhal mucus; the pancreas was bound firmly to the stomach, and was honeycombed with numerous passages where the substance seems to have sloughed out, leaving simply the envelope; this condition subsisted in about four-fifths of the gland, one-fifth of the length at the tail end still retaining its glandular form, but much reddened or almost black. It was impossible to tell whether some of the contents of the stomach had fallen into the abdominal cavity, as the undertaker, who stood by, had thrown into the cavity some disinfecting fluid, the odor being so overpoweringly offensive, and as we had, likewise, unintentionally torn the pancreas from its adhesion to the stomach. The pancreatic duct was very much enlarged, the finger easily passing through it into the duodenum. The gall-bladder was enormously distended with black bile; the liver a black-blue color and soft; the kidneys were congested without other evidence of disease.

MENTAL CONTAGION IN INEBRIETY.

By T. D. CROTHERS, M.D.,

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In the October number of the *Alienist and Neurologist* I presented the results of some studies of this subject which have attracted much attention, and were undoubtedly the first effort to explain on a scientific basis the phenomena of the spread of inebriety by mental contact and personal influence.

It is apparent from the large number of letters received from others, with notes of cases and opinions confirming the conclusions reached, that the subject has been suggested to many thoughtful men of the profession before, and my paper simply organized and grouped the facts within the observation and experience of others. I propose in this note to present some additional facts and conclusions for the purpose of stimulating further inquiry in this most fascinating field of clinical psychology.

In every circle of life examples may be found of one mind dominating over another, projecting its motives, impulses, and general line of conduct, until one is a copy or imitator of the other. Among students of medical colleges there will always be examples where the conduct, manner, and forms of expression, and many marked personalities of the professors are reproduced in the students—particularly in the private students of physicians who have strong individualities. This mental contagion, or projection of thought, conduct, and motive from one to another, is more or less permanent, and where the medical teacher is known to the observer the infected student can be distinguished long after, although far removed from the source of contagion. The same thing may be studied among clergymen of large personal influence. The thoughts and reasons of a large part of the congregation are but the reflection of the clergyman's personal views. Often peculiar ideas have an undisputed existence in his circle that come from this literal mental contagion.

The delusions of the insane are often projected from one to another, and many instances are on record of entire families, otherwise sane, who are infected with the delusion of some member who is insane.

Among the sane in every-day life, how often it is possible to trace the growth of error to a mental contagion from some strong impulsive brain-power that domineers and projects itself on others. As in the contagion of small-pox, yellow fever, or cholera, favoring conditions of soil must exist for the reception, nurture, and growth of these mental contagions. The one who is the source of contagion must have some degree of emphatic nerve-force, which infects the other, who may be wanting in this, and possess some unstable and uncertain brain organism.

The early history of many cases of inebriety afford striking examples of mental contagion. The victim frequents bad company, and is influenced by inebriates, strangely, and to his great disadvantage. To call it a vice implies the exploded dogma of free-will, which is most effectually contradicted in experience, and the very few cases which are ever able to use the will to recover.

To say that this is mental contagion indicates the operation of both physiological and psychological laws, in accord with the order of nature, and in the province of science to reveal and remedy. Any careful study of a number of cases of inebriety will show that the causation came direct through the influence and contagion of another. Men previously temperate are as positively infected by the mental contagion of an inebriate as they would be from the germ of small-pox. Without doubt those who are infected from this contagion have some peculiar susceptible nerve organization, either inherited or acquired, and may be in many cases lacking in vigor or health. Hence these forces of mind over mind are more potent and find a ready soil for their growth and development.

A group of inebriates who often cause inebriety in others may be termed the impulsive irregular inebriates—persons whose drinking varies from great extremes at times to a regular moderate use daily, who may abstain for a time and appear to have more or less control over themselves, and are noted for their positive, emotional nature, and large domineering egotism, with emphatic manners. These men are found in politics and centres of power, and are frequently wealthy, and often occupy important positions as professional men and leaders. Often they are full of delusions and on the borders of mania when using alcohol, showing great brain and muscular activity. They are the heroes of apparent power, who compel admiration and adoration in the bar-room, at the club, and dinner-party.

Such men always gather round them a class of less positive minds, who are attracted at first by curiosity or some selfish interest, and sooner or later become copies and reflexes. These contagious inebriates are frequently apparent types of health, and ambitious active men of the world, but when closely studied exhibit manias of expensive, extravagant nature that are repressed by a very slight current of events. As brokers or merchants they are centres of every new movement, with boundless confidence and hope; as professional men they are agitators and innovators; as politicians they are working on new lines and by new methods. Such men have a short career, and disappear either in hospitals as chronic cases, or from death by intercurrent disease. The class of cases who are made inebriates by the contagion of this form of inebriety are equally distinct. They represent the ambitious poor, and the wealthy idler of society, often men of some genius and character, but always of weak emotional natures. As poor ambitious boys and men, their ideals of wealth and power are changeable and guided by no fixed conceptions of the means of attaining these ends. Hence they are attracted by every current of influence which seems to promise this object. Possessing unstable nerve organizations they become followers and imitators of every human embodiment of power and energy which gives any promise of changing their condition and increasing their happiness. As wealthy idlers they are attracted by the dash and stir of the surroundings of these contagious inebriates, and, like others, are soon imitators or followers. Imbibing all their delusions with the vague notions of increased pleasure and happiness, they are devotees of the most abject character.

The following are some cases of this class: A—— was a manufacturer, who owned a valuable patent, and was supposed to be a man of great prospective wealth and influence. He was an impulsive inebriate, acting with feverish delusive energy. For years he was the centre of a large circle who all became inebriates from the mental contagion of his conduct and personal influence.

B—— was a physician, and inebriate, with emphatic manners and strong emotions, who moved into a quiet New England village. He very soon took a leading place, and drew around him a class of followers who all became inebriates, following his manners and conduct with singular fidelity.

These are mere outlines of cases that are not uncommon, and are clear when explained as examples of mental contagion, examples of diseased states and impulses communicated to another, finding suitable soil, and growing rapidly to maturity. The second class of cases who are sources of contagion and infect a certain number of cases about them with a similar disease are the regular and so-called moderate drinkers—persons who from some peculiar constitutional resisting power are able for a long time to use alcohol regularly, producing in themselves a mild exhilarating effect without going further, and generally able to conceal all excessive use and continue about the same apparently for years. They are the ideal drinkers who are held up as examples in many ways in every community.

Often they occupy places of wealth and power and influence, and are emphatic in denouncing inebriety in others, and generally condemn temperance efforts. They are the champions of the moderate use of spirits, and appear at club-houses, dinners, and on all social occasions, drinking moderately, and often exhibiting intellectual brilliancy and power supposed to come from alcohol. Studied closely they are seen to be as clearly inebriates as any other class, only the delusions of the brain and organic degenerations are masked and concealed.

The delusions of health and strength are held tenaciously and urged with emphatic earnestness, forcing conviction, in less observant minds, that it is a reality. As leaders of society they are noted as using wine and spirits freely, and yet never appear to be intoxicated. These men scatter a positive contagion by their examples and arguments. They seem unmistakable examples of the value of alcohol in moderate doses, and the possibility of attaining this end in all cases. They infect the previously temperate, overworked business or professional men, who adopt their ways of living and at once become inebriates. The contagion of their inebriety makes inebriates of the physically weak, and those who are living irregular lives and suffering from neurotic troubles of various kinds; those who are ambitious to be thought strong and to win the favor of these men, and drink as they do by the contagion of example. They infect a class of men who have weak, unstable judgments, who turn in any direction to follow any line of conduct that promises better conditions. Such men cannot be temperate in the company of moderate drinkers, and they cannot drink moderately, hence are inebriates very soon. The mental contagion appeals to the reason and is enforced by the power of example, and the more prominent the man the more positive his contagious influence. These two classes occupy a very prominent position in all large business centres, and their influence in actually building up and producing inebriates is a positive demonstrable factor that can be seen and understood.

The following are examples:

a. A popular clergyman became a moderate drinker, and defended his position with a great show of reason and earnestness. His example and specious reasoning drew into his circle a large number of persons who eventually became inebriates—persons who became affected with his conduct and teachings, and could not stop where he did. His conduct broke up the church organization after a time.

b. A lawyer and moderate drinker, a man of much personal magnetism, founded a literary club and became a leader; in a short time this club changed and became a drinking resort. A large number of the members became inebriates, clearly traceable to the contagion of this lawyer.

These cases are also quite common, and are clearly instances of psychological laws and their operations which exist all about us and are unobserved at present.

Another group are sources of mental contagion quite often seen. They are the inebriates who grow out of personal intimacies of like character and organization

—persons who form attachments, adopt the views and motions of others, imbibing all their delusions, theories, and notions of conduct in life. They are conscious and unconscious imitators of each other, and are controlled by the thoughts and events which enter into each other's lives. Such intimacies are seen among students, clerks, business and professional men, and grow out of numerous complex conditions. These men frequently possess a clinging emotional nature, which is governed by the tides and events of each other's lives. They seem bound up in this way, and rise and fall with the person whom they are attached to. Some illustrative cases will make this class better understood. Two temperate business men, who had been intimately associated for twenty years, both became inebriates in this way; one had an attack of pleurisy, with a long, tedious convalescence, for which alcohol was given freely. The other, who was a constant attendant upon his friend, soon began to use alcohol for some supposed debility, and both of them drank to great excess, generally together.

Two farmers had been very intimate for years, and perfectly temperate. One went away to the far West, and was away for over a year, and returned a drinking man. The other, who was a pronounced temperance man, soon became an inebriate in the company of his friend. After drinking with more or less severity for two years, he moved away and reformed, and was temperate for a long time until his inebriate friend came in his company again; then he relapsed. They both separated and became temperate; then they came together and relapsed. Finally one died, and the other is a temperance man to-day.

The third case is more striking. Two railroad officials, who had been brought up together, and were temperate, healthy men, and very intimate in all their relations, both became inebriates. One became an inebriate from the loss of a trusted fund in a mining venture, which produced the most intense sorrow and depression of spirits. This was shared in by his friend and they both became intoxicated. For the next two years, whenever they met each other at intervals of a few weeks, both became intoxicated, and both were perfectly temperate when separated. The moment they came together old mental and physical depressions seemed to start up with great intensity, and the craving for spirits could not be resisted. One of the men travelled in Europe with a drinking party for several months, a total abstainer, and was separated from his friend for over a year and never drank. On one occasion they were separated for over two years and never used spirits, but both were intoxicated within two hours after meeting.

It will be evident to every thoughtful reader that the neurotic, strained, overworked business man, aspiring clerk and workman, have within themselves the favoring conditions and soil for the reception and growth of these mental contagions.

The inebriate is a diseased man, and can communicate his malady through these mental contagions as certainly as typhoid is communicated. Inebriety is a disease which should come under control of health boards, and its victims be quarantined and treated as positively as cholera cases or the insane. Then the evils of the malady may be reached, cured, and prevented.

Bullet-wounds of the Heart.—Dr. J. C. Neal, of Archer, Fla., sends the following note: "Referring to heart wounds reminds me that in 1877 I made a post-mortem of a desperado, who was shot directly through the heart and who walked some eight feet before he fell. Examination showed the ball passed through the heart centrally near the pulmonary artery, aorta, and upward through the left auricle, tearing the tissues frightfully, and yet he arose from a sitting posture and walked four steps before falling."

THE ETIOLOGY OF THE PLYMOUTH EPIDEMIC.

By WILLIAM STONE TORREY, M.D.,

SCRANTON, PA.

The cause of the recent epidemic of typhoid fever at Plymouth, Pa., has been the subject of much discussion, but there is no reason to believe that the cause has been finally settled, or that the subject has been exhausted. A short time since, the Luzerne County Medical Society appointed three of its members to investigate the matter, and to report to that body the result of their research. The report is embodied in Dr. L. H. Taylor's article which appeared in the number of the *Medical News* dated May 16, 1885. That paper was read before the Luzerne Medical Society on Tuesday, May 12th, and the theory advanced by Dr. Taylor as to the causation of the epidemic was accepted, and the subject was supposed to have been settled as far as that body was concerned.

I shall pass in brief review upon Dr. Taylor's paper, and endeavor to show that the cause advanced by him, although it undoubtedly acted as a factor, was by no means the prime factor in the production of the epidemic.

The author states that the town was supplied with water by means of four successive reservoirs, which reservoirs were fed by a mountain stream. On the banks of this stream, between the third and fourth reservoirs, is situated a house within which was confined, during a part of last winter, a typhoid-fever patient. The excreta of this patient were thrown upon the banks of the stream, and presumably, during the spring thaws, drained into the stream, and from thence flowed on into each successive reservoir, thus contaminating the whole body of water. From March 20th to March 26th water was pumped into the street mains from the Susquehanna River, and used for drinking purposes by the inhabitants. On March 26th the pipe leading from the lower reservoir was thawed out and the water allowed to flow into the mains. Dr. Taylor attributes the epidemic solely to the contamination of the reservoir-water in the above manner, and eliminates all possibility of infection from the river-water, stating that the lapse of time between the drinking of the river-water and the appearance of the epidemic on April 9th does not coincide with the recognized period of incubation for the disease. The period of incubation for typhoid fever, as stated by the most eminent authorities, varies from a minimum of three days to a maximum of twenty-eight days; so we conclude that this argument does not throw out the possibility of infection from the river-water.

It seems more reasonable to suppose that there were at least four factors present in the production and continuance of the epidemic, and that their action was manifested in the following order: First, contaminated river-water; second, contaminated reservoir-water; third, contaminated milk; fourth, contaminated air.

First, contaminated river-water. The water of the Susquehanna River has been demonstrated to contain a large quantity of organic matter. I grant that if it contained organic matter to the extent of one-third its bulk, in the absence of the specific element of the disease it would never produce typhoid fever; but I shall endeavor to show that the specific poison was there, and in large quantities too. The Susquehanna River receives the sewage, directly and through its tributaries, of all the thickly populated towns in this vicinity. This furnishes a fertile soil for the development of the specific poison of typhoid fever, should it gain access to it. The specific poison of typhoid fever is generally conceded to be contained in the excreta and to be cast off in a passive state. A period varying from one to two weeks is required for its development into activity, such development being accomplished in the presence of decomposing organic matter. Cold effectually stops putrefactive decomposi-

tion. As the typhoid excreta upon the banks of the mountain stream were thrown there in mid-winter, they must have remained in a passive state until it was too late for them to claim to be the causative agents productive of the *first* cases of the disease. Their activity comes into play later, after they have been acted upon by the sun and the poison is changed from a passive into an active state.

On the other hand, the river-water was polluted with the specific element of the disease as long ago, *at least*, as August, 1884. This pollution occurred at Pittston, a town about twelve miles above Plymouth, where from August, 1884, to February, 1885, there existed several hundred cases of typhoid fever. Now, all the sewage of Pittston empties directly into the Susquehanna. The excreta of these patients were disinfected with the sulphate of iron and then thrown into the sewers. The sulphate of iron has recently been shown by the New York Board of Health to be an inefficient disinfectant, and typhoid stools disinfected by it are not rendered inocuous. Now, *suppose* the excreta of all the patients affected with the disease at Pittston to have been disinfected with sulphate of iron (which was not the case), the specific element of the disease still existed, and upon being thrown into the sewers found a wonderfully fertile soil for its development. The whole mass of sewage thus leavened (by the addition of the specific poison) was being constantly poured into the Susquehanna River, and there met with a water containing a large quantity of organic matter, wonderfully qualified for its further development and the preservation of its vitality.

Typhoid fever is endemic in Pittston. The disinfection of the typhoid stools having heretofore been carried out imperfectly at that place, its sewers always contain the specific element of the disease, and are constantly discharging that poison into the Susquehanna River.

Second, contaminated reservoir-water. On March 26th the pipe leading from the lower reservoir was thawed out and the water allowed to flow into the street mains. The reservoir-water *was not at this time* contaminated, *but the pipes were*, on account of the river-water which they had previously contained. Consequently, upon the arrival of the reservoir-water into the pipes this becomes contaminated. A little later the typhoid excreta upon the bank of the mountain stream is being acted upon by the sun, undergoing decomposition and discharging itself into the reservoirs through the stream. Then the reservoir-water becomes polluted from behind, and thus the infection is kept up.

Third, contaminated milk. Milk is generally conceded to be fruitful in the conveyance of the typhoid poison. The milk must become infected in one of two ways—either by dilution with contaminated water, or through the cows drinking contaminated water, the poison being excreted with their milk. The cows must drink the contaminated water, as the water has been shown to be infected on every side. There is no reason to believe that the specific element in the production of typhoid fever goes to play a part in the economy of the cow; but it *is* reasonable to suppose that in circulating through the body it might contaminate the secretions of the animal, although unable to produce its specific effects upon it. We have daily illustrations of this principle in the human family. The mother's milk is frequently contaminated by poisonous principles circulating in her system, and the child, upon ingesting it, is affected specifically.

Fourth, contaminated air. The excreta of typhoid patients have not been thoroughly disinfected at Plymouth. These excreta were thrown into privy-vaults, cesspools, etc., and there found a soil well adapted for the development of their poisonous properties. The air becomes contaminated by these poisonous emanations, and thus another mode of infection is added.

It seems probable that all of these factors were present in the production and continuance of the Plymouth epidemic, and that the theory advanced by Dr. Taylor and accepted by the Luzerne County Medical Society, as being the sole cause of the epidemic, was only a factor, and by no means the most important one, in its production.

Clinical Department

SOME ADDITIONAL EXPERIENCES WITH COCAINE.

Dr. John A. Wyeth, of New York, writes as follows: "In December, 1884, Emily F. W——, of this city, came under my observation through the courtesy of Dr. William L. Wardwell. She had congenital cleft of the entire soft palate. The bones were not involved. The patient articulated very indistinctly, and with the nasal twang which is characteristic of cleft-palate. Operation was advised and performed in December, with the valuable assistance of Dr. Wardwell. A four per cent. solution of cocaine hydrochlorate was applied over the velum on either side, and along the edges of the cleft by means of a camel's-hair brush. This was repeated every five minutes for half an hour, at the expiration of which time sensation was entirely lost. I fixed the palate with a fixation forceps, and trimmed the edges to be approximated with a palate-knife. There was not the slightest sense of pain from the cutting. She said she felt that I was pulling the palate, but that it did not hurt. The operation lasted thirty minutes after the cutting began. The anæsthetic was applied every five minutes during the operation. The only pain experienced was when I divided the levator palati, palato-glossus, and palato-pharyngeus muscles, beyond the limit of the anæsthetic. I performed the same operation, three days ago, in the case of a girl, who was so timid that it was impossible to persuade her to try the local anæsthetic. Ether was inhaled, and it took two hours and a half to get through. With the local anæsthesia the sitting posture is maintained, the patient assists in holding the mouth open, the tongue out of the way, and in cleansing the throat. The procedure is greatly simplified.

"A medical gentleman in the Navy of the United States asked me to remove a tumor from the buccal mucous membrane of the left side. It was about half an inch in diameter, and situated half-way between the corner of the mouth and the opening of the parotid duct. By means of a very fine hypodermic needle I injected four minims of a four per cent. cocaine solution through the mucous membrane and into the substance of the cheek, one minim being forced out at four different points, equally removed from each other, and between three-fourths and one inch distant from the edge of the tumor. In five minutes' time the anæsthesia was complete, and I excised the growth in a circle half an inch removed from the periphery of its base. There was no sensibility in the tissues divided.

"A lady asked to be allowed to inhale chloroform in the removal of a painful in-growing nail of the great toe, which had caused a considerable ulcer on the inner side of this member. I injected four minims of a four per cent. solution of cocaine hydrochlorate beneath the skin near the base of the toe. Four points of insertion were selected in the track of the sensory nerves distributed to the half of the nail and matrix to be removed. The operation was painless."

A correspondent from Baltimore relates the case of a woman, suffering from a sore breast, in which suppuration was threatening. The gland was very tender, and the nipple was so excoriated that it was impossible to empty the breast. Hydrochlorate of cocaine, in four per cent. solution, was applied for a short time; the nipple was then washed with warm water, and the child nursed without causing any suffering. The excoriations were then dressed with finely powdered subnitrate of bismuth. The application of cocaine was repeated several times, and a speedy cure was obtained.

Dr. D. K. Shute, of Washington, D. C., relates the following cases, occurring in the practice of Dr. Sower:

The first case was one of a bursa, situated on the extensor tendons of the wrist in a young man. Seven minims of a four per cent. solution were injected into the bursa, which was then dissected away without causing any pain.

The same quantity of a like solution was injected into the substance of a fatty tumor, about the size of a walnut, lying on the posterior aspect of the neck in a young man. The tumor was enucleated without pain to the patient.

A boy, six years of age, was suffering from phimosis with strong adhesions. Five minims of the solution were injected hypodermically into the prepuce, and circumcision was performed. The child gave no evidence of pain during the operation.

A little girl, four years old, fell down, biting her tongue completely through for a distance of half an inch. An attempt was made to stitch up the wound, but had to be abandoned on account of the child's struggles. The wound and the portion of the tongue in immediate proximity to it were then painted over with a four per cent. solution of cocaine, after which the operation was painlessly performed.

The last case was that of a lady, forty-seven years of age, in whom catheterization was required for retention of urine. The catheter was introduced twice at intervals of five hours, but the operation caused very great pain and distress. A five per cent. preparation of the oleate of cocaine was then applied to the meatus five times at intervals of one minute, when the catheter was introduced with ease and with very little pain to the patient.

[We would suggest to our correspondents that, the local anæsthetic action of cocaine being now so well established, the occasion for reporting isolated cases no longer exists. Headache may be relieved or sleep procured by the use of bromide of potassium, but no one would think of reporting such a case unless it happened that the drug were given in a novel way, or that its administration were followed by peculiar results. And so it is now with cocaine. Cases which merely illustrate the fact that it will relieve or prevent pain are a matter of every-day observation, and, as such, no longer merit being reported.—Ed.]

HYSTEROTOMY FOR THE RADICAL CURE OF "PIN-HOLE OS."

Dr. Robert Ormsby, of No. 45 Vandam Street, sends a description of the method employed by him for the cure of this condition. Although the operation relieves the dysmenorrhœa, it has never, in the cases reported by him, cured the sterility. The method of operating is described as follows: "On examining the woman with a speculum it is of first consequence to locate the artery of the cervix. The pulsations of this artery can always be felt and may sometimes be seen. Either a Sims' or a bivalve speculum may be used. It is always necessary to straighten the uterus and drag it down, and when a bivalve speculum is used this also comes down, but does not interfere with the operation in any way. The instrument that I have always used for making the incisions is a long, narrow-bladed bistoury. The uterus being retained by a tenaculum, the bistoury is passed through the external os and then made to cut its way out. This operation is to be repeated until the knife goes very nearly as far as the internal os. Four incisions of this sort are made in different directions, so that the cut is cruciform in shape. The incisions can scarcely be too free, because the tendency to retract is very great. After this has been done the divided cervix is to be plugged tightly with styptic cotton, a tampon being applied to keep the plug in place. A suppository of about one grain of extract of opium is then to be given every four hours. The patient should remain in bed for ten days following the operation, the cervix being dilated every day with a pair of dressing-forceps. When the wound has entirely healed, and all danger of metritis is past, a uterine dilator is introduced and the internal cervix dilated to the extent of about three-fourths of an inch. This is done but once." Dr. Ormsby relates the histories of seven cases that were sent to him for operation. In none of these cases did the temperature rise above 101° F. A slight amount of pelvic cellulitis followed the operation in three cases, but in each of these there had been a chronic cellulitis existing for several years. In each instance the acute trouble was controlled within four days.

Progress of Medical Science.

Cure of Aneurism of the Abdominal Aorta by Laparotomy and Introduction of Silver Wire.—The attempt to cure an aneurism by coagulation of the blood through the introduction of foreign bodies into the sac has been tried on several occasions. Moore, in 1864, used iron wire; Lewis, in 1873, horsehair, of which he introduced about twenty-five feet into an aneurismal sac; Bacelli, fine watch-springs; Schrötter, in a case lately reported, introduced into an aneurism of the thoracic aorta 126 ctm. of Florence silk through a canula in divided portions at two insertions. This patient died fifteen days after the second operation, of pulmonary œdema, and the autopsy showed that the sac of the aneurism, which protruded from the wall of the chest, was entirely filled with coagulated blood. The peculiarity of the case now reported by Loreta, of Bologna, consists, not only in the eminently successful result, thereby differing from previous attempts, but in the fact that the aneurism affected the abdominal aorta and necessitated a laparotomy. The patient, a sailor, aged thirty, had suffered for two years. While hoisting sail he suddenly felt sharp pain in the epigastrium. Later he noticed a pulsation in the same spot, and in addition, pain developed in the region of the stomach, accompanied by disturbance of digestion, and numbness with pain in the lower extremities. The difficulty increased so much in the course of a year that the patient sought relief in the surgical clinic of Bologna. The examination showed the following facts: The man was pale and emaciated. In the epigastrium was noticed a pulsating tumor of the size of the head of a nine months' fœtus. Auscultation revealed a prolonged blowing murmur loudest in the left half of the abdomen. On these and other grounds the diagnosis was made of a sacculated traumatic aneurism of the aorta. In view of the discomfort, pain, and extreme emaciation, death was to be expected unless prompt relief could be given. Therefore, Professor Loreta concluded to perform laparotomy with the object of separating the aneurismal sack from the blood-current. The operation was performed on December 18, 1884. An incision was made from the ensiform process to the umbilicus. Strong and extensive adhesions between the peritoneum, omentum, and stomach were separated, the mesocolon was cut through, and the organs drawn aside till the tumor was exposed. The walls of the aneurism were so thin that it was feared that a ligature applied below the sac might produce rupture; the operator, therefore, concluded to introduce a wire into the sac to produce coagulation of the blood. With a slender trocar he made a puncture and carried through the canula as much fine silvered copper wire as the space in the sac allowed; in all, two metres. The outer end of the wire was also pushed in. The opening was touched with a concentrated solution of carbolic acid in order to shrink the tissues, the abdominal organs were brought back to their original position, and the wound sewed. The operation lasted an hour and a quarter. The same evening the patient no longer complained of the pains previously felt, and was able to sleep quietly, which had not been the case for weeks. On December 27th, the ninth day

after the operation, the first change of dressing was made; the wound was healed by first intention. The pulsation of the tumor was hardly perceptible, the murmur was very weak, the sac markedly diminished; the femoral arteries, which before the operation had shown only a weak pulsation, now pulsated very perceptibly. Twenty days after the operation no trace either of pulsation or of murmur was to be found, and the sac was about the size of a nut. The patient is now completely restored and can resume his occupation. Professor Loreta looks upon the use of the wire as the cardinal point of his success. This, at first, produced a coagulation, and later, on account of its thinness and pliability, opposed no obstacle to the shrinking of the clot. Although in only one of the cases above cited was death, which followed, supposed to be in any way attendant upon the interference, they tend to emphasize the uncertainty of the operation as well as the good fortune of Professor Loreta. It is very possible that these operations were too long delayed, however, and that an earlier resort to the procedure will prove more successful.—*The Boston Medical and Surgical Journal*, April 9, 1885.

Aphasia from Fright in a Child.—Dr. Demme of Bern, communicates to the *Wiener Med. Blätter* the account of a case of aphasia from fright in a child six years of age. The case was one of talipes equinus, and the division of the tendo Achillis was undertaken without an anæsthetic. Just before the operation, the child had been very lively and bright, playing with her doll and talking eagerly with her mother and brother. At the moment of the division of the tendon she uttered a piercing cry, after which she completely lost all power of speech. For about ten minutes she wept silently but copiously, and, when she had recovered herself, nothing that could be said would induce her to say a single word. This went on for eight days, during the whole of which time she was bright and lively, and answered readily by signs. On the morning of the ninth day she achieved the single word "Mamma," which she then used as an equivalent for everything else, and repeated thirty or forty times as a long sentence, evidently under the impression that she was thereby saying everything that she wished to convey to her hearers. On the fourteenth day her vocabulary was increased by several words, which were then made to do duty for all other words. On the eighteenth day she acquired a few more, and she never used one of these words in place of another on her list. She could not talk as well as she did before until the twenty-first day; but, after that, she developed bodily and mentally in a normal manner.

Gastro-enteritis Favosa.—The *Wiener Med. Blätter* contains the account of a recent lecture by Professor Kundrat on a case which he describes as one of gastro-enteritis favosa. The patient was suffering from favus universalis on admission to the hospital, and died from exhaustion after the development of a phlegmonous swelling in the right popliteal space. The necropsy showed traces of habitual indulgence in alcoholic liquor, and, besides, a very unusual condition of the mucous membrane of the stomach and intestines. In the stomach, where the mucous membrane was rugated and marbled, were found numerous punctated erosions, and yellow points and spots, and toward the pylorus a yellowish fibrous exudative membrane, firmly adherent to the injected mucous membrane. Masses of brownish mucus, of cadaveric odor, and mixed sparingly with fæcal material, were found in the large intestine, and also erosions of the mucous membrane, partly isolated, partly in groups, the edges of which were blackish, but not undermined. Similar appearances were noticed in other parts of the intestinal canal, giving the impression of having been caused by the presence of such a parasite as the favus germ. The fungus was, indeed, found in the exudation of the affected parts, differing from that found on the skin only by the threads being softer and the joints longer. Spores were also found; and the fungus was developed in such deep layers of the tissues that it was impossible to imagine its presence to be due to accidental mixture of the germs with the contents of the stomach. The spores could easily find their way to the digestive tract by the mouth, seeing that the whole body of the patient was covered with favus, but their development depended on an unhealthy condition of the gastro-intestinal mucous membrane which could be plainly seen to have been present in this case.

The Principal Antipyretic Drugs and the Mode of Recognizing them in the Urine.—Quinine gives a white precipitate with tannic acid; with solution of iodide of potassium and mercury (Tanret) it gives an abundant yellowish-white precipitate; with solution of iodide of potassium and iodine a brownish-yellow or chestnut-brown. The presence of salicylic acid, carbolic acid, resorcin, and kairin is shown by the addition of solution of the perchloride of iron (no reaction with quinine), which gives rise to a reddish-brown, wine-colored, violet, smoky, or bluish color. If, on the addition of sulphuric acid, the color becomes clear red, kairin is present; if the color obtained with the perchloride disappear on the addition of sulphuric acid, salicylic acid or resorcin is present. Carbolic acid with nitric acid gives a blood-red brown color and precipitate, with lively effervescence. Resorcin and salicylic acid are unaffected. Caustic potash, added lastly in excess, gives a golden yellow flocculent precipitate with resorcin; with salicylic acid the original violet color partly returns. If the urine be diabetic, to avoid error, it is well to boil it to drive off volatile products, such as acetone, which would falsify the reaction with the perchloride of iron.—*The London Medical Record*, April 15, 1885.

Antipyrin in Phthisis and other Febrile Disorders.—In the May number of the *Practitioner* for 1885, Dr. J. Holland, of St. Moritz, Switzerland, records his experience with antipyrin in the treatment of the febrile state, especially of consumptives. For years he has had many phthisical patients under his care, in fact he lived under the same roof with them. He was struck forcibly with the observation of the trivial causes that will cause the consumptive's temperature to rise. A little extra exertion, a political discussion, an attack of indigestion, a slight fall on the ice which has caused neither pain nor apparent injury, an attack of toothache—any of these things, which to a person in health might mean nothing, often tend in the sensitive phthisical patient to start a degree of fever which it is frequently difficult to suppress. Should the pyrexia continue for two or three days, we are almost certain to discover signs in the lungs of some fresh mischief; perhaps a little softening is detected over an area that had begun to dry up, or crepitation manifests itself in a part of the affected lung where, after careful examination, it had not been noticed before. This fever, then, is the first and earliest symptom of lung change, and must, in his opinion, be immediately attacked. Besides rest, even to the extent of confining one's patient to bed, and careful dieting, one must have recourse to medicinal remedies. Holland has generally found the following useful, although sometimes one and all have been extremely disappointing: quinine, the various preparations of salicin, digitalis, aconite, kairin, and Warburg's tincture are the principal drugs he has employed, and he finds they are more efficient when given in some effervescing form. For the last eight months he has been using "antipyrin," and he states that in his hands it has been more successful than all the other drugs put together. He concludes by saying that in cases of chronic fever, such as we have to deal with in consumption, antipyrin has no rival.

A Small Epidemic of puerperal fever is said to exist in the Cincinnati Hospital.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, June 6, 1885.

THE EPIDEMIC AT PLYMOUTH.

So thorough has been the investigation of the recent outbreak of disease at Plymouth, that we are able to draw fairly accurate conclusions concerning its etiology. As the various possible factors of causation have been analyzed, and the relative value given to each, it has become evident that the original theory, which referred all the cases to the contamination of the hydrant-water from the dejecta of the one patient living up on the hill, above the town, needs modification. That this would prove to be the case was foreshadowed in our editorial article of some weeks ago. The excellent communication on another page of the present issue, from Dr. Torrey shows conclusively that several agencies have been at work to produce the epidemic, and a study of the affairs at Pittston, nearly a year ago, makes it plain how the outbreak of fever could have occurred, even without the agency of the single case alluded to above.

Pathological investigations have conclusively shown that the disease is essentially typhoid in its nature. Some weeks ago it was a question as to whether or not some of the cases were only an expression of a malarial influence. The topography of Plymouth and the surrounding country is such that malarial diseases are always prevalent. The engrafting upon such diseases of a specific typhoid element would of course make a resulting change upon the clinical history of the cases. Even in hospital practice, where facilities for observation are at their maximum, it is a well-known and often-observed fact that the differential diagnosis between typhoid and malarial fevers (particularly of the remittent type) is by no means easy.

The mortality-rate has been about ten per cent. This is about the rate obtaining in city private practice among the better classes. It is less than our American hospital statistics indicate. The Germans, however, claim to be able to equal this figure in their institutions. This latter favorable showing may be in some degree due to national temperament and other environment. We think that the rate in the epidemic under discussion, considering all things, is low.

The lessons to be drawn from the whole matter are not new ones. No fact has been adduced that was not pretty well known before. The new causative factors which the study of the last fortnight has revealed, teach us not to be too hasty in drawing conclusions in matters pertaining to the etiology of disease. It was very fascinating to ascribe all the cases at Plymouth to one patient up on the hill-side, but his case has been shown, we think, to furnish not so much the origin as the continuance of causation. The epidemic has done much to strengthen the theory of the existence of a specific germ thriving on decomposing organic matter, which latter alone can never produce true typhoid. It may, however, cause a train of symptoms closely resembling it, the so-called "cesspool" fever. From both alike does the plea come for thorough sanitation.

LONDON DOCTORS.

A WRITER who signs himself "A Foreign Resident," but who is probably an American, has recently written a clever brochure upon Society in London, in which he devotes some pages to the doctors. A few of the leading physicians are sketched off with much spirit, if not with absolute truthfulness. In his introductory the writer makes some remarks which are probably true, and which should infuse hope into those who sometimes lament that the doctor is not so potent an element in human affairs as he ought to be. The men of medicine in England occupy now, says the "Foreign Resident," a peculiarly favorable position. The influences of the age are in their favor. It is in England the epoch of introspection. The English are always thinking that something is wrong with their morals, with their conscience, with their digestion, or with their lungs. And just now the attention which was once spent upon their ghostly sanity is spent upon their stomachs. The influence of the doctors upon diet is everywhere conspicuous, and it is the fashionable thing, according to the "Resident," for ladies and gentlemen in London society to carry about lists of prohibited dishes and drinks. We learn that the London doctors have made and unmade two things at least, viz.: wine-merchants and watering-places! So that men certainly are not quite without power in the world. As social representatives of the profession we hear only of Andrew Clark, Gull, Dr. Quain, Dr. Morell Mackenzie, Sir Henry Thompson, Sir Oscar Clayton, Jenner, and Paget.

It is instructive at times to learn how others look at us. We do not know that it would give entire pleasure to Sir Andrew Clark, however, to hear that he is said to be a combination of "a careful doctor and a good High Churchman." His happy faculty of oracular utterances, the solemn aphorisms with which he clinches his counsel to his patients, the sonorous platitudes with which he emphasizes the simplest of sanitary maxims, his quick eye, the kind severity of his manner, the air of judicial sympathy with which he interrogates those who come to see him upon their maladies, the calm deliberation, the systematic shunning of the semblance of haste—these are the qualities which cause London society to repose confidence in Sir Andrew Clark.

Sir William Gull, we are told, is endowed with all of Sir Andrew Clark's command of noble and sagacious sentiments. He plumes himself on his power of probing the secret hearts of his patients to their lowest depths by pregnant and pithy pieces of professional sententiousness. "It is worth paying a couple of guineas to store one's memory with the wise saws and modern instances

of which he is full." If he is not a great doctor, as many hold him to be, he is at least a marvellous piece of human machinery.

The more purely social side of the profession is represented by Dr. Quain, Sir Oscar Clayton, "who is admired because he has physicked, for more or less noble or ignoble ailments, the principal members of the aristocracy of England," Dr. Morell Mackenzie, and Sir Henry Thompson. Dr. Quain is not only "a Hippocrates of vast experience and profoundly scientific attainments, but a medical writer of the highest authority." He is withal a cheery, kindly, genial, gifted Irishman, and a medical philosopher of the epicurean type.

Dr. Morell Mackenzie is too entirely devoted to his profession to have much time to spare for social distractions. "He is probably one of the most gifted specialists in Europe, with one of the shrewdest heads on his shoulders."

Dr. Mackenzie gives large dinners, Sir Henry Thompson small ones. The latter "is an artist rather than an apolaust."

"Thus," concludes our author, "in Quain and Clayton, Mackenzie and Thompson, we have a quaternion of doctors who, in addition to the benefits they confer upon humanity by the exercise of the healing art, supply in the plenitude of their amiable thoughtfulness that social cement which causes society's various parts pleasantly to cohere. Such masters of medical science as Sir William Jenner and Sir James Paget constitute a more solemn class in the hierarchy of physicians. The latter is specially in favor with the Whig aristocracy, and the former is much occupied with the Queen."

THE SENSORY TRACTS AND CENTRES IN THE BRAIN AND SPINAL CORD.

The earnest and persistent efforts that have been made in the past fifteen years to localize the motor paths and centres in the cerebro-spinal system have been amply rewarded. Our knowledge in this respect has become positive, and is already helping to give definiteness to the diagnosis, and a larger scope to the therapeutics of nervous diseases. It was natural that the more difficult task of tracing sensory fibres to their terminations in the brain would be less easily and quickly accomplished. This work is now, however, being vigorously pushed, and all the more rapidly because new methods of studying the problem have of late been discovered. The paths of nerve impulses and their centres may be investigated in at least five different lines of research, viz., the anatomical, the embryological, the pathological, and the experimental, including the atrophy method of Gudden.

Results obtained by one method are thus checked off by those of others, and conclusions are reached which are very nearly positive and certain. Pursuing investigations in these various ways, Meynert, Flechsig, Monakow, Roller, Wernicke, Henle, Schwalbe, Exner, Munk, Luciani, Tamburini, and in this country Starr and Spitzka, have succeeded in accumulating sufficient data to enable one to describe the course of some of the sensory tracts from the periphery to the brain cortex.

As already stated, the course of the motor fibres, or a great part of them, has been established, and is part of ordinary anatomical teaching. A knowledge of the sensory paths and centres should, so far as possible, equally be made familiar to the profession.

We are indebted to the laborious and careful researches of Dr. Allen Starr for collecting and presenting many facts regarding this subject in a lucid manner (*Journal of Nervous and Mental Diseases*, July, 1884), and also to the classical monograph of Professor Luciani for presenting a very complete and precise account of the sensory functions of the cerebral cortex (*Brain*, July, 1884).

The sensory nerves from the skin and muscles carry special sensations of touch, and temperature, and general sensations of pain; the nerves from the muscles carry special sensations of locality (muscle sense) and general sensations of muscular sensibility. These sensory fibres all enter the spinal cord *via* the posterior spinal roots. Fibres carrying tactile thermic and painful sensations enter the gray matter of the posterior horns, and at once decussate probably in their entirety; the tactile fibres then pass up the spinal cord in the posterior columns. There is some evidence, which is, however, not conclusive, that the fibres from the lower extremities pass up in the posterior median columns (columns of Goll), while those from the upper extremity pass in the posterior lateral columns (columns of Burdach). The thermic and pain fibres pass up in the gray matter, or in the posterior columns. Reaching the medulla, these fibres, tactile, thermic, and pathic, pass through the inter-olivary body and formatio reticularis; they continue on in the pons and crura, passing in the formatio reticularis and lemniscus, and in the crura lying in the outer half of the tegmentum. Leaving the crura, the sensory tract passes in the inner half of the posterior third of the internal capsule. From here the fibres enter the corona radiata and are distributed to the cortex of the central and parietal convolutions. The fibres carrying the special muscular sensations (muscle sense) appear not to decussate upon entering the cord, but pass up in the posterior columns and decussate in the medulla; they then join the sensory tract and are distributed with it as above described.

On the ground of analogy with other special sensations, it has been suggested that the sensory fibres of the cord do not entirely decussate, but that a smaller part continue up on the same side as that from which they originated. Clinical and pathological facts hardly support this view, while the laborious experiments of Luciani appear to show that the decussation of tactile and muscular sensations is complete. The termination of the sensory tracts in the central convolutions, where they impinge nearly upon the same areas as those known as the motor centres, is tolerably well established by the experiments of Munk, Tripier, Moeli, Luciani, and Sepelli, and the researches of Exner and Starr. Luciani shows, however, that in monkeys and dogs at least, no definite sensory areas can be mapped out, but that these areas are diffused and overlapping. He also shows that for other special senses, and probably for the tactile, the cortical sensory areas are not absolute centres, destruction of which causes permanent anæsthesia. They are rather psychical centres, where sensory impulses received elsewhere are collated and the act of perception occurs.

As regards the other special senses, the researches of Luciani appear to be more exhaustive and conclusive than those of previous observers. They support in a

great measure those of Munk, but contradict in many respects those of Ferrier and Goltz. The cortical visual centres are most "intense" in the occipital lobes, but they diffuse and overlap other centres in much the same way as Exner described. From each hemisphere the larger part of the fibres pass to the inner segment (of about two-thirds) of the retina of the eye of the opposite side, while the remainder pass to the external segment (about one-third) of the retina of the eye of the same side. This fact, which Munk first proved clearly, is now well established. As to the exact nature of these cortical centres, it has generally been stated, on the authority chiefly of Munk and of Ferrier and Yeo, that, when they are extirpated on both sides by destruction of both occipital lobes, permanent absolute blindness results. Professor Luciani, however, asserts very positively that in monkeys and dogs, where these centres are entirely extirpated, the result is a temporary blindness, followed by a permanent psychical blindness, *i.e.*, a condition in which the animal sees objects, but does not appreciate their nature. It sensates, but does not perceive. Hence these sensory cortical areas are centres for visual perceptions. In their destruction there is lost the memory of previous sensations and the power of associating them, just as after destruction of the cortical motor centres there is lost the memory of the association of movements, the animals recovering from complete paralysis, but moving in a clumsy and unintelligent way (Goltz).

The area of the auditory centre undoubtedly lies in the temporal lobe. From here it appears to extend upward to the parietal convolutions, forward to the frontal, backward toward the hippocampal, inward toward the cornu ammonis. As with vision, each ear is connected with the auditory areas of both sides, but much more largely with the area upon the opposite side. In opposition to Munk, Professor Luciani here asserts again that a bilateral extirpation of both auditory areas causes only psychical deafness.

For the sense of smell, the centre of the sensory area appears to be in the gyrus hippocampus and cornu ammonis. With the olfactory nerve the direct fasciculus appears to be greater than the crossed, in this respect differing from the arrangements of the visual and auditory fibres. The sense of taste seems to have its cortical centre in close anatomical relation with that of smell.

HOW SHALL THE PHYSICIAN WASH HIS HANDS?

Experienced observers have noted with gratification the revolutionary effect of antiseptic theories upon the washing habits of the surgical artists of Germany. It has been accepted as a basal fact that washing, and even nail-cleaning, are really indispensable parts of professional work, and these practices have therefore been patiently and conscientiously carried out. There is no greater evidence of the innate heroism of the Teutonic character. Mr. Matthew Arnold may accuse the Germans of lacking civic courage, but not of personal self-abnegation.

But having settled the immense fact that washing is a good thing, another step has already been taken, and searching and scientific inquiries are being instituted as to how this washing shall be done. "Wie soll der Arzt seine Hände reinigen?" is the title of a paper by Dr. Wassing in the *Archiv für Hygiene*, and of one by Professor J. Forster in *Centralblatt für Klinische Medicin*, No. 18, 1885.

The subject is discussed seriously and fruitfully, as it ought to be. Dr. Wassing, working under the direction of Professor Forster, discovered that the ordinary methods of washing the hands with soap and water did not make those members aseptic. For example, the hands, after being washed, were dipped in solutions (of various strengths) of carbolic acid, boracic acid, zinc and iron chlorides. They were then immediately protected with sterilized wadding or cloth, and the finger-point was applied to sterilized, feebly alkaline, neutral, or acid peptone-solutions or culture-gelatine. In every case, without a single exception, bacteria developed in these fluids within twenty-four to sixty hours. It was thus found that the ordinary practice of washing the hands in a two and a half per cent. carbolic solution, or even the method recommended by Billroth, of cleaning the hands with muriatic acid and a ten per cent. solution of phenol in glycerine, was not sufficient to prevent inoculation of sterile fluids by the fingers. By washing the hands in soap and water, however, and afterward in sublimate solutions of the strength of 1 to 1,000 or 1 to 2,000, they are made perfectly *pilzfrei*, and sporeless and safe.

The conclusion is that, surgically speaking, all the world has dirty hands, and that the physician and the surgeon always carry some living spores about them, unless they adopt these special means for disinfection. It is not claimed, however, that these almost inseparable parasites are necessarily harmful, or that manual asepsis by the sublimate is always absolutely necessary. But it is certainly well to know whether the hands are sporeless or not, for there are occasions when perfect disinfection is desired.

Professor Forster suggests the sublimate purifications in connection with obstetric cases, post-mortem examinations, and in dealing with the acute infective diseases. A good deal is accomplished when the hands are disinfected, but not all, for the virus may be carried by the hair and the clothes.

DIET AND DYSPEPSIA.

It is not surprising to find that directly antagonistic views to Dr. Flint, as to diet and digestion, are held by Sir Henry Thompson. In nine cases out of ten, says Sir Henry, in a recent article in the *Nineteenth Century*, dyspepsia is simply the result of a stomach trying to digest what it can't. All that a person needs, then, is to select what agrees with him, and he has but little trouble with dyspepsia. In other words, if the chronic dyspeptic will diet himself, he can generally live as comfortably as any one. This is so obviously the correct view that it needs little argument for its support. The modern stomach has become a somewhat fastidious organ. It has in many cases to be treated gingerly—we do not speak in an officinal sense. Thousands of men go through life, examples each day of some prandial self-abnegation. Every now and then they try to teach the stomach wider and more catholic views, but the viscus is obstinate, and the owner is forced back to his Spartan

regimen. "For most men," continues Sir Henry, "dyspepsia is the penalty of conformity to the eating habits of the majority; and a want of disposition or of enterprise to undertake a trial of simpler foods than those around them consume probably determines the continuance of their unhappy troubles. I have for some years past been compelled, by facts which are constantly coming before me, to accept the conclusion that more mischief in the form of actual disease, of impaired vigor, and of shortened life, accrues to civilized man, so far as I have observed in our own country, and throughout Western and Central Europe, from erroneous habits in eating than from the habitual use of alcoholic drink, considerable as I know the evil of that to be."

News of the Week.

The Insanity of Victor Hugo.—Some ingenious Frenchman has tried to show that Victor Hugo was insane. A case of this kind can be made out against nearly every man of striking and original genius. Yet there was undoubtedly a psychopathic taint in Hugo's blood. His father died of apoplexy, his mother was a woman of a somewhat eccentric character, who died of phthisis. Hugo himself was a sickly child. His early pictures show him to have had an immense, hydrocephalic-looking head. One of his brothers died insane, one son died of congestion of the brain, another of, we believe, phthisis. Hugo's admirers try to show that his life and character were consistent throughout. In fact, however, there was much of the *bizarre* and extravagant, of the contradictory, and even ridiculous, in his acts and writings. He was, in truth, a veritable illustration of the genius that is to madness close allied.

That Falls from Great Heights are not necessarily fatal is shown in the case of a soldier, who, in consequence of the torture produced by an insect-bite in the ear, jumped from the bank of a cañon into the Rio Grande, a distance of 155 feet. He was picked up alive, and was walking about next day.

The Woman's Medical College of the New York Infirmary held its seventeenth annual commencement on May 29th. A class of eleven was graduated, among whom was one young woman a native of China. The graduating class declined to receive flowers, as giving the exercises too much of a boarding-school flavor. The address was delivered by Dr. E. H. Janes, Professor of Hygiene. Dr. Emily Blackwell, Dean, made an interesting report, showing the effect of attempts to raise the standard of the curriculum upon attendance. When the course was lengthened to three years, the number of pupils fell off one-half. This falling-off was gradually recovered from. When an entrance examination was made compulsory, attendance again fell off one-half. The college is now regaining again its former numbers.

A Scandal in Connection with a Proposed New Medical College.—At the last session of the State Legislature, the notorious Dr. Gunn, of this city, succeeded in getting a bill passed, incorporating a "College of Medicine and Surgery" in this city. The bill has been before Governor Hill for his signature. While making an argument in its favor last Monday, Gunn created a sensation by stating that Senator Coggeshall had solicited a bribe of $500 for his vote and influence. Whatever the fact regarding this may be, the prospect of a new medical school under Dr. Gunn is not a pleasant one, and our County or State societies should have looked after it.

Death of Dr. Hannan.—Dr. John C. Hannan, of this city, died on May 27th, in his forty-second year. He was a native of Limerick County, Ireland, and received his education partly at Queen's College, in Cork, and partly at the Medical School at Columbia College, having come to this country when about twenty years of age. Since 1866 he had been in practice as a physician in this city.

Russia Declines the Help of American Surgeons.—Some weeks ago, when the prospect of an Anglo-Russian war was thought to be possible, two physicians of Detroit, Drs. Ranney and Post, tendered their services to the Russian Government. The Russian Secretary of Legation returned the following reply: "D. H. McComas, Esq., Deputy Secretary of State, Lansing, Mich.: Sir—In reply to your letters of April 10 and April 21, 1885, in behalf of Drs. Ranney and Post, I beg to say that foreigners, physicians and surgeons, are allowed to exercise their profession in Russia only if they obtain in one of our academies of medicine the necessary diploma, delivered after successful examination before a Board of Professors. Diplomas of foreign institutions are not sufficient, and the lack of knowledge of the Russian language will, without doubt, create great difficulty. I understand that, considering the great number of our own Russian surgeons, there is not a special need of enforced help at present, and do not know of any intention of our Government to facilitate (?) now to foreign doctors the exercise of their profession. I remain, sir, very respectfully, A. Greger, Secretary of Legation." This is probably the first intimation that Russia had "a great number of surgeons." Statistics show that Russia has the smallest number of medical men to the population of any civilized country, while, since the death of Pirogoff, there is hardly a Russian surgeon known to science.

Blackwell's Island Lunatic Asylum, New York.—Two vacancies exist on the resident staff of this institution. The term is unlimited, and there is a small salary, with progressive promotion as resignations occur. Application may be made to Dr. T. M. Franklin, Medical Superintendent.

A New Chair.—The authorities of King's College, London, have created a Chair of Clinical Therapeutics, and appointed Dr. Burney Yeo to occupy it.

Prohibiting Assessments for Railroad Hospitals.—According to the *Fort Wayne Journal of Medical Sciences*, the plan adopted by several Western railroad companies of assessing employés for purposes of sustaining a hospital has not been acceptable to many of them, "in fact, some have protested against it, and have been doing all that they could do to make the plan unpopular, and through their influence have succeeded in securing the passage of a law by the late Legislature prohibiting railroad companies from collecting assessments for hospital purposes."

Progress of the Cholera Vaccination Experiments.—Dr. Ferrán has been conducting his inoculation experiments on a large scale in Alcira, a town of upward of twenty-five thousand inhabitants, situated about twenty-five miles distant from Valencia. Almost immediately upon his arrival, when the object of his visit was made known, so many people presented themselves for vaccination that the virus was exhausted, and he was obliged to return to Valencia to prepare a fresh supply. A correspondent of *Las Provincias*, a newspaper of Valencia, writes that when Dr. Ferrán, in company with Dr. Pauli, arrived the second time in Alcira, they were greeted with almost an ovation, and crowds of people of all classes flocked around them to be inoculated. At the time of writing over two thousand two hundred persons had already been vaccinated, and there was apparently no diminution in the numbers of those who were waiting their turn, and the correspondent predicts that there will hardly be an individual in the city who will not have been inoculated at the expiration of Dr. Ferrán's visit. Two girls, in an asylum where the inoculations had been practised, had for some reason been passed over, and both of them were subsequently attacked, the other inmates remaining free. This occurrence soon became known, and created a profound sensation, inducing many, who had hitherto been incredulous or indifferent, to present themselves for vaccination. Outside of Alcira, also, the enthusiasm over Ferrán's experiments continues, and the journal *La Independencia Médica* has established a new department, called the "Sección Ferràniana," which is to be devoted exclusively to reports of these inoculation experiments. In the last number received of that journal two-thirds of its space is given up to this subject. In the presence of experiments on so large a scale as those of Alcira, we shall not long be left in doubt as to the value, or otherwise, of Dr. Ferrán's discovery.

Cremation in Spain.—A bill is about to be introduced in the Spanish Cortes allowing cremation of the dead. It is to be done, however, only when the individual has so signified his desire before death, and will not be permitted on the simple request of the relatives. Before cremation a medical certificate must be obtained, declaring that the person died of natural causes, and if there are any suspicious circumstances connected with the case burning of the body will not be permitted. Before the bill is promulgated, it is stipulated that crematories shall be prepared and places provided where the ashes may be kept free from the danger of profanation.

Effect of Fright on the Mind.—Under this heading, the New York *Sun* of a recent date gives a very interesting account of the actions of the crowd during the great earthquake at Ischia. The article is none the less interesting for having been taken almost word for word, but without credit, from The Medical Record of November 8, 1884.

A New Law Regulating the Practice of Medicine in Indiana was recently enacted by the State Legislature. The law simply requires that all persons practising medicine in that State shall obtain a license from the Clerk of the Circuit Court. Such license is given to anyone who has a diploma "from a reputable medical college," or who has practised in the State for ten years, or who has practised in the State for three years, and attended a single course of medical lectures. The practical effect of such a law as this will be simply to give a legal status to all the quacks in the State. Experience has shown that such laws are bad in their effect. Their only justification is that they sometimes pave the way to better legislation.

Death of Dr. Simon V. Pilgrim.—Dr. Simon V Pilgrim died last Saturday, after a lingering illness caused by malarial fever, at his house in this city. He was born fifty-one years ago near East Broadway. After being graduated from the New York Medical College, he began practising at Honesdale, Pa., but at the beginning of the war went into the service as assistant-surgeon. He afterward became a regular surgeon, and ranked as major. While stationed at Port Hudson he had malarial fever, which more or less affected his health during life. When peace was declared, Dr. Pilgrim came to New York, and settled down in his old home in Cannon Street. He became prominent in that part of the city, and took an active interest in local politics, being a stanch Republican.

Good Men Falling Out.—When one distinguished apostle of the "higher" ethics calls his brethren and allies "a lot of scheming, wire-pulling, half-cut editors," and when one of these latter retorts by calling number one, in unethical alliteration, "a jaded, journalistic gelding," it is time to ask, Where is the Angel of Peace and Goodwill that is supposed to hover over the sacred Ark of the Code? *Tantæne iræ celestibus animis?* If so, we recommend a little more of the four Gospels, and less of the medico-political righteousness developed at meetings of the American Medical Association.

Two Cases of Cholera have appeared at Marseilles.

Dr. Burdon-Sanderson on the Cholera Bacillus.—Dr. Burdon-Sanderson, in a recent lecture upon cholera, offered the opinion that Koch's view as to the significance of the cholera bacillus was "an unfortunate fiasco.'

The International Medical Congress.—The *Philadelphia Medical Times* shares the view of The Record, that the Executive Committee appointed to arrange for the next International Congress was given full power, and is not responsible now to the American Medical Association, but to the medical profession. Our contemporary suggests that the new committee appointed at New Orleans to succeed it act as an advisory body. Unfortunately, this committee legally either has the supreme authority, or else it is no committee at all.

The Last Sickness of Victor Hugo.—The Parisian press teems with the details of the last illness of Victor Hugo. It seems that he suffered from congestion of the lungs. He had attacks of dyspnœa and was at times delirious. The last bulletin published was as follows: "The night has been restless and troubled by two suffocating fits. A certain degree of congestion is noticed in the right side this morning.—Professor Germain Sée, Dr. Vulpian, Dr. Emile Allix." From the beginning of his illness several bulletins were issued daily by the attending physicians.

The International Sanitary Conference.—The International Sanitary Congress met for the first time in Rome on May 20th, and was welcomed by the Minister for Foreign Affairs, Signor Mancini, who said that the duty of the Conference would be to concert preventive measures, to be enforced in each country, to prevent the introduction of communicable diseases, or to stamp them out at their outbreak, and also to make arrangements to adopt a rational and practically useful method for protecting other countries from invasion. Signor Mancini having declined to be nominated President, Count Cadorna was elected. The Conference adopted the rules in force at the Vienna Conference, constituted its bureaus, and then adjourned until Monday, May 25th. Dr. Sternberg, delegate of the United States, presented copies of the protocols of the Conference held at Washington in 1881. It has been generally understood that the Conference will sit for about a month at the present time, and that if the business before it is not then completed, its sittings will probably be suspended during the hot weather.—*British Medical Journal.*

The Berlin Cholera Conference.—This conference, of which we have already given some account, terminated on May 8th. The discussions covered mainly the subjects of the etiology and prevention of cholera. It can hardly be said that much which is new was elicited. Dr. Koch summarized the chief measures that could be taken against cholera as follows: 1. Measures should be adopted by which the infectious matter be directly destroyed, disinfection of the dejecta, destruction or thorough disinfection of the linen, etc. 2. Sanitary measures should be adopted for removing the infectious matter from the vicinity of human beings; for example, drainage, provision of good water for drinking and household purposes. 3. There should be a supervision of the population by experts, in order that the very first cases might be diagnosed, and that the epidemic may be nipped in the bud. The patients must be isolated. Houses in which people had been attacked must be evacuated; that is, the inhabitants not yet attacked must be removed and placed under supervision. 4. The public must be instructed. Their attention must be drawn to the danger of using infected food—for example, uncooked food, and well-water that had not been boiled, and they must be warned against the use of infected linen.

Dr. William Clendennin, of Cincinnati, Dean of Miami Medical College, died of catarrhal pneumonia last week, in the fifty seventh year of his life.

Partenine.—This is an alkaloid, said to possess valuable antipyretic properties, extracted from the *Parthenium hysterophorus*, or feverfew, by Carlo Ubrici, an Italian chemist. It occurs in the form of black, shining, brittle scales, which are easily pulverized, the powder being of a light gray color. It has a peculiar taste, not bitter, but leaving a pleasant aromatic taste in the mouth. It is soluble in cold water, the solution being yellow, red, or black, according to its strength. It is well tolerated by the stomach in doses not exceeding thirty grains. Dr. G. R. Tovar has used this alkaloid in a number of cases in the place of quinine, and expresses himself as well pleased with its antipyretic action.—*Raccoglitore Medico.*

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF OHIO.

Fortieth Annual Session, held at Dayton, O., June 3, 4, and 5, 1885.

(By Telegraph to The Medical Record.)

First Day—Wednesday, June 3d.

The Session was opened with prayer by Rev. Mr. Hale.

Dr. W. J. Conklin, President of the Montgomery County Medical Society, made the

ADDRESS OF WELCOME

of this third visit of the Society to Dayton, and gave the freedom of the city.

The Secretary reported 567 members; also that Dr. J. P. Thompson, who recently died, donated his set of proceedings, the only complete one extant, to the Society.

Dr. J. F. Baldwin, Chairman of the Committee to secure

A STATE BOARD OF MEDICAL EXAMINERS,

reported no progress. The ten so-called regular physicians in the House formed the most potent faction against the bill. The bill was defeated by three votes. The report

RECOMMENDED THAT THE SOCIETY USE ENDEAVORS TO KEEP DOCTORS OUT OF THE LEGISLATURE,

and to ask for nothing if we would not be disappointed.

Dr. Herrick, Chairman of the Committee on Legislation, reported that

NO BILL RESTRICTING MEDICAL PRACTICE WOULD BE ENTERTAINED BY THE LEGISLATURE,

and that the Society must confine itself to securing improvements in sanitation.

One member from each county was added to the Committee for the collective investigation of disease, to get a more thorough representation of the State.

Dr. C. A. L. Reed, of Hamilton, read a paper on

PELVIC HÆMATOCELE.

He thought there was much of fiction in the common remark that there is no danger from the puncture of a trocar. He favored the evacuation of coagula, and thought that the demands of science and humanity called for some means of controlling the initial hemorrhage. He believed that the operation by incision along Poupart's ligament, and the elevation of the peritoneum, was a valuable procedure in cases in which the accumulation lay beneath the broad ligament. In view of the extreme probability of septic troubles we were justified in some simple expedient to control the initial hemorrhage. This could be done by simple ligation of the vessels beneath the broad ligament. It was not the serious operation it had been pictured.

Dr. Miller made the incision where he could obtain the best possible drainage. Nature took care of the majority of cases, unless the extravasation of blood was great. He did not believe in hurried operations, nor in waiting. What was death in one case was life in another. In some cases he would not operate at all.

Dr. Herrick spoke against operation for evacuation.

Dr. John Carson, of Middletown, favored early operations.

Dr. Kenzon, of Houston, and Gay, of Columbus, continued the discussion.

Dr. Palmer read a paper on

A RARE COMPLICATION IN OVARIOTOMY.

He commented on the of late general successful course

and termination of ovariotomies, and said the relating of the common run of cases presented but little interest. Every now and then, however, extraordinary, rare, exceptional, or unheard-of complications occurred. These experiences, for the guidance of the operator and the perfection of the literature, should be both mentioned and recorded. With this object he presented the following case :

Miss ——, German descent, blonde, of delicate organization, noticed at the age of nineteen, which was three and a half years ago, an abdominal enlargement. It was central, regular, and uniform. Later, when the tumor had arrived at about the size of the child at term, she consulted a physician. He, in consultation with another, diagnosed abdominal dropsy from Bright's disease and tapped her. The abdomen completely collapsed. The process repeated itself. She applied for relief at one of our hospitals, where the same diagnosis was made. She was here again tapped with the same result. Again she was tapped by a third physician. At each operation about a bucketful and a half of fluid was drawn off. The tappings, numbering eight in all, occurred between June 3, 1883, and October 30, 1884—seventeen months in all. The fluid was at no time especially thick.

Her last attendant, Dr. John Kellar, suspecting that her true condition might not be ascites, asked the author to see the case with him. He found the abdomen immensely distended. Fluctuation was very distinct, superficial, and uniform. There was also dulness extending backward to an unusual degree. Lateral decubitus showed a slight change in the area of dulness. No fluctuation could be felt in the posterior cul-de-sac. The patient was very anæmic and feeble ; pulse, 120 to 130 per minute ; febrile movement was noticed each evening. The menses had been absent for six months, and the lower extremities were swollen and œdematous. No albumen was found in the urine. Diagnosis : Ovarian cyst of the unilocular variety. In view, however, of the former diagnoses, and the fact that there were some obscure points in the history and in the present physical signs, an exploratory incision was made. This confirmed the diagnosis. Her general condition was the most unpromising for an ovariotomy, and the hygienic surroundings were also unfavorable.

The abdominal wall being opened, the cyst wall was found closely adherent in all directions to the abdominal walls. When these adhesions were broken up, as far as could be reached by the finger, a large amount of fluid began to flow through the abdominal opening. For the instant this was thought to be ascites, and the patient was about to be turned upon her side to aid in its evacuation, when the true source of the fluid was found to be two lacerated fringes which entered the interior of the cyst. This opening was directly opposite to a cicatrix in the abdominal wall, and had been made by the repeated tappings. Through this some cystic fluid had doubtless flowed into the peritoneal cavity after some of these tappings. Subsequently its edges had been aglutinated by peritoneal adhesions to the abdominal walls. Two other and smaller openings were also found. The smaller openings were clamped with hæmostatic forceps, the larger plugged with a large-sized ovariotomy trocar, through which the cyst was drained. This was almost completed before it was attempted to detach the cyst from its surroundings. Adhesions were short, thick, firm, numerous, and uniform over whole anterior and lateral abdominal walls, also to the omentum, stomach, and colon.

The pedicle to the right ovary was transfixed, and cut off about one inch from the seat of ligation, after which a wedge-shaped section was cut out of the fore end and the peritoneal edges were sewed together by a continuous stitch of catgut. This was the author's manner of dealing with the pedicle in his last five ovariotomies all of which terminated successfully; it possesses advantages against secondary hemorrhage and septic absorption. Oozing was controlled, and the peritoneal cavity cleaned of all fluids. The abdominal cavity was closed with silk sutures without a drainage-tube. Strength was sustained by brandy hypodermically.

The operation left the patient in a forlorn condition, but she began immediately to improve. Fearing vomiting, all food was given per rectum. A low form of peritonitis occurred during the first week, attended with tympanites and dyspnœa ; pulse, 140 ; temperature, 103° to 104° F. On the eighth day a fatal result seemed imminent. Two stitches were removed and a rubber tube inserted, removing eight to ten ounces of fetid serum. The temperature fell three degrees in two hours ; all other bad symptoms improved accordingly. Convalescence a few days later seemed established, and recovery seemed certain, when another complication appeared. On the twelfth day a smell of gas with a fecal odor was noticed at the opening made into the abdominal cavity. The next morning a small amount of fecal matter was seen and removed. A fecal fistula had formed. It seemed to communicate inwardly with the lower small intestine, and the external opening presented midway between the umbilicus and symphysis pubis. At first it discharged daily several ounces of fecal matter, and has continued to discharge since in quantities gradually diminishing and less offensive. The present quantity averages daily two to three teaspoonfuls.

For two months the recovery has been complete, except for the fecal fistula. It is possible that this may close spontaneously. No treatment for the fistula has been undertaken, except the regulation of the diet and the use of a compress ; surgical interference may yet be needful.

The occurrence of this fecal fistula is one of interest and rarity. It is a question how this one appeared. The most reasonable and plausible explanation would be that the intestinal perforation resulted from softening from the peritonitis. The septic fluid remaining would have certainly led to a fatal termination had not the peritoneal cavity been opened when it was. Baker Brown, in " Ovarian Dropsy," gives examples of avenues for the escape of ovarian cystic fluid. Instances of fecal fistula are given by Milner Moore (*The Lancet*, 1880, vol. i., p. 329) ; Bantock (*The Lancet*, 1879, vol. i., p. 207). Atlee, Peaslee, Simpson, Barnes, Thomas, Emmet, Goodell, and Tait make no mention of any case. Spencer Wells mentions three cases, one his own, the only one in his one thousand reported ovariotomies. Mr. Bryant (" Guy's Hospital Reports," vol. xiv., p. 228), Pouchin and Kuffrath (*Belgian Med. Press*, 1880, vol. xxxi., p. 217), and Kuswein (*Centralblatt für Chirurgie*. 1879, p. 630) report cases.

It is remarkable that such perforations do not occur more frequently. This may also be said of lacerations of the intestinal tube. The tumor is often adherent to these parts, and separated only with the greatest patience and skill. Bantock and Barnes (*The Lancet*, 1877, vol. ii.) report such cases.

Considering the facts, the author asked, Is it not possible that lacerations and perforations are more common than is supposed ?

Dr. Dunlap, of Springfield, in discussing this paper, reported two cases of fistula. After ovariotomy, one appeared at the end of the third week, and continued six weeks. The patient made a perfect recovery.

Dr. Dillon, of Cleveland, thought Dr. Palmer's case would terminate successfully. He had a case of fistula, occurring on the fourteenth day, which remained open three months. The patient recovered and married. Both of her ovaries were in the doctor's office, and she still menstruates.

Dr. Palmer said the majority of these fistulæ close within one year. Should they not do so, it would be advisable to make an operation to close it. It is a most difficult operation, and has been followed by fatal results. It should not be made unless positively necessary.

(To be continued.)

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Thirty-sixth Annual Session, held at Scranton, Pa., May 27, 28, and 29, 1885.

(Concluded from page 604.)

SECOND DAY—THURSDAY, MAY 28TH.

OFFICERS ELECTED.

DR. WOOD, of Pittsburg, was elected President, and Drs. McGowan, Ross, Shaffer, and Halsay Vice-Presidents; Dr. Atkinson, Permanent Secretary.

THE COMMITTEE ON MEDICAL EDUCATION,

appointed last year, recommended the following propositions:

First, that the sole power of granting license to practise medicine in Pennsylvania should be vested in a single board.

Second, this board should have no connection with any corporation engaged in medical teaching.

Third, the doings of this board, including the determination of the fitness of applicants for the license to practise, should be public and matters of record, and the records open to public inspection.

Fourth, to secure the efficiency of the board against incompetent membership and the undue pressure of partisan politics, the medical profession or its representatives should nominate to the Governor a list of persons qualified to perform its duties, from which list the board should be appointed.

It also recommended the appointment of a committee to prepare a bill for presentation to the next biennial session of the Legislature, and to report the same at the next annual meeting. The resolution was adopted, and the committee continued.

A draft of an act, prepared and recommended by the American Medical Association, in relation to the appointment of State Boards of Examiners, was also referred to a special committee.

DR. TAYLOR, of Wilkesbarre, read a paper on

THE PLYMOUTH EPIDEMIC.

He had, with a committee of Wilkesbarre physicians, made an exhaustive investigation of its etiology, and determined the cause was poisoning of the mountain stream which supplies the town, by the excreta of a single typhoid patient. The doctor carefully stated other possibilities, as, for instance, the pumping of the Susquehanna River water for one week into the mains while the mountain supply was frozen, March 20th to 26th. The first case occurred about April 10th, giving, he thought, too long a period of incubation if the river-water were the cause.

DR. SHAKESPEARE confirmed the statements and conclusions of Dr. Taylor. The diversity of opinion on this matter has divided physicians and the public, in this region, into two parties, "Mountain-stream" and "River-water" theorists. For the latter it must be said that though the hemorrhagic dejecta of the mountain patient were thrown on the bank of the stream for weeks, they were not thrown *into* it, but on the snow fifteen or twenty feet from its edge; and that the river is unquestionably poisoned by Wilkesbarre's sewage from 30,000 people (within two and one-half miles), and by that of Pittston, Scranton, and intermediate points. The element of time bears equally on both the theories, as cases keep still occurring.

Until a specific typhoid germ is *demonstrated*, perhaps it would be well not to insist too strenuously on either exclusive theory, but to admit the concurrent causes mentioned in THE MEDICAL RECORD'S editorial of May 16th inst. The mortality remains at ten per cent.

THE ADDRESS IN MEDICINE

was made by DR. EDWARD T. BRUEN, of Philadelphia, who stated that the causal importance of the bacillus of tuberculosis was claimed by an increasing number of clinicians and pathologists. Cases of abdominal tuberculosis existed in which it cannot be found.

Referring to the cholera bacillus of Koch, and the microbic theory of diphtheria, without definitely indicating his acceptance, the Doctor recommended the propriety of boiling drinking-water and the free use of corrosive sublimate or sulphate of copper as disinfectants, the flushing of sewers and burning of suspected dejecta.

Dr. Bruen referred to the importance of high arterial tension as a premonitory symptom of albuminuria. In therapeutics Dr. Bruen spoke favorably of antipyrin, finding temperature continued to fall for six hours after one or two doses. It depressed the heart and produced exhausting perspiration, though the former was less than that produced by others of the carbolic series. He used ten grains. Nitro-glycerine was valuable in lessening albuminuria associated with high arterial tension, but must be watched, as it might reduce it too far. Caffeine was a safe cardiac stimulant and diuretic, eight to ten grains daily. Hyoscine had been shown by Dr. H. C. Wood to be a safe and valuable spinal sedative. Dose, about $\frac{1}{100}$ of a grain.

DR. HENRY H. SMITH, Emeritus Professor of the University of Pennsylvania, read a paper on the

NON-CONTAGIOUSNESS OF CHOLERA.

The disease was known in China two thousand five hundred years before Christ.

Professor Smith had studied every epidemic in Philadelphia since 1832. All the physicians of repute at that time, such as Chapman, Horner, Hodge, Jackson, Condie, Coates, the elder Pepper, and Wood, were non-contagionists.

Horner demonstrated the desquamation of the epithelium of the small intestines in cholera, two years before Boehm claimed the discovery.

Dr. Smith, in the post-mortems, was frequently exposed six or eight hours to infection with impunity.

The Sisters of Charity, largely exposed, never suffered, yet often took typhus.

Mackintosh, of Edinburgh, reported that in hospital two hundred and eighty bodies were autopsied in a room eight feet square, with six or more persons present, none of whom were affected. He quoted Professor George B. Woods' argument against the contagiousness of cholera, and the report of Dr. Sterling, of New York City, 1849, of one hundred emigrants who arrived at quarantine in the ship New York, which had cholera on board, and who escaped from quarantine into adjacent towns without spreading the disease.

The question has been reopened by Koch's claim of a curved bacillus found only in choleraic discharges as the prime exciting cause. But it has never been verified by its producing the disease in man. Inoculation with comma bacilli as a preventive is proposed by Ferran, but his opinions are not assented to by M. Hericourt, of the French Academy of Sciences. (See THE MEDICAL RECORD, May 28, 1885, p. 586.)

The idea of a specific germ or bacterium is not new. Hahnemann ascribed the origin of most diseases to a microbe called Acarus.

Cowdell, of England (1848), assigns certain cryptogamous organisms, consisting principally of protein compounds, as in the protococcus nivalis, torula cervisæ, etc., as the cause of cholera; all of which have been found in the air and water of the vicinities of the disease and in cholera evacuations.

Professor J. K. Mitchell, of Philadelphia, advocated the influence of atmospheric spores in 1841.

Speaking of the various causes of cholera, Professor Smith referred to the use of alcoholic drinks, as quoted by Sir Wm. Gull, of London, who showed that the epidemic of 1848–49 had the largest average of deaths after payday.

Dr. Smith stated it would probably surprise many that while Koch claims to have discovered a "contagium

vivum," as the proximate cause of cholera he is unable to suggest any germicide that can be swallowed by man. Speaking in his address to the Imperial Board of Health of Berlin of the cry, "What is the use of this discovery to a practitioner?" Koch says, "You can deduce this advantage from it, that it will put an end to the fearful squandering of disinfectants, and that millions will not again, as in the last epidemic at Berlin, be poured into gutters and cesspools without the slightest advantage."

Dr. Smith closed by stating that, whether the contagiousness or non-contagiousness of cholera be admitted, it was important to the welfare of every community that all usual sanitary laws should be strictly enforced; he stated that if cholera should visit us this summer, it is not likely the epidemic will be so severe as those through which so many physicians have practised and lived without undue anxiety.

The venerable professor was listened to in respectful amazement by the votaries of the new etiology; the number and length of papers precluding discussion in this as in most cases throughout the session.

Dr. William F. Waugh, of Philadelphia, read a paper on

A NEW TREATMENT OF THE ALCOHOL HABIT.

The treatment of acute alcoholism is generally successful; but, except in a very few cases, the patient relapses into inebriety and dies a drunkard.

The disease, however, is not incurable. The causes of relapse are: 1, previous disease which led to drink; 2, overwork, especially when combined with illness; 3, gastric catarrh, due to alcohol; 4, catarrh of the mouth, due to the same cause; 5, depression consequent on withdrawal of the stimulant.

In the first and second classes the recognition of the cause affords the indication for treatment.

In the third class the remedies recommended are hot water with soda before meals; oxide of silver, oxide of zinc, or bismuth, following; and minute doses of ipecacuanha to restore the secretion of the digestive glands.

In the fourth and fifth classes the use of coca is recommended in the form of a masticatory, to obtain the local effect on the mouth, as well as the constitutional effect, in relieving the depression. The object is to substitute for the alcohol habit the harmless habit of chewing coca.

The food should be carefully regulated, and should at first consist of raw oysters, or beef with capsicum and vinegar, pickled tripe, or pigs' feet.

If the patient has passed the point when he still desires to be cured, and is unwilling to make an effort, he should be put under restraint, preferably in an institution where he could be compelled to earn his livelihood, instead of spending his time in enervating idleness.

Dr. S. M. Free, of Dagus Mines, read a paper on

MORPHIA IN CHOLERA INFANTUM,

reciting the failure of present plans of treatment, and the need of a better; he thought it could be found in the judicious use of morphia.

Few members coincided in his view of the propriety of using this potent drug in infancy.

A paper by Dr. Van Harlingen, of Philadelphia, was presented by title, on

DERMATITIS MEDICAMENTOSA (ERUPTIONS DUE TO THE INGESTION OF DRUGS),

showing that our knowledge of such drug eruptions has been much enlarged of late years; that certain drugs will almost invariably produce eruptions, while others produce them only in persons having a favorable idiosyncrasy. Medicinal eruptions have their diagnostic peculiarities; the nervous system is principally concerned in their manifestation. Their etiology and pathology invite investigation.

Dr. J. V. Shoemaker read a paper on

SOAPS ESPECIALLY MEDICATED IN DISEASES OF THE SKIN.

The value of potash soap medicated with tar, naphthol, carbolic acid, salicylic acid, sulphur, balsam of Peru, mercury, etc., was cited. Medicated soda soap has greater scope. It must be used judiciously once a day, or once or twice a week, according to toleration.

Alum soap, ten per cent., is useful in hyperidrosis and seborrhœa oleosa, and in excessive sudoriferous and sebaceous secretion. Many cases of pustular eczema, particularly in the subacute stage, are benefited. It should be used in lupus, cancer, and in scrofulous and syphilitic skin affections. It is stimulating and astringent to ulcers.

Arnica soap, ten per cent. extracti arnicæ, cures sore nipples, and is used about the mucous outlets of the body in cleansing boils, carbuncles, and pustular skin affections, in wounds and bruises of the integument. It is sedative to irritation, soreness, and pain.

Boro-glyceride soap, ten per cent. of a fifty per cent. solution boro-glyceride, is preferable to either borax or boracic acid soap; is antiseptic and deodorant; destroys germs. It is especially useful in pruritus. Valuable in acne and seborrhœa.

Camphor soap, ten per cent., is primarily stimulant, at times irritant, and secondarily anodyne. Used in the pruritus of eczema, chilblains, etc.

Carbolic acid soap is stimulant and anæsthetic; used for its antiseptic action in wounds, and in suppurating sores, relieving their accompanying itching. Chronic eczema, psoriasis, etc., are much benefited by it.

Chamomile soap, ten per cent. extract anthemidis, is excellent in intertrigo, dermatitis, seborrhœa, bromidrosis, etc. It is rendered more effective by the addition of sulphur five per cent.

Eucalyptol, naphthol, salicylic acid, and corrosive sublimate soaps, with some twenty other medicated soaps, were mentioned by the Doctor, who described their several uses, and cautioned that medicated soap is potent for harm if injudiciously used, disappointing if relied on exclusively, but is valuable as an adjuvant to other treatment.

Dr. T. Green said he would like to advise people

NOT TO USE CASTILE SOAP IN WINTER.

Dr. J. H. Packard read a paper on

TRACHEOTOMY.

The Doctor objected to tracheotomy-tubes, referring to Martin's proposal to dispense with them (Paper in "Trans. Am. Med. Asso.," 1878), and detailed his own attempts to dispense with them by substituting a wire frame or retractor; referred to hairpin and other retractors; the difficulty about lateral expansion; modification of the eye speculum for the purpose; Passavant's article; various forms proposed for trial and experiments on the dead subject; and concluded by saying that a perfect substitute for the tube was a desideratum, and crediting the elder Pancoast as the first to discard the tube.

Dr. Pancoast said that trachea-tubes were unnecessary and injurious. The trachea was itself a tube, and when incised the wound should be kept open without a descending internal tube.

Dr. H. H. Smith affirmed the position taken by the essayist, and said he had discarded the tube, with Pancoast, thirty years ago.

The Society, on invitation, visited the Lackawanna Hospital, and at 8 P.M. reassembled to hear the President's address.

The President, Dr. E. P. Allen, of Bradford County, delivered

THE ANNUAL ADDRESS.

Opening with reference to medical progress, he ran over the discovery of various anæsthetics up to cocaine; the mechanical inventions in instruments of diagnosis; microscopic discoveries of bacilli by Koch and others; diet;

massage and electricity in nervous diseases; the importance of Bigelow's advances in lithotripsy; Listerism; abdominal and uterine surgery. He spoke of the responsibility of the State Society in the matter of securing a State board of censors. The laws of the State recognize as a physician almost any person who advertises himself as such. The Doctor also spoke of the abuses of the advertising of the specialists, and closed his address by referring to the prospect of a cholera invasion, the apathy of the State and United States Governments in the emergency, and the importance of organizing local health boards. He doubted if our treatment of the disease would be more efficacious than in 1832 or 1854, and that prevention was the vital point.

THIRD DAY—FRIDAY, MAY 29th.

DR. C. M. WILSON read a paper on

MECHANICAL DILATATION OF THE UTERUS,

and exhibited a new instrument.

DR. WOOD, of Pittsburg, President-elect, read

THE ESSAY ON SURGERY.

He believed that the surgeon must have natural-born talent for the art, and deprecated the rush of incompetents into the profession. The time had come when selection must cull the fit and reject the unfit. The specialist who was nothing more was a traitor in the camp. His attacks were usually made on the eye, throat, or womb, while the true specialist was trained from the lowest round of the ladder of general medicine.

The special talent upon which he laid stress was the mechanical and geometrical.

Dr. Wood recommended the subcutaneous ligation of arteries, a common practice with Pittsburg surgeons, under the lead of Dr. Pollock, who believes it unnecessary to crush the arterial coats. Dr. Wood believed that the subcutaneous method should be exclusively employed for aneurism, using wire.

As the members whom we have consulted coincided with the essayist's views on "natural" talent, your correspondent appeals to you for sympathy in the view, that it is a great mistake to exalt this boyish tinkering with saws and little hatchets as premonitory symptoms of surgical talent.

Let the noble words of the worthy Doctor's former townsman, Andrew Carnegie, serve to say 'tis the same quality of mind—learning, judgment, and wisdom—with which "the enlightened *physician* gazes clear-eyed on the blazing sun of truth" and science, that will also best equip the surgeon.

DR. ADINELL HEWSON read a paper on

MORE RECENT EXPERIENCES WITH THE ELECTRIC LIGHT IN DIAGNOSIS,

and the topical uses of earth.

He takes a cone of binders' board, eleven inches long, the base used over both eyes; a finger held in the opening becomes translucent; the orifice has to be one-eighth by three-sixteenths of an inch.

Modification of star-lamp protected by an asbestos cap used, incited by three zinc carbon cells.

Every Tuesday women come to him with

NEEDLES IN FINGERS,

which he can see *in situ* through the flesh by this method.

Dr. Hewson was first led to use

EARTH AS AN ANTISEPTIC

in 1869; was led to determine the qualities of different earths. Clear yellow clay, free of sand or grit, was always used. With sixteen years' experience, the Doctor reiterates his claims for the utility of earth in erysipelas, measles, scarlatina, and small-pox, as well as in surgical cases. His more recent cases of measles and scarlatina have come in groups. In schools the earth not only produced great benefit, but prevented contagion on the return of the children to school, insured reduction of temperature, shortened the duration of the disease, and prevented complications.

He dusts the earth over the whole cutaneous surface, causing immediate reduction of five degrees Fahr. in early stage, and ten degrees when fully developed. In small-pox and erysipelas he mixes it with water to cause it to adhere—adding water raises temperature of clay for an hour. Allowing for this, it has always markedly reduced temperature (greatest in measles, ten degrees; next erysipelas, scarlatina, small-pox, five), in first twenty-four hours; in second twenty-four hours, not further reduced; in third twenty-four hours (greatest reduction in erysipelas), by end of fourth day, there is never abnormal temperature (except in small-pox or scarlet fever, perhaps two degrees, lasting till desquamation). The effect of moist clay on pain is very marked, the patient expressing relief during the dressing, and usually going to sleep. If there be pain in the chest in measles, apply clay to the chest.

February, 1873, prominent army officer, third day. Erysipelas of face and scalp, delirious, held by attendants; anodynes and stimulants had been freely used. They were withheld, and Doctor applied clay paste one-fourth to three-eighths of an inch over the whole face; before dressing was completed, relief and sleep occurred, lasting from midnight until 4.30, when already the face was much shrunken. Dressing reapplied, improved rapidly, and cured in a week.

Case of small-pox, ten years ago; prominent lawyer; discrete eruption on face and spreading; had never been vaccinated. Patient proposed to use the clay on one side of the face (after days' consideration and probably advice) and French devize plaster on the other. Applied clay on right, plaster on left, both ears left uncovereed the right side was exposed to greater light. Applid; plaster accurately, made clay one-fourth inch thick, except over eyelids, half an inch. Patient said the earth was more comfortable, and next morning asked to have it on both sides. The right side shrank markedly, and its temperature fell five degrees, while no such effects occurred on the left until the ninth day. On removal no pitting or discoloration; whereas, on the left, pitting was abundant and surface looked like a burn. The contrast was very striking.

On motion of DR. WOOD, the resolution of last year, forbidding the publication of full papers, was rescinded.

The report of committee by chairman, DR. SHAKESPEARE, considering the act recommended by American Medical Society for State Board of Censors, was favorable.

DR. COHEN stated a report was due the American Medical Association.

DR. ROBERTS suggested that the Secretary should report to American Medical Association, that the act was read and referred, and that the Society had yesterday embodied similar bill and referred to committee to report. Adopted.

Resolution laid over for action next year, to make a medical journal of the State an official journal.

A paper by DR. BENJAMIN LEE, of Philadelphia, was entitled

NIL DESPERANDUM IN SPINAL CARIES.

The Doctor said it was never too early to employ mechanical support, and *never too late*. Expectant treatment was a blunder.

Diagnosis was easy long before deformity. Sudden cramping pain in the abdomen and sides, stiffness in walking in the morning, inability to stoop forward and touch the floor, "toeing in," and holding the shoulders high and stiff. If an infant, it will scream on being moved and lifted. There was not generally pain or ten-

derness in the back, and it was a great mistake to pronounce that there is nothing the matter with the spine because that symptom was absent. The disease often follows whooping-cough, and very often can be traced to a fall or other injury.

It *was never too late*, and it is a great error to suppose that strength was necessary to bear a surgical apparatus; when local irritation was wasting the vital energies, mechanical support was the best tonic, without which medication was vain. The doctor cited a case of a boy, six years of age, with cervical caries following whooping-cough two years before; complete paralysis; wasted to a skeleton; racking cough.

The brace gave immediate relief, and in a week he slept and ate well, and could move two fingers; and in two weeks his toes and arms. In five months he could walk alone.

Dr. H. R. Wharton, of Philadelphia, read a paper on

OSTEOTOMY FOR THE CORRECTION OF DEFORMITIES IN THE LOWER EXTREMITIES,

in which he gave preference to the linear operation over the cuneiform, as it consists of a simple section of the bone and practically constitutes a subcutaneous operation, whereas the latter, in which a wedge of bone is removed, necessitates an open wound with its attending dangers.

The use of the osteotome or the saw rests with the operator.

The importance of making a full correction at the time of operation is insisted on, especially if a fixed dressing is to be afterward employed.

Among the causes which produce deformities, for which osteotomy may be required, are those arising from rachitis, from coxalgia, from badly united fractures, or from reduced dislocation; and of all these the vast majority of cases requiring the operation are due to the first-named cause.

For the correction of angular deformities at the hip-joint resulting from coxalgia, Gant's modification of Adams' operation is preferred; that is, a section of the femur just below the lesser trochanter. This operation is preferred because section of the bone at this point secures its division at a locality where its structure is comparatively healthy, whereas its division through the diseased strictures of the neck, if it still exists, is capable of renewing an active inflammation in tissues which are most susceptible to inflammatory accidents following traumatism; also from the fact that the femoral shaft can no longer be influenced by the action of the psoas magnus and iliacus muscles. The chances of recurrent deformity are less when the section is made at this situation. Adams' saw was, for the author, a most satisfactory instrument, although others express equal favor for the osteotome.

In a large number of cases he has had no fatal result.

For genu valgum he prefers MacEwen's operation—linear section of the femur made from the inner side of the thigh, with the osteotome, just above the epiphyseal line.

For knee anchylosis he prefers Mr. Barwell's linear section of the femur just above the joint, with section of the tibia through its tubercle.

In genu varum a linear section of the tibia, fibula, and femur, with an osteotome at the point of greatest curvature, has been found a safe and efficient means of correction.

In tibial curves a linear osteotomy at the point of greatest curvature, or in aggravated cases a number of linear osteotomies, or the removal of a wedge of bone may be required.

Plaster-of-Paris dressing is strongly recommended.

Dr. D. W. Kearns, of Pittsburg, read a paper on

"RETROFLEXED SPLINTS FOR FRACTURE OF THE FOREARM,

especially Collis' fracture," with drawings and samples.

The point made was that the hand should be maintained in partial extension with the forearm to

RELAX THE EXTENSORS!

Dr. Packard challenged the principle.

Drs. Pollock, Roberts, Green, and others discussed the matter. The country doctors listened silently, thinking that the use of fancy splints was unnecessary in these fractures.

The visitors, by the courtesy of Superintendent Hallsted, of the Delaware, Lackawanna & Western Railroad, visited the mines.

THE NEXT ANNUAL SESSION

will be held in Williamsport on the first Wednesday in June, 1886.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

MALE NURSES FOR MALE PATIENTS—THE COLLEGE OF SURGEONS—CHOLERA—THE TEMPERANCE HOSPITAL.

London, May 23, 1885.

A scheme is now afoot in London for providing a corps of trained male nurses for hospital and private use. The claims of women to have medical attendants of their own sex have been urged for years, and many medical men have warmly supported their cause. After many struggles, the London School of Medicine for Women is now an accomplished success, and as two licensing bodies have opened their examinations to women, several of the alumni of the London School are now in practice. One of these bodies is the "Kings and Queens College of Physicians," in Ireland; the other is the University of London.

The admission of women to the medical and other examinations of the London University was largely due to the indefatigable exertions of the late Dr. Billing, F.R.S., Consulting Physician to the London Hospital, and one of the original members of the Senate of the University of London. Medical men have also of late years done a good deal to promote the training of midwives. In fact, many members of the profession wish to see the attendance of all ordinary cases of labor taken out of the hands of medical men altogether.

It has, however, been reserved for a lady to propound a scheme for supplying sick men with trained nurses of their own sex. The lady in question is Miss Jane Hamilton, a sister-in-law of the late Dr. Billing. Although advanced in years, Miss Hamilton has taken up the matter warmly, having had her attention drawn to it by the discomforts experienced by gentlemen of her own family and friends in being obliged to have female attendants in time of sickness. Several cases came under her notice, of single gentlemen living in chambers, who, being ill, were obliged, at great inconvenience, to have women-nurses to attend on them after the performance of operations. A great deal has been said about the indelicacy of medical men attending upon sick persons of the other sex. No one hitherto has made any protest against a sick man having a nurse of the opposite sex to wait upon him. The relations of nurse and patient are, however, much more intimate and continuous than those of doctor and patient. Many people object to man midwives. What would be thought of a doctor who suggested the employment of a male monthly nurse?

An association has already been formed to carry into effect Miss Hamilton's scheme. It is proposed to establish a training-school for male nurses in connection with one of the metropolitan hospitals. Communications have already been opened with one of the largest of these institutions. The preliminary inquiries which have already been made have revealed the undoubted ex-

istence of a want for trained male attendants in time of sickness. I happen to know that a large number of army surgeons are thoroughly convinced that the system of female nursing which has of late years found its way into the army has proved itself an unmixed evil. In active service this is especially the case. Women have been found to be totally unfit for the scenes of the battle-field.

The terrible sights they are forced to see, and the part they take in closely tending men of all ages with wounds of all kinds—some of them of a delicate nature—tend also greatly to blunt their modesty and delicacy. They are too comparatively alone among numbers of the opposite sex. Some surgeons even go so far as to say that women tend to become immodest under such circumstances. It has, at any rate, in some continental States, been found necessary to issue the most strict regulations respecting the attendance of soldiers by female nurses. The effect, too, on the wounded men is bad. The opinion has been recorded, by an able American army surgeon, that the presence of a young woman among wounded soldiers is detrimental, by keeping them in a continual state of sexual excitement. The old system of regimental orderlies was far preferable in the opinion of army men.

A good deal of what I have just stated is equally applicable to civil life. Modesty is not the sole monopoly of women, and there are certain cases in which the aid of a male attendant would certainly be more decorous, and also more acceptable to the patient. Miss Hamilton's scheme is only just launched, but considerable support is already promised, and no inconsiderable amount of funds has already been guaranteed. A primary object of the founder is the provision of male nurses for cases in private practice, but it is also hoped that the hospitals will take up the matter, and that in time the employment of men as nurses in the male wards may be in future the rule—not the exception. Men-nurses have already been tried on a small scale in workhouse infirmaries, and, so far, have proved a success.

The Fellows have finally agreed to make common cause with the Members against the Council of the College of Surgeons. They have at last recognized the claim of the Members to representation, and have agreed that the latter shall elect one-third of the members of the Council, but no Member is to have a vote until he has been a Member for ten years. The remaining two-thirds of the Council are to be elected by the Fellows as before. The Members will, no doubt, agree to meet the Fellows, by accepting this concession, though their original claim was that they should elect half the Council.

There are indications that we are on the eve of a cholera scare. During the week the papers have reported the outbreak of cholera at Marseilles, and circulated an entirely unfounded report that cases had occurred at Durham. Dr. Sanderson has been lecturing on the subject at the Royal Institution, and declared that if an epidemic broke out in East London the inhabitants of the North and West need have no fear of it, and he stated that if the disease were to reach London this year it ought long ago to have been on the march. In connection with this, I may remark that public attention has also been greatly excited by the proposal of Dr. Ferran to vaccinate for cholera, and the results he has achieved in Spain, Dr. Cameron, M.P., having introduced the subject in Parliament, and published the statistics supplied him by Dr. Ferran.

Last Saturday a Grand National Bazaar was opened by the Duchess of Westminster, in order to defray the cost of a new wing to the London Temperance Hospital, which has just been completed, and raises the number of beds to one hundred and twenty. There is no doubt the money will be raised, one gentleman having given five thousand pounds, which is more than half the sum required. This hospital was opened twelve years ago, for the treatment of all medical and surgical cases without the administration of alcohol in ordinary cases. The physicians and surgeons were not, however, debarred from giving it in any case which seemed to require it. When prescribed, a record was to be made of the circumstances, the dose given, and the apparent effect. This permission they have only availed themselves of in a few cases, and in none did they consider the alcohol did good.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE TEMPERATURE OF THE HUMAN BODY—ETIOLOGY OF ERYSIPELAS—DR. FERRAN AND THE INOCULATION OF THE COMMA BACILLUS—CHOLERA IN VALENCIA—EXPERIMENTS OF DR. ROCHEFONTAINE.

PARIS, May 20, 1885.

DR. CHARLES RICHET lately presented a paper to the Academy of Sciences on the temperature of the human body in a state of health, which may be summarized as follows: The minimum of the body temperature presents itself nearly always at the same hour, about three, four, or five o'clock in the morning, and the maximum about three, four, or five in the afternoon. During the night, from the moment that one gets into bed until he wakes in the morning, the temperature is lowered; in the morning it rises slowly. This rising increases after the repast and reaches the maximum about four o'clock in the afternoon, owing to the general nervous activity that manifests itself during the day. The lowering of the temperature commences in the evening; in spite of the evening repast, it pronounces itself more and more, and goes on increasing until three in the morning. In fine, the temperature, whether deep-seated or superficial, varies between 36° and 38° C. Should other degrees of temperature be noticed, at least in these climes, the organism is not altogether in its normal condition. Such is the general course of the body temperature in health. There are, however, certain exceptions to this rule, and it has been observed that the difference of the diurnal and the nocturnal temperature has been completely reversed. For instance, in bakers, miners—in short, in all people who work at night—when the periods of muscular activity and of rest are interverted, their minimum and maximum temperature are also interverted.

At the recent debates at the Academy of Medicine on the etiology of erysipelas, some of the members admitted the existence of a contagious or infectious principle, in the form of a virus or germ, which caused the disease, but the nature of the virus was left undetermined. Professor Cornil, the well-known histologist, in undertaking to search for the microbe of erysipelas, found a streptococcus resembling very much that of phlegmon, but differing from the latter in that, when inoculated, it always reproduces erysipelas. This remarkable fact is, according to the author, sufficient to affirm the existence of this micro-organism in erysipelas, in which it clearly stands in the relation of cause and effect. These microbes are of a round shape, and are found generally associated in pairs or in sinuous chains in the cutaneous tissue, in the lymphatic vessels, in the adipose cells of the skin, and of the subcutaneous cellular tissue. These micro-organisms are sometimes conveyed along the general circulation, and are excreted by the urine. They are also found in the lungs affected with congestion or inflammation, as well as in inflamed meninges. The same microbes are constantly met with in the urine of albuminuric patients affected with erysipelas, and when these patients die from albuminous nephritis, the vessels of the kidney are filled with them. Whether the erysipelas be mild or severe, spontaneous or surgical, these micro-organisms are always to be met with in this affection, and are always arranged in the same fashion. This microbe can be cultivated in gelatine, and inoculation from this culture gives rise to a simple erysipelatous erythema, without producing any severe accidents. The parasite of erysipelas

may therefore be generally considered but little dangerous, and if the disease proves fatal in certain cases, as in patients operated on, lying-in women, M. Cornil thinks that it is because the organism is not, in these cases, in a normal condition; also because these micro-organisms are found mingled, at the moment when the contagion is effected, with those of suppuration and of puerperal fever. The variations of degree of the severity of erysipelas may be explained by the addition of other bacteria to those which are spécial to this malady. In this category may be included the eruptions which succeed certain cases of traumatism. These facts made Professor Trélat remark that the researches of M. Cornil are of the highest importance, and it may now be understood why it is that certain forms of dressing are better adapted to combat the pyogenic organisms, and certain others to combat the erysipelatous organisms.

In my last, I brought to notice a process proposed by Dr. Ferran, of Tortosa, for the attenuation of the virulent effects of cholera by the inoculation of the comma bacilli, to which he has given the name of cholerization. Dr. Ferran has had an opportunity of putting this method to the test, and he has announced that, during the recent epidemic of cholera in the province of Valencia 4,700 persons got themselves inoculated as a precautionary measure against the disease. Of this number, five only were affected by the disease, but none of them died. Dr. Ferran, encouraged by this result, has expressed his intention to proceed to the other infected provinces there to apply his method, after which he intends visiting France and England, where he will prosecute his ideas and perform further experiments.

Since the above announcement, intelligence has been received of the reappearance of cholera in the province of Valencia, which may probably alter Dr. Ferran's intention of leaving Spain for the present. Every precautionary measure, such as isolation and disinfection, is being taken to prevent the spread of the disease.

It may be well here to recall the experiments of Dr. Rochefontaine, which were reported by the Paris correspondent of the *Lancet* of the 9th inst., by which it will be seen that the introduction into the system, by the stomach or by hypodermic injection, of cholera microbes, was attended with negative results, at least in so far as concerns the reproduction of the disease. It is, therefore, difficult to conceive in what way Dr. Ferran's method of cholerization would act as a prophylactic.

ON THE PRELIMINARY REPORT OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

To the Editor of The Medical Record.

Sir: This report, coming from a committee the members of which are well known in connection with sanitary science, will no doubt receive the careful attention of both the profession and the public, and the recommendations contained in it accepted as the best possible in the present uncertain state of this science. That this is true of a majority of them no one is likely to question, but a few of them are of such a nature that one cannot help thinking that they are not based on experiment, but on theoretical reasons. In calling attention to these there is no desire whatever to cast doubt on the report as a whole, or on the experimental work on which the greater part is based, but merely to bring before the Committee such points as require attention and probably change in issuing their final report. These are not questions of difference of opinion, but errors, chiefly of a chemical nature, that have in some way escaped the notice of the two chemists on the Committee.

One of the most conspicuous of these is the recommendation of a "disinfecting and antiseptic powder" consisting of one ounce of mercuric chloride, one pound of bleaching powder, and nine pounds of plaster-of-Paris. The following directions are given for use:

"To disinfect excreta in the sick-room, cover the entire surface with a thin layer of the powder—one-fourth inch in thickness—and if the material is not liquid, pour on sufficient water to cover it."

In the first place, the mercury in this mixture is precipitated by the lime present as mercuric oxide, which is practically insoluble, and has little or no germicide or antiseptic action. The second objection to its use is probably even more serious than this. The plaster-of-Paris will in a few minutes set to a hard mass, forming a wall around the "germs," but rather inconvenient to remove from vessels, waste-pipes, etc.

The next recommendation is rather more remarkable than the above; it is as follows:

"Standard Solution No. 4. Dissolve corrosive sublimate in water in the proportion of four ounces to the gallon, and add one drachm of permanganate of potash to each gallon to give color to the solution.

"One fluid ounce of this standard solution to the gallon of water will make a suitable solution for the disinfection of clothing. The articles to be disinfected must be thoroughly soaked with the disinfecting solution and left in it for at least two hours, after which they may be wrung out and sent to the wash."

We would suggest burning the clothing as preferable to this treatment, for when they are taken out of this solution they will be of a dark-yellow color from the deposit in the fibre of manganese dioxide, which can be removed only by treatment with a strong acid. It may seem that the dilution of the permanganate is too great to accomplish this, but the above statement is based on actual experiment with the solution recommended.

The following directions for disinfecting rooms are in keeping with the above:

"All surfaces should be thoroughly washed with a solution of corrosive sublimate of the strength of one part in one thousand parts of water, which may be conveniently made by adding four ounces of Standard Solution No. 4 to the gallon, or one pint to four gallons of water. The walls and ceilings, if plastered, should be white-washed with a lime-wash containing the same proportion of corrosive sublimate, or they may be brushed over with the aqueous solution."

Of course, Standard Solution No. 4 would color walls the same as it would clothing, especially as in this case it is to be diluted only one-fourth as much, while adding corrosive sublimate to lime would precipitate the inert mercuric oxide. Even in case the aqueous solution was used, the lime in the plaster would perhaps produce the same effect, while, if it did not, the propriety of saturating the walls of apartments with corrosive sublimate is doubtful, since the much less volatile arsenic compounds are known to be deleterious when applied to wall-papers.

For the disinfection of excreta—not previously disinfected—of patients with cholera or typhoid fever, after it has been thrown into privy-vaults, the Committee recommend, among other agents, the use of one pound of corrosive sublimate to every five hundred pounds—estimated—of fecal matter. It is true that, according to most authorities, a one to five hundred solution of corrosive sublimate is an efficient disinfectant, but it must be remembered that we have here entirely different conditions. Even if the thorough diffusion of this salt through the mass of semi-solid matter was possible, it is doubtful if it would act in the presence of such a proportion of organic matter; but everyone knows how slowly mercuric chloride dissolves, even in a large excess of water, while in such a mass of fecal matter every particle of it would probably become encysted in an envelope of the insoluble albuminate, and remain so indefinitely. In fact, it is extremely probable that but little more would be accomplished by this treatment than by dropping a burning sulphur match into the vault.

The statement of the report, that chloride of lime is, perhaps, entitled to the first place for disinfecting excreta, on account of the rapidity of its action, is misleading, since sodium hypochlorite is equally rapid in its action, and it also possesses certain advantages over the calcium salt not mentioned in the report.[1]

The Committee assume that the Labarraque's solution (liq. sodæ chlorinatæ) used will contain at least three per cent. of available chlorine, but none of the officinal solutions in the market contains this amount. We understand, however, that a standard solution of this strength is being manufactured.

In speaking of the solution of mercuric chloride and potassium permanganate (1 to 500 of each) the report states that this is equally as efficient as the hypochlorite solution for the disinfection of excreta, vomited matters, sputum, etc. This is scarcely in accord with the following, which is from a very recent article by the Chairman of the Committee, and one of several on which the present report is based :

"In a previous paper (*The Medical News*, January 10, 1885, p. 34) the writer has recommended the use of a solution containing 1.500 of mercuric chloride, and 1.500 of potassium permanganate, as an efficient disinfectant for sputum and for the discharges of patients with typhoid fever and cholera. The experiments of Schill and Fischer, which I had not read when this recommendation was made, indicate that it will be necessary to use some other agent when the object in view is to destroy the infective virulence of tuberculous sputum. And, in general, it will no doubt be better to use an oxidizing disinfectant, such as the hypochlorite of soda, when the germs to be destroyed are embedded in masses of albuminous material. For such masses are disintegrated and destroyed by oxidizing agents, whereas corrosive sublimate has the opposite effect, in consequence of its power of combining with and coagulating albuminous material" (*The Medical News*, February 21, 1885, p. 208).

In conclusion, we regret to be obliged to call attention to these evidences of hasty preparation, which was not to be expected of so able a committee, and of the many and valuable experiments on which the greater part of it is based. The agents recommended, however, are undoubtedly the best at our command, and notwithstanding what has been mentioned, the report contains much that is valuable, and is calculated to correct some of the fallacies on disinfection.

Very respectfully yours,

J. R. Duggan, M.D., Ph.D.,
Fellow by courtesy in the Johns Hopkins University.
C. T. McClintock, A.M.

Johns Hopkins University,
Baltimore, Md., April 20, 1885.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 24, 1885, to May 29, 1885.

Hartsuff, Albert, Major and Surgeon, ordered from the Department of the Missouri to the Department of the East. S. O. 121, A.G.O., May 27, 1885.

Brown, H. E., Major and Surgeon, ordered from the Department of the East to the Department of the Missouri. S. O. 121, A.G.O., May 27, 1885.

De Witt, Calvin, Captain and Assistant Surgeon, ordered for duty at Newport Barracks, Ky. S. O. 107, Department of the East, May 22, 1885.

Hall, William A., Captain and Assistant Surgeon (David's Island, New York Harbor), ordered for temporary duty at Willet's Point, N. Y., during absence of post surgeon. S. O. 121, A.G.O., May 27, 1885.

Spencer, William G., Captain and Assistant Surgeon, ordered for duty at Fort Sisseton, D. T. S. O. 55, Department of Dakota, May 20, 1885.

[1] See report on the Germicide Power of the Hydrochlorites, by J. R. Duggan, The Medical News, February 7, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 30, 1885 :

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 23, 1885	5	18	75	5	104	58	1	0
May 30, 1885	3	11	76	4	97	87	1	0
Deaths.								
May 23, 1885	0	4	20	5	14	22	0	0
May 30, 1885	0	4	11	5	14	27	0	0

Delirium Tremens in a Boy Three Years Old.—Dr. A. W. Benton, of Neosho, Mo., writes : "On April 29th, at 1 P.M., I was summoned to see a mulatto boy aged three years and five months. Parents stated he had obtained one half-pint of whiskey, and drank nearly all of it between 6 and 7 that morning, sleeping so soundly they could not wake him. An emetic and warm bath aroused him, and he seemed to be all right but a little stupid. I took my departure after leaving directions for his care, and was soon summoned again, the father telling me the boy 'had fits.' Arriving, I found a marked case of delirium tremens, the child fighting imaginary animals, quieting down in a few minutes only to begin again with terrific screams and struggles, making at the same time most piteous appeals to those around for protection from his tormentors. Under the influence of chloral and bromides the symptoms gradually subsided, leaving but a faint trace of trouble the following morning. This is the youngest patient suffering from alcoholism I have ever seen or heard of."

Is Death from Heart-wounds Instantaneous ?—Dr. T. O. Reynolds, of Kingston, N. H., writes : "The article in The Medical Record of May 9, 1885, by Dr. Pettit, narrating the case of Bessey, who was shot with 'B.B.'s,' and on examination was found to have received a wound of the heart, but on evidence was found to have lived long enough to perform locomotion to the distance of eight feet, calls up to my mind a case in point which occurred at Camp Nelson, Ky., in 1864, during my service there in the Convalescent Hospital. On the Nicholasville turnpike, which ran directly through the camp, had gathered sutlers and other enthusiasts, civilians, who sought to serve their country by acquiring rapidly a competency out of the boys in blue. Among these was one, a 'jeweller,' etc., who had erected a temporary dwelling and shop. He was prone to intoxication, and personal belligerency when in that state. One evening he gave a party, and many of the 'boys' were invited. I was among the number present, and we were enjoying a most pleasing evening. Late in the evening, it was remembered that Mr. —— was absent, and presently he came rushing frantically into the presence of all, covered with blood, flourishing a dagger, and exclaiming, in a manner which showed him to be drunk, 'I've done it, I've done it,' etc., etc. We rushed out to see what diabolical act had been enacted, and found two of our comrades, one dead, the other very severely wounded. The wounded soldier was at once conveyed to Ward 2, and cared for. He had several dagger wounds, one of which, it was feared, might prove fatal, being between the ribs

and over the heart. It was not deemed prudent to probe this, so it was simply dressed and the patient made comfortable for the night. He lived until the *second day following*. An autopsy revealed, to the astonishment of all, that the wound feared had penetrated the pericardium and punctured the anterior wall of the heart itself, over the septum, making a wound in the muscular wall one half-inch deep and as long. I was at the time chief clerk of the hospital, and was present at the autopsy, and well remember the circumstances and wound in the heart-wall. The cavities were not, of course, entered by the dagger; but there was a wound of the heart, and the patient lived thirty-four or thirty-six hours. Being myself a medical student at the time, I was, of course, specially interested in the case, and its every point of interest to us then remains vivid with me now. I think the case was reported to the Surgeon-General's office."

Passage of a Tooth-plate through the Pylorus.—Referring to a recent remark of our Vienna correspondent, that Prof. Billroth had "never known of an object the size and shape of a plate with teeth passing the pylorus," Dr. C. H. Hunter, of Minneapolis, sends us the following: "About a year ago, a man came to me with a plate carrying two teeth lodged in the œsophagus, opposite the thyroid cartilage. Several unsuccessful efforts to remove it with forceps and probang were made. He was given ether, with a view of opening the œsophagus. After a few whiffs, the patient sprang suddenly to his feet, and exclaimed, 'I've swallowed it!' Three days thereafter (six after the accident) the teeth and plate were passed by the rectum unchanged."

The same gentleman also writes: "Apropos of wounds of the heart, remarked upon editorially in a recent number of The Record, a case in point was discovered not long since by the coroner of our city. An unknown man was shot in the chest at close quarters. He walked from the rear to the front of the house—sixty feet, up a flight of stairs, back to a rear window, threw up the window, called out, and fell back dead. The bullet, 32 (?) calibre, it was found, had passed through both ventricles."

Why Women Physicians Tend to Homœopathy and Quackery.—Dr. R. O. Geroke, of Augusta, Ga., believes that he has discovered why a large number of women physicians turn out quacks. It is due to the natural peculiarities of the female mind and character, which peculiarities were, he says, correctly and acutely set forth by Swedenborg one hundred and fifty years ago. Says this author: "There are duties proper to the husband, and others proper to the wife. . . . The wife cannot enter into the duties proper to the husband, nor, on the other hand, the husband into the duties proper to the wife, because they differ like wisdom and the love thereof, or like thought and the affection thereof, or like understanding and the will thereof. In the duties proper to husbands, the primary agent is understanding, thought, and wisdom; whereas, in the duties proper to wives, the primary agent is will, affection, and love. . . . Many believe that women can perform the duties of men, if they are initiated therein at an early age, as boys are. They may, indeed, be initiated into the practice of such duties, but not into the judgment on which the propriety of duties interiorly depends; wherefore such women as have been initiated into the duties of men, are bound, in matters of judgment, to consult men, and then, if they are left to their own disposal, they select from the counsels of men that which suits their own inclination. Some also suppose that women are equally capable with men in elevating their intellectual vision, and into the same sphere of light, and of viewing things with the same depth, and they have been led into this opinion by the writings of certain learned authoresses; but these writings, when examined in the spiritual world in the presence of the authoresses, were found to be the productions, not of judgment and wisdom, but of ingenuity and wit; and what proceeds from these, on account of the elegance and neatness of the style in which it is written, has the appearance of sublimity and erudition; yet only in the eyes of those who dignify all ingenuity by the name of wisdom." It might be objected to the above that Swedenborg did not bear in mind the fact, for example, that there are forty thousand old maids in Massachusetts to whom "the duties proper to a wife" are not known. It has also been learnedly argued that medicine does not require an elevated intellectual vision, and hence may be practised by women.

Man as a Chandelier.—Sir William Gull relates the following: "While I was resident physician at Guy's, a drayman of intemperate habits was admitted by me into Lazarus ward, at about nine o'clock in the evening. He was suffering under extreme difficulty of breathing, great distention of the venous system, and other symptoms of dilatation and obstruction of the heart. A large, fat, bloated man with purple face. He died within an hour or so of his admission into the hospital. The following day, at one o'clock, the weather being cool, the body was placed on the table for a post-mortem examination. There were no signs of ordinary decomposition, such as would account for the remarkably distended condition of the whole body. The skin and parts beneath were throughout distended with gas. In the absence of signs of decomposition, and from the shortness of the time since death, it was suspected that this gas must have been exhaled from the blood, and was of no ordinary septic character. When punctures were made into the skin, and a lighted match applied, the gas which escaped burnt with the ordinary flame of carburetted hydrogen. So many as a dozen of these small flames were burning at the same time over the distended body."

Peptones à la Mode.—A French health journal relates a pleasing little tale of a man whose movements attracted the attention of a detective. He was noticed walking through the streets with his eyes fixed intently on the ground, occasionally stooping to pick up something which he put in a basket. The detective ascertained that he was collecting canine excrement, and being curious to know what he did with it, followed him, and saw him enter a manufactory of peptones and beef-extracts. Subsequent investigation revealed the fact that the excrement was mixed with beef-powder and sold as a superior article of peptones.

Secretion of Milk in a Nullipara.—Dr. Mascarel related to the Medico-Legal Society of France the case of a married woman, thirty-five years of age, who had always menstruated regularly and had never been pregnant. For the past six years the mammary glands had been secreting milk. They were of rather small size and marked with numerous veins, but there was no brown coloration of the areola. There was no uterine disease. —*Giornale Internazionale delle Scienze Mediche*, No. 4, 1885.

Italian Medical Congress.—The eleventh congress of the Italian Medical Association will be held at Perugia in November of the present year. The last Congress of the Society was held at Modena in 1883.

The Local Application of Caffeine to the Conjunctiva.—Dr. Argyll was led, by the chemical relationship between cocaine and caffeine, to make a trial of the latter as a local anæsthetic to the conjunctiva. He employed a solution of sixteen per cent., instilling one or two drops into the eye. Dilatation of the pupil occurred in from ten to fifteen minutes, but no anæsthetic effect was produced. —*Revista de las Ciencias Médicas.*

Another Projected Medical Congress.—It is proposed to hold an international exposition in Barcelona at an early date, and our Spanish contemporaries suggest that a congress of physicians be held there at the same time.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 24 NEW YORK, JUNE 13, 1885 Whole No. 762

Original Articles.

CLINICAL REPORT OF TWO SETS OF CASES OF FRIEDREICH'S DISEASE (HEREDITARY OR FAMILY ATAXIA).

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NEW YORK.

PERHAPS no excuse is required in presenting a merely clinical report of these cases. Their absolute rarity is a sufficient reason for placing them on record as they are, with the hope that in time we shall have light upon their pathological anatomy and etiology. An excellent digest of the subject, with summaries of all cases, including seven in which autopsies were made, is to be found in *Brain*, 1884, p. 105. It is from the pen of Dr. J. A. Ormerod.

It has been my fortune to meet with two families in which this disease occurred, and I have been able to examine five out of the six patients. In neither of these families was the affection, or indeed any nervous affection, hereditary; it was a family disease. In none of the cases could any ætiological factors be determined.

FIRST FAMILY.—K——, of the town of B., in New Jersey. Three cases. In the autumn of 1877 two children of this family were brought to me for consultation by their physician, Dr. S. S. Clark. The third child was examined at his home a few days ago, when I also had the opportunity of re-examining one of the other cases. The third case, a boy seen in 1877, died in 1883, and through a mischance no autopsy was held.

Family history.—Parents and grandparents remarkably healthy. The mother died in child-bed in 1878 or 1879. No neurotic taint except migraine in the father. Six children born. Of these one died at the age of seventeen months; one son and two daughters developed the ataxic disease; and two, a son, aged twenty, and a daughter, aged eighteen, remain healthy.

CASE I.—Lizzie K——, seen October 29, 1877, aged eighteen; was born perfectly normal; walked at ten months. From age of four or five years ankles began to show weakness—an increasing weakness. In the last three years (from fifteenth year) hands have become weak; writing and all small movements difficult. The back is not weak, and she can rise easily from sitting posture on a chair. Patient says she feels as if greatest weakness were at the hips. At times she stumbles. Sometimes, after sitting awhile, she has jerking movements of the legs; also cramps in the feet. No numbness or sharp pains. No difficulty in speech, and indeed no cerebral symptoms. Bladder acts well, but there is marked constipation.

Examination.—Healthy, rosy-cheeked girl. Walk is waddling and ataxic, with flat feet; closing eyes causes increased staggering and renders standing almost impossible. Ataxia of upper extremities is very marked, especially in the right hand. Yet patient has a good grasp, and she has observed that she could do things requiring strength better than those requiring skill. No muscular atrophy or loss of musculo-faradic reaction. Sensibility is normal. Reflex from soles increased (patellar reflex not noted). Ophthalmoscopic examination negative.

Second set of notes taken June 5, 1885, at the patient's home: When Lizzie was fourteen years old (four years before I saw her), she was brought to New York to consult a prominent surgeon, who ordered her "braces" somewhat different from the apparatus she had already tried. She also had a course of "movement cure," extending over several months, without relief. The awkwardness and weakness steadily progressed. In the last three years she has been unable to walk or stand; passes her time in a wheel-chair. Handwriting difficult and awkward from an early age; holds the pen with an abnormal effort. Speech affected in the last few years; hurried and jerky; tone of voice uncertain, quavering, very much as from partial paralysis of the vocal cords. Articulation not syllabic. Occasionally chokes while eating. Never diplopia. Never numbness or sharp pains in legs. Occasionally has cramps in calves, especially in early morning. Much troubled by chilblains in last two winters. Often has large jerking movements of legs upward while sitting. Feeds and dresses herself, though awkwardly, and is able to sew and do "fancy-work." Mental development good, though limited for age; in fact, the patient's manner and appearance are more like those of a child of twelve or fourteen years than like those of a woman of twenty-six (her present age). At times she is obstinate; insists upon doing all she can for herself. No hysteria. Moral nature well developed; has a kind and cheerful disposition. Takes pleasure in sending flowers and clothing made by herself to charitable institutions. General health excellent; menses regular.

Examination.—Sits rather limp and lolling in her wheel-chair, but she can sit up straight for a few moments; revealing a scoliosis to the left in the dorso-lumbar region, with abnormal anterior bend of spine between the shoulders.

Eye muscles and pupils normal (ophthalmoscope not used). Tongue not fibrillary or ataxic, points to the right; can purse lips well. Voice quavering; articulation jerky, but not syllabic.

Grasp good; R., 21°; L., 22°, on a stiff dynamometer. In act of grasping carpi are over-extended. There is typical ataxia of both arms, increased by closing eyes. The ataxia consists of rather large oscillations (inharmonious action of antagonistic muscles), without tremor. In holding arms and hands extended before her there is over-extension and separation of the fingers, but no tremor.

She cannot stand. Feet cold, bluish, and deformed; hollow sole, toes over-extended (especially the great toe), the heel somewhat drawn up, and tendo Achillis tense—a pes equino-varus. The calves are small, but there is no muscular atrophy, strictly speaking. The legs show no tremor, and even to the pin-test hardly any ataxia. She extends the leg quite fully and steadily with help of sight. Sensibility on face, hands, and legs is normal, except that distance of perception of æsthesiometer points is rather large. No positive anæsthesia, and no retardation of transmission.

Reflex from soles very much exaggerated. Patellar reflex absent.

In acts of drinking and writing there is a slight rhythmical lateral oscillation of the neck and head. This is the only tremor exhibited by the patient.

CASE II.—L. K——, aged fifteen years when seen by me, November 14, 1877. Died in 1883. My old notes simply state that the history and results of examination were the same as in his sister's case. Symptoms less advanced.

Second history obtained from Dr. Clark and the parents June 5, 1885: L—— was an unusually bright and

healthy boy, of studious habits and quiet ways. At the age of ten to twelve years it was noticed that his walk was not normal. He walked in an irregular, oscillating manner. There was no paralytic attack, but the symptoms came on insidiously, and progressed until death. Before 1877 he occasionally fell. Some time after the consultation the arms became affected, and speech became slow and a little thick (apparently never syllabic). Toward the end of life chewing and swallowing were difficult. He was able to read print to the last, and there was no nystagmus or squint. No numbness was complained of, and Dr. Clark never observed anæsthesia. He never had sharp pains. For a year or more before his death, L——, as he sat in his chair, held his head strongly backward, face up, as if the posterior cervical muscles were weak. Toward the last he was much doubled over forward in a sitting posture.

When quiet he had no tremor or jerking, except occasionally a sudden upward jerking of the legs while seated (as in Case I.). There was extreme ataxia of the upper extremities, and before replying to questions there were large choreiform movements of head, arms, and trunk. He retained power of motion in the legs to the last, although they were much wasted, much more so than the arms. There never was rigidity. During the last two months of his life L—— was practically insane—violent, destructive, and having paroxysms of screaming in which he was hardly conscious. He was also silly, which was in great contrast to his previous state.

Dr. Clark, from an early period, noted complete absence of patellar tendon reflex.

Death occurred from simple asthenia. The parents desired an autopsy, but owing to the absence of Dr. Mitchell (who had also seen the cases) and myself, it was not done.

Case III.—N. K——, aged fifteen years. Seen June 5, 1885. This patient was taken to Dr. S. Weir Mitchell in Philadelphia in 1878 (at the age of seven years), because of a lateral spinal curvature and some peculiarity in her walk. In the past five years the walk has become increasingly awkward and feeble. Staggers somewhat, and seems to make a special effort to plant her feet firmly. Walks a little more easily after getting started. The hands have been affected from an early period. Never had numbness or sharp pains. Menstruation not established. No eye symptoms. Health fair, but she is easily exhausted by efforts and tired by examination. Is more irritable than her sister, and her education has been neglected. The disease has advanced more rapidly in this than in the other cases.

Examination. — Eyes normal (ophthalmoscope not used); voice and articulation normal; no facial chorea. Hands are held out in extension very much like her sister's, with carpi over-extended and fingers separated. No tremor, but marked ataxia with rather more oscillation than in sister. Ataxia increased by closing eyes. Grasp very good for age; R., 14°; L., 12°, on a stiff dynamometer. Is able to dress herself, etc., and does embroidery.

Feet are like those in Case I., cold and bluish. In sitting posture they show a hollow sole and slight pes equinovarus. The tension of tendo Achillis cannot be fully overcome. In standing with bare feet the feet are in valgus. Right shoe-heel is worn away on its inner side, the left on its outer side. The walk is rather more uncertain than ataxic; does not stamp with heels. Closing eyes causes increase in staggering and ataxia. Pin-test on shoes shows no marked ataxia, but a little tremor of the foot. Goes upstairs quickly without support, but in a rather stamping way. In act of drinking, the ataxia is well shown, and also some difficulty in mouth swallowing (no dysphagia, strictly speaking). No tremors when quiet. Has an extreme lateral spinal curvature to the right in the cervico-dorsal region. Right scapula and hip project and seem larger. Heart free from murmur. Is infantile but intelligent, like a child of about ten years.

Second Family. — H——, of New York, three cases.

Family history.—Father a healthy man. Mother died of consumption at an unknown age. Nine children born. Several died when about four years of age (diseases unknown). One sister died of consumption; another sister had the ataxic disease from about her fifteenth year, and died when about thirty-five, after confinement; child also dead. She was always able to walk, though awkwardly and feebly. Two brothers were affected like her, and these I had an opportunity of examining in 1879.

Case IV.—J. H——, aged eighteen, came to my clinic at the College of Physicians and Surgeons, New York, on March 29, 1879. When he was seven years old his legs began to grow weak, and he staggered in walking. When about fourteen, was unable to run. Since that time the hands have been weak. The disability of the arms and legs has steadily increased. In the last three or four years he has had sharp pains, like needle-thrusts, in spots on the legs only. These pains occurred repeatedly in some spots, constituting a sort of paroxysm (fulgurating pains?). Never had numbness, diplopia, or dysphagia. Sight is dim, especially in the left eye. At times urine escapes involuntarily.

Examination.—Facial muscles, pupils, and ocular muscles normal. Ophthalmoscope shows partial atrophy of both optic nerves. The tongue is slightly ataxic in its movements, and presents fibrillary contractions. State of speech not noted (must have been normal). Grasp is good; R., 37°; L., 41°, on dynamometer (is left-handed). Hands typically ataxic. Walk is ataxic with large irregular movements. Over-extension in stepping. Sways at the hips. Needs support to stand with eyes open, and cannot stand with eyes closed. Resistance strength at knees good. In walking, tends to run forward. Has had several falls lately. Sensibility, tested only by pricking, is normal. No tremors when quiet. Unfortunately no mention is made of the state of the patellar or plantar reflexes.

Case V.—M. H——, aged thirty-two. I visited him at his home with Dr. W. R. Birdsall, on April 15, 1879. This man states that he first noticed difficulty in walking when fifteen years of age. At sixteen or seventeen was rejected by an army examining board as being "too light." At eighteen was obliged to use crutches, which he did for three years. Since that time (1868) has been obliged to go about in a little wagon, pushed or hauled by a friend. In this way he has begged on the streets for several years.

Arms and speech first affected about four years ago (1875) at the age of twenty-eight. Sometimes has had a strange feeling in the head for a few moments, but claims never to have lost consciousness. Memory is impaired; sight dim. For some time has noticed a loss of feeling in the lower extremities; cannot always tell where and how they lie without looking. Cannot feel light touch of a pin, but perceives severe pricking, and notices cold draft of air on his bare feet. Has had pains in his lower extremities which he calls "growing pains;" apparently not fulgurating pains. Constipation extreme.

Examination.—Face and tongue show fibrillary tremors. Speech thick and slow, a peculiar effort being required to bring out each word. Upper extremities very ataxic. In attempting to place forefinger on nose, goes wide of the mark; can carry a glass of water to his lips, but with difficulty. Strength is good; R., 42°; L., 42°, on dynamometer. Cannot stand. When seated cannot elevate or extend legs fully (this may be due to his sitting so many hours a day for years cramped in a small wagon). Is able to flex legs, but does this with exaggerated and irregular muscular actions.

Sensibility: On finger-pulps distinguishes points of æsthesiometer at from 5 to 10 mm. Feels pricking on hands and feet. Slight anæsthesia. He must be fed, dressed, and undressed by his relatives.

On account of peculiar speech, a silly expression of

countenance, and his ataxic movements has been arrested for supposed drunkenness several times.

All symptoms are progressive.

The briefest summary of these cases is that they resemble much more posterior spinal sclerosis than disseminated cerebro-spinal sclerosis. Yet they present features of difference from typical tabes, viz., the absence of pupillary symptoms, of fulgurating pains, of marked anæsthesia, and of stamping ataxic gait. There is in all the cases an element of paresis not observed in common posterior sclerosis, and which may possibly be due to varying degrees of antero-lateral sclerosis (as found in the cases hitherto examined post mortem, *vide* Dr. Ormerod's digest).

ON THE THERAPEUTICS OF DIGITALIS.

By THOMAS J. MAYS, M.D.,

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No drug has received more scientific attention from pharmacologists and therapeutists than digitalis, and yet to any one who is conversant with the medical mind of to-day it is very evident that some confusion and vagueness exists concerning its mode of action, and its proper adaptation to diseased conditions. For example, the impression is afloat that digitalis slackens the heart's movements by stimulating a so-called inhibitory apparatus of the vagi, and that it exerts its therapeutic influence through this mechanism by actively lengthening the diastolic period, thus giving repose to the heart and allowing time to recuperate its waning energy. Then there prevails a belief, which probably springs from the inhibitory theory of its action, that digitalis does not give that real and genuine support to the heart which many are led to expect from it. Again, one of the most striking features in the range of the action of digitalis is its power to reduce the number of cardiac pulsations; hence it is often administered for the purpose of calming an excited heart when aconite, veratrin, and other agents are indicated. The hope that these misconceptions may be corrected is my apology for offering the following remarks on a subject as trite as that of digitalis.

Regarding the phenomena which are presented by digitalis in its action on man and animals there is no division of opinion. The first stage of its action on the circulation (and this phase of its action mainly concerns us here) consists in invigorating and retarding the pulsations of the heart and in elevating the blood-pressure; and the second stage is characterized by irregular cardiac action, systolic arrest, and diminution of the blood-pressure. The first series of phenomena is produced by small, and the latter by large doses. So far all are agreed, but when it comes to the interpretation of these phenomena, then it is that a wide divergence of opinion results.

One set of opinions holds that there exists in the pneumogastrics a bundle of nerves, the function of which is to interfere with, or counteract the function of other nerves in the heart, and that digitalis by acting on this inhibitory mechanism in small doses, interferes with the motion of the heart and thus it comes to beat more slowly. When large doses are given they are said to paralyze this inhibitory mechanism, and the irregularity in the heart's action and fall of blood-pressure is the result.

Another set of opinions holds that the first phase of digitalis action is due to a stimulating influence on the pneumogastric and cardiac nerves, and the second is due to a paralyzing influence on these same nerves. It may be said by the adherents of the first theory, in confirmation of their view, that electric excitation of the vagus arrests the heart. This is very true, but any one who has had any practical experience with arresting the heart in this way knows that the electric impulse which is required to arrest the heart is far too strong to be called stimulant, but rather paralyzes the higher cardiac nerve-centres, for the heart in a very short time after it is thus cut loose, and after it has recovered from the temporary shock, goes on beating as before, in spite of the operation of the electric current. Then, again, in electric excitation of the pneumogastric the heart is arrested in diastole, while digitalis arrests it in systole—a difference of significant import. Were those who hold the inhibitory theory consistent they would be compelled to restrict the action of digitalis to the diastolic period, while, as we have seen, the very opposite is true; but without entering into details it may be said that the warrant for the existence of such an inhibitory apparatus is resting upon an exceedingly feeble basis in the literature of experimental physiology, and that no proof has yet been offered in substantiation of it which has successfully outridden the test of time and of criticism.

Now from what has been said it is evident that a marked contrast exists between the action of small and large doses of digitalis. This is in consonance with what may be expected from a knowledge of the general operation of forces on the animal body. Small doses of any agent will invariably enhance the function of the organ on which they act, while large doses just as invariably depress it. This I have shown to be true of the action of nearly half a hundred elementary drugs,[1] such as the alcohol group, alkaloids, active principles, acids, and alkalies, on the isolated frog's heart. In no single instance did small doses of any agent fail to stimulate the action of the heart over and above that which it was normally capable of performing, nor did any of the agents fail to depress, or even to annihilate, its action in maximum doses.

Below will be found tracings obtained from digitalin in minimum and maximum doses, which may be taken as a specimen of those obtained from the other agents. (Tracings of intermediate doses of this and of other agents have also been obtained, but for brevity's sake will not be introduced here.) The first part (*a*) of the tracings is that which is given by the heart with a two

per cent. solution of blood, and is taken as a standard of what the heart can do when fed with its own pabulum and uninfluenced by any drug agency. The second part (*b*) represents the action of the heart under the influence of minimum doses (1:40,000) of digitalin, *i.e.*, one part of digitalin to forty thousand parts of the two per cent. blood solution. The third part (*c*) represents the behavior of the heart under the influence of maximum doses (1:1,000), *i.e.*, one part of digitalin to one thousand parts of two per cent. blood solution.

The value of these representations is found in comparing the higher and lower tracings obtained from digitalin with those obtained from the two per cent. blood solution alone. Thus it will be seen that if digitalin in the proportion of 1:40,000, or any other proportion, added to the blood solution produces higher traces than the heart can produce under the influence of blood solution alone, it is positive evidence that the digitalin added to the blood gives vigor and energy to the heart, which it cannot obtain from the blood solution alone. The converse of this is also true of maximum and intermediate doses. These tracings also show the characteristic systolic arrest of the heart by digitalis. The proportion of 1:1,000 gives strong evidence that it is the contractile and not the diastolic period of the heart's cycle which is affected, for the tracing is lifted far above the base line, and the diastolic period, as is shown by the slight undulations, is almost wholly obliterated and absorbed by the systole. The cause of this systolic arrest seems to be due to the fact that digitalis principally affects the nervous mechanism of the heart. For throughout my investigations I found that those agents which chiefly oper-

[1] See Therapeutic Gazette for February, 1885.

ate on the nervous structure of the heart, or rather, on its nervous irritability, produce systolic arrest, and those agents which mainly affect its muscular irritability cause diastolic arrest.

The tendency, then, of digitalis in small doses undoubtedly is to cause the heart to increase its work, and were it not for the fact that a counteracting force is called into existence by the same dose, the number of pulsations would in all probability be increased instead of being lessened. But digitalis contracts the blood-vessels, and in this manner raises the blood-pressure and increases a resistance to the heart's action. In nearly all conditions of health and disease this law that the pulse rate is governed by the amount of blood-pressure holds true, *i.e.*, when the latter is high the number of heart-beats diminish, and when it is low they increase. This drug, then, by inciting the heart to more powerful contractions, and by narrowing the blood-vessels, also drives the blood with greater velocity through its channels, and thus not only invigorates the circulatory organ, but the whole animal economy.

From what has been said I think digitalis has the same action on the heart, when this organ is isolated from the higher nerves and nerve-centres, as it has when in contact with these, and Ackerman, Donaldson, Stevens, and others have shown that it acts similarly on the blood-vessels when these are divested from the influence of the higher nerve-centres, and that it is not necessary, therefore, to call in the aid of a special inhibitory apparatus to make clear its mode of action.

The next point which will engage our attention is the belief that, when digitalis has reduced the pulse to forty or fifty beats per minute, muscular exertion, like exchanging the recumbent for the erect position, frequently causes the pulse to rise far above the normal limit, the heart receives no real and genuine support from its action. But when, as Professor Wood rightly says, the heart's pulsations are diminished to such a slow rate, the organ is verging on the point of paralysis, and is only able to perform the work required by the body in the lying position; but as soon as the extra demands necessary to maintain the body in the erect position are made upon the heart, it is unequal to the task and falters in the undertaking.

But it is not necessary to expose the patient so closely to the border line of paralysis in order to get the beneficial effects of digitalis; and I think the following observations, made on a case of marked aortic and mitral incompetency, associated with hypertrophy after the heart was reduced from ninety to seventy-two beats per minute by digitalis, and which gave the following pulse-tracing, shows very manifestly that the heart does obtain real power from this agent in proper doses: Lying down in bed, 72; sitting up in bed, 73; lying down in bed again, 72; standing up after lying down, 77; lying down after standing up, 72; standing up after lying down, 78; walking one hundred and twenty-eight feet on the level after lying down, 79; after walking up and down stairs from second story, 82; lying down after going up stairs, 72. The average pulse-rate in the male in health is, lying, 66; sitting, 71; and standing, 81, so it will be seen that in this case the oscillations in the pulse-rate were smaller in different bodily postures than in the normal.

From what has been said it is also evident that digitalis is indicated where there is a loss of tension in the heart and arteries, usually associated with a quick pulse. The loss of arterial tension not being taken into proper consideration, it is often erroneously administered in fever and in acute inflammations for the purpose of reducing the pulse, when aconite or veratrin should be given. While both of the latter agents, like digitalis, have the power to reduce the number of cardiac pulsations, they do it in a manner altogether different to that of digitalis. They chiefly act on the motor or muscular mechanism of the heart, and bring on diastolic arrest, while digitalis, as we have seen, affects the nervous apparatus of the heart principally, and produces systolic arrest. Then aconite and veratrin, and other agents of this class, only reduce the pulse the most effectually when administered in maximum, or paralyzing doses, *i.e.*, doses in which they manifest their toxic properties, and can therefore never be continued as long as digitalis, which slows the heart in minimum or stimulant doses. Then again digitalis is slow in its action, on account of its difficult solution in the body, while both aconite and veratrin are well adapted to produce that quick impression on the circulatory organs so desirable in acute inflammatory diseases by being easily dissolved and rapidly absorbed. With these distinctive differences in their action it is plain that the indication for digitalis is a contra-indication for aconite and veratrin, and clearly demonstrates the folly of administering digitalis, as is often done, in the first and second stages of croupous pneumonia, when the intense congestion, the threatened or existing exudation, the generally slow pulse, and the whole pathological aspect of the case denotes an already overburdened and over-distended arterial circulation—precisely the condition which the drug is calculated to assist in aggravating.

That quantity of digitalis which constitutes a stimulant dose depends upon the degree which the circulatory organs have departed from the normal line. In the weak heart and flaccid circulation depending on a valvular lesion, four to six drops of the tincture every three hours for the first day, and afterward every four hours, will generally suffice to bring relief. In this dose it also acts very desirably in acute diseases after the crisis has been reached or passed. It will add vigor to the fatigued and overworked heart, and assist it in passing this dangerous period. The same dose is also applicable in that form of bronchitis depending on cardiac incompetency, but acts best here in combination with small doses (ij. grs.) of iodide of potash, and sulphate of atropia (gr. $\frac{1}{300}$). In nervous shock, where besides an intense depression of the circulatory functions the nervous centres are blunted, larger doses (x. to xv. drops) are required, but its action is materially enhanced here in combination with sulphate of atropia (gr. $\frac{1}{150}$). Its action is, however, obtained the quickest when $\frac{1}{60}$ or $\frac{1}{50}$ of a grain of digitalin is dissolved in water and glycerine, one of the latter to ten of the former, and given subcutaneously. In delirium tremens and chronic alcoholism enormous doses of the tincture (fl. ʒ j. to fl. ʒ ij.) are employed to advantage. In fact, small doses are powerless to make any impression on the indurated nervous system. A safe guide in the administration of digitalis is to watch the urinary excretion, and to diminish the dose, or withhold it, as soon as the urine begins to be reduced in quantity.

151 North Fifteenth Street.

Pregnancy in a Young Girl.—Dr. F. C. Kinney, of Greensboro, Vt., sends the following report of a case of pregnancy occurring in a young girl. "At 2.30 A.M. April 18, 1885, I was called to see Miss E. W——, aged not yet thirteen years, as her father and older sister (her mother being dead) claim. Found her in labor; learned she had "been sick" since the 15th. Head presented and os dilated as large as a silver twenty-five cent piece. Warm drinks were administered, and at 6 A.M. I ruptured the membrane, but labor progressed very slowly, and at 10.30 A.M., the patient becoming rapidly exhausted, I applied forceps and delivered her of a fairly well-nourished, well-developed female child, weighing seven and a half pounds. The patient recovered without accident, and at this writing both child and child-mother are alive and doing well. The patient is rather large for her age, well developed and fleshy, and would weigh, I think, not far from one hundred and ten pounds. The only point in the case is the extreme youth of the mother, she being but twelve years ten months and sixteen days old at the time of her confinement."

EMPYEMA:

Its Treatment by Daily Aspiration through a Drainage-tube.[1]

By DANIEL MILLIKIN, M.D.,

HAMILTON, O.

For one neither skilled, nor experienced, nor greatly interested in surgical matters, to take up a subject which is essentially surgical in its nature, is a performance so strange that I protect myself in advance by a statement that I only approach the topic of empyema as a theorist. I merely throw out a hint of a new line of treatment, and seek rather to be instructed than to instruct.

Two or three years ago I had charge of a fine stalwart Irish-American patient, a male, twenty-two years of age. He had come home from a distant city, feeling that he was stricken with grave disease, and, like most men under such circumstances, wanting to see his mother. He developed a fine and typical case of typhoid fever, which reached and passed its crisis with violence, but left him in fairly good order.

When his evening fever was reduced almost to no fever at all, he developed a pneumonia in the left lung. This affection was also typical in its course. It extended from the apex so far as to involve about one-half of the lung. Resolution began in due time and proceeded rapidly. When he began to go about and to be ravenously hungry, I saw him only occasionally, and, I think I had determined to see him no more when I was called back by his faithful mother.

I found universal dulness over the left side of the chest. The man was positively panting. His face was livid. His pneumonia, while resolving, had become a pleuro-pneumonia, and the left pleural cavity was full of pus.

His distress being very great, I made all haste to aspirate, and obtained a great quantity of very offensive pus. Two or three days afterward I aspirated again, and drew off a small quantity of pus, to be sure I was in the pleural cavity. Then, using the aspirator-needle as a guide, I passed a very small knife alongside it into the pleural sac. Into the wound so enlarged I slipped a grooved director. The needle was then withdrawn, and a small Nélaton catheter was passed on the director. Through this catheter, which was thereafter to perform the functions of a drainage-tube, I aspirated a small quantity of pus, to be again assured that I was in the pleural sac, and then I withdrew the director.

The treatment consisted in a daily withdrawal of pus, until the patient complained of tightness, oppression, or pain. He then entered his protest against further aspiration, and a quantity of some antiseptic fluid was thrown into the chest through the catheter. Fluid was withdrawn and injected at each sitting until it returned limpid and clear, and, at the end of each sitting, it was so thoroughly withdrawn as to leave the patient in some slight distress. The whole work was done with the aspirator, which constantly informed me of the quantities of fluid withdrawn or injected, and also informed me approximately of the amount of tension or of vacuum produced at any time. Recovery was rapid and complete, notwithstanding that the patient had been reduced by long illness before the development of the empyema.

While this case was still in my hands, I sent a tuberculous youth of nineteen years to New Mexico, and on the way thither he developed a pleurisy which proved to be purulent. He lived in New Mexico for some weeks with his chest full of pus, and finally dragged himself home to die. The condition of affairs being determined soon after his arrival, I proceeded as in the case just narrated. Little hopes were entertained of a cure, because, for a long time, various physicians had endeavored to "dry up" a suppurating ear and a small sinus at the margin of the anus, and it had always proved to be true, as his friends had said, that nothing would heal on his person. When attacked by the purulent pleurisy he had already travelled far toward that extreme emaciation which we agree with the laity to call consumption.

He died, about as would have been expected by any one who had studied his case, with every sign of tuberculous excavation of the uncompressed lung, but long before his death the pleural cavity which I had been treating by daily aspiration through a drainage-tube had healed completely. The perineal sinus and the ear continued to suppurate a little, but the pleurisy healed itself in the very presence of a consumptive decline.

I trouble you with these two cases only (for that ends my experience of cases so treated), and I venture to lay down the following principles of treatment, not dogmatically, but soliciting your discussion and correction:

1. There is an advantage in the small opening in the wall of the chest. Other things being equal, a small hole in a man's skin is better than a large one. Other things being equal, one hole is better than two. Except upon some urgent indication, clearly shown, we have no right to attack a rib.

2. It was a positive blessing to these patients that the pus only flowed while the doctor was present, and that the clothing was clean in the intervals of his visits.

3. This leads me to say that the joint between the tube and the wall of the chest was not only tight at the beginning, but it remained so, rarely permitting the escape of a drop of fluid and never permitting the entrance of air. After each sitting the end of the tube was closed by applying to it a pair of flat pincette forceps, which were then laid flat on the side of the chest to be secured there by adhesive strips. Since the forceps were always laid on the same spot, or nearly the same, the process of absorption gave to the catheter an oblique entrance into the chest such as the ureter makes into the bladder. The entrance was therefore always valvular, and, while fluid occasionally found its way out of the chest, I could never perceive that air passed in, no matter how thorough was my aspiration. The few granulations that sprang up about the wound appeared to make the orifice more strictly valvular.

4. The tube was always safe; there was no possibility of its slipping into the chest through any carelessness of the patient or any soaking of the dressings. A recent article in the New York Medical Record will convince any one to the contrary who assumes that there is no danger of the ordinary drainage-tube slipping into the chest. The production of a slight vacuum with each inspiratory movement does certainly invite this very accident, and in the article to which I allude, scores of cases are reported which represent an untold and unspeakable amount of risk and suffering. As I treated the cases of which I speak, the pincette forceps were never removed from the end of the little catheter which served me for a drainage-tube until the catheter had been already connected with the aspirator, and, as a matter of routine, the tube was never disengaged from the aspirator until the forceps had been again applied. There never was a time when the tube was not attached to the aspirator, except when it was pinched by the forceps, and it was manifestly impossible for them to be dragged into the chest.

5. It is hardly worth while for me to lay down the very evident principle that, before a purulent pleurisy can be healed, expansion of the lung on the affected side must take place, or collapse of the affected side of the chest must occur to close the abhorrent vacuum. It may, however, be worth while to remark that any sort of treatment which directly solicits the expansion of the lung, and, failing that, the collapse of the chest, is commendable. Using the aspirator as I did, it was my policy to make such suction as would cause some slight but unequivocal distress at each sitting, and, on the other hand, when I replaced the pus by throwing in some antiseptic fluid, I took pains to throw in less—always less—

[1] Read before the Ohio State Medical Society, June 5, 1885.

fluid than I had withdrawn. It will occur to you that the aspirator made me master of all degrees of tension or of vacuum, and furnished me with a constant and accurate measure of the fluid injected or withdrawn.

I would not be tedious, but I desire to insist that the lung on the affected side was subjected to a daily stretching by the aspirator, such as it could have had by no other convenient means, and such as it could not have had at all with a free opening in the chest. If I may judge by the feelings of tightness and oppression which my patients complained of, I am assured that I commonly left them with a partial vacuum, which persisted to an appreciable degree for nearly an hour, and I venture to say that this was a very valuable sort of movement-cure to the lung itself. In short, the treatment pursued expanded the lung, and I do not know of any other treatment which does this, nor, indeed, of any which does not directly favor the collapse of the lung.

6. In cases where, for any reason, the lung cannot expand, the cure can only be accomplished by a partial collapse of the chest-wall, and this, also, is favored by the partial vacuum which I recommend to be established within the chest.

The same claims may be made regarding the mediastinal boundary between the pleural cavities. The daily aspiration which I recommend solicits the mediastinal structures to present a convexity to the affected side of the chest, and thus to give to the sound and expansible lung the more room to perform its vicarious functions.

7. The aspirator used for drainage and cleansing of such a diseased pleural cavity has the further advantage of causing drainage without regard to gravity. When suction is made, the tendency of the pus is constantly toward the point of least resistance, which, in this case, will be at the point of the catheter. Supposing the lung to be expanded and more or less accurately applied to the chest-wall, it must squeeze out the pus from all parts of the pleural cavity to that point where suction is already inviting it. Up-hill or down, the tendency is for pus to travel to the point of the catheter, and, theoretically at least, this seems to be much more scientific and precise than to depend on gravity to lead the fluid to an opening, or to two openings, when we know well that gravity cannot coax pus out of a depending pocket, if any there be.

Double Ovariotomy in Acute Peritonitis.—Dr. Justus Ohage, of St. Paul, Minn., reports a case of this kind in which he operated successfully, and in a manner most creditable to himself. He says, with regard to laparotomy in septic peritonitis: "Nussbaum, of Munich, a few years ago, was the first to propose laparotomy and disinfection of the peritoneal cavity as a cure for the otherwise always fatal septic form of peritonitis. A few courageous surgeons followed his teaching, and Czerny, Nussbaum himself, and Schede, I think, did so successfully. One of the boldest and most successful steps in this direction was taken by Bull, of New York, who, on thorough and scientific reasoning, opened the abdomen, sutured the bowels—perforated by a bullet at five different places—disinfected the peritoneal cavity, and saved his patient from an inevitable death. Kocher, of Berne, successfully treated a shot-wound of the stomach by a similar operation, while Kinloch and Lloyd were unsuccessful. Now, if these few cases do not prove that septic peritonitis can be cured by laparotomy and disinfection, they at least prove that some otherwise hopeless cases are saved thereby, and this alone is sufficient cause to resort to it under similar circumstances; but resort to it early, and do not wait, as is often done in tracheotomy, *i.e.*, until it is too late."

The Head of the Leech contains a secretion which prevents the coagulation of blood. In experiments, Professor J. B. Haycraft, who noted this fact, uses an extract of leech, a few drops of which are sufficient to prevent coagulation.

CONTAGIOUS OPHTHALMIA IN ASYLUMS AND RESIDENTIAL SCHOOLS.

By RICHARD H. DERBY, M.D.,

SURGEON NEW YORK EYE AND EAR INFIRMARY.

Before asking the attention of the Academy to a paper of some length on the subject of "Contagious Ophthalmia in our Asylums and Residential Schools," the writer desires to state that the interest attaching to this subject is not of a purely scientific nature, but appeals to the hearer on the threefold ground of philanthropy, medicine, and social science. The writer also holds that no one familiar with the subject will deny that contagious ophthalmia is a disease as dangerous to sight as scarlet fever and typhus and other contagious diseases are to life and health, and that the welfare of those who have been adopted by our public institutions, and for whom we are in great measure responsible, demands some system of quarantine or medical supervision which shall not only insure recovery to those already afflicted, but which shall afford ample protection to those who have thus far escaped contagion.

There is probably no gentleman here present who has given particular attention to diseases of the eye, who will not bear witness to the fact that any child who is an inmate of our public institutions, is far more likely to lose his sight from the inroads of contagious ophthalmia than to lose his life from scarlet fever or any of the diseases which are subject to quarantine regulations by the Board of Health.

The writer would further state that, whereas the dangers from neglect are comparatively great, the disease itself is perfectly amenable to treatment, and the reward which is to be expected from an *adequate* appreciation of, and attention to, the exigencies of the case is such as to render further neglect of the subject entirely inexcusable. This is his apology, if apology is necessary, for asking his hearers to follow him in the exhibition of statistics which, on a more trivial subject, would be considered dry and uninteresting.

In October, 1884, the writer of this paper prepared, for the Committee on Hygiene of the County Medical Society, a report on "Contagious Ophthalmia" in three of the asylums of this city. Since that time many other institutions have been visited and the inmates examined, and we are now able to present a summary of results obtained from the examination of seven thousand four hundred and forty children, the entire number contained in twenty-four orphan asylums and residential schools of this city. Before detailing the results of these investigations, a brief description of the disease we are considering may be permitted. Blenorrhoic conjunctivitis in its chronic form is characterized by injection of the conjunctiva of the eyelids, hypertrophy of the papillary bodies, and secretion of a purulent or a muco-purulent nature. The conjunctiva tarsi of the fold of transmission, the semilunar fold, are in general the seat of the disease, while the conjunctiva of the eyeball may, and generally does, in the earlier stages of the disease, escape.[1]

The secretion is contagious. At an early period of the affection the meibomean glands are no longer to be seen upon eversion of the lids; later on, the swelling of the semilunar fold increases, as does that of the fold of transmission; the inner canthus ceases to be sharply defined; the tear-points are disturbed in their position, and the passage of the tears interfered with. If the disease progresses, the conjunctiva of sclera participates in the affection; it becomes injected and shows serous infiltration, and at a later period these symptoms are intensified; the ocular conjunctiva becomes swollen; the lids can with difficulty be everted; there is chemosis; the cornea is now in danger. Pressure of the swollen lids and of the chemosis upon its nutritive supply, lead to ulceration upon its surface, and unless relief in some

[1] Graefe und Saemisch, Band IV., pp. 76 to 79.

way is found, perforation of the cornea and consequent prolapse of the iris may ensue.

Blenorrhoic conjunctivitis in a vast number of cases remains an affection of the conjunctiva of the lids, and does not advance to the later stage which we just briefly described.

It passes for a catarrhal affection of the eyes, and as such is treated; or it exists, and this is often the case, without receiving any medical attention whatever. We have spoken of the secretion from a blenorrhoic conjunctiva as contagious; it may be transferred from eye to eye by means of a towel; it may be conveyed in the water used for washing; the atmosphere itself may be the bearer of the contagion.

Among soldiers in their barracks, in the crowded holds of vessels, in the over-filled homes of the poor, among the inmates of large institutions, contagious ophthalmia has been found, and as our investigations will show, an especially fertile field for this disease, so full of danger to the eyes, exists in the orphan asylums of a great city.

In an experience of fourteen years as officer of one of the largest ophthalmic hospitals of the county, the writer has over and over again had children brought to him from some of our city institutions with their sight irreparably damaged, and with the sad statement, doubtless true, that before they were taken from their homes their eyes were perfectly sound. It was with a view of seeing how far this malady might exist among the children cared for in the asylums of this city that the investigations now detailed were made.

The first asylum visited stands on one of the broad avenues of the city, on high ground. The children were examined in their class-rooms, and subsequently their dormitories and lavatories were visited. Among the boys, of whom there were 326 present, were found 96 cases of contagious ophthalmia; among the girls were 65 cases out of an attendance of 331, making a total percentage of 24.5. In almost all the cases here found the disease was in what we have described as the first stadium. In many cases the appearance of the eyes before eversion of the lids betrayed no sign of the malady which was present. In certain cases, the child or its attendant remarked that it had from time to time a cold in its eyes, nothing more. Occasionally, where the blenorrhoic process was most strongly marked, neither child nor attendant seemed aware that anything was wrong. In the dormitories each child had its own bed; in the wash-room, separate towels hung upon numbered hooks, and no basin was used; small jets of water at intervals of a foot along a horizontal pipe placed above the sink, furnished each child with its supply for washing. In the boys' asylum a large sunken tub, perhaps ten feet long, was prepared for the bath, and in this eight children or more at a time were bathed. (Eight years ago I visited this same institution with the late Mr. Theodore Roosevelt. The object of the visit was to ascertain to what extent contagious ophthalmia then existed among the inmates. The notes of that examination were not preserved, but a large number of children were found then to have sore eyes. In the lavatories were a few roller-towels hanging on the wall, and these were used by the children indiscriminately, those that had eye trouble and those that were well. It was in consequence of representations we then made that the children were thereafter supplied each with its own towel.)

The next asylum, which we may designate as No. 2, showed among 1,586 inmates, 488 cases, or 30.7 per cent. of contagious ophthalmia.

In No. 3 were 782 inmates; of these 111 had sore eyes, or 14.2 per cent. In the lavatories hung on the walls twenty-five roller-towels, and these the attendant said were changed two or three times per week.

In No. 4 were 188 children, and of these 93 or 49.4 per cent. had sore eyes. In reference to the condition of things at this asylum, I make the following extract from a letter received May 27, 1885, from the physician in attendance: "When you made an official visit to our institution, in 1884, you found 92 children suffering from a contagious type of ophthalmia. . . . At your suggestion the sore-eyed children were separated from the others, and subjected to a daily course of treatment for a period of five months, the present time of writing. I give the result—42 of the 92 are cured. Fifty of the whole number in the institution are still under treatment. . . . Two children never occupy the same bed; a towel and brush is supplied to each individual. The bathing facilities are of the best, the grounds are ample, and the children have an abundance of out-door life. The dietary is excellent, and in a family of 200 it is but seldom that a child is so ill as to require the aid of a physician."

In asylum No. 5 were 740 inmates, and among them 71 cases, or 9.5 per cent. Here we found two large rooms, with two immense bath-tubs in each, about which 260 boys stand twice or three times a day and wash at a spigot, and then go irregularly to one of the sixty roller-towels that hang on the walls of each room.

In asylum No. 6, out of 96 inmates were 26 cases, or nearly thirty-seven per cent.

In No. 7 were 15 cases among 262, or 5.7 per cent.

In No. 8 were 455 children, and of these 74 had sore eyes, or 16.2 per cent.

In No. 9, out of 155 children, 5 were affected, or 3.2 per cent.; each child was supplied with its towel.

In No. 10 were 240 children; there were 15 cases of sore eyes, or 6 per cent. These children were for the most part committed by the courts; each child had its own box containing towel and brush.

In No. 11 were 21 children, and no case of granular ophthalmia.

In asylum No. 12 were several buildings. In the first one visited I found 80 boys, from four to eight years of age. There were 47 cases of contagious eye-trouble. The cases were mostly severe, with free secretion. Of 164 girls there were 80 cases of similar type. Louisa M——, aged four years, came to me the day before, at the New York Eye and Ear Infirmary, with left eye in condition of central corneal perforation and extensive prolapse and acute granular ophthalmia. The mother said the child had gone into the asylum with good eyes, and had been there one year. The sisters in charge of the asylum remembered the case, and said they had sent the child out to have her eye operated (*sic*). The eye was beyond hope. Of 178 boys there were 56 cases; of 29 infants under three years of age there were 21 cases. With these last the practice of the attendants was to use two towels, one for the sick, the other for the well eyes. In the case of the older children, each had its numbered towel. To summarize: among 451 children were 204 cases of contagious ophthalmia, or 45 per cent. There was every evidence of over-crowding in this asylum; no plan had been, or apparently could be, adopted for isolating such children as suffered from this grave disease. The sisters in charge stated that they must receive all the children that were sent to them, whether they had sore eyes or not, as they were for the most part commitments. The general physique of the inmates was not good, and the evidence their evening meal gave of the dietary was not encouraging.

In marked contrast to this was asylum No. 13. The fine physical condition of all the children was noticeable. Each child had its own brush, comb, tooth-brush, and towel. The towels were changed twice every week. Of 104 inmates there were 6 cases, or 5.7 per cent.

In No. 14 were 310 boys, and of these there were 73 cases, or 23.5 per cent. The large building in which these boys were cared for furnished each child with a small wire-screened compartment, in which stood his bed and wash-stand. In the infirmary were 14 children, all with recognized sore eyes, but the 50 and more cases found among the larger boys had received no attention, so far as inquiry among the boys and their attendants showed, from the medical officer of the asylum.

In No. 15 the children were found distributed in cottages, each child with its own towel, brush, etc.; of 151 children there was 1 case, or less than one per cent.

In No. 16 the children were arranged as in No. 15. Here was 1 case among 122 children, or .08 per cent.

In No. 17, the asylum a large and spacious new building, the children were well cared for. Among 399 children were 7 cases, or 1.7 per cent.

No. 18 contained 245 children, and among them were 40 cases of contagious ophthalmia, or 16 per cent. In the nursery department were half a dozen towels used at the discretion of the attendants. In the wash-rooms for the older children hung numbered towels.

In No. 19 were 98 children and young women, and among them were 2 cases of contagious ophthalmia, or about two per cent. The dormitories were spacious, well ventilated, and each inmate had its own towel.

In No. 20 were 124 girls, and among them 6 cases, or 4.8 per cent. Each child had its own numbered towel.

In No. 21 were 132 girls, and among them 21 cases, or 15.9 per cent. The school-rooms and dormitories were dark and badly ventilated. Each child was provided with its own towel.

In No. 22 were 18 girls between the ages of six and thirteen. In No. 23 were 22 young women. In neither asylum were any cases. Both of these asylums were in private hands, and the inmates cared for in commodious houses.

In No. 24 were 82 children, and among them 8 cases, or 10 per cent.

The communicable eye-diseases observed in these investigations have been designated under the general term of contagious ophthalmia. Among them were those where the true granulations, the so-called trachoma of Arlt, were present; others that might be more properly described as chronic conjunctival blenorrhœa. In some the affection had extended to the cornea, producing pannus, and in certain cases corneal ulceration had been followed by prolapse of the iris and adhesion. In striking illustration of the communicability of the disease, it was often noticed that when a pronounced case was found, a group of children presented themselves in succession with the same trouble, and these were children who habitually in the class-room occupied adjacent seats.

It is not the purpose of this paper to consider in detail the various causes which lead to the development of contagious eye-diseases in the asylums which have been visited. The part played by imperfect quarantine, bad lavatories, overcrowding, bad hygiene—all this has been discussed in other places.[1]

My purpose in these investigations will have been attained if I have drawn attention to the fact that in the asylums of our city, where children in large numbers are housed, and where the inmates are taken from the overcrowded, illy ventilated, unhealthful homes of the poor, there exists to an alarming extent a disease fraught with danger to the eyes of all assembled there. We have seen that this affection may be present without attracting the attention of the lay attendants of the children, and without calling for or receiving the care of the visiting physician of the institution. In certain cases, it is true, if the subject is well nourished, and the hygienic surroundings good, the eye-trouble disappears without treatment. In too many cases, however, the disease, which has once established itself, goes on insidiously undermining the health of the eyes, and there comes a period when the affection is acute, and we hear of an epidemic of contagious ophthalmia. Fortunate, then, are the unhappy inmates of such an institution, if many eyes are not lost before the disease can be controlled. The statistics taken from these asylums are appalling enough. We have found among 7,440 children that 1,428, or 19.19 per cent., nearly one out of every five, had communicable eye-disease, which he was liable to transfer to his neighbor. Nor does the trouble cease here, as has been observed in several of the institutions we have visited. So soon as an unusual number of children are found to suffer from sore eyes, it is not an uncommon practice for those who have the children in charge to send back to their former homes the worst cases, with the statement that it is better that, until the child recovers, treatment should be procured outside of the institution; only those who are familiar with the homes of the poor in a great city can appreciate what a hardship is now wrought upon the unhappy guardians of such children. It is impossible that a child afflicted with contagious eye-disease should receive in its tenement-house home adequate treatment. This class of cases is often refused shelter in our best equipped eye infirmaries. The child must be brought three times, at least, in the week to the clinic for out-door patients. The already overtaxed parent must see to it that this frequent attendance is not neglected. The child becomes a fresh centre of contagium in the crowded, illy-cared-for home, where the food-supply is scanty and the simplest rules of hygiene are neglected. The case must often be neglected, and neglect means advance of the morbid process, permanent, irreparable damage to the eyes.

Were there time in this report, it would be proper to show how, by reason of a *per capita* allowance from city or State, it is in many of the institutions a pecuniary advantage to the asylum itself to receive as many children as possible within its walls, and overcrowding is thus directly encouraged. In many asylums children are committed by the civil authorities, and in others by charitable societies, whose object is the protection of their charges from cruelty at the hands of their natural guardians. Can a more refined cruelty be imagined than one which subjects a child with healthy eyes to the dangers which every epidemic of contagious ophthalmia carries with it?

This present report covers but a portion of the asylums of this great city. There are many others that we have not visited which would doubtless contribute their considerable quota of cases of communicable ophthalmia.

To meet this evil, certain conclusions force themselves upon us.

Under no circumstances should children be received in an asylum until a competent authority has pronounced the eyes of the new-comers free from any trouble of a contagious character. Every asylum and residential school of the city should be called on to furnish to the Board of Health a statement certified to by its attending physician, of the number of cases of contagious eye-disease at present within its walls. These cases should be separated from the other inmates of the asylum, and this quarantine should be rigidly enforced so long as a single case of this disease is observed. Adequate treatment must be supplied—not merely local treatment for the eyes, but such allowance of food and air as are necessary for the proper treatment of such cases.

No less precaution for the safety of other inmates of these institutions should be taken where contagious ophthalmia is found to exist than is now observed when a case of scarlet fever is recognized.

It is impossible to read the statistics which have been presented in this paper without acknowledging the fact that a great evil calls urgently for prompt and systematic action for its relief. What shall be done, and where shall the beginning be made? Our present inquiries have brought to our knowledge enough cases of contagious eye-disease to more than fill a large hospital devoted to this particular class of diseases. If such a hospital existed, it would undoubtedly soon reduce the percentage of such troubles to a minimum. Such a hospital would receive and care for all cases of communicable eye-disease until they could be returned cured to the institutions from which they were gathered. While we may not ourselves establish and maintain such a hospital, it behooves us as members of the Academy to make emphatic protest

[1] State Board of Health of New York, No. 44.

against the continuance of the present dangerous and inhuman practices which we have found at many of our city's institutions. Hoping that the members of the Academy here present will deem this matter worthy of their serious attention, I take pleasure in submitting it to their consideration.

ON THE RELATIVE VALUE OF MERCURIC CHLORIDE AND THE HYPOCHLORITES AS DISINFECTANTS.

By J. R. DUGGAN, M.D., Ph.D.,
FELLOW BY COURTESY IN THE JOHNS HOPKINS UNIVERSITY
AND C. T. McCLINTOCK, A.M.

The recent report of the Committee on Disinfectants of the American Public Health Association, in which they recommend mercuric chloride and sodium and calcium hypochlorites for all disinfecting purposes, makes a discussion of the relative merits of these agents a timely one. Assuming that these are the most available disinfectants—and this we think no one acquainted with the subject will question—what are their respective advantages and disadvantages when applied to the various purposes for which disinfectants are now used?

In the first place, as to cost, all are cheap, and none of the solutions of proper strength for use should cost over five cents per gallon. This is in marked contrast to the price of the majority of proprietary preparations of this class, the best of which when properly diluted cost far more than this. As regards odor, that of chloride of lime is objectionable, but that of its solution is less so, while the slight odor of the solution of sodium hypochlorite is not disagreeable. One of the principal advantages claimed for corrosive sublimate is that it is odorless; but we doubt if this renders it more desirable for general use, since, on account of its extremely poisonous nature and the absence of color, accidents are liable to happen from mistaking it for numerous similar salts or solutions in common use.

To destroy odors, which is one of the requirements of a good disinfectant, the hypochlorites are undoubtedly our best agents, since they act by oxidation and not by substitution. They also destroy the poisonous volatile products of putrefaction, and these bodies, there is reason to believe, are of more importance in the causation of disease than is usually supposed. The experiments of Le Bon (*Comptes Rendus de l'Acad.*, 95, 259) showed that the volatile alkaloids given off from material that had undergone putrefaction by non-pathogenic organisms, produced toxic symptoms when inhaled in very small quantities. For these reasons the hypochlorites are well adapted for use in privy-vaults or other places where refuse material is stored.

Notwithstanding the claims of some manufacturers, all the soluble salts of mercury injure lead waste-pipes by precipitation of the mercury, and the formation of a brittle amalgam with the lead. The insoluble salts are, of course, valueless as disinfectants.

For the disinfection of all material containing albuminoid matter, such as fæces, sputum, etc., the diffusive or penetrating power of an agent does much toward deciding its value; and it is here that probably the principal objection to corrosive sublimate is found. This salt forms with albumen an insoluble compound which retards its diffusion, especially when the material is semi-solid or solid. Not long ago Lister (*The Lancet*, October 25, 1884, page 723) claimed that a large excess of albumen caused the precipitate to be redissolved, but our experiments thus far have not confirmed this conclusion. It should be stated, however, that Lister used for his experiments the serum of horse blood, while we have used egg albumen; and it is possible that the albumen from different sources acts differently. We have found that the double chloride of mercury and sodium (or any alkali metal) has much less tendency to coagulate albumen than mercuric chloride alone; and if a solution of albumen contains much of this salt, no precipitation takes place when corrosive sublimate is added. The double salt that is formed under these circumstances is extremely soluble, and therefore readily diffusible. It is possible that Lister's results were due to the presence of sodium chloride in considerable quantity (about one-half per cent.)in blood serum, and we hope soon to be able to undertake some experiments on this point.

As the antiseptic and germicidal power of mercuric chloride is not diminished, but probably increased by the presence of sodium chloride, its addition to solutions of this agent for disinfecting purposes is very desirable. We are aware that ammonium chloride is used to increase the solubility of mercuric chloride, but we think we are the first to call attention to the action of these salts in preventing the coagulation of albumen. The amount of sodium chloride required to effect this is proportional to the amount of albumen present, rather than to that of the mercuric chloride; but even when there is too little to entirely prevent precipitation, a considerable part of the mercury is held in solution.

The hypochlorites are especially well suited for the disinfection of all albuminoid matter on account of their oxidizing and disintegrating action. They also have the advantage over solutions containing mercury, of not affecting lead waste-pipes. In cities where refuse matter is used for fertilizing purposes, it is possible that the extensive use of mercuric chloride might render such material injurious to vegetation, and to the soil to which it was applied. It seems to be well established that a soil free from microscopic organisms will not support plant life. This, of course, is of interest from a point of economy rather than that of sanitation.

In the important requirement of antiseptic and germicidal action, both mercuric chloride and the hypochlorites rank very high. As regards the first of these agents, different observers vary greatly in their figures. Since the percentage of any agent necessary to produce antisepsis varies greatly with the culture-medium used, results are comparative only when obtained under the same conditions as regards culture-medium, species of bacteria, method of inoculation, etc. Jalan de la Croix, who has probably done more than any one else toward increasing our knowledge of antiseptic action, states that 1 part of mercuric chloride is required to 25,250 of bouillon to prevent the development of bacteria introduced into the liquid by the addition of a few drops of broken-down bouillon. For fresh, uncooked meat-juice, he found that 1 to 7,168 was required to prevent putrefaction on exposure to the air (*Archiv fur exper. Pathologie*, xiii., 175). Koch states that the extreme dilution of mercuric chloride of 1 to 300,000 will prevent the development of the spores of *Bacillus anthracis*, and that the spores are destroyed by 1 to 10,000 ("Mittheil. aus d. k. Gesundheitsamte," Berlin, 1881). Our own experiments on the antiseptic action of this agent, made for the most part with a neutral one per cent. solution of Liebig's extract, inoculated with the bacteria of putrefaction, agree pretty closely with those of Jalan de la Croix. We have not yet satisfied ourselves as to its exact germicidal power, but find it to be somewhat less than is claimed by Koch. In fact, no other observer has succeeded in obtaining so favorable results as this distinguished experimenter. On the contrary, however, after most carefully repeating Klein's experiments, we cannot in any way confirm his remarkable statement that a one per cent. solution of corrosive sublimate has no action on spores of *B. anthracis*.

The hypochlorites owe their disinfectant value to the oxidizing action of the chlorine which they contain; but it should be remembered that chlorine combined in this way has twice the value as an oxidizing agent that it has when free. The hypochlorites furnish, in fact, simply a convenient method of storing and applying chlorine,

which, although a most valuable disinfectant, is, in the gaseous form, impracticable for general use. The sodium and calcium salts of hypochlorous acid have about the same germicidal value, while the potassium salt, on account of the fact that it contains proportionately less chlorine, is slightly inferior. It has been shown by one of us (Duggan: *Medical News*, Philadelphia, February 7, 1885) that chlorine, in combination as a hypochlorite, will destroy spores of *B. subtilis* and *B. anthracis* in two hours when the proportion is 1 to 1,666, and almost instantaneously, in less than one minute, when it is 1 to 400. Jalan de la Croix found the antiseptic power of the chlorine in chloride of lime to be equal to that of corrosive sublimate, the culture-medium being fresh bouillon inoculated with the bacteria of putrefaction. Our own experiments with sodium hypochlorite have given similar results.

Regarding the relative advantages of sodium and calcium hypochlorites, Price alone is in favor of the latter; but this is for most purposes more than compensated for by the fact that the solution of the former is almost entirely free from odor, and that it leaves on evaporation only sodium chloride, instead of the hygroscopic and disagreeable calcium chloride. Moreover, it does not render water hard and unsuited for washing purposes, as does the calcium salt.

The bleaching action of the hypochlorites is an objection to their use for some purposes; but it is for the most part cotton goods dyed with vegetable colors, which would be injured by water alone, that are affected by a hypochlorite in solution of proper strength.

For washing surgical instruments mercuric chloride is objectionable, on account of its action on silver and nickel. The hypochlorites will also tarnish silver slightly, but it may be easily cleaned with a little dilute ammonia water.

The question of the poisonous action of mercuric chloride, when used for injections, dressings, etc., is an important one, but does not come within the scope of our investigations.

In view of the facts mentioned, we think the solutions of sodium and calcium hypochlorites recommended by the committee of the Public Health Association are well adapted to disinfecting purposes, but where it is desirable to use mercuric chloride, we would suggest the addition of sodium chloride. A convenient strength would be 1 to 500 (about an ounce to four gallons) of mercuric chloride, and 1 to 50 (about ten ounces to four gallons) of sodium chloride. Since the addition of the permanganate recommended by the committee is sometimes objectionable, the solution can be conveniently colored by means of a little ordinary washing-blue. Either soluble Prussian blue or indigo will answer, and only enough to give a distinct color should be added. This will not color clothing placed in the solution, while the blue color is more distinctive than that of permanganate, which might be mistaken by children for fruit juice or wine. It might also be well to add a few grains of thymol to each gallon, as this will give a distinct odor that is not at all disagreeable. A concentrated solution of the double chloride of mercury and sodium may be made by dissolving, in ten parts of water, one of sodium chloride and two of mercuric chloride; each ounce of this is sufficient to make about a gallon and a half of a 1 to 1,000 solution. As sodium chloride can always be easily obtained, it would be well in using this solution to add more of this salt when it is diluted.

It would be more convenient if the two hypochlorite solutions recommended by the committee of the Public Health Association contained the same amount of available chlorine, so as to allow the same dilution. A pound of bleaching-powder to a gallon of water will give a solution containing about three per cent. available chlorine, which corresponds to the standard adopted for the sodium hypochlorite solution. These solutions may be diluted for general use with from ten to twenty parts of water. In dissolving bleaching-powder it should first be made into a paste with a little water, and then the requisite quantity of water added. This prevents the formation of masses which remain dry in the interior and dissolve with difficulty.

In conclusion, it should be stated that the attempts of manufacturers and others to combine mercuric chloride with a hypochlorite is impracticable, on account of the precipitation of the mercury as oxide. The value of any mixture whatever over the solutions mentioned is extremely doubtful, and often results in a chemical decomposition, especially when a hypochlorite is used.

Baltimore, May 14, 1885.

PULSATING PROPTOSIS AND ELASTIC TUMOR OF LEFT ORBIT,

Consequent upon a Trauma of the Skull—Ligation of Left Common Carotid.

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That rare lesion, of which abnormal prominence or proptosis and pulsation of the eyeball constitute the most conspicuous features, and which by earlier writers was described under a variety of names, is of interest to the surgeon principally because numerous distinct pathological lesions have been discovered on post-mortem examination.

The list of names includes aneurism by anastomosis,[1] aneurism of the ophthalmic artery,[2] erectile tumor of the orbit,[3] rupture of an aneurismal dilatation into the cavernous sinus,[4] vascular protrusion of the globe,[6] pulsating tumor of orbit,[6] rupture of the internal carotid and arterio-venous communication within the cavernous sinus,[7] pulsating exophthalmus,[8] etc. If, however, the selection of a name has been difficult, for the reason that a uniform pathological alteration, either intra- or extra-orbital, was not upheld by the results disclosed in the fatal cases in which a post-mortem examination was practicable, the orbital lesion, with its traumatic or idiopathic-spontaneous origin, nevertheless remains an interesting and rare one.

The uniformity and prominence of the clinical features of this lesion are particularly conspicuous, and they constitute a most typical group of phenomena. It is, therefore, not surprising that attempts should have been made from the earliest times to associate them with, and make them dependent upon, a definite pathological lesion. The earlier reported cases—1809 to 1850—were interpreted by the aid of the then current and most generally accepted theories. Pathological evidence was meagre and the results[9] from treatment (ligation of the common carotid) so uniformly successful that many speculative assertions were advanced, based only on clinical interpretation and a few pathological developments.

In this connection it is only necessary to refer to the views advanced by Travers,[10] Busk,[11] Nunnelly,[12] Morton,[13] Velpeau, and many others, and to note the modification of the names chosen, and the theories advanced, as pathological proofs accumulated.

If, however, the weight of pathological evidence of the earlier cases does not convincingly point to one, but on the contrary upholds a variety of distinct lesions, both intra- and extra-orbital, the results of more recent post-mortem examinations and the careful analysis of the

[1] Travers: Med.-Chirurg. Trans., 1809, vol. ii., p. 1.
[2] Busk, quoted by W. Rivington: Med.-Chirurg. Trans., vol. lviii., p. 185. Morton: Amer. Jour. Med. Sciences, April, 1865. Gioppi: Annales d'Oculistiques, and for additional references, relating to Notes[3], [4], [5], [7], [8], to the Chronological Résumé of cases appended to Mr. Rivington's article mentioned above.
[9] Pétrequin's was the first fatal case following ligation. It occurred in 1845, and was the first lethal termination among twelve cases which, with the exception of Roux's case, in which no effect was produced on the disease, all proved successful. No post-mortem examination was made in Pétrequin's case.
[10] Travers: Op. cit.
[11] Busk: Med.-Chir. Trans., vol. xxii., p. 124.
[12] Nunnelly: Med.-Chir. Trans., vol. xlii., pp. 168, 173, and vol. xlviii.
[13] Morton: Amer. Jour. Med. Sciences, 1865-1870.

non-fatal cases assigns to one lesion, rupture of the internal carotid within the cavernous sinus, a foremost consideration. In addition to anatomical proof it offers a most rational and plausible explanation for the clinical phenomena.

Those who first described this rare affection based their diagnosis on clinical interpretation alone, and it was upheld on purely speculative evidence. Only in exceptional instances were post-mortem examination practicable, and unfortunately in these cases (Guthrie,[14] Carron du Villards[15]) only meagre and untrustworthy accounts concerning the clinical manifestations were offered. In Carron du Villards' case, discovered accidentally in the dissecting-room, nothing is known of the symptoms during life. The first cases which were accurately observed and reported, proved so uniformly successful, and yielded so promptly to the treatment instituted, *i.e.*, ligation of the common carotid artery, that the real causative pathological factor was not discovered, and, as already mentioned, only speculative assertions, based on favorite theories as to origin, cause, and nature of the lesion were advanced.

Travers reported the first authentic case in 1809; he chose to designate it aneurism by anastomosis. Doubtless the teachings and classical descriptions of this lesion, in other parts of the body, by Hunter, as suggested by Rivington[16] and other writers on this subject, induced him to select this name for the orbital affection. He was followed by other surgeons, who adhered to the same term. Guthrie observed a most interesting case and described it as one of aneurism by anastomosis. His patient died of some other disease, and no interference was resorted to to relieve the affection of the orbits. Post-mortem examination revealed a true aneurism of each ophthalmic artery. That this pathological discovery would modify the views of subsequent observers was to be foreseen, particularly as the interpretation of the more prominent symptoms appeared so much more rational with the acceptance of this lesion as the causative factor, and also for the reason that for the first time definite pathological evidence was furnished by at least one example. Accordingly, aneurism of the ophthalmic artery was regarded for a number of years as the most probable lesion, but cases were nevertheless described under the first term. In 1835 Baron[17] presented to the Anatomical Society of Paris a pathological specimen of rare interest. It was destined to, and in fact did, modify the until then accepted views. During the life of Baron's patient, exophthalmus, varicosity of the orbital veins, loud bellows murmur, etc., had existed. The patient died of some intercurrent disease. On post-mortem examination an aneurismal dilatation of the internal carotid, which had ruptured into the cavernous sinus, was found. Gendrin[18] reported in 1841 a similar case observed in 1835, in which the same lesion was most probable, although not so conclusively demonstrated by the post-mortem. Two distinct lesions upheld by post-mortem evidence could now be offered as tangible proof to account for and explain the clinical features; in addition the hypothetical ones, aneurism by anastomosis, erectile tumor of the orbit, etc., also continued to maintain their claim.

Out of the entire list of one hundred and thirteen cases only three unquestionable cases of aneurism of the ophthalmic artery, two of these within the orbit and one near its origin from the carotid, have been verified by post-mortem examination. In two additional cases an aneurism appeared the most probable conclusion; in the first (Dudley[19]) it was intracranial, and in the second (Williams[20]) case it was orbital. Both cases recovered. Dudley ligated the common carotid, and Williams resorted to instrumental compression. This last case is not included in Mr. Rivington's or Professor H. Sattler's list of cases.

In 1855 Nélaton[21] met with an exceptional case. His patient, a young student, received a blow with an umbrella against the left orbit. Two months later, the wound having completely cicatrized and vision good on the left side, exophthalmus, ptosis, pulsation of the globe developed on the opposite or right side. Compression by means of a tourniquet and other measures were tried, but the patient succumbed to uncontrollable hemorrhage three months after the accident. Post-mortem examination revealed a fracture of the sphenoid and a rupture of the right internal carotid in the cavernous sinus produced by a splinter of bone. In 1865 Nélaton observed another and similar case. A young girl was thrown from a wagon with resulting fracture of the skull. Marked exophthalmus, visible pulsation of globe, loud bruit existed eight months afterward. Digital compression of the carotid was first tried, but was ineffectual, and was followed by ligature of the common carotid artery. The patient died amid symptoms of pyæmia. Post-mortem examination disclosed enormous dilatation of the ophthalmic veins, and a rupture 2 mm. in diameter of the internal carotid and communication with the cavernous sinus; a fracture of the sphenoid and a detached splinter of bone which had produced the rent.

The anatomical alterations found in these two cases, and in one reported by Hirschfeld[22] in 1858, again called attention to the remarkable case reported by Baron. During all these years this case was not appreciated in all its importance, or considered as possibly offering the most rational anatomical basis and explanation for this rare affection. In 1870 Delens, basing his deductions on a most careful and analytic study of the reported cases, and a review of the pathological proofs, again advanced and upheld the probable correctness of Baron's conclusions. He fortified and advanced the latter's views, and suggested in addition to arterio-venous communication, arterial propulsion or direct forcing of the arterial current into the venous channels of the orbit.

Even though at present the pathological evidence, that arterio-venous communication and arterial propulsion constitute the real lesion, is not sufficiently numerous, convincing, or conclusive, it nevertheless rests upon a more secure anatomical basis than all the other lesions or imperfectly supported theories.

True aneurism of the ophthalmic artery,[23] spontaneous rupture of an aneurismal dilatation of the internal carotid within the cavernous sinus,[24] traumatic rupture of the internal carotid and arterio-venous communication between it and the cavernous sinus,[25] thrombosis of the cavernous and petrosal sinuses,[26] (?) and tumors of the orbit[27] are the pathological alterations verified and upheld by post-mortem examination. Aneurism by anastomosis, the favorite term selected by so many surgeons, has never been confirmed by post mortem examination.

Out of 113 cases described under various names, but all presenting to a greater or lesser degree the more conspicuous clinical symptoms, 26 fatal cases are recorded. Post-mortem examination was made in 19.

Unmistakable rupture or perforation of the internal carotid and communication with the cavernous sinus was discovered in four cases, all traumatic. The first is the celebrated case of Nélaton (1855), the second is Hirschfeld's (1858), the third is Nélaton's second (1865), and the fourth is Leber's case (1878). In these four instances post-mortem examination definitely established a rupture of the internal carotid within the sinus. In Nélaton's first case it was produced by a splinter of bone and fracture of the sphenoid, etc. The artery was extensively

[14] Guthrie: Operative Surgery on the Eye, 1823, p. 158.
[15] Carron du Villards, reference by Professor H. Sattler; Graefe and Saemisch: Handbuch der gesammten Augeheilnkunde.
[16] Rivington: Op. cit.
[17] Baron, quoted by Delens: De la communication de la carotide interne et du sinus caverneux. Paris, 1870.
[18] Gendrin. Reference by W. Rivington, p. 221, op. cit.
[19] Dudley: American Journal of the Medical Sciences, January, 1843.
[20] Williams, E.: Orbital Aneurismal Disease and Pulsating Exophthalmia. International Medical Congress, Philadelphia, 1876.
[21] Nélaton: Delens, Dr., op. cit. [22] Hirschfeld: Delens, Dr., op. cit.
[23] Guthrie, 1823; Carron du Villards, 1838; Nunnelly, 1858.
[24] Baron, 1835. [25] Nélaton, 1855. [26] Bowman-Hulke, 1858.
[27] Nunnelly, 1863; Critchett, 1854; von Oettingen, 1873.

ruptured and torn transversely. In Hirschfeld's patient, an old woman, a small circular rupture was found in the internal carotid. Nélaton's second case was equally conclusive; a splinter of bone was found driven through the wall of the sinus into the internal carotid. Leber's case showed marked dilatation of the internal carotid and several small openings communicating with the sinus.

Spontaneous rupture of an aneurismal dilatation of the internal carotid was first described, and the pathological specimen produced as proof, by Baron in 1835. A second case was observed by Gendrin in the same year, but reported six years later, in which a similar lesion was probable, though not so conclusively demonstrated. A third case was described by Nunnelly; death occurred on the sixteenth day following ligation.

For more complete reference to this case I must refer to Nunnelly's[28] description, and for additional and exhaustive information, to the excellent and complete monographs by Mr. Rivington[29] and Professor H. Sattler.[30] The latter is a German authority upon this interesting subject, and the author of a most exhaustive and analytic article, containing a tabulated statement of one hundred and six cases. In either one will be found an accurate compilation of the reported cases and also a most thorough review of the prominent symptoms and special features of interest of the more remarkable cases.[31]

In five additional fatal cases arterio-venous communication was most probable, even though it was not definitely established by the post-mortem examination which was made in every case. These five include Blessig's interesting case, in which a dilatation of the internal carotid within the cavernous sinus was found; a perforation of its wall could not, however, be demonstrated. De Wecker and Richet's case may also be considered one of arterio-venous communication; the rent in the artery so small, however, that it was overlooked. Bowman's case, reported by Hulke, is replete with interest. No arterial lesion was found, but extensive thrombosis of the cavernous circular and transverse sinuses existed. This case elicited much discussion. In one of Morton's cases the post-mortem examination was made under great difficulties. It is stated that great dilatation and plugging of the cavernous and circular sinuses was found, but no arterial lesion. The fifth, observed by Von Oettingen, is interesting because the pulsating exophthalmus disappeared, either spontaneously or as the result of local depletion, compress bandage, and digital compression. Two years afterward the patient died. The orbital lesion was supposed to have been due to a thrombosis or partial obliteration of the ophthalmic veins, and traces of a localized inflammation of the periosteum and retro-bulbar cellular tissue were found.

True aneurism of the ophthalmic artery was found in three cases—in Guthrie's and Carron du Villards' cases within the orbit, and in Nunnelly's at or near its origin from the carotid.

A tumor of the orbit was found in three cases. In Nunnelly's and Lenoir's cases it was malignant; in Oettingen's it was fibrous.

To the large list of so-called "pulsating cancer of the orbit," Critchett, Nunnelly, Halstead, Mott, Van Buren, Hamilton, and others cited in Noyes' article,[32] I can add another case. In 1880, a boy was brought to my clinic with exophthalmus and the existence of an elastic and soft projection at the inferior margin of the orbit. The tumor was elastic, and could, with pressure, be made to recede; no bruit was heard, but distinct pulsation was felt over the tumor. Compression of the carotid arrested it. The existence of this symptom made the diagnosis of pulsating angioma tenable; but the future rapid progress of the growth, and with it disappearance of the pulsation, dispelled all doubt concerning its nature. I removed the tumor, a myeloid sarcoma, without sacrificing the globe. For several months no return was noticed, and then followed a most rapid increase. Complete extirpation of the orbital contents and the use of the thermo-cautery accomplished a brief interval, but renewed activity soon followed and the boy succumbed, secondary manifestations occurring in the brain, the bones, and other organs.

Accepting, then, as the most probable lesion—rupture, large or small, traumatic or spontaneous—of the internal carotid, communication with and arterial propulsion into the cavernous sinus and its tributaries, the following concomitant conditions and symptoms may be considered manifest phenomena:

1. As a result of the rupture, a direct propulsion of the arterial column into the sinus, depending in volume and force on the dimensions of the rent, will occur; this will also bring about an interruption in the physiological current or afferent function of this principal venous channel and its tributaries. This again entails interference and impediment, and may result in complete suspension and even a reflux or forcing back of the venous currents. The veins are transformed into distended, tortuous, pulsating channels, with dilated fusiform, glove-finger-like prominences in the anterior portion of the orbit, at points where the palpebral veins pass through the septum orbitale into the larger divisions of the ophthalmic veins.[33] These pulsating, smooth, elastic prominences[34] are therefore found just beneath the margin of the orbit, notably in the upper and inner region, and in some cases they even project beyond it. In many instances visible pulsation exists; in others a simple stretching of the skin toward the nasal or temporal side renders it visible. On palpation a distinct impulse is communicated to the finger. Its force will vary: in the majority of cases it is strong, and again in others it is very feeble.[35] It will be influenced by physical exertion and the existence of a cardiac lesion. Localized absorption of the bony margin in consequence of the forcible pulsation is not an infrequent occurrence. In Brainard's case, 1851, reported in *The Lancet*, 1853, vol. ii., p. 102, it was pronounced. In the present case, it had unmistakably resulted, but was not very pronounced.

2. The obstruction, arrest, or reflux to the flow of blood from the orbit through the cavernous sinus, causing, as already mentioned, distention and the pulsating bossy protuberances of the larger tributaries, the venæ ophthalmic, superior and inferior, must also sooner or later result in dilatation and tortuosity of the tributary veins of the latter, which collect the blood from the terminal venous territories of the palpebral area. The veins comprising the terminal superficial territories become tortuous and dilated, with a distention and mound-like elevation of the entire palpebral area, which may extend also into the adjoining temporal, frontal, and nasal regions. This is typi-

[28] Nunnelly: Op. cit. [29] Rivington: Op. cit.

[30] Sattler, Professor H.: Pulsierender Exophthalmus. Graefe and Saemisch: Handbuch der gesammten Augenheilkunde.

[31] W. Rivington, p. 218, op. cit., refers to a remarkable case of Mr. Holmes'. His patient, a boy, aged sixteen, died of heart disease; at the post-mortem examination aneurism of the left internal carotid artery about the size of a small nut, filled with laminated coagulum, was found at the anterior part of the cavernous sinus. The third, fourth, and fifth nerves were stretched by the tumor. During life the orbital symptoms had been ptosis, dilated and fixed pupils, diplopia, impaired vision, and uncertainty in the movements of the eyeball. [Mr. Hutchinson communicated to the Clinical Society, after this paper had been read, a most interesting case of a circumscribed sacculated aneurism springing from the outer side of the left internal carotid artery in the cavernous sinus, and communicating with the carotid by a small aperture. The patient was a female, forty years of age. The tumor was as large as a pigeon's egg, and occupied the middle fossa of the skull. It appeared to have obliterated the cavernous sinus. There had been no orbital symptoms during life, except those due to pressure on the third, fourth, and fifth nerves (Lancet, April 17, 1875).]

[32] Noyes, quoted by Mr. Rivington, p. 230, op. cit., and New York Medical Journal, 1869.

[33] Aubry in 1853 reported an interesting case, and to him belongs the credit of having established that the orbital veins may be transformed into pulsating channels. His patient, a woman, died suddenly after admission to the hospital. The post-mortem examination revealed no arterial lesion, but great enlargement of the ophthalmic veins. They and their terminal tributaries had formed the elastic vascular pulsating tumors. The cavernous sinus was enormously dilated, and communicated freely with the varicose ophthalmic veins, and terminated behind in a cul-de-sac, the communication with the inferior petrosal being cut off.

[34] A reference to the traumatic cases compiled in W. Rivington's paper and the tabulated list of Professor H. Sattler will afford abundant illustration of this prominent symptom.

[35] Compare case reported by W. Adams Frost, Pulsating Exophthalmus with Observations, Transactions of the Ophthalmic Society of the United Kingdom. "In the left orbit the swellings were soft and compressible and pulsated in a gently distensile manner. On the right side a globular swelling larger than a pea; it was soft and reducible and pulsated feebly."

cally indicative of obstruction situated in the ophthalmic veins or cavernous sinus. It is only in part due to the proptosis; its real explanation is the distention of the terminal venous ramifications. The upper lid is its principal seat; the skin presents a dusky red appearance, traversed by prominent and tortuous veins. The superficial veins may become so prominent that feeble pulsation and a distinct thrill or purr can be discovered on palpation.

3. The same cause, obstruction to the exit of blood from the orbit, also causes another typical symptom—proptosis and spontaneous and visible or easily producible pulsation of the prominent globe. In many cases the pulsation of the eyeball can only be detected by pressing the fingers over the closed lid; even slight pressure will discover a more or less forcible impulse.

4. Additional results from the same cause are disturbances of the intra-ocular circulation and impairment or suspension of function of the eye, paralytic phenomena of the motor and sensory nerves of the eye and appendages.

(To be continued.)

Progress of Medical Science.

Cysticercus in the Vitreous.—Don Pedro Lagleyze describes, in a Buenos Ayres medical journal, a case of cysticercus in the vitreous, this being the only recorded instance of an interocular entozoon occurring in the Argentine Republic. The patient was a man thirty-four years of age. Six months before his eye-trouble commenced he had passed a tape-worm. The first symptoms were pains in the supra-orbital arch and flashes of light in the right eye, the power of vision of which rapidly deteriorated. A month after these symptoms commenced he noticed that the vision of the left eye was beginning to be impaired; he therefore consulted a medical man, who treated him for more than a year before he was admitted to the hospital at Buenos Ayres, under the care of Dr. Don Cleto Aguirre. There was no injection of either conjunctiva; pupils sluggish, vision much impaired. Left eye: fingers scarcely counted at fifteen centimetres, tension normal, atrophy of papilla. Right eye: an extensive hiatus in the superior half of the field of vision, central vision one-seventh, tension greatly diminished. With the reflector a characteristic cysticercus was seen in the vitreous, with two suckers visible, but not the corona of hooklets; it was dead, but apparently had not been long so, for about a month afterward there was a considerable change, the head having become globular and the neck shrunken. The body, which had been translucent, and therefore appeared red by the transmission of rays from the fundus, was now opaque. The retina was detached at the point where the animal pierced it. The papilla was white, as in the left eye, this being not due to the entozoon, but merely a coincidence. The atrophy continued to increase in spite of remedies.—*The Lancet*, May 2, 1885.

Nervous Colics.—Dr. Cherchevski calls attention to a group of symptoms which he has observed, especially in persons whose work taxes the mind and who are anæmic or debilitated. Such persons are habitually constipated, and have abdominal enlargement and noisy eructations without anorexia. Now and then, under the influence of prolonged intellectual labor or emotion, this condition is aggravated suddenly. Enormous meteorism develops, there is superficial respiration, shortness of breath, cyanosis, pains sometimes fixed at the site of the liver, or in the umbilical region, sometimes shifting about, then a sense of weight at the pit of the stomach with a violent tenesmus. The attack ends in a few days, with abundant evacuations. On the approach of the crisis the excreta take on a ribbon form, as if there were a stricture of the intestine. The author regards these phenomena as due to a disturbance of the nervous system, producing a localized intestinal spasm in the circular fibres of the muscular tunic. He thinks this is demonstrated by the action of medicines, since in these patients purgatives increase the pain and constipation, while opium and belladonna relieve both the meteorism and the other symptoms.—*St. Louis Courier of Medicine*, May, 1885.

Contribution to the Doctrine of Spinal Ataxy.—Professor Erb remarks that locomotor ataxia is still the subject of animated discussion. There are three views current among neurologists. Some hold that ataxy depends on disturbances of the sensibility (sensory ataxy); others attribute it to a disturbance of centrifugal "coordinating" tracts (motor ataxy), and a third party believe it to be due to a lesion of supposed tracts between sensory and motor apparatus, serving to transmit the reflexes and to regulate the movements. Erb discards the latter theory. As regards the first, he admits that the degree of ataxy is certainly influenced by disturbances of sensibility (sensory control), but the sensory theory becomes untenable, if it can be shown that cases occur in which: 1. Spinal sensory disturbance of a high degree exists without any ataxy. 2. If clear spinal ataxy exists without any demonstrable sensory disturbance. Erb describes a case of the second class, spinal ataxy without disturbance of sensibility. The case is one of ataxy without tabes. The patient is fifty-two years of age. No syphilis or alcoholism. Debility and instability in the lower extremities since three years. No diplopia, weakness of bladder, vertigo, vomiting, occipital pain, or thoracic constriction. There is marked ataxy. Sensibility of skin and muscles normal. Cutaneous and tendon reflexes normal. No cerebral symptoms. It is difficult to locate the lesion, but it is evidently a case of spinal ataxy without simultaneous sensory disturbance. The conclusive proof of the independence of ataxy of sensory disturbance would be the demonstration of a case of spinal anæsthesia without ataxy.—*The Alienist and Neurologist*, April, 1885.

A Study of Antipyrin.—Dr. Arduin has published (*Bulletin Général de Thérapeutique*, March 30, 1885) an interesting study of the physiological action and therapeutical indications of antipyrin. He gave the drug in various ways, by the mouth, by the rectum, and subcutaneously. The usual oral exhibition of the drug, he finds, is the best. The dose varies with the disease, but should not be less than six grains nor more than forty-five per diem. He believes that more than fifteen grains should not be given at a time, but this dose may be repeated every hour for three hours. The author formulates the following conclusions: 1. In febrile diseases pyrexia is not properly an indication for the exhibition of febrifuge remedies; but any exaggeration of "the febrile movement, *i.e.*, hyperthermy," does constitute an indication for the employment of such medicaments. 2. In the great pyrexias like typhoid fever, in wasting diseases like pulmonary phthisis, any continuance of pyrexia should be met by the employment of febrifuge remedies, notably antipyrin. 3. The drug should be given in moderate doses frequently repeated, in order to avoid profuse perspiration and the induction of adynamia. 4. One should not expect of this remedy and other antipyretics more than it is possible to do in accordance with physiological laws. In other words, one should not expect to be able to transform a grave malady into one running its course without fever.

A Medical View of Army Morals.—Whenever a case of scrofulous disease was presented at his clinic, in the person of a child *whose father had been in the army*, the late Professor Gross, asking no further questions, would turn to the class with the single, but significant remark, "*Specific*, gentlemen!"—*Col. Med. Journ.*

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, June 13, 1885.

THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.

IN the *Journal of the American Medical Association*, for May 30th, Dr. Davis gives editorially an elaborate and lucid review of the situation as regards the organization of the next International Medical Congress. Dr. Davis concedes at once, and with somewhat surprising readiness, that the original organizing committee made three serious mistakes, viz., in allowing gentlemen who have expressed themselves in favor of the New Code representation on the committee; in not giving a proper geographical representation in the official organization; and in publishing the results of the committee's work before reporting to the American Medical Association. Dr. Davis appears to admit that the original committee did not have "full power," although it is specifically so stated in the resolution, but was still the creature of the Association. He practically concedes, therefore, all that one of the truthful apostles of the present disturbance—Dr. Shoemaker, of Philadelphia—claimed; and charges his colleagues with having committed errors "of judgment, not of design."

The remedy for the present trouble is seen by Dr. Davis in the committee appointed by the Association at its last meeting. The resolutions appointing this committee of thirty-eight, add its membership to that of the original seven, making the present committee forty-five. These resolutions at the same time eliminate, according to Dr. Davis, the fifteen or twenty additional members appointed by the original committee of eight. Thus, we are assured, the matter is nearly all settled. The objectionable fifteen or twenty added to the first seven are eliminated, and the new forty-five can go to work afresh.

Perhaps this view may prove practically the best solution of the present problem. If so, if it can be adopted legally and fairly, so that the organization of the Congress can go on, we shall be heartily glad. Nothing will be more mortifying to those who have the welfare of the profession at heart, than to be obliged to expose to our European Congress a quarrelling and disorganized profession.

It is certain, however, that Dr. Davis is mistaken in one point. He says: "There is nothing in the resolutions quoted [appointing the New Orleans committee], or in any other action of the Association during the meeting in New Orleans, that directly destroys the previous official organization of the committee, or nullifies a single item of the work already done toward organizing the Congress."

This is not an ingenuous or a correct statement. The second of the resolutions referred to does, *indirectly*, destroy the previous official organization. It says that said committee of thirty-eight is "hereby authorized and empowered to select a chairman and secretary, to fill all vacancies that may occur by death or inability to attend the committee meetings, and to *appoint the officers of the Congress.*"

Now, since the officers of the Congress were already appointed, and known to be appointed, the above clause certainly does destroy and nullify work already done by the first committee.

Furthermore, if the resolutions, as interpreted by Dr. Davis, do "eliminate" the additional members added by the first committee, in so doing they also "nullify," and even directly destroy the work of that committee. It was part of this committee's work to enlarge its membership.

The appointment of the New Orleans committee, according to Dr. Davis, sets aside this work; and yet we are told at the same time by him that "it does not nullify a single item of the work already done."

The reasoning of our esteemed colleague is thus shown to be plainly and exquisitely illogical. Whether it may not be expedient, however, to adopt his suggestion and interpretation is another matter. It rests with the original (enlarged) committee to say whether they will, for the good of the cause, accept decapitation and revision at the hands of the thirty-eight.

One thing, however, is certain, beyond doubt or cavil, viz., that any dragging of the Code question into this matter is unnecessary, and will create more trouble than all of the other issues together. A policy, which would remove the president of the New York Academy of Medicine, and substitute any ambitious agitator from a neighboring city, for example, would be received with a storm of indignation not only in New York, but throughout the country. The Code has no more to do with the International Medical Congress than the laws of Buddha with the climatic treatment of phthisis. The Medical Congress is a scientific body. It should be composed of medical men, of whom one asks nothing but that they have ability and honesty. The American Medical Association numbers but a minority of the profession of the country. It has no right to thrust its by-laws in the face of strangers, or to force a dispute over etiquette into a prominence which will make American physicians ridiculous in the eyes of the world. The gentlemen who will come to us from Europe know something of morals and manners, but nothing of "Ethical Codes."

THE BOSTON MIND-CURE.

BOSTON has come to the conclusion that as "a man thinketh, so is he." If he *thinks* he is sick, he is sick, very sick. The cure for this is to think he is well, and presto! he *is* well. This, as far as we can find out, is the sum and substance of the mind-cure. New York need not be jealous that Boston discovered this wonderful thing. New York is given over to money-making irretrievably, it is to be feared; while Boston is given over

to psychics, including all the phases of thought-transference, mind-reading, and the like. What wonder that metaphysical medicine makes a stride in this hot-house air? Pagan Boston—and it is now fashionable to be a pagan in Boston—endorses as heartily "the mind-cure" as a portion of Christian Boston supports the faith-cure.

In Boston classes are formed and educated in the mind-cure. To practise it one must be truly high-minded and free from all moral taint. The *modus operandi* is exceedingly simple. The patient takes a seat alone in the room with the mind-curer, who sits at some distance from the individual, not looking at him or regarding him. To mix up mesmerism, magnetism, or hypnotism with "the cure" is very reprehensible, and not to be allowed. The sittings are fifteen minutes in length, and the fee two dollars. The latter may seem a minor consideration; still there are those who will like to know at what rates one may charge for the mind pure and simple, unadulterated with prescriptions or drugs.

The following cases are vouched for as true instances of cure effected by the mind:

A woman with angina pectoris, so diagnosticated by several prominent physicians, was cured at one sitting with Boston's most famous and original mind-curer.

A gentleman had his feet frozen, having lost his way in a fearful snow-storm last winter. His physicians advised amputation. His wife had been in the classes formed for instruction in the mind-cure. Why not try it in this instance? she thought. She, her husband, and Boston were electrified with the result, which was complete recovery.

A woman suffering with obstinate constipation, and insanity which caused her incarceration in a retreat for a long time, was subjected to the influence of the mind-cure, with the result of a perfect restoration.

These cases seem remarkable; but how much more so the following: A young lady was much prostrated with debility and trouble with the eyes, yet she was so intolerant of faith-cures and mind-cures that her friends, believers in this new psychic therapy, did not dare to broach to her the question of making a trial of it. They induced a mind-curer to come and endeavor to restore her while she was asleep, and thus unconscious of the attempts. This was done, and anon the young lady improved astonishingly.

One is powerless to make comments in such cases as these. Surely, the last cure represents a wonderful swinging of the pendulum in Massachusetts in the century or so which has elapsed since the "evil eye" of Salem witches did such dreadful work. Now, if one sits with benevolent thought intent with the sick, lo, a wondrous healing is wrought.

A tract, written by one of the busiest of the practitioners of this kind of healing art, is before us, in which is epitomized in a remarkable manner the method of the mind-cure:

"It is in the realization of the absoluteness of the Real, and ephemeral nature of the Unreal, that we do our work."

Again we quote, for it is by using the words of the exponents of the theory that one can acquit himself of accusations of exaggeration and misrepresentations.

"In the case of a cold sore on the lip, one must separate the natural thought from the spiritual, not necessarily in these words, but in some way to make the distinction marked between the Real and the Unreal, the free and universal mind and that which is trammelled and entangled in the yoke of bondage.

"The natural mind will bring the thought of throbbing and beating that inflammation asserts itself with; the cause will come also as cold. The spiritual mind will bring the thought, 'What is there in my lip to have inflammation?' One must realize there is nothing there but life. All life flows from the infinite fountain of life, is perfect, and not subject to atmospheric changes; therefore the lip cannot have inflammation. One must realize that it cannot exist if not nourished.

"Now, being a free agent by one's will, he chooses the free, real perfect mind, and says to the other thought, 'I have no sympathy with you, I do not desire you, you cannot assert yourself to my mind; for I am the recipient of infinite intelligence, and know you are only an appearance, have no reality in you; for if you were real, you would be eternal and never disappear.'

"You become separated from it, and mind, which is infinite, controls all things."

It is true that nearly all physicians recognize the powerful effect of the mind over disease, but certainly not to this extent. Time only can show to what proportions the mind-cure, pure and simple, will come, or whether, like planchette and blue glass, it will have its day shortly and become a matter of the past, a curious phase of human thought, the ephemeral product of the hour.

CONTAGIOUS OPHTHALMIA IN THE ORPHAN ASYLUMS.

The report on contagious ophthalmia in the orphan asylums of the city, which is printed elsewhere in the columns of The Record, is worthy of careful attention. It appears that there are asylums in this city, containing from two to five hundred children each, one-half of whom have a disease of the eyes which is dangerous to the sight, and to a very marked degree contagious. In many of these asylums children are received who are already afflicted with this disease, and these children become members of a household which contains those whose eyes are well. In the overcrowded institution it is not strange that new cases of contagious ophthalmia occur, and it is a matter of record that the eyes of inmates of these asylums are lost. Here is a disease which destroys as many eyes as scarlet fever or diphtheria together destroy lives of the same children. The statistics which Dr. Derby presents show that of the children examined in twenty-four asylums 19.19 per cent., or one in every five, had this disease. To meet an evil so great as this, prompt and efficient measures must be taken, and the action of the Academy on Thursday last we heartily approve. A committee, consisting of members of the State Board of Charities, State Charities Aid Association, and the Society for the Prevention of Cruelty to Children have been invited to confer with the Council of the Academy to formulate a plan of lessening the prevalence of this grave disease. To us it seems that no more urgent work could be undertaken, and the address of Mr. Gerry at the Academy meeting is an earnest that the health and

future happiness of the children cared for by our city institutions shall no longer be jeopardized as it has been in the past.

An inspection of every asylum should be made, and a statement rendered to the Board of Health of the number of cases of communicable eye disease within its walls.

A competent commission of medical men should prescribe treatment and define quarantine laws for the sore-eyed children. No child should be admitted to any asylum without a certificate from a competent authority that his or her eyes are sound.

This report to which we have referred shows a condition of things that is a disgrace to our civilization. That the little children for whom our courts and charitable societies provide shelter and food should be collected in large numbers in institutions where one out of every five is likely to acquire, and does acquire, a disease which may be a life-long burden, is without a parallel and calls loudly for relief.

News of the Week.

Dr. Barstow entertained the members of the Medical and Surgical Society at Sanford Hall, Flushing, on Saturday, June 6th.

The Plymouth Epidemic.—Dr. J. L. Rea, of Scranton, Pa., writes: "I would like to ask Dr. Torrey why he neglected to state in his paper on the Plymouth epidemic, in last week's Record, that among eight hundred persons living in a suburb of Plymouth, who are supplied with water entirely from the Susquehanna River by the Delaware & Hudson Canal Co., there has not been a single case of the disease? Also, why he did not state that among those who used well-water upon one side of a street, there were no cases, unless they also drank of hydrant-water; while on the other side of the street, where hydrant-water was used, almost every house was afflicted? These are well-established *facts*. Why ignore them? If the river-water is so vile, why do not a dozen other towns along its banks, who use the water, have a Plymouth epidemic?"

Oregon State Medical Society.—The twelfth annual meeting of the Oregon State Medical Society was held at Portland, Monday, Tuesday, and Wednesday, June 8, 9, and 10, 1885.

The American Neurological Association will hold its eleventh annual meeting in the Hall of the Academy of Medicine, 12 West Thirty-first Street, New York, on June 17th, 18th, and 19th.

American Laryngological Association.—The seventh annual congress of the American Laryngological Association will be held in Abstract Hall, Lafayette Avenue, Detroit, Mich., June 24, 25, and 26, 1885. The profession is cordially invited to attend the sessions of the congress.

The Michigan State Medical Society held its twentieth annual meeting during the past week, at Port Huron, commencing at 10 A.M., Wednesday, June 10, 1885.

The University of Pennsylvania and the Jefferson Medical College have each discontinued their post-graduate course.

The Medical School of Maine held its annual Commencement on May 27th, when a class of fourteen was graduated. A movement is on foot to move the school to Portland, where it will have better clinical facilities.

The Long Island College Hospital held its twenty-sixth annual Commencement on June 3d. A class of forty-seven was graduated.

Death of Dr. McChesney.—Dr. Jacob N. McChesney, a Sanitary Inspector in the Fourth Sanitary Division of the New York City Board of Health, died at Staunton, Va., last week of consumption. Dr. McChesney, who was the son of an eminent physician, was born at Staunton. He was educated in the Washington and Lee University, and the University of Virginia, and was graduated at Bellevue Medical College in 1874.

Dr. Hiram Moses, Sr., the oldest physician in Rensselaer County, died on June 4th. He was graduated from Yale College in 1825, and had practised medicine in Rensselaer County for fifty years.

The Late Dr. Jacob Newton McChesney.—At a regular meeting of the Manhattan Medical and Surgical Society, held June 6, 1885, the following preamble and resolutions were adopted:

Whereas, It has pleased an all-wise Providence to remove from our midst our friend and colleague, Dr. Jacob Newton McChesney. Be it, therefore,

Resolved, That this Society and the medical profession have sustained the loss of a most active, earnest, and useful member.

Resolved, That we his associates mourn the loss of a warm-hearted and faithful friend.

Resolved, That we extend to his bereaved family our sincere sympathy in their affliction.

Resolved, That on a page in the minutes of this Society be inscribed his name, and the dates of his birth and death, and that these resolutions be published in The Medical Record and the Virginia *Medical Journal*, and that a copy of them be sent to his family.

(Signed) Chas. W. Allen, M.D.,
T. T. Gaunt, M.D.,
A. M. Leon, M.D.,
Wm. S. Seamans, M.D.,
Committee.

The Richmond County Medical Association held a special meeting last week, to express their indignation about the present condition of the cells at the County Almshouse, where insane paupers are placed when under confinement. A committee consisting of Drs. Van Rensselaer, Wood, Walser, and Feeney, was appointed to further investigate the abuses complained of and secure a prompt remedy if possible.

Medical Laws in Texas.—We stated several weeks ago that there was no law regulating the practice of medicine in Texas. We should have said, no efficient law. Any man who has a medical diploma, bogus or otherwise, can practise, by registering himself with the County Clerk.

THE MARCH OF THE PESTILENCE.—The cholera has spread from the southeastern provinces of Spain to Madrid. It has appeared with the greatest violence in Valencia. It is stated on newspaper authority that the cholera appeared in Spain last winter at Jativa, whence it spread westward to Malaga, and eastward to the Balearic Islands. Up to the middle of May the number of cases was estimated at about four hundred, with about one hundred and forty deaths.

SMALL-POX is very prevalent in London, where there are said to be fifteen hundred cases. A number of cases have been observed among the immigrants brought to this port. Montreal is seriously threatened with this disease. The Chairman of the Board of Health announced on June 5th, that small-pox was epidemic in the northeastern district, and that it had got beyond the control of the Board. The health officers are greatly hindered by the people doing all they can to hide the cases that exist in their houses. Small-pox is very prevalent in German ports, and in France on the Swiss frontier.

BRITISH MEDICAL ASSOCIATION.—The fifty-third annual meeting of the British Medical Association will be held at Cardiff. on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1885, James Cuming, M.D., F.K.Q.C.P., of Belfast, President; W. T. Edwards, M.D., F.R.C.S., of Cardiff, President-elect. An address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S. An address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S. An address in Public Medicine will be delivered by Thomas Jones Dyke, F.R.C.S.

THE "LANCET" ON THE ORGANIZATION OF THE INTERNATONAL MEDICAL CONGRESS.—From the reports of the discussion at the meeting of the American Medical Association, "we gather," says the *Lancet*, "that some members of the Association consider that the appointments in the Congress should be filled up on a geographical basis, each State being considered as a distinct entity to be represented. We trust, however, that the new committee will take a wider and more enlightened view than that. and will make the appointments solely in reference to the merits of the various nominees and the degree to which they possess the confidence of the profession in the United States, as a whole, and in Europe. We may be permitted to assure our American brethren that visitors from Europe will in a large measure judge of the position and character of the profession in the States by the scientific eminence of those whom they choose as their prominent representatives."

MEDICAL LAWS IN CALIFORNIA.—A correspondent asks regarding the medical laws of California. He will find full details in the pamphlet on "Medical Education," published by the Illinois State Health Board in 1883. California has a medical law which creates three Examining Boards. All persons intending to practise medicine must submit their diplomas to one of these boards. The law is not regarded with much favor by the profession of the State.

QUACKS FALLING OUT.—A great misfortune has fallen upon a family of quacks, father and son, who appeal daily to erring and exhausted, but noble, readers of the public press. Another quack has taken the name of the son, and is doing a fine business in Salt Lake City. The parent of Dr. Quack, Jr., has had to go West and assure the people that he is father of the real and only curer of all andrological diseases (we thank the Boston *Medical and Surgical Journal* for the word).

THE INTERNATIONAL SANITARY CONFERENCE.—"The discussions which have already taken place among the technical expert delegates at the International Sanitary Conference at Rome have," says *The British Medical Journal*, "revealed the fact that even the nations which formerly most relied on quarantine are beginning to understand that quarantine is useless. Turkey is now the only country which maintains that sanitary cordons and quarantine on land-routes are useful measures. With regard to maritime quarantine, there is not the same unanimity, though the chief supporters are the Spaniards, Portuguese, and Turks, who have not yet learnt the lesson which experience has often taught them within their own borders. It is understood that, in urging the practical administrative advantages of medical inspection and isolation, the delegates of the British and Indian Governments have had the powerful support of Dr. Koch, the delegate of the German Government, and Dr. Sternberg, the delegate of the United States, and that a resolution proposed by M. Brouardel, the delegate of the French Government, endorsing this principle, has been unanimously adopted by the Conference. The resolution invited the powers interested to construct model ports, and to provide for a rigorous inspection of vessels arriving from infected places. At the meeting on May 27th, a sub-committee, consisting of Dr. Koch, Dr. Thorne, Dr. Sternberg, Dr. Eck, and M. Proust, was appointed to report on the best means of disinfecting ships, public conveyances, and buildings. The report ought to be a valuable document, and will, it may reasonably be hoped, result in a uniform method of disinfection in all countries, so that we shall hear no more of the puerilities which were often noted in these pages last year. A proposal, made by Dr. Sternberg, authorizing consuls to examine the sanitary condition of ships proceeding to ports in the countries which they represent, was negatived by a large majority."

GEORGIA DOCTORS.—The *Atlanta Medical and Surgical Journal* has a portrait-gallery, in which each month there are given cuts of distinguished local physicians and surgeons. The Georgia doctors are able men, but not handsome.

"NEWS OF THE WEEK."—Under this head we copy the following from the *Indiana Medical Journal*: "The Indiana State Medical Society is not a fool."

A STATUE OF BOUILLARD was unveiled on May 16th, in the principal square of his native city, Angoulême, France. Representatives from the Académie des Sciences, the Académie de Médecine, and the Faculté de Médecine of Paris were present.

FRACTURE OF THE BASE OF THE SKULL.—At a recent meeting of the Cincinnati Academy of Medicine, Dr. W. H. Wilder reported a case of fracture at the base of the skull, in which microscopical examination revealed the presence of brain substance in the discharge from the ear. The patient recovered with only a temporary disturbance of the mental faculties.

Reports of Societies.

MASSACHUSETTS MEDICAL SOCIETY.

One Hundred and Fourth Anniversary, held in Boston, Mass., June 9 and 10, 1885.

(By Telegraph to The Medical Record.)

First Day—Tuesday, June 9th.

In the forenoon the members of the Society availed themselves of the usual opportunities to visit the wards and witness operations at the Massachusetts General, City, and Children's Hospitals. At the General Hospital, Dr. J. Collins Warren performed an amputation of the thigh, and showed cases in the wards which were being treated with sterilized cotton-dressing. Dr. Arthur T. Cabot, at the Children's Hospital, performed MacEwen's operation of osteotomy of the femur for knock-knee. He also showed a case of remarkably good results after trephining for epileptic convulsions. The patient, a boy of six years, had had from six to twenty convulsions daily until the operation, after which they were absent. Dr. H. C. Haven also showed an extremely interesting case of abdominal tumor in a boy of nine years.

At the City Hospital a visit was made to the surgical wards, and numerous cases in the service of Dr. C. D. Homans were shown, in which the good results of thorough antisepsis were made evident. A hæmatocele had healed by first intention after thorough curetting, and a similar result had been obtained with a chronic lumbar abscess. Two cases of strangulated hernia successfully operated upon by Dr. W. P. Boller were also shown, and several interesting operations were performed, among them two rhinoplasties by Dr. George W. Gay, and two operations for cataract by Dr. H. W. Williams.

At noon the members met in Huntington Hall, to listen to papers by Dr. George N. Tilden, of Boston, upon "The Pathogenesis of Certain Affections of the Skin;" Dr. Charles F. Withington, of Roxbury, upon "Consanguineous Marriages: Their Effect upon Offspring;" and Dr. James R. Chadwick, of Boston, upon "Labor Complicated with Fibroids."

The meeting then adjourned until 3 P.M.

At 3 P.M. the members again met in Huntington Hall and listened to the following papers. One by Harold Williams, M.D., of Boston, on the "Climatic Treatment of Phthisis." Dr. Williams was followed by Dr. Morton H. Prince, who read a paper entitled, "How a Lesion of the Brain Results in that Disturbance of Consciousness Known as Aphasia." The final paper was read by Dr. Henry R. Stedman, of Roslindale, and was entitled, "The Relation of Insanity to Certain Nervous Affections." The meeting then adjourned.

At 7 P.M. the annual meeting of the Councillors was held in the Medical Library.

During the day there was an exhibit of electrical, and new and original surgical apparatus in the Technology building, particulars of which will be given in the report of to-morrow's proceedings.

Second Day—Wednesday, June 10th.

During the day, as upon Tuesday, there was an exhibition of electrical and new and original apparatus in the Technology Building.

Dr. J. Collins Warren exhibited the apparatus which he had made, after the suggestion of Dr. H. C. Ernst, for the preparation of sterilized cotton, now being used with much success as a surgical dressing in Dr. Warren's wards.

Dr. Vincent Y. Bowditch exhibited and demonstrated the use of

THE PNEUMATIC ASPIRATOR,

devised by Dr. Herbert F. Williams, of Brooklyn, N. Y.

The business meeting was called to order in Huntington Hall, at 9 A.M., by the President, Dr. Charles D. Homans.

The reports of the Recording Secretary, Dr. Francis W. Goss, and the Treasurer, Dr. Draper, were presented.

At the last annual meeting a resolution offered by Dr. Asa Mullett providing for

MORE STRINGENT REGULATIONS REGARDING THE ADMISSION OF CANDIDATES TO THE SOCIETY,

was submitted to a committee to consider yesterday. The committee reported adversely on the resolution, and the report was adopted without debate.

A series of resolutions which have been adopted by superintendents of various American institutions for the insane, petitioning Congress to pass laws

PROHIBITING IMMIGRATION OF DEFECTIVE CLASSES,

were adopted. The resolutions set forth that while these persons who have immigrated to this country since 1847, comprise, with their descendants, but one-eighth of the population, they furnish one-third of the paupers, one-third of the criminals, and one-third of the insane.

The following medical papers were then read, "Cremation in its Sanitary Aspects," by Dr. John O. Marble, of Worcester; "Diagnosis and Treatment of Occipito-posterior Positions," by Dr. William L. Richardson, of Boston; "The Influence of Ovariotomy on Surgery," by Dr. John Homans, of Boston.

Dr. Marble urged

THE NECESSITY OF THE UNIVERSAL ADOPTION OF CREMATION,

and proved its superiority over all other methods of disposing of the dead by a clear exposition of the great evils attendant upon them, referring particularly to the common form of graveyard interment.

Dr. Richardson dwelt upon the great value of

EXTERNAL PALPATION IN THE DIAGNOSIS OF FŒTAL POSITIONS,

and briefly described the method. He then illustrated his method of applying forceps invented for flexing the head in occipito-posterior positions where it has become unduly extended.

Dr. Homans' paper was of great interest, and traced the

PROGRESS WHICH HAS BEEN MADE IN OVARIOTOMY

since it had been first practised in 1809. He showed how out of it many, if not nearly all, of the valuable abdominal operations of modern surgery had grown. He also spoke of the comparative innocuousness of single abdominal incisions, and the future which may be in store for it as a diagnostic and therapeutic measure.

DELEGATES PRESENTED.

The following delegates were presented: Dr. A. B. Worthington, of the Connecticut Medical Society; Dr. Peter Foley, and Dr. W. L. Bates, of the New York Medical Society; Dr. E. S. Albee, of the Vermont Medical Society, and Dr. C. R. Walker, of the New Hampshire Medical Society.

At twelve o'clock Dr. Franklin K. Paddock, of Pittsfield, began the annual discourse, and during the next hour gave an interesting review of the

HISTORY OF WOUND TREATMENT,

and a clear and concise description of the principles and details of the modern antiseptic method, the value and supremacy of which he proved by convincing statistics. Dr. Paddock recognized that, although familiar to those members of the Society who had favorable opportunities for becoming familiar with and practising it, the antiseptic method was not used by many of the members, and by a few, perhaps, was still even regarded with scepticism, he therefore felt called upon on this fitting occasion to urge upon members the necessity and duty of adopting it.

THE DINNER AND THE TOASTS.

Before the meal began, Dr. Amory called the meeting to order, and the Divine blessing was invoked by Profes-

sor Lawrence, of Harvard Divinity School. After dinner Dr. Amory again called the meeting to order, and delivered a short, pleasant address, in which he eulogized the good effect of annual dinners, "where the bitterness of debate is consumed with the food on the tables." Dr. Amory then announced as the first toast, "The Massachusetts Medical Society," and presented to respond to it Dr. Homans, the President.

Dr. Homans congratulated the Society on its growth and its prosperity. He regretted the prevalence of quackery, and remarked that there was no law against it in the State. He alluded humorously to the attempts of adherents of mind-cure to impose upon the credulity and imagination of people, and closed by urging the members of the Society to stand fast for

CORRECT PRINCIPLES OF PRACTICE.

He was frequently applauded in the course of his remarks.

The Chairman read a letter from Governor Robinson, and then introduced to respond for the State Dr. Walcott, of the State Board of Health. He was received with three rousing cheers, followed immediately by three more. He alluded to

THE OLD BOARD OF HEALTH,

and said that the present conglomerate body grew out of considerations personal and political. It first did some good work, but one thing and another had

DRIVEN GOOD MEN FROM THE BOARD.

To-day only two members out of nine were practitioners of medicine, and the Committee on Lunacy was made up of men without any technical knowledge of the subject. The Board had, however, secured the passage of a law against

THE ADULTERATION OF FOOD AND DRUGS.

Massachusetts was the only State in which these laws were systematically enforced. He said his position on the Board had been unpleasant to him personally, but he had been sustained by the confidence of the members of his profession. He spoke a kind word for his successor, and said he had no reason to doubt that he would be equal to his duties.

Dr. St. John Roosa, of New York City, was introduced as from a city twice as dirty as Boston, and requiring four times as many doctors. He said the city had been clean before the Yankee invasion. He did not pretend to represent officially his New York brethren, but appeared as a private citizen to speak his own opinions. The Medical Society of the State of New York stood with erect banners, ready to do its duty to the people whom it served. It had resolved it should remain a matter of individual responsibility whom allopaths should assist with advice, and where they should go. The medical profession of New York had no quarrel with the American Medical Association, but the constitution of the latter rendered it impossible that it should legislate for the profession in several States. It ought to be a meeting for the fraternization of medical men, a national convention. But its varying character and composition precluded it from being a proper body to establish rules of discipline. The question in New York was not as to the propriety of consulting with homœopaths and eclectics, but

HOW TO RAISE THE STANDARD OF MEDICAL EDUCATION

so high that there would be no no homœopaths, allopaths, or eclectics. The way to bring this about was by a Board of Medical Examiners, independent of the teachers in the different schools. There must be some such tests as in the Army and Navy. The question of medical attainment and education must be put in the foreground, and then distinctions of schools would perish from th earth. The message which the speaker would leave would be that medical men of this great Commonwealth should stand by those of New York in opposition to quackery and in favor of a

HIGH STANDARD OF PERSONAL CULTURE.

Dr. Henry W. Williams, ex-President of the Association, was received with eager applause. He spoke of the importance of the eye and the wonderful advances in the knowledge of it during the year. Dr. Koller of Vienna had discovered a means of suspending sensibility in the eye, a discovery barely second to that of the anæsthetic properties of ether. So important a discovery was worthy the attention of medical men, and ought to win gratitude for its author.

Representative Frederick P. Greenhalghe spoke upon the

ILLITERATE PHARMACY BILL

and the bill to regulate the practice of medicine in the State.

Mayor O'Brien responded for the city, and gave some interesting statistics in regard to the sanitary improvements and expenditures during the last fifteen years.

Senator Marden, of Lowell, delivered a humorous address, and assured his support for the "Doctors' Bill" in the Senate.

Col. Charles H. Taylor was the concluding speaker, and at 3.30 the company dispersed.

ONTARIO MEDICAL ASSOCIATION.

The Fifth Annual Meeting of this Association was held in London, Ont., on June 3 and 4, 1885. The number of physicians in attendance exceeded one hundred and thirty, and thirty-one papers were upon the programme.

The general officers were: Dr. Worthington, of Clinton, President; Drs. Tyce, of Chatham, Thorburn, of Toronto, and Brouse, of Brockville, Vice-Presidents; Dr. White, of Toronto, Secretary; Dr. Graham, of Toronto, Treasurer.

Dr. Lucian Howe, of Buffalo, was present as a delegate from the New York State Medical Society; Drs. Jenks and Brodie, of Detroit, Roswell Park, of Buffalo, and Stewart, of Montreal, as invited guests.

A telegram conveying fraternal greetings was received from the Wisconsin State Medical Society, in session in Milwaukee, and its congratulations were replied to and reciprocated.

The President's address referred to

THE SIX DISEASES MOST FATAL AT THE TIME OF SYDENHAM.

As stated by that talented physician these were plague, ague, dysentery, scurvy, puerperal diseases, and small-pox. The lessened mortality from these was due to a better understanding of their causes, their prevention, and their treatment. He next took up the study of fevers, and traced the changes in the opinions held regarding their pathology. Currie and his use of cold water was spoken of, and in particular attention was drawn to the fact that he used the thermometer under the tongue, or in the axilla, to estimate the reduction of temperature. He antedated Wunderlich's discovery by half a century or more, and by a still longer time the adoption of this help to diagnosis by the profession at large. In conclusion, the President made a forecast of the progress that will take place in medicine in the next hundred years.

A report, presented by

THE COMMITTEE ON MEDICAL ETHICS,

dealing with the question of consultation with homœopaths, was laid upon the table till next year.

As proposed last year, a discussion on diphtheria was next in order, and was opened by Dr. Tyce, of Chatham. His paper was a masterly exposition of the subject by one whose experience upon it has been exceptionally

large. Fifteen members took part in the discussion, which at times became quite animated.

Dr. Bray, of Chatham, followed with a paper on

CÆSAREAN SECTION.

The history of a recent case was given, and was interesting as being perhaps the only one on record where a woman who has given birth naturally to several children has afterward required so serious an operation to accomplish her delivery. A pelvic fracture, with great displacement of the bones, created the difficulty in this instance.

Dr. Jenks, who had performed the operation, spoke upon the paper. His statement, that craniotomy should largely give place to the Cæsarean section, was dissented from by several gentlemen who had succeeded repeatedly with it after failure by all other means. They did not believe the results would have been so favorable had abdominal section been made. In closing the discussion Dr. Jenks ably maintained his position, and declared that in cases of marked pelvic contraction Tait's operation, or *castration*, was to be preferred to the repeated performance of craniotomy.

Dr. Fraser, of Sarnia, in a paper on

CONTINUED FEVERS,

said that, in malarial districts, typhoid fever developed in an irregular and uncertain manner in the majority of cases. Though its course is modified by malaria, the term "typho-malarial fever" is inaccurate and misleading. In the discussion upon this paper wide differences of opinion were brought out as to whether or not there existed a distinct fever between typhoid and malaria. The general consensus of opinion was against such a conclusion.

Dr. Powell, of Edgar, Chairman of the Committee on Surgery, opened the discussion on the use of

PLASTER SPLINTS AND PLASTER BANDAGES IN THE TREATMENT OF FRACTURES.

Materials and methods were spoken of, also the stage at which such plastic dressings should be used, and the fractures for which they formed the best retention apparatus. They were advised for the lower jaw, arm, elbow, patella, and leg, and condemned for the forearm and thigh. Hinged splints, or those on the model of the "plaster posterior splint," should be used in the early stages, and spiral bandages for the later ones. Finally, the risks and the advantages of these dressings received attention, and samples to illustrate their various applications were shown. The paper was discussed by Drs. Roswell Park, of Buffalo; Groves, of Fergus; Bray, of Chatham, and others.

Dr. Howe, of Buffalo, read a paper on

THE BLINDNESS OF PREGNANCY,

in which he endeavored to prove: 1, That pregnant women are liable to an impairment of vision which, though sometimes stationary, may become permanent; 2, that this is due to an inflammation of the retina, caused by albuminuria; 3, that the danger to vision alone, or to life and vision, is sufficient, in certain cases, to warrant premature delivery, or even abortion. Proof was given that the danger to vision was an index of the danger to life, and the cases requiring active interference were differentiated from those which might be treated expectantly. The appearance presented in these cases was illustrated by pictures thrown upon a screen.

A cordial vote of thanks was passed to Dr. Howe for his interesting and suggestive exposition of the subject.

Dr. Groves, of Fergus, read a paper on

RENAL CALCULI.

He stated that very many patients suffering from the presence of these concretions fell under the care of those who, like himself, practised along the banks of the Grand River. As regards treatment during attacks of renal colic he attaches the first importance to the inhalation of chloroform. Hot baths and mild anodynes he had found entirely inefficient.

The work of the first day was closed by a paper on "Placenta Prævia," by Dr. Edwards, of London.

On the second day Dr. Temple, of Toronto, Chairman of the Committee on Obstetrics, opened a discussion upon "Intra-uterine Medication." His paper was exceedingly practical, and presented all the more recent and reliable advances in this line of practice. It was commented upon by Drs. Holmes, Roseburgh, and Powell.

Two brothers, suffering from pseudo-hypertrophic muscular paralysis, were shown by Dr. Edwards, of London, and their disease was discussed by Dr. Stewart, of Montreal. He stated that galvanism applied to the spine was considered to have cured several cases seen at an early stage.

Dr. Roswell Park, of Buffalo, followed with a volunteer paper on the

SURGICAL SEQUELÆ OF FEVERS.

Many cases illustrating the various lesions coming under this head were placed for the first time on record. An important paper, written by Dr. Kerr, of Philadelphia, was referred to, and much additional light thrown on a subject worthy of close observation.

Dr. Aiken, of Toronto, was in accord with the reader, and added to what he had advanced the conclusions derived from cases he had been called upon to treat.

At this stage it was found necessary to divide into sections in order to get the papers all before the Association. Dr. Graham, of Toronto, presided over that on Medicine, and Dr. Aiken, of the same city, over that on Surgery and Obstetrics.

Dr. Henderson, of Kingston, led off in the first section with a paper upon

PULMONARY CAVITIES.

No abstract can do justice to this careful study of a diseased condition second in importance to no other.

Drs. McDonald and Graham, of Toronto, took part in the discussion it evoked, and the general opinion expressed was in the direction of sustaining the contentions of Koch regarding the connection between bacilli and phthisis.

Dr. Duncan, of Thamesville, on "Warburg's Tincture," Dr. Owens, of Arkona, on

ON TRIFACIAL NEURALGIA,

and Dr. Arnott, of London, on "Diet in Disease," closed the work in this section by papers worthy of more attention than it is possible to give them here.

A paper was also read on "Mitral Stenosis" during the afternoon by the Chairman, Dr. J. E. Graham, of Toronto.

In the Surgical and Obstetrical Section, papers were presented on "Hemorrhage after Abortion," by Dr. Murry, of Thorndale, and on "The Treatment of Abortion," by Dr. Adam Wright, of Toronto; one of characteristic vigor and originality by Dr. Harrison, of Selkirk, and one upon "Intestinal Obstruction" by Dr. Atherton, of Toronto.

Dr. Youmans, of Mount Forrest, was down for a paper on "Compound Fracture of the Patella," but unfortunately had to leave by an early train. Finally, the discussion on "Cocaine Hydrochlorate" was opened by Dr. Reeves, of Toronto, and taken part in by Drs. Howe, of Buffalo, and Palmer, of Toronto. The

OFFICERS ELECTED

for next year, when the Association will meet in Toronto, were: Dr. Tyce, President; Drs. Arnott, Temple, Hillary, and Henderson, Vice-Presidents; Dr. White, Secretary; Dr. Graham, Treasurer; Drs. Wright, Campbell, Aylesworth, and Mitchell, Corresponding Secretaries.

MEDICAL SOCIETY OF THE STATE OF OHIO.

Fortieth Annual Session, held at Dayton, O., June 3, 4, and 5, 1885.

(By Telegraph to THE MEDICAL RECORD.)

SECOND DAY—THURSDAY, JUNE 4TH—MORNING SESSION.

(Continued from page 636.)

An amendment to the Constitution, admitting applicants for membership from counties where there was no Medical Society, was rejected. The argument in favor of this amendment was that there were eighteen counties in the State which contained no Medical Societies, and hence the applicant could not conveniently, as required by the Constitution, belong to a local Society.

On motion of Dr. Franklin, $500 was appropriated to carry through the bill for a State

BOARD OF MEDICAL EXAMINERS,

defeated last year by but three votes.

DISEASES OF THE SPINAL CORD.

Dr. Philip Zenner, of Cincinnati, next read a paper on the above subject.

The author's reasons for presenting this subject were comparative frequency and difficulty of diagnosis. Errors of diagnosis, however, were often due more to a want of knowledge of the facts necessary than from obscure symptoms.

To prove this the author cited a number of cases from his case-book, in which erroneous diagnoses had been made by men of ability.

Case I.—Treated for rheumatic pains. History of severe and frequent lancinating pains, anomalous sensations, numbness and formication in the lower extremities, also constriction about the waist, some impairment of the sensation in the lower extremity, and a degree of insecurity on the feet with the eyes closed and absence of the patellar tendon reflex, and some impairment of the gait, worse at night, were found. The symptoms in this case were so pronounced that an error in diagnosis ought not to have been made. Essayist wished to lay special stress upon following symptoms, which enable us even at an early period to make a positive diagnosis. These are the characteristic lightning pains, the absence of the patellar tendon reflex, and the presence of certain ocular symptoms. The latter are transitory paralysis of some of the external muscles of the eyes, causing double vision, the so-called Argyle-Robertson phenomenon, the pupil being small, not responding to light, but contracting during the act of accommodation, and, more rarely, atrophy of the optic nerves. One other, the Brach-Romberg symptom, inability to stand with the closed eyes.

Case II.—Had experienced slight difficulty in walking or six years past, also had bladder symptoms, that is, inability to hold water for a length of time. Locomotor ataxia had been diagnosed, but the conditions present were quite different from those of that disease. The gait was feeble, not ataxic. Often a feeling of stiffness was felt in the limbs. The patellar tendon reflexes were exaggerated and the foot clonus could be elicited. The three important symptoms were not present. In locomotor ataxia the posterior columns of the cord are affected; in this patient the antero-lateral, and the disease—lateral sclerosis. It may seem that the location of the disease in the lateral or posterior columns is too nice a diagnosis to be practicable, but it is not so; not only is there a marked difference in the subjective symptoms, but the prognosis of the latter is decidedly better.

Case III.—She had noticed some weakness in her lower extremities four years previous to his seeing her. She could not lift her feet in walking as well as formerly, nor could she arise from the sitting to the standing position easily. When seen by the essayist, the deltoids, the biceps, and the quadriceps femoris of both sides, and many muscles of the back were completely paralyzed. On arising to the erect posture she succeeded in extending the knees by pressing with the hands on the thighs and raised the trunk by means of a chair or external support. A remarkable curve of the spine was produced by these efforts. It seemed as though there were no unyielding parts about the spinal column. From this one of the physicians who saw her supposed that she had disease of the vertebra. In addition to the paralysis of the muscles there was atrophy and loss of electrical contractility in the same. This latter is a point of much importance. These, together with the history of gradually extending paralysis, are quite enough to diagnose progressive muscular atrophy, though in this case the development was an unusual one.

Case IV.—Mrs. L——, aged fifty-two, had been operated upon for carcinoma of the mammary gland. Eight months later severe pain like that of intercostal neuralgia occurred. Subsequently severe pain in the lower extremities, hyperæstheria of the surface, and paraplegia and some atrophy of the muscle of the legs. Myelitis had been diagnosed. Author emphasized the gradual access of the symptoms, the severity of the pain—seldom if ever found in ordinary myelitis—and the history of previous malignant disease. Upon these facts he made the positive diagnosis of malignant disease within the vertebral canal, and prognosis of a fatal issue within one year. The subsequent course of the disease strengthened the diagnosis, and death occurred in nine months. The autopsy showed numerous carcinomatous nodules in the vertebræ and the cord. The earlier manifestations were quite sufficient to make a correct diagnosis. Paraplegia, with pain so severe that it is designated by paraplegia dolorosis, is rarely if ever found, excepting with malignant disease. A previous history of this disease should leave no doubt of a diagnosis.

A few cases of neurasthenia would contrast well the functional and organic diseases of the cord, but would occupy too much time. The essential thing is to exclude organic disease. If a patient comes to us with a history of pains, weakness, or anomalous sensations pointing to the cord, we should examine as to the presence of ocular symptoms, as to the condition of the cutaneous sensibility, as to the tendon reflexes and the action of the bladder and rectum, and the kind of gait, to discern the presence of locomotor ataxia. We should then examine further to see whether any motor paralysis, with increased tendon reflexes and rigidity of muscles point to diseases of the motor columns of the cord; or paralysis and atrophy of the muscles, with altered electrical reaction, point to affection of the gray matter. If all these symptoms can be excluded, we are probably in the presence of only a functional disease, which, with time and proper treatment, can be entirely removed, and whose positive diagnosis will bring immediate mental relief to an anxious, perhaps despondent, sufferer.

Dr. P. S. Conner, of Cincinnati, read a paper on the subject of

VESICAL EXPLORATIONS.

He referred to the great difficulty of diagnosis in many cases, and thought endoscopic examinations were not satisfactory. When the usual methods fail, we should resort to digital explorations. He lauded the perineal section as being comparatively void of danger, and affording immense value in diagnosis. Had operated over one hundred times. In no case was death due to the section. Was not in favor of the suprapubic operation of the French surgeons. In very young children lateral, rather than median, urethrotomy should be made. Though of less value in fat subjects, perineal section still afforded much advantage with them.

Discussed by Drs. Ransohoff, Holland, and Thorn.

Dr. R. Harvey Reed, of Mansfield, read a paper on

VITILIGO,

which Duhring describes as an acquired disease, consisting of one or more sharply defined, rounded, or irregu-

gularly shaped, variously sized, and distributed smooth whitish spots. Dr. McCall Anderson met only four cases in an analysis of one thousand cases. He then discussed the points bearing on the differential diagnosis from morphæa, chloasma, tinea versicolor, and impetigo, and reported four cases. Treatment with him has been very unsatisfactory. Authors generally agree that this is of nervous origin. The essayist will believe this to be a purely nervous disease under protest.

SECOND DAY—THURSDAY, JUNE 4TH—AFTERNOON SESSION.

The President, DR. J. C. REEVE, of Dayton, delivered the usual address. His subject was:

SYSTEMS IN MEDICINE.

He spoke of the evolution of medicine. Though even yet very imperfect, medicine, both in the present and past, compares favorably with law or theology. It has always taken on the character of the age. For a long time it was bound to philosophy. Medicine to day takes on the spirit of the age—active, practical, advancing. He would have been a bold man who, at our last annual meeting, would have said, "Before we meet again ether and chloroform will be discarded as anæsthetics for eye operations." He referred to the absence of any theory of disease. Theories and hypotheses are the servants of the human mind; systems are its master. To some of these systems he wished to direct attention. All systems owe their origin to the imperfections of medicine at the time of their origin. They accomplish a little good, the greater part passes into oblivion. He then went more particularly into a consideration of homœopathy, bringing up the absurdities of the sect. Homœopathy had existed for three-quarters of a century. In that time the regular profession had given to the world the stethoscope, ophthalmoscope, laryngoscope, ether, chloroform, cocaine, chloral, etc., etc. What has homœopathy given? Nothing.

The following officers were elected: Dr. W. Morrow Beach, of London, President; Dr. H. C. Gill, of Cleveland, First Vice-President; Dr. H. R. Kelly, of Gallion, Second Vice-President; Dr. Thomas Markbreit, of Akron, Third Vice-President; Dr. J. D. Robinson, of Wooster, Fourth Vice-President; Dr. T. W. Jones, of Columbus, Treasurer and Librarian; Dr. G. A. Collamore, of Toledo, Secretary; Dr. E. C. Bush, of Zanesville, Assistant Secretary.

The place of meeting will be Akron, the first Wednesday, Thursday, and Friday in June, 1886.

DR. ISAAC N. HIMES, of Cleveland, read a paper on the subject of

REMARKS AND CASES CONNECTED WITH MEDICAL EXAMINATIONS FOR LIFE INSURANCE.

The Doctor wished to notice some subjects in his paper, not chosen because of a special importance, but such as have an occasional or recurring interest to those who, as an accompaniment of their medical and surgical practice, have to do with examinations for life insurance. He treated of the influence of life insurance upon the hygiene of cities, questions of doubt concerning the respiratory organs, phenomena connected with the circulation of the blood, the place where the examination was made, rejection of applicants, albumen and sugar in the urine.

DR. GEORGE W. RYAN, of Cincinnati, read a paper on

THE TREATMENT OF SPINAL IRRITATION.

The essayist considered this condition more particularly in its relationship to joint trouble coming especially under the care of the orthopædic surgeon. Cases which have worn apparatus for months have often been relieved by treatment addressed to the cause of the disease. He advised examination of spine in every case of doubtful joint trouble. He reported two cases in which treatment by the Paquelin cautery, faradism, and spinal support were used advantageously. Had seen excellent results from large fly-blisters. Thought the value of spinal support had been underestimated.

DR. WILLIAM T. CORLETT, M.D., F.R.C.P., of London, read on the subject

DISEASES OF THE SKIN OF A REFLEX NERVOUS CAUSATION.

He spoke concerning the senso-neuroses and the tropho-neuroses, reporting a number of cases. The most marked tropho-neuroses coming under his observation have closely resembled eczema. Senso-neuroses are, *cæteris paribus*, more frequently associated with conditions of a mild nature, whereas tropho-neuroses, *cæteris paribus*, more frequently accompany pathological conditions of a graver import.

The papers of Drs. Ryan, Zenner, and Corlett were discussed together, Drs. Reed, Beach, Gill, Herrick, and Brinkerhoff taking part.

THIRD DAY—FRIDAY, JUNE 5TH—MORNING SESSION.

DR. RUFUS B. HALL, of Chillicothe, read a paper on the subject of

ABDOMINAL SECTIONS,

treating of this interesting subject in a masterly and instructive manner.

DR. H. G. LANDIS, of Columbus, read a paper on

OCCIPITO-POSTERIOR POSITIONS.

The chief points considered were the diagnosis, notably of anterior rotation. Caution was given about the use of the forceps. The points were illustrated with numerous cases.

DR. H. J. HERRICK, of Cleveland, read a paper on

DIETETICS OF TYPHOID FEVER.

DR. JOSEPH RANSOHOFF, of Cincinnati, reported a case and exhibited a specimen of

URETHRAL CALCULUS.

DR. W. M. BEACH, the newly elected President, made a brief speech, and the retiring President, DR. J. C. REEVE, delivered his valedictory.

Adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 4, 1885.

A. JACOBI, M.D., PRESIDENT, IN THE CHAIR.

DR. RICHARD H. DERBY read a paper (see p. 650) entitled

CONTAGIOUS OPHTHALMIA IN SOME OF THE ORPHAN ASYLUMS AND RESIDENTIAL SCHOOLS OF NEW YORK CITY.

The discussion was opened by DR. H. KNAPP, who said he had listened with interest to the statements of the speaker, and could in no way underrate them, but he did not feel certain that either the spread or the outbreak of the disease was at all preventable; for, as long as there were so many uncared-for children in large cities, it seemed almost impossible to prevent the disease entirely. The idea that all these institutions should have a certain amount of supervision with reference to the reception of inmates, he thought, was correct, and should be enforced. If all of the institutions had as one of their regulations to report once a month, for example, the condition of the eyes of the inmates, he thought that, to a very great extent, outbreaks of the disease could be prevented. If all the institutions were closed and the children farmed out, the spread of the disease could be more definitely regulated. Certainly no more philanthropic undertaking could be engaged in than that involved in the subject of the paper of the evening.

Dr. Roosa said he had this afternoon examined two hundred and forty-two children at the request of the attending physician of one of our public institutions, and found sixty-seven affected with conjunctivitis, generally of a mild type and probably curable, but these sixty-seven required treatment, and they were under as good care as could be had without isolation. If the Board of Health possessed any power to correct such matters, the question was one which really belonged to that board, and the authorities of the institutions were not entirely responsible for this state of affairs. He believed, however, that it was better to allow the children to remain in the institutions with good food and air, than to send them back to their homes in tenement-houses. The good work inaugurated in this field had already brought forth considerable fruit, as the disease appeared to be chiefly a local affection, and the old notion that struma and this class of troubles were intimately related did not seem to hold good, at least in New York. Dr. Roosa thought the remedy for the correction of the evil was at hand, and it was that the tax-payers of this city should pay for a hospital in which such children could be treated and retained until they had recovered, and the reduction of the pauper class by curing the eyes of these children at a time when they are curable was a sufficiently important undertaking to be worthy of the attention of political philanthropists. There should be begun at once a hospital of this character, and the Board of Health should insist upon the erection of such an institution, as it seemed to him the question came to that board, which had charge of the sanitary condition of this city.

Dr. Oatman, of Nyack, by invitation, referred to an institution under his charge in which there were one hundred children, all healthy when admitted except two, whom he endeavored to have isolated. He was unable, however, to accomplish this, and finally a mild catarrhal affection of the eyes developed, and it went on until this spring, when he finally succeeded in having the affected children quarantined, and there were forty-four who had catarrhal disease of the eye, probably contagious. Of the forty-four, seven had acute granular trachoma and one purulent ophthalmia. All of these children were quarantined and given abundance of food, and the benefit of the plan manifested itself promptly.

Dr. C. R. Agnew said that his interest in this subject began thirty years ago, in connection with the results of famine in Ireland at that time, and from whose stock of granular lids, one of the results of overcrowding and want, we had been receiving contributions ever since. Dr. Agnew referred to one large school where the children affected were taken out-of-doors and put into tents, and the supply of good milk increased many-fold, with the result of producing a marked improvement in their general condition and also in the condition of their eyes. The inducement on the part of institutions, which received a certain amount *per capita* for board and care, to admit as many as possible, was certainly to be taken into account. He thought it was insufficient to have boards of examination from the non-professional alone, however intelligent in ordinary business transactions they might be, for it was not even every general practitioner whose opinion as to the condition of the eyes could be safely trusted. There should be some expert examination. He should dislike to go to the State and ask for legislation, and had thought that agitation could do very much toward correcting the evil, but after having given thought to the matter for several years, he had been driven to the belief that we need some legislation, some law by which all these questions, which have to be settled by boards of managers or by social position, could be definitely arranged. A vast number of children having chronic conjunctivitis never recover, and helped to make up that immense body of drifting, despairing characters which invade our country. There was plenty of indigenous pauperism which grew up under our very eyes, and which would continue to exist, unless we set about it and combined all possible agencies to prevent its further development.

Mr. T. Elbridge Gerry, President of the Society for the Prevention of Cruelty to Children, on invitation, participated in the discussion, and said that he agreed with Dr. Agnew on the point of providing for oversight of all these institutions by competent and recognized medical authority; that the Society over which he presided would be glad to co-operate in the adoption of any measures which would be for the best interests of the children. He spoke in favor of sending all patients requiring treatment to pay hospitals already in existence, rather than building new hospitals for this special purpose. Mr. Gerry then spoke at considerable length with reference to the legal steps necessary for the commitment of children, and pointed out some of the obstacles to such an assignment of children as might seem necessary from a medical standpoint.

Dr. J. J. Milhau, of the State Board of Charities, spoke concerning the law which regulated the action of that board, and corrected a slight error in the statements made by Mr. Gerry concerning the exact point at which the difficulty existed with reference to the proper assignment of children to our public institutions.

The President remarked that all of these institutions were meant to do good, and it was expected of them that they would accomplish their work; but all of them did a great deal of harm, for, so long as large numbers of children were collected, just so long would the possibility of danger be maintained. Ophthalmia was a contagious disease, and when it entered, it destroyed both the eyes and the general health, and all care in admitting to public institutions children afflicted with this disease would be useless to a considerable extent. Public institutions, as a rule, were overcrowded, and the children would die there the same as elsewhere, and he believed that they were much better off in their homes, even in tenement houses, than they were in the great aggregations under public charge. A disease which would be very mild in private dwellings would become dangerous in public institutions, and if it was proposed to simply add an eye-hospital to existing institutions, it would be one where treatment would be found all that could be desired, but where an accumulation of cases would take place, and a mild form of ophthalmia would become a serious one, and probably not much would be effected by such a multiplication of public institutions.

Before final steps were taken in the matter, the question would arise whether permission should be given to erect such institutions at all, and whether more harm than good would not arise from their erection. Dr. Jacobi thought that if the same amount of money expended in the erection of such institutions were expended in farming out children, they would be very much better off than they could possibly be in such institutions, however well regulated, and surely we should have more children and less blind ones.

Dr. W. F. Mittendorf thought that in discussing this subject it was extremely difficult to make the people understand two points: First, the great danger to eyesight in consequence of contagious ophthalmia, and, second, the length of time required to cure the disease. An institution once having become infected, it was almost impossible to eradicate the poison. According to his experience in some of the large institutions in the city, he coincided with the views of the President, that crowding children into large buildings would also be a source of very great danger. In the New York Infant Asylum and the branch of the Nurse's and Child's Hospital, the children were kept in cottages, and but very little trouble with their eyes had been seen. He therefore thought that, if such institutions must be erected, the cottage plan was probably the best, as the best treatment was strict isolation in the institutions where the children may be when attacked with the disease. There should be as few children as possible in one building.

Dr. Agnew introduced the following resolutions:

First.—It is necessary and expedient that steps be taken to prevent the occurrence of communicable eye-disease in the schools and the asylums of New York and vicinity.

Second.—That the New York Academy of Medicine take the matter of the paper of the evening into its immediate consideration, and that the competent co-operation of the writer of the paper, the Society for the Prevention of Cruelty to Children, the State Board of Charities, the State Charities Aid Association, and others, be invoked for the purpose of lessening the prevalence of communicable eye-disease.

Dr. Roosa thought that, taking things as they are, and not as they will be in Utopia, and from the experience already obtained in those schools where epidemics have been stamped out, it was not quite right to draw the picture so strong regarding the incurable nature of the disease as had been done; for these children had been cured by the dozens and hundreds. He cheerfully seconded the resolutions offered by Dr. Agnew, but he would not second a resolution which said that all that was necessary was simply to get a law to prevent children with ophthalmia from being admitted to public institutions.

The resolutions were unanimously adopted.

The Chairman of the Committee of Ways and Means, Dr. Gouverneur M. Smith, made an additional report, containing a report of the Treasurer of the Committee, Dr. Willard Parker, concerning the amount which had been paid toward the liquidation of the mortgage on the Academy building.

Dr. Agnew offered a resolution providing for the transfer by the Treasurer of the Academy to the Treasurer of the Board of Trustees of such surplus funds as could be used for the further liquidation of the mortgage.

The Academy then adjourned.

Correspondence.

OUR VIENNA LETTER.

(From our Special Correspondent.)

THE VIENNA OBSTETRICAL SERVICE.

Vienna, April 23, 1885.

In the Vienna Obstetrical Hospital are confined every year about nine thousand patients. The remarkably low mortality and freedom from puerperal diseases in this hospital have made it well known all over Europe, and a description of the rules and methods in use in the obstetrical wards ought to be of some interest to the general practitioner. The immunity from childbed disease cannot be due to climatic influences, because outside of the hospital in Vienna, and in the surrounding country, puerperal fever is of frequent occurrence, and the mortality is high. To the treatment in the hospital itself must the good results be attributed.

The patients are not usually admitted to the hospital till a week before confinement. They come principally from the eastern and northern parts of Austria, and the great majority are stout hearty country women in robust health and very favorable patients. This vast material is divided up into three equal divisions under the charge of Professors Carl Braun, Gustave Braun, and Spaeth. The methods in use in the different divisions do not differ essentially. Those in the service of Professor Carl Braun will be described. The building in which the patients are delivered and kept during convalescence has been in use for this purpose for the last hundred years, and is part of the general hospital building in which the surgical and medical cases of the city are kept. The confinement-room is in almost continuous use. It is about sixty by twenty feet, and contains fourteen to sixteen beds (slightly larger than the larger pavilions of the New York Maternity Hospital, which contain only nine beds). Opening into this room is a smaller one nearly sixteen feet square, into which patients with a rise of temperature during labor or other marked complications are transferred. Both rooms are about twelve to fourteen feet from floor to ceiling and have small windows in the upper part of their walls. No especial antiseptic precautions are used in disinfecting these rooms, except that they are thoroughly cleaned with soap and water and opened to the air a few hours every third day. The walls are whitewashed twice a year. Any student may deliver normal cases in the ward. He may examine externally all cases in the ward, but internally only the case he intends to deliver. As soon as this case is delivered, if the temperature is under 37.5° C., he may immediately take another case. The antiseptic precautions taken before confining cases are, washing the hands thoroughly with soap and water with a nail-brush, dipping them in weak solution of permanganate of potash and then in a two per cent. carbolic solution. A rule, to which not the slightest attention is paid, prohibits practitioners from coming directly from the dead-house, or from operations on the cadaver, and examining cases per vaginam or delivering. I have several times seen the obstetrical assistants make vaginal examinations and even operate within a few minutes after operating on a cadaver, and with only the antiseptic precautions mentioned, with, as far as I could ascertain, no bad result.

The entire absence of medicine to hasten the labor when too slow, or relieve severe pains, or to induce them when wanting or feeble, is noticeable. Avoidance of any kind of interference in labor is carried to the greatest extreme. Even for forceps operation or a version, unless extremely difficult, no anæsthetic is administered. Great care is taken also to prevent the least injury to the os uteri. The utmost respect is paid during labor to this part. It must dilate normally and in its own time. Artificial dilatation is not permitted even with the finger, and all mechanical appliances for dilatation are "inventions of the devil." The placenta is usually expelled by Crède's method. After its expulsion, in all cases, an injection deep into the vagina is given of 1 to 3,000 bichloride of mercury solution, and of late a weak solution of thymol has been substituted for the bichloride with good results. After the injection, if slight lacerations are found on the vaginal mucous surface, these are powdered with iodoform, and, with no further dressing, the patient is transferred to the convalescence-room. All the normal deliveries are made in the large room; and it sometimes happens that every bed in the room will be occupied by a patient in labor. Patients are always confined on their back except in cases of primiparæ, where the Vienna method of supporting the perineum is used. As soon as the child's head begins to stretch the perineum, the patient is laid on her left side, buttocks supported on a pillow brought well over onto the edge of the bed. The legs are then separated by an assistant on the other side of the bed. The operator, standing on the right, passes the left hand over the patient's abdomen and between the legs upon the child's head, the thumb and fingers separating and protecting the labiæ. The right hand, covered by a towel, is placed flat over the anus and perineum, and during a pain forces the head firmly forward and upward against the symphysis. The patient at the same time is instructed to cry out. Meanwhile the perineum is gently distended and moulded, and finally the head "shelled" out between the pains, the peculiar grasp of the head giving perfect control against too forcible distention of the perineum by a sudden pain. The midwives here have become so adept in this method that a rupture of the perineum in one case in a hundred primiparæ is a rarity.

When ruptures occur after natural or instrumental delivery, great care is taken in the after-treatment. After thorough irrigation the lacerations are immediately sewn up, always with silk sutures; catgut or silver wire is not employed on the service. Lacerations of the os are also sewn up immediately after delivery. In all forceps cases,

after the expulsion of the placenta, the patient is examined for tears in the os. If they are found, the patient is placed upon a table in Sims' position, usually without an anæsthetic, and the torn lips of the os are brought down and sewn together. If large lacerations are present in the vaginal mucous surface, stitches are also put in these. A uterine injection of 1 to 3,000 bichloride or thymol is then given, after which two to four pencils of iodoform of 0.5 each are pushed into the uterus, two or three vaginal pencils of 3 each of iodoform inserted in the vagina, the os uteri, vaginal surface, and sewn perineum are plentifully sprinkled with iodoform powder, a wad of absorbent cotton covered with iodoform is placed over the vulva, and the patient removed. This dressing is not renewed, the only treatment of normal cases being weak bichloride vaginal injections once a day for the first two or three days. Simple lacerations of the perineum are sewn up in the same way, the stitches are removed from os and perineum on the sixth day, and in almost every case primary union of all the lacerations has taken place, and a perfectly normal convalescence ends on the tenth to twelfth day, when the patients are discharged. Professor Carl Braun has also a very large gynecological service, with the same staff of assistants as in the obstetrical wards. Severe operations are very frequent in this division, and I have seen the nurses on duty in the confinement-room at the same time attend operations in the gynecological clinic, the assistants naturally being obliged to attend both divisions. The two services are in the same building, and often the rooms adjoin.

In spite of these apparent disadvantages the mortality from all causes, in the maternity service, was less than one-half of one per cent. In seven hundred cases delivered in October, November, and December, 1884, there were only three deaths from all causes; the only septic case was one of Cæsarian section, the particulars of which I related in a former letter.

The mortality among the children is a very high one; the last year it was in the neighborhood of fifteen per cent. Into the problem of how to reduce this mortality enter social and political factors which cannot be controlled so as to give a satisfactory solution.

ROLLER-SKATING FOR GIRLS.

To the Editor of The Medical Record.

Sir: I am very much interested in this subject of "roller-skating" for girls; especially so because I have from thirty to forty girls under my care for physical training and treatment. Theoretically, I believed it was going to be a good thing, but my experience is forcing me to the conclusion that no good, moral, mental, or physical, comes from this source. With the utmost care as to time and amount, I find it unsatisfactory. It seems to bring out any latent predisposition to disease. I have been compelled to forbid those who had the slightest tendency to kidney or heart trouble, in fact, any organic trouble, indulging in the sport. In one case only, of enlarged liver, subject to acute attacks of congestion, etc., I have seen no bad effect. A case of anæmia, the most intractable one I ever had to deal with, I am sure was caused by skating excessively. The disease had so far yielded that I, in an unguarded moment, said "Yes" to a plaintive "Just one hour, please?" and the result was severe vomiting of the next meal. She has been able to take no food without great uneasiness since, and I see I'll have much of the old ground to go over. Those who have skated very much before coming here have leucorrhœa, and confess it is aggravated by the limited amount of exercise I have allowed. I would like to know as to the observations of others in the case of *limited* indulgence. There is no question now about excessive skating, but can we let young girls take even a limited amount without injury? Very respectfully,

Julia Townsend Hill, M.D.

THE INTERNATIONAL CONGRESS AND THE NEW CODE.

To the Editor of The Medical Record.

Sir: Permit me to say in reference to the recently published correspondence between Dr. Jacobi and myself, that the letters were of a personal nature and were injected into the journals without any authorization on my part, or cause on the part of Dr. Jacobi. I have nothing to retract from the statements which I made at the meeting of the American Medical Association in New Orleans. They are absolutely true and can be substantiated by better evidence than the words of Dr. Jacobi. When the time that I deem proper shall arrive, I will demonstrate the non-truthfulness and real inwardness of Dr. Jacobi's assertions in such a way that not one of your impartial readers will have any doubt of the justice or of the propriety of my remarks at New Orleans.

I have no desire to bandy words with Dr. Jacobi on questions of veracity. My status in my own community is certainly as good as that of Dr. Jacobi in New York. I have never referred to or mentioned him in public in connection with the American Medical Association or the International Congress. At present he is simply his own accuser in the matter, but it is well said that "The wicked fleeth when no man pursueth."

Yours respectfully,

John V. Shoemaker, M.D.

Philadelphia, June 1, 1885.

CONCERNING DIGITAL EXPLORATION OF THE BLADDER.

To the Editor of The Medical Record.

Dear Sir: It seems almost amusing to see the alacrity displayed by some of our foreign cousins in appropriating American ideas without giving their authors the slightest credit, and then proceeding to make personal capital out of them.

One of the most glaring of these plagiarisms is the recent attempt on the part of Sir Henry Thompson to claim originality for a "new" method of diagnosis in obscure diseases of the bladder by means of digital exploration through a perineal opening.

In his lectures on "Surgery of the Urinary Organs," p. 29, published in London, October, 1884, this author, in speaking on the subject, says: "The object with which I have recently proposed to operate is a *new one*, inasmuch as it is solely the exploration of every part of the bladder with the end of the finger, in order to diagnose its condition. . . . I made the first published account, not in this country but in *La Semaine Médicale*, Paris, June 18, 1882."

It seems strange to Americans who have enjoyed the clinics of the late Professors S. D. Gross and James R. Wood, to hear this point set forth, at this day, as a "*new*" one, and in *The Annals of Anatomy and Surgery*, July, 1882, Dr. Stein, in his "Study of Rupture of the Bladder," referring to diagnosis, says: "Last, but not least, comes digital exploration of the interior of the bladder. In the female this is accomplished readily enough through the short urethra. In the male it is effected through a small median perineal incision made on a staff in front of the prostate. The practicability of this procedure has been verified, its execution is both simple and safe, and as a means of diagnosis it is, without doubt, the most efficient and reliable at our command."

It will be observed that Dr. Stein makes no claim for originality; but had Sir Henry Thompson made a little more careful study of this author's works, and credited him with what he justly deserves, he would have escaped errors both of omission and commission.

L. L. Seaman, M.D.

Charity Hospital, N. Y., June 4, 1885.

AN EFFORT TO MEET THE ABUSE OF MEDICAL CHARITIES WITH THE AID OF THE CHARITY ORGANIZATION SOCIETY.

To the Editor of The Medical Record.

Sir: That our dispensaries and other medical charitable institutions are frequented by numerous patients well able to pay is a well-known fact. How to prevent this abuse has proved a difficult and troublesome question. Since the opening of the new building of the German Dispensary in 137 Second Avenue (with over thirty thousand patients in 1884), there was an exceptionally large run of such unwelcome patients, so that the medical staff had earnestly to think of some measure of relief.

To get an idea to what extent people able to pay were seeking aid in the dispensary, three members of the medical staff, who had been appointed a committee for this purpose, examined, during the month of December, all persons applying for treatment, as to their residence, family relations, income or means of support, etc.

From the information thus received the committee saw good reason to turn away eight per cent. of all the applicants as being fully able to pay for doctor and medicine. This class comprised those who never intended to ask for gratuitous advice, but expected to pay at the dispensary, etc., or those who were under some misapprehension—for instance, that the doctors were well paid for their work, etc.—or small storekeepers and mechanics, who, by former experience, had been taught how easy it is to get medical advice, and even medicine, for nothing. Still they are not the most dangerous class to deal with, but it seemed in the cases of about nine per cent. of the applicants doubtful if they were entitled to admission, because their answers were either unsatisfactory or not to be trusted.

Here arose the real difficulty, how to find out the truth about their statements. The Charity Organization Society of the City of New York was thought of, and on being approached by our committee on this subject, the former declared its willingness to investigate all our doubtful cases and report about them as quickly as possible if the German Dispensary became a member of their Society.

On presentation of this matter by the medical staff, the trustees of the German Hospital and Dispensary agreed to the conditions of the Charity Organization Society—the payment of $100 for six months as a trial.

So from January 1st, all cases reported as doubtful regarding inability to pay for doctor and medicine by the physicians and surgeons in attendance were sent to the different agencies of the Charity Society or to their central office. The answers came in very promptly, and after three months' work we take leave to present to the medical profession the results of this investigation. During the first three months of the current year we sent in 192 names for investigation, they were reported upon as follows: Fully able to pay, 64; not able to pay, 65; false addresses, 63.

So many false addresses seem to be given probably intentionally, as many of the numbers given represent empty lots, stables, factories, etc., and urge to the belief that of those who have given wrong numbers a good percentage was also fully able to pay. To sum up the result of the investigation by the Charity Society of all doubtful cases, it is shown plainly that about fifty per cent. of all those investigated were *fully* able to pay.

Executive Committee of the
German Dispensary.

[We are glad to note the continuance, by the managers of this institution, of the good work we alluded to in our last week's issue. The above facts suggest volumes in regard to the work of charity and the discrimination between worthy and unworthy persons. At the same time the above plan promises more fully, than any other yet devised, a satisfactory solution of this vexed problem. The managers of the German Dispensary have earned the thanks of the entire community for their pioneer work in charity reform.—Ed.]

INACCURATE URETHRAL INSTRUMENTS.

To The Editor of The Medical Record.

Sir: Inaccuracy in all things is lamentable, but particularly so in the manufacture of urethral instruments; for with these we not only perform the operation, but also trust to their correctness for measuring the amount of gain accomplished.

Recently I purchased, from one of the most reliable makers in New York, a number of urethral instruments. I will relate some of my experiences with them.

Take for the first instance the urethrometer of Otis. Mr. S—— came to my office with a stricture. After locating it, by means of a bulbous sound, at a distance of 85 mm. from the meatus, I introduced the urethrometer beyond the stricture and screwed it up to 44. Drawing it forward until arrested, I slowly lessened its circumference until it slipped through at 41. I then entirely withdrew it at this figure. Upon my taking up a No. 40 steel sound, the patient became alarmed at its size, but was assured by me that it would pass the stricture without causing pain. He believed me—I attempted to pass it and failed utterly. This did not inspire him with any undue confidence in me.

Second case in point. With an Otis' dilating urethrotome I divided a stricture of 25 calibre, 11 ctm. from the meatus, in a penis 85 mm. in circumference, indicating a normal calibre of 34 for the urethra. The stricture at a depth of 11 ctm. was the deepest and smallest, there being two between this and the meatus, which was also constricted. With difficulty I screwed my instrument up to 30, and then cut. Hiding the knife again I screwed it up to 36 and cut a second time. As the stricture seemed to be thoroughly divided, I withdrew the urethrotome and attempted to pass a bulbous sound, No. 34. This was arrested by the stricture, not by the smaller calibre of the urethra beyond; for, with a little force, it would slip through and beyond the stricture and be held slightly upon withdrawal. I then took up my divulsor, Gouley's modification of Thompson's, and engaging the most expansile part opposite the seat of stricture, screwed it up to 40. Alas, how uncertain are our conclusions based upon the calculations of others! That divulsion upon subsequent measurement proved to be incapable of attaining a greater size than 36! Please notice the actual size of the bulb further on.

Now, as regards the urethrometer, it proved to be so wretchedly inaccurate that I exchanged it for a much more expensive instrument which was nearly exact. The fact that the first one was not elaborately finished in gold plate was no excuse for its incorrect registering.

The urethrotome seems to have been measured at a distance of 15 ctm. from the dial-plate, when the lines indicating the amount of expansion were engraven thereon. These measurements should have been taken at the point where the knife first fully emerges. To illustrate: When the hand on the dial indicates 20, the knife emerges upon a circumference of only 17 mm. In the following, the first number of each couplet shows the indicated circumference, the second the actual measurement where the knife appears: 25–20; 30–25; 35–29; 40–35; 45–42. Surely this instrument is not all that could be hoped for.

These faults in construction led me to measure carefully my conical steel sounds by the same maker, and my bulbous sounds by another reputable maker. The steel sounds were usually correct within a millimeter. The 34 and the 40, however, measured respectively 36 and 42 mm. in circumference. The bulbous bougies were worse. No. 20, for instance, measured 22 mm.; 25, 27 mm.; 34, 37 mm. No. 40 measured nearly 43 mm.

From the facts here stated each can draw his own conclusions.

The question comes up, Where and how can we obtain correctly made instruments?

There is only one way to get them. Take nothing on faith, but carefully measure every instrument before purchasing, and refuse all that are not absolutely exact.

WARREN C. SNEDEN, M.D.

BROOKLYN, N. Y., April 22, 1885.

SURGERY IN THE HERMIT KINGDOM.

A PRINCE WHO RECOVERS FROM SEVEN WOUNDS, SYPHILIS, AND A TAPE-WORM — GUNSHOT WOUNDS — THE ENDURANCE OF THE COREANS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Happening to come to Corea just before the recent *emeute*, I was called in to attend the wounded Prince Min Yong Ik, recent ambassador to America. I was also given charge of the wounded Chinese soldiers, some twenty in all. And thinking that some of these cases might be interesting to the readers of THE RECORD, I will briefly notice some of the principal ones.

Prince Min was cut by a sharp Japanese sword on the night of December 4th in seven places. The principal wound was made by a vertical, somewhat slanting blow. The cut commenced on the temple, midway between the external canthus of the right eye and the ear of the same side. The temporal artery was divided, the ear split longitudinally and cleanly, one-half lying back on the hair of the head, the other upon the face. Extending downward along the course of the sterno-cleido mastoid, the external jugular was laid bare but uninjured. Lifting the platysma myoides for about half its breadth, the wound continued down the back to a point on a level with the lower angle of the scapula, and midway between it and the spinal column, ending with a curved point where the sharp instrument left the flesh. The cut was two inches deep in the muscles of the back, but the only severe hemorrhage was from the divided temporal artery. The other wounds were upon the scalp, the mastoid, the arms, and the thigh.

I tied the temporal artery, cleansed all of the wounds with carbolic solution, 1 to 40, dressed them with iodoform, and put in twenty-two silk and five silver sutures. Having to be moved about from place to place for safety, the wounds began to gape and suppuration took place in all but the wound to the ear itself. His temperature ranged between 101° to 103°, with occasional chills, until January 1st, when it fell to 100°, and did not rise so high again.

The daily dressings were with cotton-wool soaked in carbolic solution, 1 to 20, and were changed daily because of the discharge, excepting only those of the ear and the scalp, which were not removed till the wounds had healed.

Some peculiar things occurred during the treatment. One was the dosing of the patient with strong infusions of ginsing—the native panacea. This was done by his friends without my knowledge, and I only discovered it when trying to ascertain the cause of a rise of temperature that was not accounted for by any fresh inflammation.

Another thing was his great persistence in taking soup made of dogs' flesh and dogs' heads. This was done without my sanction. Yet, as his appetite became so poor, I thought it best not to interfere too much with his accustomed diet. (Dog flesh is always for sale in the shops, and though not eaten continually by all, yet there is not an adult native in the country who has not eaten more or less of it.) I was not much surprised at the appearance of segments of tape-worm in his stools; but became surprised at his unconcern regarding it. It was with difficulty that I induced him to take the turpentine and castor-oil that eventually cured him. Since then I have been examining stools along the streets, and find pieces of tape-worm *very* common, which accounts for the unconcern.

Aside from the common and ever-present syphilis, which came in as a complication, as it does in almost all disease among the Coreans, the only other thing of importance was the development of marked facial paralysis of the wounded side. It came on a few days after the injury, leading me to suppose it to be due to consequent inflammation and swelling, rather than to division of the nerve. I was strengthened in this belief by the fact that the paralysis came on in sections, so to speak, the cheek and mouth being the parts first affected. The temporo-facial branch seemed unaffected till late, as I could see no tendency in the eye of that side to remain open, until about thirty days after the injury, when it became painfully and obstinately open. At the same time I found swelling over the parotid gland, which eventually broke down into pus and necessitated an external opening, the affection of the eye decreasing therewith. The tongue never deviated perceptibly, though there was abundant swelling about the stylo-mastoid foramen, and it would seem difficult for the lingual branch to escape being pressed upon. His recovery has been good.

Among the Chinese soldiers there were of gunshot wounds—of thigh, two; groin, one; foot, one; forearm, three; abdomen, three; hand, two; eye, one; and gluteus, one; bayonet wound of abdomen, one; wounds from explosion of powder mine—of leg, two; of hand, one; one sword cut of calf, and a bayonet wound of neck.

There were three cases for amputation—one of the hand, two of the forearm—but in no case would they let me use a knife. In one case, however, that of a clean shot in the eye, I performed excision without asking permission, and he has made a good recovery, with no sympathetic trouble. I did not see the above-named cases of wounds to the abdomen until three days after the injury, and in no case was there marked general peritonitis. The only death was one of the cases of wounds to the forearm, where amputation was not permitted. He died of tetanus on the eighth day after the injury, third day of the spasm. All the rest of the cases recovered either completely or sufficiently to be removed to their men-of-war. These cases well illustrate the power of endurance among the Orientals, and especially is this a fact with two of the cases which I wish to mention more fully.

In the gunshot wound of the groin the ball entered just below Poupart's ligament, and about an inch outside of the external ring, on the left side. It came out at about the centre of the buttock on the same side, and must have pierced the bone without much splitting. When I first saw him, twenty-four hours after the accident, he had the skin of a dog, freshly killed, on both wound of entrance and exit. As it made an excellent poultice I left it on for the first day, and then poulticed it for the next three days with hot rice. After which I applied small bags of pulverized yellow clay, simply as an absorbent and disinfectant, being without anything better. The man went on rapidly to recovery with no untoward symptoms, until on the twentieth day from the receipt of the injury he was walking about. He now rides a horse and attends to his duties as a colonel in the Chinese army.

The bayonet wound of the neck was ugly indeed. The Japanese have a relic of barbarity in their great sword-toothed bayonets. One of these had been thrust through this man's neck, entering just below the angle of the jaw, on the right side, and coming out at the back, almost piercing the ligamentum nuchæ. When the weapon was withdrawn it tore away a piece of flesh three inches by two and a half. I thoroughly cleansed the track of the wound with carbolic solution, 1 to 40, and applied pressure; the raw surfaces were dusted with iodoform, and the whole covered with cotton-wool soaked in carbolic acid. To my great surprise this man improved almost daily, and at the end of six weeks had only a small cicatrix left over both wound of entrance and exit. Morphia was given liberally in all these cases, and as their pain was relieved and they had enough to eat, probably the resulting state of contentment had much do with their

speedy recovery. . . . I may add that the Coreans use more hearty food and more strong alcoholic drinks, causing them to be more liable to inflammations than the Chinese. Yet they can hold their own pretty well, as is illustrated by a case which has just come to me. I may add the Coreans seem to appreciate what has been done for them by Western medical science, and among other presents the King has given me a large house and compound for a hospital, with money for equipment and annual expenses.

H. N. Allen, B.S., M.D.,
Physician to the Legations, the Presbyterian Mission, and in charge of the Royal Corean Hospital.

Seoul, Corea.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 29, 1885, to June 6, 1885.

Horton, S. M., Major and Surgeon. Ordered for duty as Post Surgeon, Fort Riley, Kansas. S. O. 78, Department of the Missouri, June 1, 1885.

Cleary, P. J. A., Major and Surgeon. Ordered for duty as Post Surgeon, Fort Lyon, Colorado. S. O. 78, Department of the Missouri, June 1, 1885.

Brown, J. M., Major and Surgeon. Assigned to duty as Post Surgeon at Fort Omaha, Nebraska. S. O. 49, Department of the Platte, May 29, 1885.

Brechemin Louis, Captain and Assistant Surgeon. Relieved from duty at Fort Omaha, Nebraska, and assigned to duty as Post Surgeon at Fort D. A. Russell, Wyoming. S. O. 49, Department of the Platte, May 29, 1885.

Ainsworth, F. C., Captain and Assistant Surgeon (Department of Texas). Ordered for temporary duty in Department of the Missouri. S. O. 58, Department of Texas, May 25, 1885.

Porter, Jos. Y., Captain and Assistant Surgeon. Granted leave of absence for six months on account of disability. S. O. 126, Adjutant-General's Office, June 3, 1885.

Davis, William B., Captain and Assistant Surgeon. Granted leave of absence for one month, from May 25, 1885. S. O. 122, Adjutant-General's Office, May 28, 1885.

Robertson, R. L., First Lieutenant and Assistant Surgeon. Leave of absence extended one month. S. O. 123, Adjutant-General's Office, May 29, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 6, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 30, 1885	3	11	76	4	97	87	1	0
June 6, 1885	4	13	71	4	100	70	0	0
Deaths.								
May 30, 1885	0	4	11	5	14	27	0	0
June 6, 1885	1	3	16	3	12	26	0	0

Diphtheria as I See and Treat It.—Dr. T. J Hutton, of Fergus Falls, Minn., significantly writes: "Like the Peoria specialist who considered urinary examinations essential in the treatment of all diseases, many of our city brethren harp on sewers and sewer-gas as the sole cause of diphtheria. Now, sewers do contain human detritus, and they, doubtless, may originate diphtheria, but this detritus must not necessarily pass through sewers in order to cause it. The nearest sewer was two hundred miles distant from every case treated by me. Carpenter says the Arabs of Sahara can smell a fire thirty to forty miles off, and Humboldt says the Peruvian Indian can smell the approach of a stranger in the darkest night, while yet far off, and can also tell with certainty whether it be a white, a negro, or an Indian. To believe these statements is a severe strain on our credulity, but to believe that either savage or civilized beings can draw into their nostrils the small end of a sewer at a distance of two hundred miles seems to me simply too transcendental, or too ridiculous, I can hardly tell which."

The Reporting of Contagious Diseases—A Suggestion to the Board of Health. — Dr. J. W. Brannan, of this city, makes the following very sensible suggestion: "I see by the last Record that the Board of Health complain that many physicians do not report promptly their cases of contagious disease. I would suggest to our Health Board that if they would simplify the work of reporting there would probably be less neglect of the regulations on the part of physicians. In Boston all physicians are provided by the local authorities with postal cards, on one side of which is printed the address of the Board of Health, and on the other very much the same form of words that is found on slips furnished to physicians in New York. In a case of contagious disease, the blank spaces in the form are filled out, the card is dropped into a post-box, and the matter is over. I commend the above plan to our Board of Health, that they may secure greater efficiency of service."

Evacuation of an Ovarian Cystic Tumor through the Intestines.—Dr. H. W. Carpenter, of Oneida, N. Y., sends us the following interesting case: "Mrs. C. A——, aged thirty-two, married, and mother of three children, began to decline while nursing her child, which was about one year old. I first saw her with her physician July 3d, and found her suffering from pain in back and right side. No appearance of tumor. Saw her again September 5th, and then found a right ovarian tumor, about as large as a child's head. Her general appearance indicated disease; she was very weak and melancholy. Her physician had suggested that she go to New York for treatment, but she and her friends thought her too weak to bear the journey. She remained under his care till some time in January, when she commenced treatment with a doctor in Syracuse, who made an attempt to remove the dropsy by powerful diuretics. She constantly grew worse, and gave up all hopes of living, and early in February, Dr. Ure, living but a short distance from her, was called, who requested me to see her with him She was then very much emaciated; the abdomen being enormously distended. There was marked peritonitis on left side with general cyanosis; and she was nearly pulseless at the wrist; respiration labored and forty-five per minute. We were in some doubt whether surgical interference would be of any avail, but concluded the only hope of prolonging life would be to remove the contents of the sac, which we accordingly did, taking away thirty quarts, and a careful examination showed it to be seventy-five per cent. albumen. She rallied nicely after the operation, and in about six weeks there was perforation of the colon, as near as could be ascertained, at the sigmoid flexure, and the fluid that had slowly accumulated in the sac was discharged per rectum, and on May 15th the entire sac passed off. Very soon after the perforation the patient began to improve in strength and flesh, and is now able to ride five or six miles without becoming tired. With the exception of slight pain in the right iliac region she says she feels perfectly well."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 25 NEW YORK, JUNE 20, 1885 Whole No. 763

Original Lectures.

A LECTURE ON THE USE OF THE OPHTHALMOSCOPE IN MEDICAL DIAGNOSIS.[1]

By HENRY JULER, F.R.C.S.,

OPHTHALMIC SURGEON TO THE ST. MARY'S AND THE ROYAL WESTMINSTER OPHTHALMIC HOSPITALS, LONDON.

GENTLEMEN: The subject I have chosen for this lecture cannot, I think, fail to be of interest to you all, whether engaged in the wards of the hospital or in general practice. Inasmuch, however, as some of you may be unaccustomed to the use of the ophthalmoscope, and, therefore, unacquainted with normal appearances of the fundus oculi, I will first call your attention to the three chief methods of using the instrument; I will next describe the ophthalmoscopic appearances of the healthy eye, and then proceed to relate a series of cases which have occurred in my own practice, illustrative of the advantages in diagnosis accruing to the routine practice of ophthalmoscopic examination.

The three chief modes of examining the fundus are: 1, The direct method; 2, the indirect method; 3, retinoscopy, or the shadow-test.

In the direct method the eye of the observer with the mirror in front of it should be placed as closely as possible to that of the patient, so that the distance of the mirror from the cornea of the latter is only about one centimetre. The lamp should be just above and to the outer side of the patient's ear, right or left, according to the eye examined. By this means we are enabled to look directly at the fundus oculi. In order to understand this it is only necessary to consider the rays which emerge from the patient's eye, and to imagine the observer's accommodation relaxed. We know, in the first place, that in order to get distinct vision when the accommodation is relaxed, the rays from the object looked at must be parallel. Now, in the emmetropic eye the emergent rays are parallel, and so we see the fundus clearly and distinctly without the use of a concave or convex lens. In the myopic eye, however, the emergent rays are not parallel but convergent, and so we cannot clearly see the details of the fundus without the use of a concave lens such as shall render the convergent rays parallel. In hypermetropia again, the emergent rays are not parallel but divergent, so that we can only see the fundus by the use of a convex glass of such strength as shall render the rays parallel. For the successful use of the direct method, therefore, we require the use of a *refraction* ophthalmoscope, that is, of an instrument such as I here show you, which is provided with a series of concave- and convex-spherical lenses, which can be made to revolve in front of the sight-hole of the mirror.

By the indirect method we examine the inverted image of the fundus. On placing a strong convex lens (about 13D) in front of the patient's eye, the emergent rays are brought to a focus so as to form an inverted image in the air. It is this image which is seen through the sight hole of the mirror. As a ready method this is extremely useful, but for minute examinations it is far inferior to the direct method.

By the shadow-test, or retinoscopy, we have a comparatively recent method of examining the refraction of the eye. First, we stand at a distance of more than one metre from the eye, and then, by projecting the light from a lamp placed above the patient's head, we illuminate a circular area of the fundus. The circular outline of this illuminated area is caused by the pupil; its dark border is therefore the shadow of the iris. Now, if we very slightly tilt the mirror while looking at the illuminated fundus, so as to project the light from above downward, or in any other meridian, we observe one of three conditions, according to the refractive condition of the eye examined. In the first place, a mere movement of light and shade passing in the opposite direction to that of the mirror, but having no distinct line of demarcation between the light and the shade, indicates emmetropia; secondly, a distinct linear edge to the shadow which moves in the *same* direction as the mirror, denotes *myopia;* and thirdly, a definite linear edge moving in the *opposite* direction, is a proof of *hypermetropia.* Thus, by a mere glance with the ophthalmoscope, and without the least trouble either to ourselves or to the patient, we can say whether there is emmetropia, myopia, or hypermetropia. And, finding an error of refraction, we can almost as easily estimate its amount. To do this, we have simply to place concave or convex glasses in front of the examined eye until the said shadow disappears. The strength of the glass thus required to neutralize the shadow is the exact expression of the amount of ametropia.

The next point to which I would ask your attention is *the appearance of the normal fundus.* This is best seen by the direct method of examination. By the exercise of a very little mechanical ingenuity we can easily explore the greater part of the area of the fundus. The first object to attract attention is usually the optic disk. This is a circular, somewhat moon-like structure, situated a little to the nasal side of the posterior pole of the eye; it is also called the papilla and the blind spot. From the optic disk we see radiating the retinal vessels; these are mainly two arteries and two veins, curving upward, and the same number curving downward, each giving off branches in its course. These vessels can be followed nearly as far as the periphery of the fundus, where they terminate; but remember that the finest ramifications—the capillaries—are not visible. At the posterior part of the eye, about two diameters distance outside the optic disk, we notice an absence of visible vessels. Sometimes there is an intensification of the red color of the fundus here, and occasionally there is a yellowish appearance; this is the yellow spot, the most sensitive portion of the retina. In examining, then, we first note the optic disk, which should be of a pale pink tint as contrasted with the surrounding color of the fundus. Sometimes, however, we find that in healthy eyes the disk has a very whitish appearance, similar to that found in primary atrophy of the optic disk; and we must always look with suspicion upon a pallor of the disk until, by careful testing, we find that the visual field is of normal dimensions, and the visual acuteness up to the normal standard.

Another condition sometimes found in healthy eyes is that of a depression or cupping of the central part of the disk. This differs from the cupping of glaucoma in the fact that the latter involves the whole area of the disk, while the *physiological cup* is only caused by the fibres of the nerve diverging from the level of the lamina cribrosa.

Another non-pathological appearance which we ought

[1] Delivered at the Royal Westminster Ophthalmic Hospital, London.

to mention here is that of opaque nerve-fibres; these are white fibres of various forms, radiating from the disk and partly obscuring the retinal vessels. They are caused by the persistence of the medullary sheath of the fibres of the optic nerves, which, as a rule, ceases at the lamina cribrosa. The outline of the blood-vessels should be clear and well defined, they should be thickest at the disk and gradually taper toward the periphery. The veins are slightly larger and a little darker in color, as well as a little more tortuous, than the arteries. The red reflex of the whole fundus, as seen with the ophthalmoscope, is derived from the blood in the vessels; or, rather, in the capillaries of the inner part of the choroid—the chorio-capillaris—this is modified in degree by the amount of pigment existing in the pigment-layer of the retina. In the albino the amount of pigment in this layer is almost nil, and we find the reflex to be of a light red color, while the choroidal vessels are plainly visible. In blondes there is also very often a deficiency in the amount of pigment. In dark persons it is usually copious, and the red reflex presents a darker and more brown-red appearance; while in the negro and all dark races, the reflex is very dark. It should also be remembered that the retina itself is invisible in health; with a few exceptions, this structure may be compared to a layer of plate-glass spread out in front of the choroid, its only visible structures being the retinal vessels and the posterior or pigment layer. Now and then we observe a slightly wavy "shot-silk" appearance over the whole retina, and occasionally, in children, the immediate vicinity of the optic disk presents a radiate striation of the retinal nerve-fibres; but with the exception of the opaque nerve-fibres just mentioned, these constitute the only varieties of opacity of the retina in health. I will now pass on to the consideration of a series of cases, which I promise shall be such as may any day present themselves to your notice in the course of future practice.

Case I.—A young woman, aged twenty-three, well developed but somewhat pale, came to the Westminster Ophthalmic Hospital, complaining of dimness of vision and violent pains in the head. Her friends who accompanied her were much alarmed, and stated that she had had several severe "fits," in which there was loss of consciousness and severe struggling for more than an hour each time. Being a specialist, my first step toward making a diagnosis was to make an ophthalmoscopic examination, by which I found the fundus and the refraction of the eye to be quite normal, *i.e.*, by retinoscopy there was no distinct shadow having a linear edge, and by the direct method of examination the disk presented its normal pink tint; it was not hazy or swollen, the retinal vessels were clear in outline, no white spots could be seen in the retina, nor any red streaks indicating hemorrhage from the retinal vessels; in fact, the eyes were perfectly normal in every detail.

I now proceeded to examine the vision, and with a little ingenuity in taking the patient unawares, I found that the vision was quite up to the normal standard, and that the dimness complained of was imaginary. On further examination of the case, I found that other functions of the body were intact, and that the convulsive seizures described by the friends were of the hysterical type. The patient was given to much crying, and became worse in proportion to the amount of sympathy received. I concluded, therefore, that the case was one of simple hysteria, and was able to adopt appropriate moral and other treatment, and to give a favorable prognosis. From an ophthalmoscopic point of view, therefore, the case was a negative one, and you will probably be inclined to say that any practitioner of ordinary intelligence could have arrived at the same result without going through the form of using the ophthalmoscope. This I am prepared to admit, but I am convinced that the use of the instrument, even here, enabled me to proceed with more confidence in the examination, and to speak more decidedly as to prognosis and treatment. With pain in the head, anæmia, and dimness of vision, I should have been less certain without an examination of this kind, as the following cases will tend to show.

Case II. was at first sight not unlike the first. A young woman, aged nineteen, somewhat pale, but well developed, complained of dimness of vision and slight headache. Here the ophthalmoscope showed that, though the refraction of the eye was normal, the optic disk was hazy and obscure, its circular edge could no longer be seen by the direct method, and the central vessels were also rather obscure at their point of radiation; nor could they be made visible by the use of either concave or convex lens behind the sight-hole of the mirror. By the convex lens in that position, however, it was found that the hazy portion of the optic nerve could be seen with a convex lens of considerable strength (5 dioptrics), by which I was positive that this structure was much swollen. There were no red streaks of hemorrhage, nor yet any white spots, so that I knew I had to deal with a case of simple optic neuritis. On the discovery of so serious a symptom, I at once proceeded to a thorough general examination. No localizing symptoms could be found, *i.e.*, no paresis or spasm of any particular set of muscles, nor any hyperæsthesia, or loss of sensation in any part of the body. There had been no vomiting at any time. The only abnormal sign I could find was that the catamenia had ceased for some time. There was occasional headache, and the vision was slightly defective, being only $\frac{6}{12}$ of Snellen's types. The case was treated for the amenorrhœa, and the disappearance of this was accompanied by the disappearance of the double optic neuritis, improvement of the vision, and perfect restoration to health. Had I not used the ophthalmoscope in this case, I feel that I should have attached less importance to the cure of the amenorrhœa; yet, from my own experience, I consider this to be typical of a large class of cases in which optic neuritis is brought about by derangement of the menstrual function, and which are likely to terminate in absolute blindness from optic atrophy, unless that function be restored to a healthy condition.

Case III.—Another case in which optic neuritis was detected by means of the ophthalmoscope is that of Annie B——, aged ten, a delicate child. She had suffered from measles five months before coming under my notice, and, since her convalescence from the measles, had complained of gradually increasing failure of vision, and headache. When I first saw her, three years ago, she could only read large types ($\frac{6}{18}$ and No. 3 of Snellen). On examining with the ophthalmoscope, I found both the optic disks very much swollen and hazy; there were no hemorrhages, nor patches of exudation, but the outline of both disks was lost, and there was evident optic neuritis. By further examination with the shadow-test, I found that the eyes were ametropic; there was compound hypermetropic astigmatism in each. I was also gratified to find that the correcting-glass caused improvement in her vision in spite of the optic nerve inflammation; this restoration was not complete, but still was considerable ($= \frac{6}{12}$ Snellen). No other cause for the optic neuritis could be found; there were no symptoms of intracranial disease, nor anything else beyond bad vision, anæmia, and frontal headache. I have seen the patient quite recently, and am glad to say that her vision is almost completely restored, the optic disk is not atrophied, but presents a slight haze, and the girl's health appears excellent.

This case appears to me to present many points of interest. In the first place, we could not have ascertained either the ametropia or the inflammatory swelling without the aid of the ophthalmoscope. Secondly, astigmatism is not, so far as I am aware, a recognized cause of optic neuritis, although my conviction is that this is by no means an uncommon occurrence.

Case IV.—A medical man, thirty-eight years of age, of powerful physique, active habits, and literary tastes,

consulted me upon a matter which, to him, had for several years been a source of the greatest trouble and anxiety. He stated that his left eye had become useless, and that he had been told, by a competent authority, it would not improve; that his right eye was now becoming so dim that he could not read at night, nor, indeed, had he courage to read more than a little by day. He wore smoked glasses by way of precaution. He had been told that tobacco-smoking was the cause of his malady, and he had consequently relinquished this, his only weakness.

Besides this history of gradual failure of vision, he suffered from frontal headache on attempting to read, and I must say I thought his case sounded somewhat serious as it was thus related to me.

My first act, however, in the way of diagnosis, was to apply the shadow-test, and, looking at the left—the worst eye—first, I found hypermetropia of three dioptrics, and further, by the direct method, I found the optic disk congested. The right eye was also hypermetropic, although to a less degree, and the disk here also hyperæmic. Having corrected the ametropia of both eyes by the same shadow-test, I found that his vision was rendered quite normal by the correcting-glass, and you can perhaps imagine the delight of this man when I was able to assure him that he had no tobacco-amaurosis at all, and that he might use his corrected eyes *ad libitum* without further fear or trembling.

This, then, is another case which is typical of a very extensive class, where by the ophthalmoscope alone we can discover and relieve a troublesome malady, and one which is frequently shirked by the general practitioner, or is altogether misunderstood.

I have known numbers of cases where ametropes have been advised to desist from all studies, to change their vocation in life, to go abroad in search of recreation, when all that was required on the part of the practitioner was a single glance with the ophthalmoscope.

Case V.—A woman, twenty-five years of age, came to St. Mary's Hospital, complaining of dimness of vision. She was fairly nourished, but suffered from lassitude and general weakness. As the vision was chiefly complained of, I made an ophthalmoscopic examination. By the shadow-test there was no error of refraction, but by the direct method it was impossible to see the optic disk; this was quite blurred, as if by a dense mist. The condition was one which might easily be mistaken for inflammation and swelling of the nerve, but, upon using a convex lens behind the sight-hole of the mirror, and directing the patient to move the eye sharply upward and downward, I noticed numbers of fine, "dust-like" particles, which continued to move about after the eye had come to rest; the periphery of the fundus was fairly clear and visible. The opacity was chiefly in the vitreous, toward the posterior pole of the eye. Upon further examination of the case, I found that the patient's hair came off freely in brushing, that the throat was red and presented patches of "mucous tubercle." On the chest and abdomen I found a subdued roseolous rash, and by dint of judicious interrogation, I at last ascertained that a chancre had recently existed on the labium.

There was no inflammation of the anterior parts of the eye, no iritis, no visible choroiditis. It was one in which a cloudy opacity of the vitreous is indicative of constitutional acquired syphilis. I have seen many such cases, and I think it worthy of bringing before your notice, because the ophthalmoscopic examination has been the means of giving the cue to the general diagnosis. I have at present three women and one man under treatment, in all of whom I discovered the general disease through this local symptom. Although I do not mean to infer that in all cases of constitutional syphilis we find dust-like opacities of the vitreous, yet I maintain that this is often indicative of that affection, and so becomes a useful diagnostic sign.

Case VI.—A lady, aged forty, consulted me for twitching of the right eyelids. I noticed also that the mouth was drawn somewhat to one side, that there was partial hemiplegia, and that the vision was defective. On using the ophthalmoscope I found both the optic disks intensely swollen, the retinal vessels were tortuous, the arteries being scarcely visible in parts, and the veins distended to twice their normal size; there were also numerous torch-like red streaks radiating from the centre in the direction of the vessels; these were retinal hemorrhages. This was a case which, of course, I had no hesitation in pronouncing to be one of cerebral tumor, but many have come before my notice in which the optic neuritis was one of the earliest signs of the intracranial disease. The other symptoms are very varied, and it would be impossible for me to describe them in this lecture; but I would take this opportunity of stating that, wherever double or even single optic neuritis is discovered, it is our duty to give a most guarded prognosis. Very much has yet to be made out in the diagnosis of intracranial affections, but I am confident that the ophthalmoscope will continue to be of the greatest service in that direction. In an excellent discussion upon optic neuritis in intracranial disease, which took place at the Ophthalmological Society in 1881, Dr. Hughlings-Jackson says, "Good health goes for nothing in our estimation of the gravity of the situation in many cases of optic neuritis, even when the sight is good. We all see healthy-looking, robust children and adults, who have double optic neuritis with good sight, who are sometimes supposed, by those who do not use the ophthalmoscope, to have no intracranial disease at all. Some of these patients nevertheless have intracranial tumor. Sometimes death occurs rapidly and unexpectedly;" and further on, when speaking of optic neuritis with headache and vomiting, he says, "The headache is intense; often it is paroxysmal, the patient being in the intervals apparently quite well. The vomiting is purposeless and bile is often brought up. Hence the frequent, almost invariable diagnosis in the early stages of chronic cases of cerebral tumor (when the sight is good or only defective), of liver derangements, and in acute cases the occasional diagnosis of bilious and gastric fever." Some years ago Mr. Hutchinson wrote as follows: "The symptoms headache and vomiting very often indeed occur when there is neuritis without defect of sight; the patient in the intervals of his pain may go about and even transact his business. He is supposed to be only bilious, or sometimes, if a woman, only hysterical, until some unmistakable intracranial symptom, such as convulsions, suddenly alters the diagnosis." . . . "The routine practice of the ophthalmoscope would save us from many of these errors. No one would make the diagnosis of liver disease, nor of hysteria, only if, looking at the disks, he saw neuritis."

Case VII.—Daniel M——, thirty-nine years of age, came to St. Mary's Hospital, complaining that he had not felt well of late. He had had occasional bilious attacks, but he thought he could do his work if his sight were not getting so defective.

On ophthalmoscopic examination I found the optic disks quite hazy, old and recent hemorrhages scattered about the retinæ, numerous white deposits free from pigment in the region of the yellow spot and round the periphery of each fundus. His vision was very bad, being only equal to $\frac{6}{24}$ of Snellen. The man was in great trouble, being the possessor of a wife and four children who depended upon his labor for their existence. He had been several months under medical treatment, but had never been told that his kidneys were affected.

My first glance at the fundus of this case convinced me that the man was the subject of albuminuria, and on testing the urine we found it loaded with albumen and to contain numerous granular casts.

Here, then, is another example of a large class of cases where the use of our ophthalmoscope enables us to detect a general disease. Had it been used earlier by the general practitioner, the kidney affection would per-

haps have been more fully realized and more promptly treated. I have known many such. My friend, Dr. Sydney Phillips, was telling me the other day of a very interesting case of this kind which occurred in his experience.

A woman, six months advanced in pregnancy, applied at Moorfields Hospital on account of bad vision. She was examined with the ophthalmoscope and found to have albuminuric retinitis. The vision becoming very bad, and the albuminuria being considered due to pregnancy, she was advised to have premature labor induced. After submitting to this treatment her sight returned, and the albumen disappeared. She was cautioned as to the danger of future pregnancy, and remained quite well for several years, when she again became pregnant with precisely similar results, and had to go through the same process in order to prevent absolute blindness.

This completes the list of cases I intended to bring before your notice to-day, although there are many others of great interest and of equal importance, which, if time permitted, I could have quoted, to show how much help may sometimes be obtained from the early and routine practice of the ophthalmoscope.

For instance, in that widespread and often obscure affection known as locomotor ataxia or tabes dorsalis, I very frequently discover the spinal affection through abnormal pallor of the optic disk.

In many cases of delirium, again, where there is pyrexia, brown tongue, and perhaps semi-dilated pupils, it is often difficult to establish a definite diagnosis; but if we find a woolly optic disk, or could detect the existence of white hemispherical spots in the fundus, this would be strong evidence in favor of the existence of tubercular meningitis.

In cases of anæmia, again, such, for instance, as those described in Cases I. and II., or perhaps more marked than these, if the opthalmoscope revealed the existence of retinal hemorrhages, this would be the signal for the greatest care and anxiety lest the case should assume the malignant type of this affection, and the prognosis in such a case must be guarded indeed.

Original Articles.

A FEW PRACTICAL REMARKS ON RUPTURE OF THE PERINEUM.

By FRANK HASTINGS HAMILTON, M.D., LL.D.,

NEW YORK.

This accident is of quite frequent occurrence, especially in the birth of the first child. It is unjust to say that it can always, or even generally, be prevented by the skill of the accoucheur, since its occurrence is often due to conditions and circumstances over which the accoucheur has no control. The perineum may be unusually deep in its antero-posterior diameter, or unusually thin and delicate, or less elastic in its texture than natural; the sacrum and coccyx may not have the proper curve to direct the head toward the pubes; the head itself may be large and unyielding; the uterine contractions may be too violent and rapid to allow the perineum time to become gradually stretched and accommodated to the head. Indeed, there are many causes which may determine this result which are wholly beyond the power of the accoucheur to remove.

Obstetricians have frequently given instructions how to avoid the accident, and have sometimes intimated that its occurrence always implied negligence on the part of the accoucheur. It has been advised to insert two fingers between the head of the child and perineum and stretch the perineum; but the advice has been very properly rejected as unphilosophical and useless. The fingers are more liable to cause a laceration than would be the head of the child. To make two lateral incisions, when a rupture seems imminent, is to make an operation which may have been unnecessary.

Most commonly the advice given is to "support" the perineum by the palm of the hand, or by the hand with a folded napkin interposed. Precisely what is meant by the word "support," as here used, is not always clearly stated, but in general we are left to infer that the writer intends to say, that by this outside superficial pressure the perineum is reinforced and strengthened, and its liability to rupture is lessened.

I will venture to say that the idea cannot be sustained by any sound mechanical theory, or by experience. I have myself given "support" in the manner described, with the naked hand, but not for the purpose above indicated; and in the last efforts of labor, when the perineum had become as thin as a sheet of writing-paper, I have felt it suddenly give way under my finger, the rent commencing in the centre of the concave edge, and extending backward more or less as the head passed out. I am certain that no mechanical aid or human skill could have prevented this result. Said the late Professor Elliott: "The perineum can always be saved from laceration when the camel can go through the eye of a needle."

If the intention is to delay the advance of the child, a theory which at least one teacher of obstetrics has maintained in a public discussion in my presence, the intention is a good one, but the method of seeking to accomplish it is of no value. No resistance, or none which could ever be considered justifiable, applied to the perineum, can appreciably delay the advance of the child when the uterus is acting with its normal or with unusual vigor, and under no other circumstances would it be required.

According to Velpeau ("Midwifery," Amer. ed., p. 349), the accoucheur of the public lying-in hospital at Gottingen, in 1830, and "the one who in 1824 directed the lying-in hospital of Dublin," were of opinion that these attempts to give support were all useless, and that they were even dangerous—an opinion which is probably correct unless the pressure be applied only for the purpose next to be indicated.

Finally, if the purpose of making pressure upon the perineum is to carry the head forward toward the pubes, the suggestion has a meaning and can be understood. Certainly this is advisable whenever, from the lack of curve in the sacrum and coccyx, or from any other cause, the vertex does not take this direction; but these examples are rare and exceptional.

It does not follow, from anything I have said, that the accoucheur might not sometimes be responsible for this accident, but his responsibility is likely to consist in what he may actually have done rather than in what he may have omitted to do. A lacerated perineum is caused sometimes by the improper haste of the accoucheur. He has been unwilling to wait upon the tardy processes of nature, or until the parts have become sufficiently dilated, and he has sought to hasten labor by the use of ergot or some other similar agent, or he has unnecessarily resorted to the use of instruments. Gooch ("Midwifery," American edition, p. 55), speaking of a serious rent of the perineum, says it is rare, "except during the application of the forceps, when," he says, "it is not an uncommon occurrence." Some modern gynecologists do not think the danger of rupture of the perineum is increased by the use of the forceps, if only they be used skilfully; but it certainly must increase the danger if the instruments are used unskilfully; and when, in the hands of the most skilful, the instrument is retained in position until the head has entirely escaped from the vulva. Nor does it appear to me that the argument in their defence is conclusive, even when they are only employed to bring the head into the lower strait, and then withdrawn, leaving nature to complete the delivery, as I think is now the general advice and practice of accoucheurs. It is claimed that by this simple manœuvre the process of natural labor may often be greatly expedited; but this is the very thing which it is generally most desirable to avoid, so that, as Meigs says, the perineum may "not be taken by surprise." In short, there is less

danger to the perineum when the head does not come upon it forcibly and unexpectedly, and before the head itself has undergone the process of moulding and elongation.

But there are other evils than a lacerated perineum, which are apt to follow a too rapid delivery, such as sudden inertia of the uterus, post-partum hemorrhage, detention of the placenta, and septicæmia. It has seemed to me that these accidents were more frequent after too rapid delivery than after those which have been too much delayed; but these are points which are not relevant to the subject under consideration, and which I do not propose now to discuss.

I may be permitted, however, to refer to the fact that, since the time when I commenced the practice of medicine, the question of instrumental labor has undergone a complete revolution. I was a pupil of Dewees, and was taught that the forceps were seldom required; but to-day the teaching is altogether different, and there are now many gynecologists who count their instrumental labors by the thousands. A young man who was urging me to apply the forceps to his patient, but in which case the result proved that it was unnecessary, told me that a friend of his, a recent graduate of one of our city schools, and who was doing a large obstetrical practice in a neighboring town, assured him that he never put a woman to bed without forceps. I do not hold this young man's teachers responsible for his practice, but the fact illustrates what is now the drift of professional opinion.

If the obstetrical experience of my early life, and the surgical experience of my later life, have not misinformed me, grave perineal lesions are more common now than formerly, and this increase has been coincident with the increased use of forceps and of anæsthetics in labor. I mention anæsthetics in this connection, because the forceps and anæsthetics are so often associated in modern practice. The effects of anæsthetics are by no means in all cases limited to the alleviation or abolition of pain when employed in the case of the parturient female. In most cases they exert a positive influence upon the uterine contractions, and in this respect they are capricious. Sometimes they increase the frequency and strength of the contractions, and this is especially apt to happen when given in small quantities and in the first period of their exhibition; it is under these circumstances that they may contribute to the production of a perineal rupture. In other cases, under their influence I have seen the uterine contractions temporarily suspended, and a degree of uterine inertia induced which continued to the close of the labor, and which has been accepted by me in more than one instance to explain the delay in the expulsion of the placenta, and the subsequent uterine hemorrhages.

While there can be no question that the forceps and anæsthetics have been of incalculable service to parturient women, I have a strong conviction that, since they have come into such common and almost universal use, they have done a great deal of harm. I believe that the time is not distant in the future when it will become apparent to all that we have in these matters progressed too rapidly, and possibly that our progress has been altogether in the wrong direction.

In a large proportion of cases the rupture is slight, involving only the fourchette, or only the mucous membrane which has been thrust beyond the fourchette. In exceptional cases it involves a large part or the whole of the perineum, and still more rarely it extends directly, by laceration, or by subsequent sloughing, through the sphincter ani, and more or less extensively destroys the vagino-rectal septum.

In the simpler form of these accidents, where only the fourchette is torn, no serious injury is inflicted, and no surgical treatment is demanded. If left to itself, and some care be taken to keep the parts clean, it may be restored to its original condition by the unaided process of cicatrization; but if it is not thus restored, no future inconveniences to the patient will ensue. Indeed, this partial loss of perineum may render any further laceration in subsequent deliveries less probable.

In case, however, the laceration involves any considerable portion of the perineum, extending nearly, or quite, to the outer circumference of the sphincter ani, the closure of the rent is desirable, inasmuch as in a certain proportion of cases it is followed by a relaxation and falling of the vaginal walls, with a consequent displacement of the uterus. But it has often happened to me to see women, in whom the rent has extended through the entire perineum, who have after the lapse of many years suffered no inconvenience from this source. Especially has this been observed in the persons of spare women, and if they have not subsequently borne children.

The concurrence of a deficient perineum, and of prolapsus uteri, do not always stand in the relation of cause and effect. The perineum in its most perfect condition, and when the uterus occupies its normal position, gives no direct support to the latter. The uterus may be made to descend from many causes whether the perineum is sound or not; and if in its descent it has been brought into actual contact with the perineum, the presence of the latter is an important obstacle to its farther protrusion. The absence of the perineum, when the vagina and uterus are in their normal conditions, can only influence the descent of the uterus by first inducing atony of the muscular fibres of the vagina, with congestion and prolapse of the vaginal walls, by which not only the feeble and indirect support which the perineum gave to the uterus is removed, but the vaginal walls become actually a dead weight, to drag the uterus downward. These consequences to the vaginal walls and to the uterus, I am prepared to reaffirm, do not always ensue upon the total destruction of the perineum. Although, if the woman subsequently bears children, or is very fat, they are liable to ensue.

Immediate or Primary Operation.—I cannot agree with some modern gynecologists, that it is better in such cases to proceed at once to close the rent by sutures, and for several reasons, some of which have already been anticipated. The parts have suffered such a degree of stretching and contusion as to render the occurrence of inflammatory reaction, if not of sloughing, almost inevitable; the lochial discharges will make it impossible to keep the parts clean; the operation itself inflicts a severe injury when the condition of the patient is already critical from other causes; and finally, because under judicious management the rent frequently becomes partially and sufficiently closed spontaneously.

If spontaneous closure of any portion of the rent takes place under these circumstances, it is probably not usually effected by the direct contact and immediate adhesion of the lacerated surfaces. The conditions are all unfavorable to this occurrence. Lacerated and contused wounds seldom unite by first intention, and the torn edges are too narrow and irregular to be placed and maintained in exact apposition, even with the aid of sutures. The surgeon encounters sufficient difficulty in securing this result even when, at a later day and under much more favorable circumstances, and after an extensive denudation of the surfaces, he attempts the closure by the aid of sutures. It is much more probable that the union occurs in these cases by the secondary process of granulation, the cicatrization and restoration commencing at the angle of the wound where the laceration terminated, and extending thence in the direction of the vaginal orifice. This is what happens usually in the case of a lateral incision, made for the purpose of enlarging the orifice of the mouth after certain plastic operations upon the lips, and which, without great care on the part of the surgeon, is certain to defeat his operation. Indeed, I have generally found it impossible to prevent the union of the parts thus divided, except by covering one of the raw surfaces with the mucous membrane dissected from the inside of the lip.

While, therefore, the accoucheur may be advised to maintain actual contact of the raw surfaces by position, in the remote hope that some adhesion may occur, there is not in this possible chance of small results a justification for operative surgical interference. The parts should certainly not be needlessly or forcibly drawn asunder, but they may be carefully exposed to view each day, and made clean by gentle ablution; and the urine should be drawn by a flexible catheter as often as may be required for the relief of the patient, to whom nothing is more distressing than the contact of the urine with the raw surfaces of the wound.

In further support of the opinion above given, that an immediate operation is not in most cases, if ever, advisable, it must be explained more fully that, if it were possible to secure union by adhesion at this early period, the operation must be made within a few hours at most. Hewitt ("Diseases of Women," Sims, Amer. ed., vol. i., p. 462), who advises the early operation "when the rent is at all considerable," says "the primary operation should be performed within one hour from birth, while the surfaces are still raw and bleeding." . . . "It is of very little use in inserting sutures when the labor has been over some hours; union rarely then occurs." This statement is doubtless correct, and my experience in a great variety of plastic operations compels me to doubt whether the operation will be any more successful if made within an hour. The reasons for this opinion have already been assigned. But we may properly ask Mr. Hewitt what is to be done with that very considerable number of cases in which the expulsion of the placenta is delayed beyond an hour? Shall the rent be closed before it is expelled, at the risk of the sutures being torn out by its subsequent passage? Or is the accoucheur again to interfere with the course of nature, and, with more or less violence, as may become necessary, remove the placenta without reference to the present general condition of the patient or of the uterine contractions?

From any point of view it comes to this, that it is proposed to make an operation, by no means trivial in its character, requiring, according to Hewson, two or three "rather deep silver-wire sutures," not to speak of the subsequent special management of the bowels required, and the removal of the sutures; and which operation at the best is very liable to fail; and which may subsequently, in case no operation is made, be found to have been unnecessary; or which, if it becomes necessary, can be made more thoroughly and successfully at a later period—it is proposed, I say, to make the operation under every surgical disadvantage, and when the patient, prostrated and trembling from the results of a severe labor, is in the worst possible condition, both mentally and physically, to endure the shock of an operation, or even its announcement. Nothing but the most urgent, imperative necessity can justify the operation under these circumstances, and this necessity has not been shown to exist.

It is proper, also, to add that not every accoucheur is competent to make an operation of this nature, and experts in this department of surgery can seldom be obtained within the hour assigned by Hewitt as the limit of its probable success. This may not constitute an argument against the primary operation, but it may be pleasant to the accoucheur, who has omitted to perform it, to believe that happily it was not necessary or advisable.

At this early period, also, it is often difficult for an expert even to form anything like a definite opinion as to the actual extent of the lesion. A rent, which at first seems to be an inch or two in length on account of the distended condition of the perineum, will, after contraction, a few hours later, be found to be not more than a quarter or half an inch.

Secondary Operation.—In case the rent involves the perineum only, the integrity of the sphincter ani being preserved, the preparatory treatment will consist in a thorough evacuation of the bowels with a saline cathartic, administered forty-eight hours before the operation is made. On the morning of the operation the rectum should be emptied by a copious enema of warm water, to be followed by a suppository containing half a grain of morphine. The patient being then anæsthetized and placed in the usual position for lithotomy, while an assistant displaces the upper wall of the vagina with a Sims' or Bozeman's speculum, the surgeon will proceed with mouse-tooth forceps and scissors to denude the surfaces which are to be brought into contact. These surfaces should be extensive, rarely less than one inch in the antero-posterior direction, and they should extend inward along the vaginal wall nearly as far. The denudation must also be complete, the interposition of the smallest portion of the mucous or tegumentary membrane between the lips of the wound being sufficient to partially or wholly defeat the operation. All bleeding having ceased, three well waxed sutures, of the largest size of harness makers' silk, are to be introduced, the first being placed at the angle of the wound close to the sphincter. The needle, armed with a double ligature, must be inserted at a distance of from three-fourths to one inch from the margin of the wound, carried to a sufficient depth to include the entire surface which has been made raw, and brought out at a corresponding point upon the opposite side. Each suture will be introduced in the same manner. Sections of a rather large-sized flexible bougie, one inch longer than the fissure, are laid upon either side, and the double sutures drawn upon until the lips of the wound are brought together with moderate firmness, and the sutures are tied. In most cases, in order to secure accurate apposition of the margins of the wound, it is well to insert two or three very delicate superficial sutures. The knees of the patient should then be tied together lightly, with a small pillow interposed between the knees, and she may be left to repose upon her back or side, as may best suit her comfort.

The after-treatment demands the most careful attention. The bowels should be kept quiet for several days. The parts should be subjected to daily inspection and kept clean and dry. The urine should be drawn as often as may be necessary. The deep sutures may be permitted to remain six or seven days, or even longer, if they cause little or no irritation, but the fine sutures may be removed earlier. Finally, rarely sooner than after ten days, the bowels must be moved and the rectum emptied by the aid of physic, enemata, and by mechanical assistance if necessary.

In case the rent involves more or less of the recto-vaginal wall, the difficulties of the operation will be greatly increased, and it will be advisable always to paralyze the sphincter by two lateral incisions, extending backward and outward on each side, as first recommended by Baker Brown. The deep sutures must be kept in place as long as they serve a useful purpose, the evacuation of the bowels must be longer delayed, and after the sutures are removed the parts must be kept at rest and in contact until a firm union is insured.

I have made no reference to the use of the wire sutures in this operation, because, so far as the management of the perineal rent is concerned, I prefer to employ the so-called "quilled" suture, only substituting the bougie for the quill, and for the reason that I do not find the wire so easy to introduce or to remove; nor have I found it, where the perineum alone is torn, to possess advantages in any other respect. If, however, the rent or loss of structure involves any considerable portion of the recto-vaginal septum, I would recommend, so far at least as the rectal fissure is concerned, the wire suture either with or without Bozeman's clamp; but I must acknowledge that, in the treatment of this very difficult class of cases, I have had no practical experience, and cannot therefore speak authoritatively. I would prefer always to refer such cases to those who have had special practical experience in this department of surgery.

TRANSFUSION OF MILK IN OPIUM-POISONING, WITH SOME THOUGHTS ON TREATMENT.

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Some very recent experience in the treatment of opium-poisoning, taken in connection with that acquired heretofore, suggests to my mind a question as to the propriety of much that is embraced in the conventional method of treating such cases. I refer more especially to the efforts made to combat the somnolent state and to keep the patient from sinking into insensibility. It is not the somnolence that kills, as is evident by the fact that individuals may and often do remain in a lethargic state for long periods without special detriment to the vital energies. It is further evidenced by that class of cases in which the patient recovers consciousness after the hypnotic action of the drug has expended itself, but gradually sinks and expires from the resultant exhaustion. Such cases are not uncommon. As an illustration of the ordinary course pursued in opium-poisoning, and its deleterious consequences, I will cite the following case :

Mrs. G——, aged sixty-six, was subject to excruciating neuralgia of the head. On May 23d she was suffering from one of these attacks and took, during the morning hours, several doses of chloral of about ten to fifteen grains each ; this failing to give relief, her physician, unmindful of the fact that the alternate action of morphia and chloral is specially dangerous, gave her a hypodermatic injection of morphia. He claims that the dose administered was a small one, probably not exceeding the eighth of a grain.

Very soon the patient became somnolent and a gradually-deepening narcosis apprised him of the impending danger. He tried to arouse her by shaking, shouting in her ear, pinching, pricking, flagellation, and finally by keeping her in incessant motion. Strong coffee was also administered in large quantities every few minutes, which she was goaded into taking by special efforts in the way of pinching, shaking, and the entreaties of her daughter, but which at intervals would be ejected from the stomach when that viscus became overburdened. After this had continued for some hours, I was sent for and found her in a profound stupor, with slow and quiet respiration, slow pulse, and a dry surface. The pupils were contracted to the utmost. I immediately administered atropine hypodermatically, which I repeated three successive times at intervals of twenty minutes, until a moderate amount of dilatation of the pupil was secured. In the meantime the physical tortures, the cramming of the stomach with coffee, and the enforced motion, were continued with unabated diligence, until nothing that could be done would arouse the patient, and she was carried in perfect helplessness, and with dangling limbs, to a lounge where she was supported in the sitting posture by two very energetic attendants, who continued to ply their vocation in the manner above indicated. I not only approved of all this, but urged it on with (save the expression) quiet vehemence. Cold water was now at intervals projected with violence into her face from a Davidson's syringe and a faradic battery brought into requisition, by means of which, yet for a while, voluntary movements, cringings, and groanings could be elicited. Brandy was now given hypodermatically and subsequently the intravenous injection of ammonia was practised—the latter more with a view to antagonize the chloral than the opium. During this time the respirations gradually dropped in frequency until they reached the minimum of four per minute. The pulse now ran at from 96 to 100, but varied as to force and volume, at times becoming almost imperceptible, and then again augmenting. The respirations at one period had a duplex character, in which the intervals between the deep and slow respirations were filled with very shallow, quiet, almost imperceptible respiratory movements. The coma deepened despite all efforts, and she was laid on the lounge, and the principal reliance placed in faradization, by which means the respiratory movements could be quickened for a few moments, but not maintained. The brandy and ammonia were still occasionally used and warmth applied to the surface. After a profound depression, from 1 to 3 A.M., she gradually emerged to some extent, the respirations mounting to eight per minute and the pulse improving in strength. At daylight she could be aroused so as to recognize a friend, but would immediately relapse into her lethargic state. The thermometer at this time indicated a temperature of 101.3° F. I make special note of this fact because of the prevalent belief that the temperature never rises in opium or chloral narcosis. Some years since I had a death from chloral-poisoning, following in the wake of delirium tremens, and in that case a very marked increase of temperature characterized the last moments, and continued post mortem.

At 8.30 A.M. I concluded to try the transfusion of milk. Accordingly, after making arrangements to get some milk directly from the cow, I improvised an apparatus as follows : Taking a small hard-rubber syringe, I discarded the piston, and by wrapping the nozzle of a Davidson's syringe, made it to fit air-tight into the chamber of this smaller one. I then cut down upon the radial vein, and lifting it on a button-hook, opened and introduced into it the nozzle of the small syringe, which, being secured in position by ligatures, was filled with a warm saline solution. In the meantime the milk had been obtained and kept at a temperature of 100° F. by immersion in warm water. The warm salt water with which the Davidson syringe also had previously been filled, was now displaced by milk, and the nozzle introduced into the chamber of the smaller syringe, so as to entirely exclude the air, and one pint of milk gradually thrown into the vein. The effect was striking. The respirations, which up to this time had remained at about eight per minute, promptly rose to sixteen ; being quiet, easy, full, and natural. The volume and force of the pulse increased, a general health-like suffusion or glow of the surface ensued, and the patient opened her eyes. This was soon followed by a momentary pallor, loud rattling in the throat, and vomiting ; but these unpleasant symptoms soon passed off and the patient lapsed into quietude, with an aspect so much improved as to lead us confidently to expect recovery. At this juncture, being called away, I promised to return at 1 P.M. intending to repeat the transfusion, should circumstances justify such a procedure. Unfortunately I was unable to return until nightfall, when she had just expired. She had continued in good condition until about the time of my expected call, when signs of failing became manifest, and she gradually became weaker until life became extinct.

She died of exhaustion pure and simple, and the question obtrudes itself, "How much of the exhaustion was contributed to by the severe inflictions to which she was subjected in the combat against insensibility?" Had I a case of opium-poisoning to-day, I should give less attention to the coma and more to the fostering of the vital energies. While we recognize the fact that pain is the natural antidote to opium, that exercise promotes the circulation, and that the reflex of impressions made on the skin stimulates respiration, we must not shut our eyes to the extreme probability of overdoing these things in our anxiety, of inflicting such injury and so exhausting the already overwhelmed nerve-centres, as to shut off the chances of life after the lethal effects of the drug have worn off. In the use of those means calculated to awaken the sensibilities, I should use moderation and caution, and especially would I use them intermittingly. Whatever measures are used, let them be sharp and short in duration. In exercising the patient, let there be a brisk walk or run, followed by a period of repose. In the use of cutaneous excitants, such as pinching, lashing, douching, electricity, etc., be sure that they are not kept

up too persistently, and that they are so selected and so performed as to inflict the minimum of bodily injury and yet produce the maximum of pain. Very small twigs or a broad thin paddle for whipping, a small fold of skin for pinching, quick or forcible jets of water for douching, and, above all, the use of the faradic current, are the methods and measures called for. In the use of coffee, I should be careful not to overload the stomach, as absorption is certainly not promoted thereby, and the distention of this organ only leads to pernicious reflexes and interferes with the action of the heart. I should give atropine to such an extent as to produce moderate dilatation of the pupil, would keep the surface comfortably warm, use massage upward to aid the circulation, and, lastly, if I saw the vital powers were waning, I should resort to the transfusion of milk. By this means I would expect to save that very considerable number of cases that emerge from the immediate effects of the opiate only to succumb to the exhaustion which has been so much aggravated by the cruel, and, as I now believe, irrational draft on the vital energies, in futile efforts to keep the patient awake.

NOTES ON RECENT MEDICO-LEGAL CASES.

By HENRY A. RILEY, Esq.,

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Pennsylvania has followed New York in the enactment of prohibitory laws against oleomargarine, and the statute just passed takes effect from July 1, 1885. The manufacture and sale of imitation butter is forbidden after that date, and all persons having the article on hand are to be punished. The signing of the bill by Governor Pattison has caused some excitement among the commission dealers of Philadelphia, and it is not unlikely that a test case will be made on the question of the constitutionality of the law. It will be remembered that such a case was commenced in the courts of this State, and is now pending in the Court of Appeals, with the final decision remaining in great doubt. The argument is used with much force that oleomargarine, when manufactured in a cleanly manner and from pure materials, is not an unhealthy article of diet, but is rather to be preferred to the poorer grades of genuine butter, and that it is beyond the power of the Legislature to absolutely forbid the manufacture of an article which is confessedly not necessarily harmful. The power of the Legislature to enact laws more or less prohibitory on grounds of public health is one of the most important questions now before the public, and the limits of its power are not at all settled. It seems to be decided, however, that a legislature cannot validate legislation on public matters simply by saying that the public health demands such and such laws. It must in reality appear that the laws are necessary health measures, or the courts may declare them void. This was the case in a notable instance recently, where the Tenement-house Cigar Bill attempted, on alleged grounds of public health, to forbid the manufacture of cigars in certain kinds of tenement-houses; but the Court of Appeals held that the bill was on its face not a health measure, except in name, but was intended to prevent injurious competition to the large manufacturers. The law was therefore declared null and void. Somewhat the same question will come up for decision in the oleomargarine case, but the issue is more doubtful.

It is certain that there is no more interesting and important branch of law than that limiting the power of legislatures to pass laws on health questions, and the decision soon to be rendered by the Court of Appeals will no doubt help to fix the limits.

In actual fact, the law, the constitutionality of which is yet uncertain, has been so well administered under the backing of the entire farming interest, that there is almost nothing left of the manufacture of oleomargarine, and its sale has been very largely curtailed. According to the report made some months ago by the Dairy Commissioner, at least four-fifths of the traffic had been at that time destroyed, and there is probably still less now.

One of the signs of the successful enforcement of the law is the recent failure of the Commercial Manufacturing Co. of this city, once the largest manufacturer of oleomargarine in the country, and having a nominal capital of $10,000,000. The company is now in the hands of a receiver and has not done any business for a considerable time.

Two recent suits in this city will have some interest for physicians; one of these was a suit brought by the executors of the late Dr. J. Marion Sims against the United States Trust Company to recover $5,000, alleged to have been improperly paid on a check by the Trust Company. Dr. Sims, when in Europe in 1882, made Gilbert L. Crowell his trustee, and money deposited in the Trust Company was drawn out by him and he became a defaulter. Dr. Sims claimed that the Trust Company had no legal notice of the holding of a power of attorney by Mr. Crowell, and that it should not have paid the money on his personal check. The case has been twice tried, and now for the second time the estate of Dr. Sims has been successful in establishing its claim. The other suit is that of Dr. James M. Schley for medical services. The defendant, Mr. Arthur Bloodgood, had the disease called locomotor ataxia, and the action hinged largely upon the question whether the disease was curable, and whether the so-called Salisbury diet, invented by Dr. Salisbury of this city, is approved by medical authorities.

Quite a number of physicians were examined on the trial, and the jury rendered a verdict in favor of Dr. Schley.

The firm of J. C. Ayer & Co., patent medicine manufacturers of Lowell, Mass., are in trouble, the custom authorities of Canada having seized at Montreal a large quantity of medicines, valued at $150,000. The charge is made that there has been a serious undervaluation practised for ten or fifteen years in goods sent to Canada, and that a loss of revenue amounting to $25,000 a year has been suffered by the Canadian Government. The firm deny the charges, and say that the medicines sent were not compounded, and, being forwarded in bulk, were valued at cost, and that this was proper under the circumstances.

The charges made by Dr. Robert A. Gunn, that a bribe was solicited by Senator Coggeshall for a favorable report upon the bill to incorporate the "College of Medicine and Surgery," have not been either proved or disproved as yet. Dr. Gunn gives his version of the matter with considerable particularity, but Senator Coggeshall thus far contents himself with a simple denial. This answer is certainly not sufficient, and a rigid investigation should be had into the matter. If this is not done in the courts by a suit for libel, it will no doubt be secured by a legislative inquiry when the Legislature assembles next winter.

The charge of bribery does not affect, however, the merits of the bill, and these do not appear very clearly. There are now eight medical colleges in this city giving the degree of M.D., and there is certainly no such need of another as to warrant a special law of incorporation, when the general law of 1853 is broad enough to cover all attempts to establish new colleges. There will be no opposition to Dr. Gunn if he should create a new medical school under the law, but the reason for special legislation does not appear.

A prominent physician in a neighboring city received the following note from a lady a few days since: "Dear Doctor: Please come to see my brother at once, and bring your urethra with you. Respectfully, Mrs. ——." The doctor answered the call, and carried a catheter.—*Atlanta Medical and Surgical Journal.*

PULSATING PROPTOSIS AND ELASTIC TUMOR OF LEFT ORBIT,

Consequent upon a Trauma of the Skull—Ligation of Left Common Carotid.

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(Continued from page 656.)

In this review of the pathological evidence in support of rupture of the internal carotid, etc., it is interesting to note the strongly corroborative proof offered by the clinical histories of many of the fatal and successful traumatic cases. From the preceding analysis of the anatomical alterations the clinical characters of this lesion are readily deducible. I include in this brief review of the clinical features only the traumatic cases on record. The symptoms follow in the order of prominence and frequency, as illustrated by the published cases and the special prominent features existing in the case which forms the subject of this article.

A. Mound-like elevation of the palpebral area invading also the temporal, nasal, and frontal regions, associated with the following symptoms:

1, Increase in the thickness of the lid, due to vascular engorgement; 2, reduction of the muscular excursion of the upper lid; 3, dusky, cyanotic appearance of the skin; 4, tortuosity and distention of the cutaneous and subcutaneous veins; 5, prominent tortuosity of terminal cutaneous veins, notably the branches accompanying the ramifications of the naso-ciliary and angular arteries; 6, palpation may discover a feeble pulsation and the characteristic purr or thrill in these veins; 7, injection of the ocular and palpebral conjunctiva; 8, chemosis—particularly where the obstruction to the return of the venous blood is sudden is this symptom one of prominence and importance; 9, disturbance of the muscular apparatus of the iris, sluggish pupillary movement, myosis, mydriasis; 10, interference with the intra-ocular circulation, resulting in congestion of the choroid, œdema of the retina, pulsation and distention of the retinal veins, papillitis, neuro-retinitis, etc., with their resulting complete or partial suspension of function of the eye; 11, paresis or paralysis of the motor and sensory nerves of the eye and its surroundings; 12, various other symptoms referable to the affected orbital area not necessarily consequent upon it, but directly resulting from the primary or causative lesion, fracture of the basis cranii.

B. Pulsating elastic tumors or prominences in the anterior portion of the orbit, varying in number, shape, dimension, and locality.

1, The upper and inner portion of the orbital opening, between the globe and the bony margin of the orbit, the most frequent locality—they may also be situated above or outward and downward; 2, these "bossy protuberances" often pulsate visibly, in others a simple stretching of the overlying skin is necessary to render them so; 3, palpation discovers a more or less forcible impulse; 4, pressure with the finger against these elastic tumors involutes the glove-finger like apex, but does not arrest the pulsation; 5, arrest of pulsation can only be accomplished by compression of the common carotid, but even this in some cases only results in a temporary cessation, which after some time gives way to a feeble pulsation; ligation controls it more thoroughly, but it also may fail to arrest it, and other measures—galvano-puncture, injection of irritants, and ligation of opposite carotid—may prove necessary.

C. Proptosis or displacement and pulsation of the globe. In many cases the protruded eyeball is the seat of distinct rhythmical pulsations. If it is not visible it can be readily discovered on palpation.

1. The impulse, on palpation, is generally strong; 2, the firmest pressure against the closed lids and globe does not arrest it; 3, compression of the carotid at once controls it; in some cases it is only a temporary control and compression of the opposite carotid is necessary to effect a complete cessation. This also applies to ligation; 4, it is probable that the heavy upper lid exerts a controlling or compensatory pressure against the globe and guards against *excessive prominence.*

In the present case this was illustrated. When the palpebral fissure was opened with the thumb and index-finger, the pulsating globe advanced at once into the lid-opening and became so prominent, that it could be easily strangulated by the lids.

D. Subjective symptoms.

1, Discomfort, feeling of fulness, pain, resulting from the prominent globe and vascular engorgement of palpebral area; 2, disturbances of vision, either in consequence of the pendent lid or paresis or paralysis of the levator palpebræ superioris; 3, diplopia, due to paresis or paralysis of the extrinsic muscles; 4, defects of vision from disturbance of the retinal and choroidal circulation, etc., paralysis of accommodation; 5, existence of noises in the head, referred to the affected orbit and also to different and remote parts of the head; 6, these sounds vary in loudness, intensity of impulse, pitch and duration. Rarely does the patient speak of one sound, but in most instances refers to several. He may designate one as the principal or loudest sound and characterize it as beating, throbbing, or blowing, and compare it with the noise made by the escape-pipe of an engine (a most frequent comparison), and similar characteristics may be assigned to the other sounds. Particularly does the mewing, cooing, or moaning attribute of one sound, called by the French the bruit de piaulement or miaulement deserve mention. In the present case it had a moaning or distant vibratory cooing sound, and corresponded to the third orbit.

E. Corroborative proofs offered by the analytic interpretation of the subjective phenomena, aided by test of vision and functional examination of the eye and physical examination of the head and orbit.

1. Palpation detects increase or decrease of the orbital tension. In most cases the orbital tension is increased; position of the head and posture of body influence it; digital compression of the carotid increases it markedly. In the present case the orbital tension was pronounced in the standing, greater in the recumbent position, and greatly increased when the carotid was compressed. 2. It also discloses the force of impulse and its rhythm and duration in the pulsating tumors and eyeball. 3. Auscultation analyzes the special characteristics of the sounds and localizes their intensity, etc.

I report the following case because it offers, in my opinion, satisfactory clinical evidence for the existence of this lesion, upheld by the preceding pathological and clinical analysis and first accurately described by Dr. Delens; the latter's views, supported by Mr. Rivington in an excellent paper, and fortified and enlarged by the addition of a most careful compilation and deductive reasoning, based upon all cases on record, by Professor H. Sattler.

It is, of course, admitted that clinical evidence can only be considered corroborative; upon it alone a diagnosis of a lesion, particularly one with such an obscurity of origin, cannot be upheld. It therefore can only be considered problematic; yet the more thoroughly the clinical phenomena of a case are found to correspond with and resemble those existing in the isolated fatal cases in which post-mortem examination was possible, can they be regarded with greater probability as constituting the manifest and correlated phenomena of this pathological lesion.

About two years ago, G. P——, aged eighteen, a coal-miner, while at work in a coal-shaft, sustained a serious injury of the head. It was caught and crushed between two loaded cars. He was found and removed in an unconscious condition, bleeding profusely from both ears and nose. In about three days he regained consciousness, replied to questions, and at once remarked that his sight and hearing were defective. He also complained

of great prostration and impairment of sensation in the extremities, but no paralytic symptoms existed, and his intellect was unimpaired.

The sanguinolent discharge from the ears continued about five days, then ceased in the left and changed to a purulent discharge in the right ear; this continued for five or six weeks and was attended by marked deafness.

No marked contusion or ecchymosis of the scalp or face existed immediately after the accident.

On the ninth day he had so far recovered that he was able to walk about. His chief complaint at this time was defective vision, diplopia, vertigo, and deafness. The deafness was so pronounced that he could not understand very loud conversation.

These symptoms lasted about five weeks and were followed by gradual improvement of hearing and vision, but vertigo, tinnitus, and peculiar humming sounds in the head continued and at times were greatly increased.

At this time, five weeks after the accident, he determined to seek the advice of a physician in Richmond, Va., to obtain, if possible, relief from the diplopia, deafness, and noises in the head. He is confident that at this time no perceptible prominence of the eye existed, but he distinctly mentions a peculiar interrupted cooing or beating sound which he could not localize, but which differed from the continuous ringing sound referable to his ears, notably the right one. Two months after the accident he noticed, but whether sudden or gradual, or whether accompanied by a sudden noise or snapping sound in the head he cannot remember, a fulness of the left palpebral area and protrusion of the globe, together with a pulsating or throbbing sensation in the orbit. The sight of the left eye at this time was more impaired.

In the course of several weeks the noises in the head increased in intensity and assumed distinct characteristics, so that he was able to distinguish three distinct sounds.

The first and loudest was the bruit, which another person could hear by placing the ear over the closed lids of the left eye, or over the left temporal region; it was loudest and resembled the exhaust of a steamboat; the second, next loudest, was something like the first, but much weaker and of higher pitch; this was followed by the third sound, which he compares to the sound made by a wagon, loaded with iron, passing down the street. This third sound was cut short by the first sound beginning again.

By placing his finger over the closed eyelids, he could feel the pulsation of the globe; he could also, by pressure, cause the prominent eye to recede a little.

The protrusion of the globe continued to increase, and, in addition, a livid appearance of the palpebral area, together with a tortuous and distended appearance of the superficial veins of the globe and eyelids, developed. The noises in the head and the discomfort and vertigo attending all prolonged physical exertion forced him to abandon his work, and he determined to seek the advice of Dr. E. Williams, of this city.

Stat. præs.—Strong and muscular young man; no irregularity, prominence, or depression of head; the entire left palpebral area is the seat of an elastic swelling which extends and invades also the frontal and temporal regions; the skin is livid and discolored; numerous large and small veins traverse this entire swelling; near the inner canthus the distention and tortuosity is greatest; several large varicose veins extend across the superciliary and nasal regions to the opposite side. Placing the finger over these distended vessels, a distinct thrill or purr is felt. Stretching the skin toward the temporal side, a distinct pulsation occupying the inner and upper portion of the orbital opening is seen; if rendered more tense, pulsation of the globe is also observed. On palpation a most forcible impulse is communicated to the finger, and a fusiform or glove-finger-like elastic projection is discovered immediately underneath the inner and upper orbital margin. Pressure against this smooth and elastic projection involutes the flattened apex, but does not arrest the pulsation. Compression of the common carotid at once arrests it.

The upper lid droops and the palpebral fissure is smaller. The action of the levator is not, however, suspended, but only interfered with by the increase in the thickness of the lid and contents of the orbit.

The ocular and palpebral conjunctiva are traversed by numerous large and tortuous veins. The cornea is clear, iris brilliant, pupil dilated and sluggish. V. = 0.4.

Ophthalmoscopic examination.—Media clear; intense congestion of disk, and tortuosity and distention of retinal veins. The disk and adjoining retinal regions present an intensely livid and œdematous appearance. Pulsation of the veins exists and is rendered more forcible by slight pressure against the globe.

No pathological alterations of the fundus oculi, however, are discoverable.

On opening the lids with thumb and index-finger, the globe at once advances into the palpebral fissure and distinct rhythmical impulse or pulsation is seen and felt.

Proptosis, or an advance of the globe forward, downward, and a little inward, of about three-fourths of an inch exists.

Pressure against the closed lids encounters a forcible pulsation of the globe and also of the elastic projection inward, but the pulsation cannot be arrested; it does, however, effect a slight recession of the prominent eyeball. It is so painful that it cannot be long endured. Compression of the carotid at once arrests the pulsation of the eye and also of the elastic projection; it also permits a more complete reduction of the proptosis.

Complete paralysis of the abducens exists in both eyes. The secondary contraction of the internus is very pronounced, particularly in the left eye. Here the contraction is so marked, and the displaced globe is so markedly rotated around a vertical axis, that the equator almost presents and corresponds with the vertical meridian of the orbital opening. The excursions of the other muscles of the left eye are restricted but not inhibited; most marked is this of the superior rectus.

Auscultation over the closed lids, temporal, frontal, or parietal region, at once discovers several bruits.

The loudest is a forcible blowing sound synchronous with the heart's systole; it is followed by a similar sound, more prolonged, of higher pitch, and of less force; this merges into the third, a peculiar piping, at times vibratory sound, which is cut short by the first again beginning. These sounds have their intensity over the left orbital opening, brow, and temporal region, but can be heard over the parietal and occipital bones on both sides of the head.

Compression of the common carotid temporarily arrests all three sounds. After some time, however, the first sound reappears, very faint, and has the piping characteristic of the third sound; the second and third, however, do not return. By firm compression of the distended vessels traversing the left side of the nose and inner canthus this partial return of the first sound can be arrested; more effectually, however, is this accomplished by compression of the right common carotid.

These noises are all influenced by mental excitement and physical exertion.

With the exception of the ears, which both show the evidence of suppurative inflammation of the middle ear, retraction, opacity, cicatricial alterations, etc., and a small perforation of the right membrana tympani, the probable consequences of a rupture of the membrana tympani, etc., or fracture at the base, no other symptoms indicative of fracture of the cranium or injury to the cerebro-spinal system exist.

To test the influence of rest and arterial sedatives, the patient was kept quiet and veratrum viride, aconite, digitalis, etc., administered in increasing doses. No perceptible influence, however, was exerted on the orbital lesion.

Digital compression, kept up by relays of students, was next tried; this was so painful and became so unbearable that instrumental compression was substituted. Digital compression was kept up about fourteen hours, followed by instrumental compression for about eight hours.

The patient then complained of vertigo and became very pale, and the ear became very cold.

This was followed again by arterial sedatives, compression of the facial and branches of the naso-ciliary arteries but no change or modification of the symptoms was brought about.[36]

The inefficacy of these measures thoroughly established, ligation of the carotid was determined upon and approved of by Dr. E. Williams and Dr. L. C. Ayres. The case was then submitted for consultation to my friends, Drs. P. S. Conner. Thomas Kearney, and N. P. Danbridge, who all three pronounced in favor of ligation.

On January 12, 1884, I ligated the left common carotid, above the omo-hyoid muscle, without mishap or complication.

The following are brief extracts from the copious notes made by C. R. Holmes concerning the progress of the case during and after the operation:

"Took ether well; pulse full and strong; vomited several times during first part of operation. Anterior jugular was enlarged and crossed obliquely the superior carotid triangle.

"The sheath was reached and the ligature needle, bearing a double No. 2 McFarlan & Co. catgut, prepared according to Lister, was passed without much difficulty around the artery, and tied and cut off short.

"It was used double, because no heavier gut could be procured in time for the operation. The deep fascia were brought together by means of two catgut sutures, and six to close the wound of the superficial structures. During the first hour following the operation he vomited five or six times.

"Twenty minutes after the operation the proptosis and fulness of the palpebral area had greatly diminished; with the diminution of the prominence there was also complete disappearance of all noises and pulsation. This was noticed as an immediate result following the tightening of the ligature.

"At 10 P.M.: Pulse, 120; temperature, 99⅘°. Gave one-fourth grain morphia hypodermically. At 3 A.M. the morphia was repeated on account of pain in the wound. Faint bruit reappeared, but no pulsation.

"January 13th.—Pulse, 132; temperature, 102°. Gave tinct. aconite, gtt. ij., tinct. belladonnæ, gtt. v., every four hours.

"Proptosis diminishing; no pulsation; bruit unmistakably heard. It is altered in pitch and character and is not always audible to the patient. It is reduced in intensity and quality and resembles more a cooing sound. The engorged and tortuous palpebral veins have disappeared. Proptosis much less; left cornea about on a level with right one. Difference in temperature between the two sides of the face less marked to-day; the left is, however, perceptibly cooler. Face has lost extreme pallor which existed for hours after the operation. Frequent paroxysms of perspiration on brow and nasal region of left side. Wound doing well.

"January 14th.—Very restless during the night. Pulse fluctuating between 106 and 110; temperature, 101⅘° and 102. Gave morphia hypodermically, gr. ¼, twice during the night and continued aconite, etc.

"Knuckle-like prominence less pointed; orbital tension altered; more and greater resistance on palpation.

"Bruit about same. Mind clear. Some swelling about wound and slight discharge.

"January 15th and 16th.—The bruit has diminished; orbital tension remains increased. Diffused redness and swelling about wound extending into clavicular regions; simple iodoform dressing continued.

"January 17th.—Slight return of pulsation, but the same distant, almost continuous cooing character of bruit continues. Position influences the pulsation; lying on the left side increases it.

"A slight purr or crepitation feeling is also discovered on applying the finger to the veins on the left side of the nasal region; pressure, however, over inner region of inner canthus or median line of brow causes it to disappear; it also brings about, not immediately, but after about three minutes of continued pressure, a cessation of the bruit. Had headache for several hours on left side. Pulse, 96; temperature, 99½°; respiration, 20.

"January 18th.—Wound discharging, but no unfavorable local alterations. Patient says that he has heard the noise less to-day than at any time since the operation. The pulsation continues, but is very feeble. The fulness of the palpebral area is perhaps a little more pronounced; the proptosis, however, is not.

"January 19th.—Was permitted to sit up. No vertigo and absence of all unfavorable symptoms."

Five weeks after the operation the patient was discharged. At this time the following points were noted: Almost complete reduction of the proptosis. Inability to produce pulsation of the globe. Marked improvement of sight, V= 0.9 with −0.75 ph. Diminution of the distressing noises and absence of the feeling of distention and discomfort about the orbit.

Perceptible fulness of the palpebral area, and a feeble pulsation of the elastic tumor, which is altered in shape and reduced in size, still exists. On auscultation, over the closed lids, a bruit, resembling a distant cooing sound, is heard; it is a prolonged sound gradually increasing and diminishing in intensity, and is not associated with other sounds. The patient states that he hears but one sound, which resembles a cooing in the distance; it is influenced by position and is greatest in the recumbent posture.

Pressure at the inner and upper portion of the roof of the orbit arrests, not immediately, but after several minutes of firm pressure, the pulsation of the elastic tumor, and also reduces the intensity of the bruit. It cannot, however, be made to disappear entirely by pressure in this locality. Compression of the right carotid at once arrests pulsation of the tumor and also the bruit.

The wound did not heal throughout by first intention; a mild suppurative process involving lower portion was set up.

The short catgut ligature resorted to by Lister, Maunder, and other surgeons was employed. I was prompted to resort to it in this case, however, more particularly from personal observation of Dr. E. Gruening's successful case,[37] assisting him at the operation, and witnessing the immediate and remote results. This case deserves a most careful perusal, as many of its clinical features were phenomenal. It was a brilliant achievement of diagnosis, but even more conspicuous for the immediate, complete, and lasting success of the surgical interference proposed and instituted by Dr. Gruening.

May 27, 1884.—Patient returned, willing to submit to further treatment, if so advised. The proptosis had remained reduced, the elastic tumor pulsated, but not forcibly; the fulness of the lid-area was perhaps a little more pronounced, but the cutaneous surface did not present that dusky cyanotic appearance, although the superficial veins near the inner canthus were still prominent and tortuous. A thrill or purr in these prominent vessels could not be discovered.

[36] Several days preceding the operation I made a physical examination of the chest, with special reference to the heart-sounds. Marked pulsation of the external jugular veins and also of all the superficial veins of the neck on both sides existed. In addition a forcible pulsation over the sterno-clavicular notch and a widely diffused pulsation over the second intercostal space on the left side was also noticed, and on auscultation a systolic bruit, with its intensity over the pulmonary orifice, was discovered. An intrathoracic aneurism was suspected, and Drs. J. C. Mackenzie and Keyt were asked to make a more thorough examination. This was kindly done and the careful and accurate sphygmographic tracings taken by Dr. Keyt did not uphold the existence of intrathoracic aneurism; the latter looked upon the existing physical signs as the manifestations of a congenital anomaly of the right side of the heart. To both gentlemen I am indebted for their careful examination, which greatly modified my fears as to the final outcome of the proposed operative interference.

[37] Gruening, E.: Archives of Ophthalmology and Otology, 1875.

The patient stated that he had resumed his work in the coal-shaft and had succeeded fairly well. He had not experienced the discomfort and pain which invariably developed, after even moderate physical exertion, before the operation. In referring to the distressing noises, he mentioned that the "exhaust sound" had entirely disappeared; the sound of "iron rattling" was only heard now and then, when up and about, but was always present and distinctly heard whenever he lies down. The cooing sound has grown less and less; to-day, although he has travelled several hundred miles and is exhausted, he has not heard it constantly. On auscultation, the same piping-cooing sound is heard, and at times presents a vibratory characteristic. It is probable that the patient does not hear two distinct sounds, but it is simply an alteration in the pitch, intensity, and rhythm of one sound, which is influenced and modified by position of the body.

The sight of the left eye is normal, with —0.75 Sph., and is better than that of the right. Under these circumstances, I did not consider further surgical treatment justifiable or specially indicated, and although the patient had come with the intention to have the right carotid ligated or to have the elastic tumor injected with an irritant solution, or have galvano-puncture resorted to, further interference, so long as the existing favorable conditions remained, was advised against.

Clinical Department.

THE BEST METHOD OF USING THE LONG SIDE-SPLINT.

Dr. M. A. Veeder, of Lyons, N. Y., writes to call attention to some modifications in the application of the long splint in fractures of the thigh. He makes extension in the usual manner by means of adhesive plaster, extending a little above the knee, the cord, with weight attached, passing over a pulley at the foot of the bed: "The long side-splint should extend from within three inches of the axilla to about the same distance below the sole of the foot. It should be light and somewhat elastic, being not more than half an inch in thickness, or less if of hard wood, and being about four inches in width. It should be upholstered smoothly with curled hair. This can readily be done at any cabinetmaker's shop, at small expense. The upholsterer should be directed not to draw the muslin cloth, covering the hair, too tightly. The splint, having been properly prepared, and extension being made upon the limb as described, the final adjustment is to be made as follows: A single strip of cloth, long enough to reach from the perineum to the ankle, and wide enough to encircle both the limb and the splint, is to be drawn smoothly beneath the limb. The outer edge of this cloth is then to be drawn upward against the exposed face of the splint, and made fast along its upper margin, by means of a row of safety-pins, while the splint is held snugly in position alongside the limb. The inner edge of the bandage cloth is then to be drawn firmly inward and then upward, so as to surround the limb smoothly, being likewise fastened along the upper margin of the splint by means of another row of safety-pins. The same manœuvre is repeated with another broad bandage, extending from the hips to the axilla, and long enough to encircle the body and the splint. By loosening or tightening a safety-pin here and there the patient can be held very firmly and without undue pressure upon bony prominences. The bandage cloth used need not be more than one thickness and is best applied next the skin. In case that bedsores have formed, the bandages may be tightened so as to be very firm, and the weights removed temporarily while the patient is turned upon the side for rest and treatment."

Signs of War.—Our Russian exchanges give evidences of increased activity in army medical circles. A new society of military surgeons has just been established at Moscow.

Progress of Medical Science.

Acute Myelitis in the Cervical Region.—Dr. Moel relates the case of a lady, fifty years of age, who suddenly experienced a rigidity of the fingers, and soon after found that she could neither walk nor stand. The fingers could not be fully extended or flexed, but the arms were otherwise normal. The right leg had some power, but the left was paralyzed. At the end of two days there was complete paralysis of both legs, with abolition of the patellar tendon reflex. Paresis of the upper extremities occurred a little later, and on the eleventh day of the attack the patient died. At the autopsy a lesion of the anterior horns was found extending from just above the point of exit of the fifth cervical nerve to the lower end of the cervical cord. The gray substance was irregularly mottled, but the ganglion cells and nerve-fibres were intact. In the lateral and posterior columns were many spots which were not colored by hæmatoxylin, and there were also here and there few granular cells.—*Gazzetta Medica Italiania Lombardia*, May 9, 1885.

Capsicum in the Treatment of Anal Fissures.—In a recently published thesis Dr. Panzat has recorded a number of cases of fissure of the anus treated by the internal administration of capsicum. The remedy was given in doses of three grains morning and night. In most of the cases a cure resulted within a comparatively short period of time. The cases recorded were too few in number to serve as a basis for any definite conclusions; but the remedy being so simple and the effects in certain cases so beneficial, the author concludes that a trial of it should always be made, and if at the end of a few days no improvement occurs, recourse may be had to forcible dilatation.—*Raccoglitore Medico*, April 10, 1885.

Muscular Atrophy Consecutive to Pleurisy.—At a recent meeting of the Hospitals Medical Society, M. Desplats read a paper in which he stated that he had noted a rapid atrophy of the muscles of the thorax and shoulder upon the affected side in cases of pleurisy. He regarded it as a phenomenon similar to the muscular atrophy occurring with joint disease. In one case he observed well-marked atrophy within ten days after the commencement of the pleuritic attack. The evil consequences which may result from this atrophy are permanent deformity of the thorax, lateral curvature of the spine, and an impairment of the respiratory function, possibly favoring the development of tuberculosis. The treatment proposed by M. Desplats consists in an early evacuation of the effused fluid, faradization of the muscles of the thorax, vocal gymnastics, and the inhalation of compressed air.—*Le Concours Médical*, April 18, 1885.

Reflex Paralysis of Uterine Origin.—Dr. Gomez Torrez relates the case of a woman who had suffered for several months from progressive paralysis and atrophy of the upper extremities. Various plans of treatment had been proposed and tried without success. The woman was found to have a parenchymatous metritis with ulceration of the cervix. Treatment was then directed to this condition, and was speedily followed by a return of the power of motion and a disappearance of the muscular atrophy.—*Annales de la Société de Médicine de Gand*, March, 1885.

Diagnosis of Obscure Cases of Nephritis.—Dr. J. Wolff states that after the administration of thirty grains of iodide of potassium, in a healthy man the greater part is excreted with the urine; but if the kidneys are diseased the excretion occurs almost entirely through the salivary glands. He thinks that this fact may be made use of in the diagnosis of obscure forms of renal disease.—*Rivista Clinica*, No. 3, 1885.

Atrophy of the Region of Rolando in Relation to Delayed Power of Locomotion in Children.—Dr. Voisin (*Rivista Clinica*, No. 3, 1885) records the results of several autopsies in children who were very late in beginning to walk, from a study of which he concludes that this phenomenon is always associated with an atrophy, more or less complete, of the cortex at the upper and internal part of the frontal and ascending parietal convolutions, near the paracental lobule. Certain other cerebral symptoms are usually associated with late walking, such as slowness in learning to talk, awkwardness in using the arms, difficulty or impossibility of learning to write, incontinence of urine, vices of conformation and asymmetry of the ears, etc.

Mercurial Poisoning at the Mines of Almaden.—According to Raymond, "Almaden is a village of seven thousand inhabitants, most of whom are employed at the mines. These consist of three principal shafts of an average depth of three hundred metres, in which the ventilation is difficult and imperfect. The mercury is found in the form of the sulphide, and in the liquid state as the result of decomposition of the cinnabar. Other work-people come from the neighboring villages during the winter to help in preparing the metal. They work at the furnaces, and assist in the sublimation, so that they are fully exposed to the poisonous vapors, but they are rarely affected, as at the end of their short spells of three hours they return home. If some of them are attacked by salivation, probably the result of individual predisposition, which plays an important part in mercurial poisoning, they soon recover, thanks to the good air and the activity of their lives, for nearly all are cultivators. Of the miners who live in Almaden the majority are not affected at all, or only to the extent of a slight stomatitis. Those who suffer more severely are persons with a predisposition, and those who stay longer in the mines than the rules enjoin. Six hours is the length of each spell, but this is often exceeded from the desire for gain. Those also suffer who indulge in excess of alcohol, or who come into the mine sweating profusely. The workmen who employ their spare time in agriculture are rarely affected, and when they are they recover rapidly by staying away from the mine. Some of the workmen in the mine suffer from stomatitis; even the engineers themselves sometimes are attacked by salivation, with dryness and heat of the mouth, accidents which yield rapidly to chlorate of potash. The workmen rarely use any treatment for themselves, and salivation is followed by swelling of the mucous membrane of the mouth, fetid breath, ulceration of the gums and lips, and finally loss of the teeth. Some are not attacked by gingivitis but only suffer discomfort in the mouth; others are affected by salivation only. All these people continue to work until abundant salivation or serious constitutional symptoms drive them to the hospital. These accidents are less frequent than formerly, owing to better regulations. Sometimes symptoms of more severe poisoning come on rapidly, but, as a rule, they are slow. The tremor commences by a sense of weakness in the limbs, by pricking or pain in the muscles; it affects the upper extremities first, and may be restricted to them, especially if treatment is commenced at once. It may extend to the lower extremities, to the lips, the tongue, the orbiculares, the eyelids, and the zygomatici. During repose or sleep the tremor is absent, but as in insular sclerosis it increases under the influence of voluntary movement, exertion, or after fatigue or alcoholic excesses. The tremor may be so great that the patient cannot walk. Convulsions and contractions may be present, the flexor muscles being affected in the latter case. Violent muscular pains sometimes occur. The tremor may be localized in certain groups of muscles; thus, it was noted in one case in the intercostals, in another in the diaphragm. The muscular walls of the viscera appear to be exempt. Paralyses are rare, but still do occur, especially in the lower limbs. The cachexia begins by general weakness, pain in the back, malaise, and headache; the appetite disappears, the tongue is white, and there is an unpleasant taste in the mouth; the patient is depressed and silent; his complexion is dull, or yellowish; he wastes rapidly. Most cases, under suitable treatment, rapidly recover, retaining only their sallow looks, and some degree of anæmia. In advanced cases, now happily rare, the patient loses all power of motion. These sufferers are very susceptible to the influence of cold. Neuralgias, vertigo, hallucinations, insomnia, epilepsy, amaurosis, albuminuria, ulcerated throat, diseased liver, conjunctivitis, and bone diseases have not been observed in any case. Among skin diseases, pellagra only has been noticed, especially in those addicted to alcoholic excesses. As syphilitic patients are not admitted into this hospital, no observations could be made on the influence of the intoxication on the course of this disease. The people in the neighborhood who do not work in the mines do not suffer at all from the metal. For treatment it is usual to employ a mouth lotion composed of tincture of cochlearia, hydrochloric acid, sulphuric acid, and honey; it gives very good results. Chlorate of potash is also given. For the tremor many remedies have been tried. Iodide of potassium has disappointed the expectations entertained of it. At present bromide of potassium is used, but the best results are obtained from faradism. Under its use the tremor disappears, the pains are allayed, and the patient feels so much relieved that he usually begs for this treatment. Iron, quinine, and wine, with good nourishing food, form an important part of the treatment. Good air and diaphoretics are also precious aids to the cure."—*Birmingham Medical Review*, April, 1885.

The Early Diagnosis of Typhoid Fever.—Dr. Hardy calls attention to the following symptoms which he regards as in a certain sense characteristic of typhoid fever in the earliest stages (*L'Union Médicale*, No. 6, 1885): There is cephalalgia, most often frontal, but sometimes occipital, and radiating into the neck, which may be somewhat stiff. The patient lies habitually on the back, and seldom moves. The face is somewhat pale, the countenance without expression, in general serious and grave, and a smile is seldom provoked. When the person is addressed directly he answers briefly and in monosyllables, although the intelligence is at this period usually unimpaired. There may be a little delirium at night, and insomnia is very constant. The tongue is red at the edges and at the tip, but whitish on the dorsal surface. The spleen is increased in volume. Diarrhœa, when present, is accompanied with iliac gurgling. The temperature is elevated, but the pulse is not very frequent, is full and resisting, and sometimes dichrotic, though this is of less common occurrence than is generally supposed. The urine is usually diminished in quantity. The so-called *tache cérébrale* is readily produced, but of more importance, as more especially diagnostic of typhoid fever, is the *corde musculaire*. If the biceps muscle be pinched between the thumb and index-finger and snapped, like a guitar string, a circumscribed contraction will occur at that point with the formation of a hard, tense swelling, which disappears after a brief period. If the patient, in whom no well-defined local trouble can be discovered, presents all the above-described symptoms, the diagnosis of typhoid fever can, Dr. Hardy claims, be made with almost absolute certainty.

Heredity in Bright's Disease.—Dr. Baudet published, some time ago, a study of three cases of nephritis, occurring in the same family, from which he was led to the belief that the disease might, in certain cases, be hereditary. This hypothesis has received a measure of confirmation from another series of cases published by Dr. Kidd. The latter related to a woman, sixty years of age, for many years a sufferer from Bright's disease, of whose twelve children seven died of the same malady.—*Annales de la Société de Médecine d'Anvers*, March, 1885.

Puerperal Peptonuria.—Peptonuria is a constant phenomenon in the normal condition of things after childbirth. It begins mostly on the second half of the first day, continues without interruption to the fourth day, frequently to the seventh, becomes gradually slighter, and vanishes entirely after the twelfth day. Peptonuria occurs both in primiparæ and multiparæ, in suckling and in non-suckling women, after labors at full term and after premature confinements. It is found also in solitary pathological cases. From the results of Fischel's experiments it follows that the urine contains peptones during the period of involution, and, in fact, at a time before fatty degeneration of the uterus has commenced. Whether, however, both the simultaneous appearances, the commencing involution of the uterus and the peptonuria, stand in causal relation the one to the other, is not clearly established by the facts adduced. All experience of pathological peptonuria until now points to the fact that it occurs when leucocytes containing peptone are decomposed, which being thus set free reaches the blood. The nearest analogy to this in puerperal peptonuria is the changes in the inner surface of the uterus, and the advent of the lochia. The lochial secretion, chiefly composed of blood on the first and second days, assumes a purulent slimy condition through abundant intermixture of leucocytes, and on this account the existence of peptones in it may be inferred. From experiments on ten women, conducted over a period of eleven days, Fischel concludes that the lochia frequently contain peptone. But peptone in the urine and peptone in the lochia are not even transiently connected. The urine contains it when the lochial discharge is free from it, and in fact can contain none of it, judging from its bloody condition in the first few days after labor. Conversely, peptone was found in the lochia when the urine was free from it. Fischel thinks he is warranted in asserting that it is at least very probable that the peptone in the urine does not proceed from the lochia. This assumption is strengthened by the circumstance that the conditions for reabsorption of peptone from the lochia are certainly more unfavorable than in the case of a circumscribed abscess. In such a case peptone is reabsorbed if the pus-cells are disintegrated in the stagnated fluid, whereas the lochia have free outlet. The next point to consider is whether in the lying-in state there does not occur an accumulation and partial degeneration of leucocytes in the inner and muscular layers of the uterus, which may be assigned as the cause of the peptonuria. It is not likely, for however rich these layers may be in migratory cells, the number of these is insignificant when compared with those, say in an inflamed lung. In the latter case, too, the fate of the migratory cells is true disintegration, whereas, in the normal puerperal uterus they fulfil regenerative functions and contribute to the reconstruction of the organ. Whence, then, is the origin of the peptone? Direct experiments were made to ascertain whether the muscular substance of the uterus in the course of its involution gave rise to peptone. Fischel had seven opportunities for testing both muscular and mucous layers for peptone. The method is given with precautions for eliminating error. He concludes that the puerperal uterus contains peptone in its muscular substance. Analyses were also made of quite fresh preparations of the uterus in women and in animals, which established that its presence is connected with regressive changes in muscular tissue. He infers that peptone is often present in the fresh tissue of the uterus, and that its origin during life is securely established. How it is formed in the uterus is not so clear. One thing is plain from all the cases, that when the uterus is at perfect rest there is no peptone to be found in it. Thus it is not to be found in the unimpregnated uterus, nor long after the uterus has evacuated its contents. The place where the peptone is chiefly found is the muscular tissues. The mucous membrane only contains it in exceptional cases, and perhaps even in others there was some portion of the muscular tissue adherent, which gave rise to the peptone reaction. But if peptonuria is really and exclusively associated with involution and reabsorption of the muscular elements of the wound, it might be expected to occur as a product of incipient degeneration of any albuminous tissues arising from other causes. For this reason the organs of animals poisoned with phosphorus were examined for peptone, as an analogy, possibly far-fetched, exists between the degeneration thus resulting and the involution of the puerperal uterus. The results obtained were somewhat various, and the chief definite conclusion that the author thinks himself warranted in making is, that in all cases where the organs experimented on were found to contain peptone, either none or very slight fatty degeneration of the tissue was established, while in cases of marked fatty degeneration no peptone was to be found. In this there is a certain analogy with the cause of puerperal peptonuria, for in the latter the peptonuria comes on before, and disappears with the full establishment of fatty degeneration.—*The Obstetric Gazette*, April, 1885.

Antagonism of Pilocarpine and Ergotine.—Dr. Rabuteau has communicated to the Society of Biology the following results of his experiments with pilocarpine and ergotine: If you inject pilocarpine beneath the skin of a rabbit, it is well known that salivation is produced. If you inject first, ten centigrammes of ergotine, and in ten or fifteen minutes, one centigramme of pilocarpine, salivation takes place just the same. If the two substances be injected simultaneously the salivation is considerably diminished, or even suppressed, but a little later it makes its appearance. The same thing occurs if a dog be used for the experiment. Salivation takes place if ergotine be injected before the pilocarpine; if the two substances are injected together, salivation appears only in from twenty to fifty minutes. If at the moment the salivation appears ergotine be injected, it will be at once arrested. There exists, therefore, an antagonistic action between these drugs—the ergotine destroying the effects of the pilocarpine. But as the action of pilocarpine is a prolonged one, from an hour and a half to two hours, and that of ergotine is very fugitive, the result is that the antagonism is only momentary. Moreover, the action of pilocarpine is local. This is proven by the fact that the effects are the same in cases where the nerves supplying the salivary glands have been cut.—*Revue Bibliographique.*

Malarial Joint Disease.—Dr. Barbere-Bonghini stated, in a communication directed to the Medico-Chirurgical Society of Camerino, that he had met with a number of cases of arthropathy of the left hip in individuals suffering from hypertrophied spleen. His observations led him to the conclusion that the alterations of the spleen, induced by malaria were a not infrequent cause of arthropathies.—*Gaceta Médica Catalana*, April 30, 1885.

Treatment of Incontinence of Urine by Vesical Dilatation.—Dr. Felipe Margarit writes, in the *Gaceta Médica Catalana*, of April 30, 1885, concerning a case of incontinence of urine occurring in a boy, twelve years of age, of excellent physical constitution. The boy had been under the care of a number of physicians, and every form of medicinal treatment had been tried without avail. After giving a number of drugs for a time without obtaining any results, Dr. Margarit determined to try dilatation of the bladder by means of injections. At first only about an ounce of water could be forced into the bladder, but the capacity of the organ increased gradually under the influence of daily injections, until, at the expiration of a month, it would hold upward of seven ounces. In proportion as the capacity of the bladder increased, so did its ability to retain the urine.

Listerism and the Spray.—Mr. J. Knowsley Thornton has just performed eighteen hysterectomies, with two deaths, and says that Listerism with the spray is a great safeguard in hysterectomy.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, June 20, 1885.

THE INVITATION OF THE AMERICAN MEDICAL PROFESSION TO THAT OF EUROPE.

IT is time for the medical profession to speak in no uncertain voice regarding the confusion in which the management of the next International Medical Congress has become involved. The American Medical Association appointed a committee which tendered to the last Congress, in the name of the American Medical Profession (*not* Association), an invitation to meet in this country. This committee was given, specifically and unqualifiedly, full power to enlarge its numbers, tender the invitations, and organize for the meeting. This authorized invitation was accepted, and a kind of contract between the American and European professions was thus made. The committee then proceeded to organize. The result of its work was approved generally by even the most critical of the medical press of the country. The list of officers was published in the leading journals of Europe. Several hundred gentlemen, in response to invitations of the officers, had signified their intention of being present and reading papers. Matters were thus progressing favorably, there was no complaint and no trouble ; when suddenly comes the American Medical Association and says that this must all be changed. In elegant language the committee is told that some of its most distinguished appointees must be "lifted by the hair and their heads cut off."

The reasons put forward were that the States and Territories should be more fully represented, and that believers in the New Code should be left out. The real facts, we fear, are that a few dissatisfied gentlemen wish to get into prominence in connection with the Congress. There was no sentiment against the work of the original committee, and there would have been no discord and no dissatisfaction now, if it were not for a few turbulent schemers who would elevate themselves at the expense of the good name of the profession. For, no matter what artful aids to justify it may be summoned in the way of parliamentary tactics and appeals to ethical prejudice, or local pride, no good can possibly come out of this new committee ; appointed without authority, containing many names of which the profession knows nothing, or too much, its actions can only create confusion abroad, quarrels and failure at home.

The profession at large did not want it, and will soon, we doubt not, protest against it. The great mass of the doctors of this country wish to have a good Congress, and wish to see the best men in it irrespective of section. They will not forget nor forgive any men who scheme to make the Congress serve personal ends.

There is some misunderstanding, truly, in the minds of certain coteries who regularly attend the meetings of the American Medical Association. That society does not yet represent the whole profession of this country—far from it. It numbers nominally some three or four thousand members, but practically only eight or nine hundred ; while the total number of regular physicians in the country is over sixty thousand. Shall the peculiar views and paltry ambitions of some few of these members be allowed to put the whole profession in disgrace ? We trust that the good sense of the New Orleans committee and the firmness of the original committee will prevent it. At any rate, we beg our readers to keep this fact in mind, that the organization of the International Congress was progressing happily and satisfactorily up to the appointment of this New Orleans committee. If discord and disaster now follow, every one will at least know on whom to fix the responsibility. We beg of its members, therefore, to exercise the greatest forbearance and discretion. Fortunately, there are many among the number of whom we can expect this.

REFORMING A MATERNITY HOSPITAL.

EXPERIENCE shows that the citizens of some parts of our country do not take kindly at first to the application of scientific methods to practical affairs. The recently-appointed superintendent of a Chicago lunatic asylum, for example, is reported to have been knocked down by one of his employees for venturing to place the management more in harmony with advanced psychiatrical views.

We learn from *The Argonaut*, of San Francisco, that a contest is going on now regarding the County Hospital in that city. A young man, of apparently German and Semitic origin, has been appointed visiting physician to the obstetrical ward, and he has discovered therein a most shocking state of affairs, viz. : the ward contained a jar of belladonna ointment, but no nail-brushes ; it was "run" by the nurses and matron instead of the doctors ; the women while waiting, expecting to be confined, were not examined ; the babies after their birth were removed from the mother and sent off to various places, where it is firmly believed they mostly died.

The young gentleman who makes these discoveries, and who kindly sends us a marked copy of a two-column article describing the turbulence of the feelings aroused thereby, seems to be very much in earnest—at least in the matter of being known to the general public as a first-class obstetrician and reformer.

We have no doubt that the San Francisco Hospital has some abuses, and needs some reforms ; we are sure that every maternity ward in the country ought to be conducted upon the thorough antiseptic principles which have produced such brilliant results in this city, Vienna, Paris, and elsewhere ; but it may be that such reforms could be secured just as well without quite so much publicity to the reformer.

RAGS AND INFECTIOUS DISEASE.

The paper-manufacturers of the country have engineered matters very skilfully. They have succeeded in working upon public opinion until sanitary officers or medical men cannot affirm that imported rags ought to be disinfected without incurring the charge of being in collusion with a company which undertakes to do this disinfection. The Treasury Department itself has exhibited a curiously tortuous and uncertain policy regarding the matter, illustrating, if nothing else, the sore need that exists of its having some more authoritative and better-selected advisers. This policy has culminated in the Secretary leaving the whole matter in the hands of the different States and port officers. Whether rags will be disinfected, therefore, will depend upon the sanitary peculiarities of these officers. Already, under the influence of this decision, it is stated that a ship-load of rags, which would have to be disinfected at New York, is to be sent on to Portland, Me.

Fortunately, for practical purposes, most of the health officers of the country are in very substantial harmony as to the modes of disinfection and quarantine.

The opinion of these officers, and of the best health authorities generally, is that imported rags should sustain careful inspection, and, if need be, disinfection. The best methods of securing a sanitary history of the rags—and that is what the ship should supply—have not yet been devised, and, therefore, some trouble must for the present ensue. It is much wiser and more economical, meanwhile, to be on the safe side, and Health Officer Smith will get the hearty support of the profession and the laity if he takes firm ground in defence of the public health.

It should be remembered that cholera is not the only danger which we must avoid. Whether it has ever been imported in rags or not, other diseases, almost as destructive, have been so conveyed.

THE ALLEGED CHOLERA VACCINATIONS.

The claims of Dr. Ferrán to be able to furnish protective inoculation against the cholera, still remain unestablished. His experiments are naturally received with profound distrust by pathologists, for it seems *a priori* impossible that, by the methods described, he could obtain protective results. The most probable explanation is that he is not working with pure fluids.

The report of the Committee of the Madrid Academy of Medicine, which appears to embody a careful review of Ferran's experiments, confirms the statement that the comma bacillus passes through the various stages described by Ferrán, but adds the significant fact that "bodies other than this micro-organism are also found in the cultivation-fluid." Cultivations of the bacillus were injected hypodermically into guinea-pigs. In all cases the injections caused severe constitutional disturbance, and finally death; but the symptoms were not choleraic, and the principal changes were observed in the blood, in which fluid also the bacilli were found. Here, again, we find different results from those of Koch, Cheyne, and others. The cultivation-fluids were also injected into eleven human beings, with the result of causing constitutional disturbance, fever, vomiting, and diarrhœa.

As to preventive action, the Committee say that the general results obtained by Ferrán are absolutely confirmed. One inoculation of the culture-fluid prevents the pathogenic action of a second inoculation of pure cholera bacilli. "Hence a means of averting cholera has been discovered."

It is added, as a matter of interest, that Dr. Ferrán himself, having suffered one morning with a looseness of the bowels, causing two unusual evacuations, found in the second true specimens of the comma bacillus, which he used for a series of cultivations.

As for his practical work in inoculating, we learn that in Valencia he has operated upon 8,000 persons, including some physicians. At the Alcira hospital all the inmates were inoculated except two; these died of cholera later.

A report comes that at Alcira 7,128 persons were inoculated once, of whom 7 were attacked with cholera and 2 died; that of 3,011, inoculated twice, none died. Meanwhile, among the 3,000 or 4,000 non-inoculated, 73 cases occurred, with 39 deaths.

Despite all the above, there is considerable probability that Dr. Ferran is only inoculating his countrymen with a mild type of septicæmia.

THE STATE AND THE PHYSICIAN.

The *Hour*, a weekly journal of this city, has been discussing the subject of physician's fees, and comes to the conclusion that they should be regulated by the State, so that no doctor can have the right to charge more than a maximum of, for example, five dollars. As regards this, we can only say that if the State would at the same time arrange that the doctor never got less than a minimum of, say one dollar, there would probably be no objection to establishing a maximum. But it would not be fair to carry out the *Hour's* brilliant suggestion of trimming at one end only.

Our progressive contemporary the *Sanitary Engineer*, in a recent issue calls attention to another matter in which the State may, with much more justice and effect, lay its commands upon the doctor. This relates to the physician's connection with contagious diseases. The doctor ought to be able to recognize contagious diseases; he ought to know how to manage them, so as to prevent their spread; he ought to see that he personally is not a means of contagion. He ought to be made to feel a responsibility regarding these points. It is hardly settled as yet, however, to what extent the State can call him to account, or compel the physician to use his knowledge in the prevention of disease. We have always held, with English authorities, that the Government has no moral right to compel physicians to contribute their services and special skill toward preventing disease, without any compensation.

The State can, with justice, no more do this than it can require an attorney-general to give his legal services gratis. We cannot agree entirely, therefore, with the *Sanitary Engineer*, that "a community has the right to demand of its physicians that they shall use their knowledge for the prevention as well as the cure of the disease," unless it is meant that they receive a *quid pro quo* for the first, as they do for the second.

ADVOCATING PROFESSIONAL ADVERTISING.

THE *Medical and Surgical Reporter* thinks that "refined, specious, and respectable methods of advertising," may be resorted to without harm to the dignity and standing of the profession, and that such methods are only just to its younger members.

We cannot quite agree with our blonde contemporary. There are a great many of these "younger members" who cannot see why they are not, after a two years' practice, entitled to the same honors and emoluments as those possessed by men who have worked for thirty years. Every now and then some one voices this feeling, which may be referred to as the "Bitter Cry of the Two-year-olds." But it is a feeling based somewhat upon a misapprehension. For it never can or should happen that the young practitioner is at once the equal of his elders. Advertising will not help the matter, and, apart from any question of propriety, it is a short-sighted policy which encourages or justifies the advertising of professional skill. If such practice became allowed, and we stood exactly on the same plane as the grocer or tradesman, every doctor would have regularly to advertise. While dignity and truth would thus be sunk, no one would be a gainer, and a large per cent. of professional income would have to go into the hands of the printer and publisher. There is a legitimate advertisement which comes from capable and honest teaching, from the publication of scientific and clinical work, and from the insertion on proper occasions of ordinary professional cards.

GEOGRAPHY AND MEDICAL SCIENCE.

IT is much to be deplored that any feeling of sectionalism has been aroused in connection with the next International Medical Congress. As the *Medical News* has well stated, this Congress is a purely scientific body. In its organization and membership it aims to represent medical science, not geographical districts; hence, in selecting its officers, the fact that a certain State, for example, has an annual cotton crop of one and a half million of bales, as forcibly stated by a Western contemporary, should carry very little weight.

It must always be the case that in younger and growing countries the sciences will be less advanced. In the Eastern and Middle States there are not yet the institutions, the associations, or the material help which enables us to raise medical scientific work to a level in amount and quality with that of Europe. In these respects we are rapidly advancing, and already a considerable amount of first-class work is being done, while the means and opportunities for more are continually multiplying.

But if even the most ardent patriotism cannot blind us to the above facts, neither can any amount of sectional pride deny that, in the same measure, the East has in medical and literary work been able, through its greater age and greater accumulations of capital and experience, to keep in advance of the younger sections of the country.

In twenty or thirty years the story may be different, but who can deny the literary and scientific supremacy of the older sections now? And what blame or what shame is incurred by admitting it? *Per contra*, the youth who arrogates manhood and maturity makes a disagreeable spectacle of himself. If one examines the medical works written by American authors in the past thirty, or even one hundred years, works which have brought fame and credit to American medicine, it will be found that at least ninety-five per cent. of them were written and published in the older sections of the country by men who lived in these sections. We need only refer to the representative works of Gross, Emmet, Bartholow, Loomis, Thomas, Sims, Lusk, Williams, Hammond, Roosa, Duhring, Flint, Dalton, Ashhurst, Delafield, Satterthwaite, Bumstead, and others, works covering every department of medicine.

While every year witnesses fresh progress elsewhere, we believe it may be safely said that the periodical literature also of the older sections still retains the lead which age and experience would naturally give it.

We call attention to these facts, for such they are, simply in the belief that the members of the profession will recognize it to be just and natural that an older country will be in advance, in some directions, of a new one, and that some extra consideration is due, not to geographical sections, but to age and maturity.

The International Medical Congress cares not a rap that a State has two hundred millions of taxable property. It asks for its scientific men, its teachers, its literary workers, and its institutions of learning. These are what form the basis of representation.

News of the Week.

IS TOXIC ENTERITIS CAUSED BY CORROSIVE SUBLIMATE AS A SURGICAL APPLICATION?—"THE MEDICAL RECORD of March 14th contains an article under the above heading, in which eleven cases occurring in the New York Hospital are cited as examples of toxic enteritis arising from the use of bichloride of mercury as a surgical application. Of six of these we have a personal knowledge, and think that if a fuller history of them were given, there would be, in the minds of most readers, a very reasonable doubt as to whether the alleged toxic symptoms were due to the bichloride or to other concurrent conditions." The cases are then given in detail. In No. 1, there was septicæmia; in No. 2, purulent peritonitis; in No. 3, tuberculosis; in No. 4, chronic bone disease and amyloid kidneys; in No. 5, no relief of diarrhœa after stopping bichloride; in No. 6, a new operation at time when bichloride was stopped. "It will be noticed that in all the foregoing cases diarrhœa might be easily accounted for by the other existing conditions, even if no sublimate dressings had been used. It will also be noticed that in none of them did any salivation, or sponginess and soreness of the gums occur, nor was any fetor of the breath noted.—DR. E. C. SPENCER, in *Northwestern Lancet*.

A SUSPICIOUS CASE.—A suspicious case, strongly suggesting cholera, was brought in by one of the Bellevue Hospital ambulances on Monday of this week. The patient, a middle-aged man, was found on a canal-boat at one of the up-town East River piers, having come there from Weehawken. On the morning of the above-named day he felt perfectly well at nine o'clock, but two hours

later he was attacked with vomiting, purging, cramps, rice-water-like stools, cold skin, cyanosis, and rapid and feeble heart action, and in this condition was brought to the hospital. The possibility of cholera was at once suggested, and one of the attending physicians, who has seen much of the disease, remarked that if a cholera epidemic were now prevailing, he should regard the case as a typical one of the disease. It was deemed prudent to notify the Board of Health, and under its direction the man was transferred to the Reception Hospital at the foot of East Sixteenth Street. He quickly responded to treatment, however, and by night was considered out of danger. Microscopical examinations of the dejecta were made at the Carnegie Laboratory. They contained some fecal matter. Shreds of mucus and some comma bacilli were also found. Plate-cultures of the latter, however, showed them to be the microbes of sporadic rather than of Asiatic cholera. An investigation by the Health Board revealed the fact that the man had in all probability been eating tainted meat, and that to this his symptoms were probably due.

Scientific Inspection versus Quarantine.—There is some difference of opinion in New Orleans concerning quarantine methods. Some of the business men have given to the State Board of Health money to be used in substituting what is described as "a scientific method of disinfection and sanitation" for the old system of absolute non-intercourse with infected ports, and long quarantine against other ports. One death in the city, said to have been caused by yellow fever, has led the Cotton Exchange to demand a restoration of the old system, and other exchanges have called for an extension of the quarantine.

Bills that Failed to Become Laws.—Governor Hill did not sign the following bills, passed by the New York Legislature: To prohibit the sale of cigarettes to minors under the age of fourteen years; To prescribe the preliminary education of medical students; Of a suit against the estate of a party deceased.

Dr. Gunn's Medical College Bill was very properly vetoed by the Governor. The strongest argument Dr. Gunn made for his institution was that he believed he could do as well as some other colleges in the State.

New York Infant Asylum.—An attack on the management of this institution was made in the daily papers recently. The State Board of Charities also gave a not very favorable description of its management. We have good reason to know that this institution is not conducted in a model manner in some respects, the main trouble being excess of petticoat-rule. There are, however, no glaring defects, and a marked improvement has taken place since the appointment of a medical board.

A Bad County Asylum.—The State Board of Charities has sent a committee to examine the Onondaga County Asylum. Serious defects in its management are reported.

Precautions against Cholera.—At a recent conference in this city of the Health Officers of the ports of New York, Boston, New Haven, Brooklyn, and Baltimore, and the State Board of Health of New York, the following quarantine regulations were adopted to prevent the introduction of cholera and other diseases into the United States the coming summer, to go into effect immediately: The maximum period of incubation of Asiatic cholera may, for quarantine purposes, be assumed to be eight days, and that in case of the disease occurring on vessels during the voyage hitherward, the quarantine of observation of persons should extend to eight days from the last date of possible exposure. That for the fumigation of closed spaces, sulphurous acid gas may be commended, from two to three pounds of sulphur being burned for each 1,000 cubic feet. That for disinfection of baggage or other fomites, reliance may be placed on fresh chloride of lime, bichloride of mercury, or dry heat to 230° F. That in view of the danger of other contagia, as well as that of cholera, all rags imported to this country should be disinfected either at place of departure or on their arrival here. That if such disinfection be done abroad, it be required that either the rags be boiled for not less than thirty minutes and dried before baling, or treated with superheated steam for not less than eight minutes, and in such manner as to be heated to or above 212° F. in every part.

Small-pox in New York.—On June 9th two thousand immigrants were brought to this port, and were transferred at once by the Emigration Commissioners to the western end of Ward's Island, there to await quarantine. On June 13th a case of small-pox appeared among them. On June 14th two other cases were found. Attempts were immediately made to isolate the two thousand, and keep the neighboring Lunatic Asylum from being infected. Apparently, the efforts to do this, and to prevent a further spread of the disease, were successful, as up to date of writing no new cases have been reported. Some justifiable criticisms have been made upon the action of the Emigration Commissioners in, as it were, dumping two thousand infected paupers within the city limits, subjecting them to a very imperfect quarantine.

Dr. Morris Mattson died on June 13th, at his home in this city. He was in the seventy-seventh year of his age.

The State Board of Health has been sadly crippled by the action of Governor Hill in vetoing the bill appropriating $15,000 for its use. Perhaps no immediate ill results will follow, but it is a step backward and indicates a most reprehensible short-sightedness on the part of the State's executive officer. It is, at any rate, gratifying to hear the uniform praise given to the Board by the press of the city.

Cholera in Spain.—Cable reports show that cholera is spreading in Spain with much rapidity. In one day the number of new cases reported was, in Madrid, 4; in Valencia, 17; in Castellon de la Plana, 58; in Murcia, 98; in the whole province of Murcia, 171; in Arajunez, 1; making a total of 234. The mortality is a little less than fifty per cent. The disease appears to be spreading along the coast to the northward. The people are reported to be in a state of panic, especially those living in the smaller places. The latest reports regarding Ferràn's inoculations show them to be an utter failure.

Reviews and Notices.

The London Medical Student, and other Comicalities. Selected and Compiled by Hugo Erichsen, M.D. Detroit, Mich.: Dr. H. Erichsen, 11 Farmer Street.

Dr. Erichsen has evidently made up his mind that the medical profession require, above all things, to laugh more. Some time ago, it will be remembered, he launched forth a collection of "Medical Rhymes," some of which were decidedly humorous and mirth-provoking. The appreciation bestowed upon that effort has induced him to "try again."

This time he has collected a large number of medical anecdotes that might be appropriately labelled as good, bad, and indifferent. He has also rescued from forgetfulness a not over-witty portraiture of medical student-life in London, which appeared in *Punch* about fifty years ago. It may be said of this "London Medical Student" what a gentleman remarked who thought he was listening to a humorous lecture by Mark Twain, but was, through some mistake, made to hear the prosy sermon of a temperance advocate; when this victim's wife asked him whether he had found Mark Twain funny, he replied: "Oh, yes; he was funny, but he wasn't real funny!". So we may say that the "London Medical Student" is rather less funny than he might be, or than he evidently believes himself to be.

Nevertheless, the book before us may answer the purpose of beguiling some weary hour of the physician's life with smiles and occasional laughter, and as such it recommends itself to the attention of the profession.

Endemic Goitre, or Thyrocele. By William Robinson, M.D. 12mo, pp. 66. London: J. and H. Churchill. 1885.

This monograph was the author's thesis for the degree of Doctor of Medicine of the University of Durham, for which the gold medal was awarded in 1884. The most valuable chapters are those on the relation of the disease to cretinism and allied disorders, and on the geographical distribution of the malady. In regard to the exciting cause, the author has no new theory to offer, while discussing fairly the probable effects of heredity, cross marriages, vaso-motor paresis, etc. His researches have led him to regard potable water as the *vehicle* of the cause. The exact *nature* of the latter he does not regard as at present known. His study of the geographical distribution of the disease and the relation of this distribution to geological formations, is very complete, and will be of great service to all future writers on the subject. Under the head of treatment, comparison is made between results following the use of iodine, mercuric iodide, dilute fluoric acid, and quinine; the latter has sometimes proved useful, suggesting a miasm as an exciting cause. The surgical resources are setons, incision, injection of sac (in the cystic variety of the disease), and partial or complete excision.

Operative Surgery in the Calcutta Medical College Hospital: Statistics, Cases, and Comments. By Kenneth McLeod, A.M., M.D., F.R.C.S.E., Professor of Surgery, Calcutta Medical College, etc. 8vo, pp. 351. London: J. & A. Churchill. 1885.

The observations here recorded extend over a period of five years, and give a faithful portrayal of the surgical history of the above-named institution during that time. Comparisons are also made with the results published by Sir Joseph Fayrer, the author's predecessor, as first surgeon to the hospital. The author frankly admits, in his preface, the fallacies attending statistics of surgical operations, but, animated by a desire to state facts as they have occurred, and free from any desire to prove this, or disprove that, theory, he has succeeded in giving us a very readable volume. His study of the climatic and sociological conditions attending his work has been thorough. He describes the native temperament as essentially bilious, or bilio-neurotic, and notes, on a comparison with Europeans living in India, "a difference in pathological proclivities depending on fundamental diathetic distinctions." Interesting facts are the rarity of arterial disease in India, and also that of stone; but suppurative complications (particularly after miasmatic diseases), rectal troubles, and hæmatocele, are very common. Stone is more frequent in the provinces than in the city of Calcutta. Elephantiasis is especially common. Of this he distinguishes two forms as occurring in the scrotum, the ordinary more or less solid tumor and the "lymph scrotum." The latter is quite infrequent, and appears to be associated with filiariæ, which he has never found in the former. An interesting table of six cases of hepatic abscess is presented. All were treated by incision under antisepsis. Three proved fatal, two from suppuration, and one from dysentery. The other three made good recoveries. The author has tried, with success, what he calls "nerve-splitting" in cases of lepra anæsthetica. In some cases of the latter he has found the nerve-trunk greatly enlarged, with a softening of the interior, of a curdy nature. The ulnar nerve seems to be particularly liable to this form of disease. The native subject he regards as an extremely unfavorable one for any operative procedures. The sanitary improvement of the Calcutta Hospital, together with the introduction of Esmarch's bandage and Listerism, have greatly lessened the percentage of mortality. On the whole, the book is very entertaining, as well as instructive.

A Treatise on Amputations of the Extremities and their Complications. By B. A. Watson, A.M., M.D., Surgeon to Jersey City Charity Hospital, etc. 8vo, pp. 762. Philadelphia: P. Blakiston, Son & Co. 1885.

This volume is an "encyclopædic monograph containing the important facts, theories, and arguments relating to amputations of the extremities and their complications." The author's aim has been to collect facts on this subject from English, French, German, and American literature. He does not lay claim to originality, but, of course, introduces, in their proper places, those observations which his own experience has led him to make on the general subject. Under the division of "complications," the general subject of the treatment of wounds is discussed, with an outline of the present views on germs and germicides, for, in the words of the preface, "the complications of amputation-wounds are essentially the same as those which pertain to any solution of continuity involving the various tissues of the body." A great service has been done to the profession by the insertion of a translation of Gaujot's and Spillmann's writings on artificial limbs. This is the fullest exposition of the subject we have yet seen in an American text-book. Too much praise cannot be given to the typographical appearance of the work. The illustrations are marvels of clearness, and do, what is not always the case, elucidate the text.

Modern Therapeutics of the Diseases of Children, with Observations on the Hygiene of Infancy. By Joseph F. Edwards, M.D., Editor of the *Annals of Hygiene*, etc. 8vo, pp. 346. Philadelphia: D. G. Brinton. 1885.

This is the fourth volume of the "Modern Therapeutic" series, and will well sustain the good reputation made by its predecessors in this quarter of the literature of therapeutics. Its collation of facts from the writings of foreign and home authors is accurate and complete. It will save the busy practitioner many laborious hours. It is difficult to see what mission many medical books have, but the great variance of opinion between equally qualified men—as shown in this volume—is itself a vindication of its right to exist. Order can come out of our

present therapeutic chaos only by a comparison of ideas and a revision and condensation thereof in the light of clinical experience. The style of the book is simple and straightforward. Worthy of especial commendation are the valuable indices of diseases, remedies, and remedial measures and authors, simplifying to a minimum the work of reference.

CONTROLLING SEX IN GENERATION. By SAMUEL HOUGH TERRY. 12mo, pp. 147. New York: Fowler & Wells Co. 1885.

THE author claims to have discovered the law by which it is possible to produce male or female offspring at will. In brief, it is that the stronger of the two parents at the moment of conception controls the sex of the embryo, breeding the opposite to him or herself. The theory is by no means novel; it has been frequently and ably advanced and with much better and more scientific reasoning and experiments than in the confused and hasty work before us; indeed, our old friend, Dr. Riccabocca, in Bulwer's "My Novel," has stated it is derived from the ancient philosophers. But the proof is still lacking that the explanation is correct, and every one can in a moment recall from among his own acquaintances so many "exceptions," that he will be left in grave doubt whether the rule is the exception or the exceptions are the rule.

THE STUDENT'S HANDBOOK OF FORENSIC MEDICINE AND MEDICAL POLICE. By H. AUBREY HUSBAND, M.B., C.M. Fourth and Revised Edition. Pp. 604. Edinburgh: E. & S. Livingston. London: Balliere, Tindall & Cox. 1883.

THIS is a small work, but it is a most thorough and practical compendium of the subject with which it deals. It offers enough for students and for most physicians.

The author's preface to the fourth edition was written in 1882, so that we can hardly call the present work a perfectly fresh one. It is very well printed and substantially bound.

TRACTS ON MASSAGE. No. I. THE ART OF MASSAGE. Translated from the German of Reibmayr, with notes. By BENJAMIN LEE, A.M., M.D., Ph.D., late President of the American Academy of Medicine, Member of the American Medical Association, etc., etc. Philadelphia: Benjamin Lee, M.D., 313 S. Fifteenth Street. 1885.

THIS little book, appropriately called a tract, is the first of a series which Dr. Lee proposes to issue, embodying the substance of the treatise entitled, "Massage and its Utilization in the Various Departments of Medical Practice," by Dr. Albert Reibmayr, of Vienna. In this first tract the author describes in simple terms the various manipulations of massage which he groups under the four heads of stroking, friction, kneading, and percussion. The value of the little work is further enhanced by copious notes by the translator. An appendix contains a bibliography of the most recent works on massage in English, French, and German.

MICRO-CHEMISTRY OF POISONS, INCLUDING THEIR PHYSIOLOGICAL, PATHOLOGICAL, AND LEGAL RELATIONS; with an Appendix on the Detection and Microscopic Discrimination of Blood. Adapted to the Use of the Medical Jurist, Physician, and General Chemist. By THEODORE G. WORMLEY, M.D., Ph.D., LL.D. With ninety-six illustrations upon steel. Second edition. 8vo, pp. 784. Philadelphia: J. B. Lippincott & Co. 1885.

THE title "Micro-chemistry of Poisons" hardly does justice to Professor Wormley's elaborate work, which is really a very complete treatise upon toxicology.

The present edition is a decided improvement upon the former one, and debars the criticism which that suggested of being somewhat antiquated in matter and faulty in scientific method.

In the present volume the author has revised the chemical nomenclature and added many illustrative cases, new tests, a new chapter on Gelsemium Poisoning, and an appendix on the Blood. The subjects of poisoning by potassium chlorate, post-mortem diffusion of arsenic, and the nature of ptomaines are also added. Two new steel plates, including twelve illustrations of microscopic crystals, and cuts showing the size of the red blood-cells of six different mammals, together with a chromo-lithograph of blood-spectra, are among the other additions to the work.

The author begins with a chapter in which he describes the evidences of poisoning and the various methods of studying these evidences.

He then takes up the different inorganic and organic poisons, giving their chemistry, physiological effects, treatment, post-mortem appearances, chemical and microscopic tests.

The appendix on the Blood is a very useful contribution. The book is made especially valuable also by the numerous and exquisitely executed steel cuts of microscopic crystals. This work is done by the author's wife. There is an elaborate table at the end of the book which will prove most helpful to the chemist.

We observe no reference to the toxicology of the aniline dyes. The chapter on ptomaines is also by no means so complete as it might be made. In general, however, the author appears to have dealt with his subject carefully and thoroughly. The style is good, the descriptions are clearly given, and the book will undoubtedly serve a most useful purpose in legal medicine and toxicological study.

THE OSTEOLOGY OF AMIA CALVA, including certain Special References to the Skeleton of Teleosteans. By R. W. SHUFELDT, M.D., Captain Medical Corps, U.S.A. Washington: Government Printing Office. 1885.

THIS monograph contains a review of two memoirs upon the osteology of this interesting form, and also some personal observations of the author, the result of an examination of a specimen of this fish caught near New Orleans in 1883. It forms a part of the annual report of the Commissioner of Fish and Fisheries for 1883.

DEPARTMENT OF AGRICULTURE. CONTAGIOUS DISEASES OF DOMESTICATED ANIMALS. Investigations by the Department of Agriculture, 1883–1884. Washington: Government Printing Office. 1884.

THE present report contains the results of special investigation at the Washington Experimental Station, and in the West. The reports on the Outbreak of Ergotism, on Pleuro-pneumonia, on Swine Plague, and Cattle Fever, all contain much original and collected statistical matter, reflecting great credit on the Department. In the line of experimental culture of micro-organisms some of the best work in the country has been done by Dr. Salmon and his associates.

CHINA: IMPERIAL MARITIME CUSTOMS. Special Series, No. 2. Medical Reports for the Half Year ended March 31, 1884. Shanghai. 1884.

TENTH REPORT OF THE STATE BOARD OF HEALTH of MINNESOTA. January 1, 1883, to August 1, 1884. St. Paul, Minn. 1884.

PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY. Vol. VI. September, 1883, to June, 1884. Edited by Publication Committee. Philadelphia. 1884.

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY. Twentieth Annual Meeting, 1884. Boston: Published by the Society. 1885.

ANNUAL REPORTS OF STATE MEDICAL SOCIETIES. Illinois, 1884; Kentucky, 1884; Colorado, 1884; Connecticut, 1792–1829; Georgia, 1884; Wisconsin, 1884.

WE regret that lack of space prevents us from giving such notice as many of the above publications deserve.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW JERSEY.

One Hundred and Nineteenth Annual Convention, held at Long Branch, N. J., June 9 and 10, 1885.

FIRST DAY—TUESDAY, JUNE 9TH—MORNING SESSION.

THE meeting was called to order by the President, DR. BARKER, of Morristown.

In the absence of Rev. E. B. Tompkins, DR. STEPHEN WICKES, of Orange, offered the opening prayer.

DR. S. H. HUNT tendered

THE ADDRESS OF WELCOME.

After giving the Society a hearty greeting, he dwelt at considerable length upon the progress made by the profession during the past few years.

The minutes of the last annual meeting were then read and approved.

The Committee on Business, in their report, urged that discussions upon all topics be limited in time to five minutes, and that scientific papers be read early enough to secure the attention they deserve.

The delegates to corresponding societies, in their report, stated that at the International Congress, at Copenhagen, the European physicians ignored the American members in not electing any of them to office. This was thought to be a great breach of professional etiquette.

FIRST DAY—TUESDAY, JUNE 9TH—EVENING SESSION.

ANNUAL ADDRESS BY THE PRESIDENT,

DR. P. C. BARKER, who took for his subject the

PRESENT STATUS OF THE GERM THEORY OF DISEASE.

He began by saying that the literature upon bacteria will become the romance of medicine. He then referred to the various epidemics since the fourteenth century, and said that the great dread of fatal epidemics stimulated experimental investigation into the cause of such diseases. Pasteur's views in regard to fermentation were dwelt upon. He claims that each micro-organism gives rise to a peculiar fermentation, and that when such a fermentative process is established in living tissues, the various manifestations of the disease to which the organism gives birth are soon made evident.

When Lister recognized the importance of germs, he at once made use of antiseptics in the treatment of wounds, thereby introducing a method far superior to any which antedated him.

These micro-organisms are not easily destroyed at ordinary temperatures, but high and low temperatures, and absence of moisture, deprive them of their activity.

The spores of these organisms are not easily destroyed, as they have a double envelope which protects them from external injurious influences.

Erysipelas has been reproduced in both the lower animals, and in man, and such artificially-produced erysipelas is supposed to have rendered the individuals less susceptible to a second attack of the same disease.

Dr. Ferran's experiments were alluded to. He has inoculated many people with cultivations of the cholera spores, and he claims that such inoculated persons are not liable to the development of malignant cholera.

He inoculates in the lower part of both arms. During the following few hours, pain in the arms, headache, loss of appetite, and fever (104 F.) are experienced. Sometimes these symptoms continue two or three days, but never become severe, and in no case has life been sacrificed.

Experimentation upon the lower animals has shown that they present different degrees of susceptibility to the various specific germs.

In order that inoculation of an animal may be satisfactory in result, it must be shown that the specific germ used in inoculating the animal is reproduced in its tissues, and that the disease of the animal corresponds with the disease as spontaneously developed in the individual from whom the virus was obtained.

Since investigations have shown so much of importance concerning the relation of germs to disease, sanitary science has risen into great prominence, and it has done very much toward stamping out the existence, and in preventing the spread of contagious diseases.

In the case of the Plymouth epidemic gross negligence was manifest, for, as the result of the contamination of the air by the poison of the excreta of one typhoid fever patient, many valuable lives were sacrificed.

PREVALENT DISEASES.

The Standing Committee stated that each county society was in hearty sympathy with the various district societies in regard to all matters of sanitary legislation.

It further reported that the severe cold weather of the past winter had caused much catarrhal inflammation of the air-passages.

In the vicinity of Englewood there were many troublesome cases of infantile diarrhœa, and a few cases of scarlatina and diphtheria. In Burlington County there were many cases of severe tonsillitis. In Camden County there were many cases of intermittent fever and quite a large number of cases of diphtheria, also a large number of cases of rheumatism, twenty cases of scarlatina, and a small epidemic of measles. Cumberland County had been unusually healthy. In Essex County, scarlatina, diphtheria, and measles had been epidemic; there were also many cases of mumps, followed in one instance by facial paralysis, in another by chorea.

There were many cases of severe pneumonia in Burlington County. Mercer County has been exempt from serious diseases. In New Brunswick there were many cases of severe typhoid fever. It was reported that cocaine had been extensively used in painful diseases of the ear, and with success. Quinia sativa was used with good results in chorea. Jaborandi has been employed with benefit in the first stage of pneumonia, and it has apparently shortened the disease.

PRELIMINARY EXAMINATIONS.

The Corresponding Secretary (Dr. Elmer) stated that each county society should constitute its President, Vice-President, and Secretary, an Examining Board to examine such persons as wish to study medicine in the prescribed English branches. He also stated that any person in good standing in the County or the State Medical Societies, could, with the indorsement of the President of his County or State Medical Society, and on payment of initiation fee, become a member of the American Medical Association.

The Committee on Medical Jurisprudence reported that experts are chosen in the various counties of the State in the same manner. That the Judge may select such experts in any given case as he may consider qualified for the work, and that he, the Judge, shall have power to fix upon the sum to be paid such expert, or experts, for services rendered. The payment of money for expert testimony shall be made by the parties in whose interest the testimony is given.

SECOND DAY—WEDNESDAY, JUNE 10TH—MORNING SESSION.

DR. JOHN W. WOOD, of the Trenton Asylum, read an interesting paper on

GENERAL PARESIS.

He stated that of all diseases of the brain none are more grave or important than general paresis. It is grave because of its incurability, and it selects its victims from

individuals in middle life. It is not mentioned in works on general practice, or in lectures in medical colleges, for which reason it was brought before the Association. It was first recognized as a distinct form of mental alienation by Bayle, in 1822, and was first announced in the United States by Dr. Beel, of the McLean Society of Boston, in 1843.

The English, American, and French writers all regard it as a distinct form of mental disease. The German writers still adhere to the doctrine of duality. It has been steadily increasing in frequency. In 1867, in the Trenton Asylum, there were but *two* cases. The average admission during the last three years has been eight. It is a disease of the brain, especially of the gray matter.

The symptoms, motor and psychic, are, according to the views of the author of the paper, that mental symptoms are first manifested, and consist of a change of character, as manifested in taste and temperament and moral habits; of the motor symptoms, first an indistinct articulation, and finally an inability to coödinate the movements of the lower extremities. The peculiarity of the symptoms, both mental and motor, is that they are steadily progressive from the very outset of the disease.

The disease is divided into three stages: 1, the prodromic; 2, the inability to articulate and difficulty in locomotion, with mental enfeeblement; 3, complete paresis, with mental extinction. The duration of the disease from its commencement is about four years, and rarely occurs prior to the thirty-fifth or after the fifty-fifth year. The prognosis as to recovery is uniformly unfavorable. The causes predisposing are age, sex, and hereditary tendency. It seldom occurs in the female, and in 127 cases in the Trenton Asylum there was distinct hereditary tendency in 36, and in addition to this, 18 were the offspring of intemperate fathers or mothers. The exciting causes are sunstroke, and any excesses that vitiate the normal healthy standard of the system, particularly alcoholic and venereal excesses.

Treatment.—During the excited stage, the bromides, chloral hydrate, and peraldehydes were advised. The hydrobromate of hyoscin has been used somewhat extensively, and with no other result than a dry throat and nauseated stomach. Dr. Girma's experiment with ergotin, as recommended in the *American Journal of Insanity* for October, 1884, was faithfully tried in twelve cases in the Trenton Asylum, with no favorable result whatever. The epileptiform seizures were mitigated in severity and diminished in frequency by the exhibition of the bromides (*i.e.*, potass., sod., and am.).

Dr. H. H. James, on account of sickness, could not be present to read his paper on "Toleration in Medicine."

The report of the Committee on

HOW TO PREVENT UNLICENSED PERSONS FROM PRACTISING IN THE STATE,

stated that the prosecuting attorney of each county can bring any such case before the court, and fines be levied or other such punishment inflicted as the Court deems wise.

The Committee on the Army Medical Museum and Library of the Surgeon-General's Office reported that a sufficiently large appropriation was made to secure the erection of a fire-proof building for the protection of the valuable Surgeon-General's Library.

EXAMINING BOARDS.

The Committee on Education reported that there should be *two* examining boards, each board to have five members. One of the boards should be assigned to the northern section of the State, the other to the southern section. These boards should report, one week prior to the time of the State Medical Society's meeting, any students examined and any other work done in this connection.

It further reported that the power to license and the power to examine should be exercised by different boards. It urged that all applicants for license to practise medicine in New Jersey should be examined rigidly in the various medical branches, and that no person be allowed to practise, who shall not show a satisfactory intelligence upon all topics examined upon. The Committee doubt the propriety of securing new legislation upon this matter, but urge pushing the power already vested in the State Society.

It also urges courtesy on the part of the Society toward homœopaths, but a stanch support of the principles of the old school of medicine.

It was thought that the Governor of the State should have the power to grant a license to any one wishing to practise medicine in New Jersey, if such an applicant shall have passed a satisfactory examination before an impartial and properly organized Board of "Examiners."

Dr. J. L. Bodine objected to the carrying into effect the report as read, as he thought such legislation as recommended would not be recognized by the laity, and therefore the Medical Society would fail of the recognition it deserves in matters of this character.

Committees appointed by the State government have consisted of regulars, homœopaths, and eclectics, such appointments being very obnoxious to the Society; it was therefore urged that the Governor should not have such power.

Dr. E. M. Hunt thought it was wise that the State required the deposition of a diploma when any physician wished to practise in the State. He also thought it unwise to attempt to carry out the suggestions recommended in the report of the Committee on Education before the Legislature or before the State Board of Examiners.

Dr. Stephenson stated that the homœopaths do not rest in their practice upon the principle "Similia similibus curantur," but upon the system of *proving* all drugs and remedies, vegetable and mineral. He also said that a prominent homœopath said to him that a homœopath need only know the symptoms caused by ingestion of drugs in health, to practise successfully their line of medication.

The Committee on Lunacy asked to be discharged, as they were unable to accomplish the work which they recognized as important. The inability to execute the work has been due to the inefficiency of some of its non-professional members. The motion to discharge the Committee was lost.

Dr. Quimby stated that at New Orleans a Joint Committee was formed to alter or add to the suggestions of the original Committee of the American Medical Society, in relation to the work to be done by the Association at Washington in 1887.

Committee on Treasurer's Account reported receipts, $1,448.19; disbursements, $614.77; balance, $883.42.

Dr. Stephen Wickes read the Report on By-laws. No essential alterations.

Dr. Hunt moved that Cushing's Manual be used as a parliamentary standard in all discussions at meetings of this Society. Seconded and carried.

The Committee on Honorary Membership (Dr. H. R. Baldwin, Chairman) had no report.

The following are the delegates from the various corresponding societies:

Connecticut, Dr. F. E. Beckwith; Rhode Island, Dr. Anita E. Tyng; New York Association, Drs. J. P. Garrish, E. S. F. Arnold; Pennsylvania, Drs. W. R. Hoch, T. D. Dunn, Albert Fricke, and M. O'Hara.

The Society was favored with a very interesting speech by Professor Pancoast, of Philadelphia, by invitation.

Delegates to American Medical Association—Drs. David Warman, Benjamin, William Pierson, Alexander J. Rogers, William L. Newell, Joseph Parrish, J. W. Condict, and S. T. Fisher.

Delegates to Connecticut Medical Society—Drs. William K. Newton, D. C. English, and John Cook.

Delegates to Massachusetts Medical Society—Drs. Abraham Coles, D. A. Currie, Bole, and B. A. Wollington.

Delegates to Pennsylvania Medical Society—Drs. O. B. Gross, George H. Harrison, and J. P. Davis.

Delegates to Rhode Island Medical Society—Drs. E. M. Hunt and Edward North.

OFFICERS FOR ENSUING YEAR.

President—Dr. Joseph Parrish.
First Vice-President—Dr. Charles J. Kipp.
Second Vice-President—Dr. J. W. Ward.
Third Vice-President—Dr. H. Taylor.
Corresponding Secretary—Dr. William Elmer, Jr.
Recording Secretary—Dr. William Pierson.
Treasurer—Dr. W. W. S. Phillips.
Standing Committee—Drs. T. J. Smith, E. J. Marsh, and D. C. English.

The next annual meeting will be held at Spring Lake, N. J., on the second Tuesday of June, 1886.

NEW YORK ACADEMY OF MEDICINE.

SECTION OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Stated Meeting, April 23, 1885.

A. S. HUNTER, M.D., PRESIDENT, IN THE CHAIR.

DIARRHŒA AND DYSENTERY IN CHILDREN.

DR. NATHAN S. ROBERTS read the paper, and said it was his purpose to treat the subject only from a practical and clinical standpoint, and to present some conclusions arrived at after considerable observation of diarrhœa in children in the densely populated districts toward the lower part of the city. The large proportion of deaths from diarrhœa in children in New York and London, and also in other cities, showed the importance of the subject under consideration, especially at the present time, when the warm season is approaching.

In children under one year of age we might often look for the cause of the intestinal trouble in the ill state of health or habits of the mother or nurse, or in the faulty method of feeding. Often also the disease arose from cold and dampness. In children over one year of age, as a rule, the cause would be found to lie in dentition or errors of diet, such as allowing of too frequent eating, or the improper use of vegetables, unripe fruit, and other articles unsuitable to the age of the patient. Other causes were the influence of measles and other zymotic diseases, pneumonia, impure air, high temperature.

Dr. Roberts distinguished the diarrhœa of children as either simple, enteric, choleraic, or so-called cholera infantum, and mixed diarrhœa. These several forms were characterized by certain peculiarities of the dejecta, and it was important always to note the appearance, the frequency, the amount, the odor, the chemical reaction, etc., of the passages. In the first form there was a simple diarrhœal discharge. In the enteric form the discharges were similar, but contained a considerable proportion of undigested food, pointing to imperfect digestion. In the choleraic the passages were thin, and squirted from the anus as from a syringe; they had not the normal acid reaction, but were alkaline and usually fetid. In the mixed form the passages contained considerable mucus, were sometimes streaked with blood, and attended by pain.

Treatment.—In this disease no temporizing or expectant treatment was admissible. Prompt and efficient treatment was urgently demanded, especially in the hot summer months, during the prevalence of cholera infantum. We should take into consideration all the hygienic conditions surrounding the case, and, if necessary, remove the patient to a better atmosphere. Cleanliness of the skin and proper clothing must be insisted upon, and most important was it that the dietary should be inquired into and regulated. Such food should be prescribed and in quantities and at intervals to suit the age and tastes of the patient. The author felt convinced that bad methods of feeding were responsible more than any other preventable cause for the presence of summer diarrhœa.

The subject of dietetics in children was a great one, and might well occupy our attention the entire evening, but it could only be briefly considered on the present occasion. If the mother would not, or could not, nurse the infant, it was better to provide a wet-nurse. If a wet-nurse could not be obtained, how should the baby be fed? The reply was that milk was the only suitable food for young infants. He should recommend that it be diluted with from one-half to one-fifth part of water for infants under a year old, and to add to each pint as much as fifteen grains or half a teaspoonful of soda, thus neutralizing acidity and preventing hard coagulum of caseine; or a tablespoonful or two of lime-water might be employed as an antacid. It was well to instruct the mother to test the milk with litmus-paper, and let that be a guide as to the quantity of the antacid to be added. If there be weak digestion add from five to ten grains of pancreatine dissolved in a little water; or the milk might be allowed to become digested for half an hour to three-quarters of an hour with pepsin, keeping the temperature at about 100° F., and then strain through a fine sieve, and give the whey with or without a portion of the finely divided curd. He preferred milk-sugar to cane-sugar for sweetening. In some cases of diarrhœa, attended by vomiting, he had found the white of an egg diffused in water a nutritious drink.

If the milk supply was questionable and did not agree with the digestive organs, then the artificial foods would have to be tried. First, if cow's milk disagreed, he would try condensed milk. Of the farinaceous foods for children past the third or fourth month, he had found Nestle's milk food as good as any. After the seventh or eighth month such food might be given as the child was best able to digest. In his experience young children did not take kindly to scraped meat.

As to the medicinal treatment in diarrhœa, one should carefully note the changes produced in the symptoms, and make frequent visits in order to keep careful watch of the case. In the selection of remedies we should be governed largely by the characteristics of the stools. In the simple forms of diarrhœa a few doses of gray powder will often be the only remedy required, but its administration should not be long continued. This was also true of other mercurial preparations in diarrhœa and dysentery; their continuous administration would end in prostration and anæmia, especially so in scrofulous children. Calomel in small and frequent doses was useful in so-called white or chylous diarrhœa, and drop doses of the tincture of nux vomica might also be useful. In case of greenish stools ipecac would prove useful. This medicine was employed largely in intestinal disorders, whether diarrhœal or dysenteric, in young and old persons. It seemed to induce normal action of the liver and bowels. In small doses it would often relieve nausea and irritability of the stomach. Small doses of rhubarb and soda, or teaspoonful doses of spiced syrup of rhubarb were well adapted to certain cases; where watery passages were attended with pain and sleeplessness, a few doses of Dover's powder, combined with bismuth, would be of advantage, but it was important to stop its use just at the right time.

The few remedies mentioned would often serve to bring the little patient safely through to complete recovery. Other cases, however, lingered on, even assuming a graver type of disease, the patient becoming prostrated from loss of vitality, the surface cold and clammy, the lips blue and the eyes sunken, etc. In these cases whiskey would often save the life of the patient. If we found the tongue red and dry, much restlessness, etc., the patient might be brought out of the condition by the administration of arsenic in one one-hundredth or two-hundredth grain doses. Veratrum album had been recom-

mended by Ellis in cases in which the nervous system was disturbed, and Dr. Roberts had found it useful not only in diarrhœas, but also in pneumonia and typhoid fever. The indications for its use in diarrhœa were great restlessness, heat, and frequent loose evacuations. In some subacute cases he had employed the spice pad, composed of powdered ginger, alspice, and cinnamon, wet with brandy or whiskey, and laid upon the abdomen. He had also used camphor-water in teaspoonful doses at the commencement of an attack with profuse loose stools.

Finally, in chronic cases search for a constitutional vice, and administer iron, quinine, hypophosphites, and other constitutional remedies.

Dysentery was so much more severe and dangerous than ordinary diarrhœa that it deserved separate consideration. It was a disease of the large intestine, and had its origin in dampness, cold, impure air, bad sanitary surroundings, such as were mentioned in speaking of the etiology of diarrhœa. It was preceded a day or two by malaise, symptoms of dyspepsia, the bowels acted more loosely than usual, and the passages became bloody and slimy, exceedingly frequent, accompanied by tormina and strain. Griping is not constant, but it usually precedes each act at defecation and is relieved thereby. The fever which usually accompanies the disease is often absent. The passages were usually offensive, and sometimes fine scybala were mingled with them. There was frequently prolapsus of the anus and vesical irritation; sometimes nausea and vomiting.

This disease could usually be brought under control in from six to seven days. It sometimes, however, proceeded to an atonic condition, with a frequent, small pulse, cold extremities, an anxious countenance, a dry tongue, and showed a strong tendency to terminate in death.

Active treatment should be adopted. The patient should be confined to bed, and the evacuations should take place in the recumbent position. Whiskey, opiates, and laxatives would suffice for the cure of the majority of cases, but success would depend largely upon their judicious employment. Various methods of treatment had been adopted by different authorities. If there were reason to believe that there was fæcal matter in the upper part of the intestinal tract, as was often the case, a dose of castor-oil with a few drops of laudanum was almost indispensable at the outset. Dr. West's prescription of castor-oil might be useful. Ipecac had been highly extolled by many, and Dr. Roberts felt certain it was of great value in many cases. He had found corrosive sublimate an excellent remedy in the dysentery of adults, but less reliable in children. To allay nausea and vomiting, he had sometimes given a few doses of creasote with most happy effects. If alcoholic stimulation were necessary he preferred pure whiskey, five drops to a teaspoonful, according to the age of the patient and the indications of the case.

After the violence of the disease had abated, in some cases convalescence would be slow, and here the pernitrate of iron was useful, together with nux vomica as a stomachic and nervine.

The most important general principles to be considered in the treatment of diarrhœa and dysentery were, first, to insist rigidly on compliance with hygienic rules; second, rest in bed until convalescence is thoroughly established, except so far as it may be necessary to vary from this rule to obtain better air; third, frequent visitation of the patient during the most critical stages of the disease; fourth, remedies employed to be administered as a rule in small and frequent doses, and discontinued when they have accomplished the special purpose for which they were indicated.

Dr. B. F. Dawson had had considerable experience with the treatment of the diarrhœa and dysentery of children some years ago, and had expressed some of his views in print. The paper read by Dr. Roberts left little to be said. Most of the gastro-intestinal disorders of children were due to improper feeding. Among the animal creation human beings were the only ones which were improperly fed and which suffered from diarrhœa and other intestinal disorders in consequence. Many of these disorders had been attributed to teething, but dentition was as natural a process as was the growth of the hair or nails, and should not give rise to disorder of the bowels. Even artificially fed children should not be exposed to diarrhœa and dysentery, or any of the pains said to accompany dentition. This view he regarded as not theoretical but practical, as he had witnessed that children when properly fed passed through infancy and childhood without diarrhœa or dysentery. When a child cried after taking food it meant pain, and the indication was to withhold food until the irritation had ceased. Instead of that, however, the mother or nurse gave the child more food, and added to the trouble, and thus the child acquired a diarrhœa. If the intestinal tract became irritated for any reason, causing loose fecal movements, as soon as the offending material had passed out, rest would lead to a cure. The mildest and the best medicine which we could then put into the child's stomach was pure cold water. If, however, continual bad feeding has led to a more marked degree of irritation, and some further treatment is necessary, he would not give opiates, but antacids and remedies which aid digestion. Among these were bismuth and pepsin. In dysentery opium might assist in relieving pain, but it should not be given in diarrhœa due to the presence of undigested food in the intestine. Here absolute rest and cold water constituted the best mode of treatment. Dysentery could always be traced in children to a previous diarrhœa; he had never seen a case of dysentery in a child in which the symptoms were those of dysentery from the onset of the disease. Inasmuch as it followed a diarrhœa, it indicated the importance of early recognition of diarrhœa and proper diet.

Regarding the elevation of the temperature, he thought that in itself it was not an important factor. The trouble was that the vessel in which the milk was kept was dirty, the surroundings were dirty, the air was foul, the child was not kept clean, it was fed too often, and the quantity of food was not reduced in hot weather. Intemperate and diseased mothers should not be allowed to nurse their children. It was perfectly easy to raise a child artificially fed. Instead, however, of feeding it with watered milk, he let the water settle to the bottom and gave the child the top of the milk. Give milk which contains plenty of fat or that which contains the largest proportion of cream. Indeed, instead of diluting milk, he added to it fatty material, either oatmeal or a little butter. He thought it a mistake to take the caseine out of the milk. What was desirable was to prevent a hard coagulum, and to secure this result nothing was better than to add barley or oatmeal-water to the milk, say one part of oatmeal-water to two parts of good fresh milk, and add a tablespoonful of lime-water and a lump of sugar. Observe the rule that a child should not be fed oftener than once in three or four hours. Dr. Dawson explained later that by barley and oatmeal-water he meant the gruel strained, the coarser part removed.

Dr. J. Blake White accepted the views expressed by the author regarding artificial foods, and said that nothing could act as a substitute for milk. He preferred, however, fresh condensed milk, properly diluted, to the fresh cow's milk. Many children fed on cow's milk suffered from diarrhœa and other affections because of the impurity of the milk or the source from which it came. A fault of what was considered the freshest milk which could be obtained for children in the city was that it came from cows kept closely housed and fed on slops, and such milk was uniformly acid.

He differed from Dr. Dawson regarding the influence of dentition in some cases, for it at times certainly caused intestinal disorders, and it might be necessary even to

lance the inflamed gums. Cool fluids were of advantage, as was also bismuth, lactopeptin, etc.

Dr. J. E. Winters thought he could add but little to what had been said by the author and the gentlemen who had discussed the paper. He disagreed with Dr. Dawson regarding the influence of dentition, for it undoubtedly did often cause disturbance of the alimentary canal in children. It was during the time of dentition that diarrhœa and dysentery most frequently occurred. There were also other reasons for the intestinal irritation, consisting in improper food, unusual functional activity of the intestinal tract from rapid development, etc. He thought, however, that the influence of dentition in producing diarrhœa had been overestimated, but still it should not be entirely ignored.

He heartily concurred in the opinion expressed by Dr. Dawson, that dietetics were the chief cause of indigestion and intestinal derangement in children. It occurred usually during the first eighteen months of life, and during that time children were usually milk-feeders, and milk was more liable than other forms of food to be contaminated and to ferment. But there was nothing which would take the place of cow's milk except the mother's breast. Infant foods were not as good as cow's milk for infants. He thought too much water was fed with the milk, and too little cream. Caseine in the quantity in which it existed in cow's milk was not readily digested by children, and he would allow it to gravitate to the bottom and give the top part of the milk, the cream. If milk were rendered alkaline and gruel be added it would prevent the running together of the caseine. He would not have a child nourished by a wet-nurse until other means had been tried. Many children grew up to be perfectly healthy while fed exclusively by the bottle.

Hot weather alone seemed to have less influence in causing diarrhœa than moisture of the atmosphere or electrical disturbances.

One point in the treatment, he thought, had not been sufficiently dwelt upon, and that related to the condition of the skin. The child should be kept cool, having almost no clothing during the summer months, and it should be frequently bathed.

Dr. L. E. Holt agreed with what had been said regarding prevention. The regulation of the diet was most important in prophylaxis. An important matter in the administration of drugs was, as had been stated by the author, to give them in small quantities frequently repeated. If they were administered in considerable quantity every three hours harm might result. He had come to rely upon opium more than upon any other drug in the diarrhœa and dysentery of children. It should be given frequently, its effects carefully watched, and if these points were observed it would not cause any cerebral symptoms. Next to opium one of the most valuable remedies was bismuth, given as frequently as every half hour or hour. If vomiting were present he used kumyss. He also bore testimony to the advantage of frequent bathing, and the administration of certain other drugs.

Dr. H. D. Chapin spoke of one point, namely, the influence of heat in the production of diarrhœal diseases in children. That the heat of summer had some effect in the causation of the disease seemed to be evident from the fact that the death-rate, as shown by the statistics at the office of the Board of Health, was much greater in July, 1882 and 1883, than during August of the same years, the average temperature for July being greater than during August. This fact pointed also to the importance of bathing, and he advised that children be allowed to play in the bath half an hour or an hour.

Dr. Dawson asked if the increased death-rate during the hotter month might not be due to over-feeding rather than to increased heat; although the child ate the same amount at all times, it required less during the hot months, but the mother failed to reduce the quantity of the food, or to give that which was less heating.

Dr. Fanning called attention to a recent article by Ringer on the use of mercury in diarrhœa, the indications for its administration being based upon the character of the stools.

Dr. Neal had found benefit from the use of the aromatics in the diarrhœas of children. He was more in favor of vegetable astringents than of minerals in the treatment of these diseases of young children.

Dr. John C. Peters favored a milk-diet for children, but the milk was often acid. There could be no cast-iron rule regarding the dilution of condensed milk. The quantity of water to be added could only be determined by a few days' trial. He had found that it was not hot air that caused the trouble in children, but hot foul air; the hotter the air, usually the fouler it became in cities. He was a little old-fashioned in his views as to the influence of dentition; he believed it sometimes caused intestinal irritation, and he sometimes lanced the gums. Regarding the frequency of nursing, during the first month the child should not nurse oftener than once in two hours, and the interval should be gradually lengthened to four hours. Night-nursing should be dropped as soon as possible, usually at the fourth or fifth month. He favored bathing and allowing the child to play in the bath; also sometimes used injections of tepid water, and applied a cold pad over the abdomen. He administered large doses of bismuth which contained no arsenic or other impurity.

Dr. A. C. Post thought too much stress could not be laid upon the evil influence of great frequency of alimentation. The mother or nurse should know that the child often cried during hot weather because it was thirsty, and not because it was hungry, and it should be allowed to drink of pure water; feeding or nursing should not take place oftener than every two hours during the first month, and not oftener than once in from three to four hours as the child grew older.

Dentition had been spoken of as a physiological process, and *a priori* it was claimed that it should therefore be painless and unattended by any irritation. But it was also true that menstruation, child-bearing, the evacuation of the bowels, etc., were physiological processes, yet we knew that they were often attended by pain and derangement of the health. There was no fact in medicine more clear than that dentition was sometimes exceedingly painful, and he had known children in whom the great irritation continued for hours and even days, and relief had been instantly afforded by lancing the gums.

Allusion had been made to the use of bichloride of mercury in the treatment of diarrhœa and dysentery, and he had found it a very valuable remedy. Let a grain be dissolved in water and a teaspoonful be given with the milk each time the child is fed. It also had an antifermentative effect upon milk. He had also derived benefit from minute doses of calomel. Where there was fermentation in the bowels, with pain and griping, charcoal would give prompter relief than any form of opium.

The President spoke of what might be considered as large doses of bismuth. He gave even twenty or thirty grains to a child a year old. He asked if allowing the child to nurse every two hours, even during the first month, was not too frequent; the stomach had not time to digest the first quantity before a second was taken.

Dr. Jacobus thought diet had a great deal to do with the production of gastro-intestinal disorders in children, and heat had a great deal to do with rendering the diet impure. Cow's milk as it came from the country was not fed to children before it was twenty-four or thirty-six hours old, and of course it was diluted more or less, the milk-cans were dirty, etc. That from cows kept in the city was faulty as being from cows slop-fed, etc., and it was therefore watery and acid. Among poor people the mother drank often of tea, causing, besides trouble with the bowels, also eczema. Ceasing the tea, the diarrhœal and eczematous trouble disappeared in the child. He preferred bismuth to almost all other remedies for the treatment of the diarrhœa of children. Regarding condensed

milk, he had found that children who had appeared to thrive on it during the first year, were not really strong; were soft and fat, and liable to succumb to disease during the second year. Bathing was one of the best means of reducing the temperature.

Dr. H. J. Boldt thought that bismuth did good only in cases in which there was acidity of the stomach, and that very large doses—from thirty to forty grains—were unnecessary and liable to produce irritation.

Dr. Billington, in reply to a question by the President, said he thought the general opinion expressed regarding the length of the interval between the taking of food by infants was well based; a positive rule, however, could hardly be adhered to under all circumstances. He expressed a preference for wet-nursing rather than for artificial feeding.

Dr. Roberts, in closing the discussion, said that when the child was raised on the bottle there should be a number of bottles at hand, and black-rubber should be used.

On motion, the Society adjourned to meet the fourth Thursday in September next.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE ARTIFICIAL PRODUCTION OF CHOREA—DISCUSSION ON CHOREA AT THE MEDICAL AND CHIRURGICAL SOCIETY—OPINIONS OF DRS. ANGEL MONEY, HUGHLINGS JACKSON, TURNER, STURGES, HARLEY, AND BROADBENT.

London, May 30, 1885.

With the approach of the summer the medical societies are concluding their labors. The Medical, Clinical, and Pathological Societies have all closed for the present session. Before next month is out the rest will have followed suit. The Medical and Chirurgical Society still meets. At the last meeting great interest was evinced in a paper read by Dr. Angel Money, entitled, "The Experimental Production of Chorea." The meeting was actually prolonged half an hour beyond the usual time so as to give time for the discussion. The method adopted by Dr. Money was to produce capillary emboli by injecting a particulate fluid into an artery—generally the common carotid. Arrowroot, starch granules, and carmine were found to act best as emboli. The animals experimented on were rabbits, guinea-pigs, cats, dogs, and monkeys. No results had been obtained with the latter animals as yet. In the other animals capillary embolisms of the brain and upper part of the spinal cord had occurred, and in many cases involuntary movements had been produced indistinguishable from chorea. Dr. Money said the "chorea" never followed capillary cerebral emboli but only ensued on capillary embolism of the spinal cord. In nearly every case, however, in which the brain was affected with capillary embolism, some form of "involuntary movement" was present. The want of development of the pyramidal tracts in the animals under consideration possibly explained why chorea did not in them result from embolism of the brain proper. The author maintained that the reasons for locating the lesion in the brain in most cases of human chorea were too powerful to be upset by experiments on animals so far removed from man. When the artificial "chorea" was well marked, reflex action in the cord was exaggerated. Dr. Money suggested that in those few cases of human chorea in which the reflexes are exaggerated, the spinal cord will be found to be the seat of the disease.

An interesting discussion on the general pathology of chorea followed the reading of the paper, but the exigencies of space forbid my noting more than a few of the most salient points.

Dr. Hughlings Jackson remarked that Dr. Money's researches had proved that involuntary movements can be produced by artificial embolism. We could not expect to see movements in a dog's forelegs like those of a child's arm in chorea. The dog was not capable of such elaborate movements. The elaborateness of the movements in human chorea pointed to the lesion being "high up" where the nervous arrangements are complex. As the face is affected in chorea, the lesion must be above the cord. Cases of hemichorea in which the face is affected were inexplicable on the view that the lesion was only spinal. Certainly cases of pre- and post-hemiplegic chorea were inexplicable on that view. Dr. Hughlings Jackson said it was objected to the hypotheses of embolism and thrombosis that these processes lead to destruction of nervous tissue. That was true, and, of course, from destroyed nerve-tissue no movements of any sort could result. But it was equally true that with destructive lesions there sometimes occurred over-development of movements, *e.g.*, post-hemiplegic chorea; also epileptiform seizures occurred in some cases of local cerebral softening from thrombosis or embolism. A condition for repeated seizures was established. In these, and in most cases of chorea, we had two opposite states to account for, some paralysis and some over-movement. Destruction of some nervous elements from embolism could only account for the paralysis in chorea. There must be over-activity of some other nervous elements to account for the coexisting exaggerated movements. Dr. Jackson said he reasserted that movements of some kind (post-hemiplegic chorea, athetosis, epileptiform seizures) do occur in cases where there are destructive cerebral lesions.

Dr. Charlewood Turner thought the embolic theory scarcely sufficed to explain the phenomena of chorea, because the effects of capillary embolism soon passed away. Where emboli caused permanent destruction, paralysis ensued.

Dr. Octavius Sturges opposed the embolic theory. He said a febrile attack, *e.g.*, tonsillitis, would stop chorea. An acute specific fever, such as scarlatina or typhoid, would abolish chorea, and the chorea would not, so far as he knew, return on recovery from the fever. In chorea the sexes were so differently affected and so were different races. Again, emboli were absent in fatal cases occurring in children.

Dr. Cobbold drew attention to the various irregular nervous movements which occurred in horses the subjects of "worm" aneurism, the movements resulting from the introduction of these worms into the arterial circulation.

Dr. John Harley said he had shown cryptopia could cause choreic movements.

Dr. Broadbent said he thought age rather than race and sex was the most important factor in human chorea. He had held that capillary embolism was one cause, but by no means the sole cause of chorea. Dr. Money had shown that almost every symptom of nervous lesions could be caused by capillary embolism. The movements in animals were not the equivalent of chorea in the child. Human chorea was distinctly a cerebral affection, as the cases of hemichorea also proved. Dr. Broadbent said he had more than once seen hemichorea followed by paralysis and reappear as the paralysis disappeared. Among febrile affections, scarlatina generally did away with chorea; typhoid did not, as a rule; other pyrexia, in his experience, affected it but little.

Dr. Angel Money, in replying, said he had nowhere in his paper contended that human chorea had ever been caused by capillary embolism. He had only gone so far as to say that, in some animals, some irregular movements, which appeared to him indistinguishable from chorea, had been produced in this way. He considered capillary embolism to be only one of the causes of irregular movements in animals. Chorea in the human subject had, he considered, many causes; in a few cases cerebral embolism might be the origin. As to the action of fevers upon chorea, he had seen typhoid both annul and produce it.

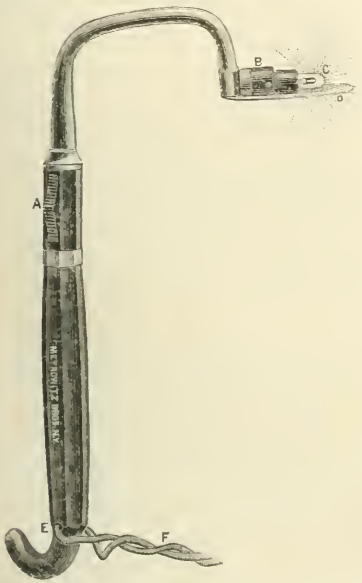
New Instruments.

DR. BLEYER'S MODIFICATION OF TÜRCK'S TONGUE-DEPRESSOR, WITH ELECTRIC LIGHT ATTACHMENT.

By J. MOUNT BLEYER, M.D.,

NEW YORK.

I HAVE had in use for months a modified Türck's tongue-depressor, which I have found gives such satisfaction that I feel justified in bringing it before the profession. An illustration is herewith given. It is believed to



A, Interrupting handle; B, socket for the incandescent lamp and connection with the handle; C, incandescent lamp; D, tongue-depressor; E, connection cord with handle; F, cord connection with battery.

be an improvement upon all tongue-depressors at present in use. The incandescent lamp attachment makes it a valuable instrument from a clinical point of view. The principle for using the instrument is essentially the same, but its application, as compared with the former tongue-depressors, is much wider, and its construction is simple and uncomplicated.

It will be found greatly to facilitate the management of light, and especially is it valuable for use at the bedside, where gas or reflected light is not at hand.

Students and physicians often expend unnecessary time and trouble in managing reflected light, and an instrument so arranged as to reflect light without mirror, lens, and other objects, is certainly an improvement.

The simplicity of construction of this instrument will be obvious from an inspection of the cut, and I have only to add that it has been my aim to place all connecting wires in such a way as to render it absolutely antiseptic.

In regard to batteries suitable for the purpose, at present there are few in the market which I can recommend.

The Storage Portable Battery, to which the instrument is attached, is specially designed for physicians and surgeons. This battery runs a half-candle lamp one hour, size $3\frac{1}{2} \times 1\frac{3}{4}$ inches; a half-candle lamp two and a half hours, size $3\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$. The weight of this battery is from eight ounces to two pounds. It can also be made use of with constant or interrupted current apparatus, electric puncture-needles, and galvano-cautery.

For office use a good instrument is the magnetic motor machine manufactured by a company in this city. This machine may be placed from fifty to one hundred and fifty feet or more from the consulting-room, and wires drawn from thence connected to two posts, placed on a small table, wherewith the instrument may be illuminated. The same company manufactures a small battery, $6 \times 7\frac{1}{2}$ inches, for visiting purposes, which can be easily carried.

I have at present its allies in construction, viz., laryngoscope, nasal speculum, ear speculum, vaginal speculum, and rectum speculum, which have many advantages over those at present used by the profession.

This instrument is manufactured by Messrs. Meyrowitz Brothers, opticians, who have taken special care to insure all the requirements which I have mentioned, and which I deem essential in a good instrument, and who have also the batteries mentioned herein on exhibition.

67 EAST THIRD STREET.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 7, 1885, to June 13, 1885.

FRYER, B. E., Major and Surgeon. Ordinary leave of absence extended six months, from July 1, 1885, on surgeon's certificate of disability. S. O. 129, A. G. O., June 6, 1885.

The order directing Major P. J. A. CLEARY, Surgeon, to change station from Fort Union, N. M., to Fort Lyon, Col., is revoked. S. O. 81, Department of Missouri, June 8, 1885.

RICHARD, CHARLES, Captain and Assistant Surgeon. Granted leave of absence for three days. S. O. 128, A. G. O., June 5, 1885.

MACAULEY, C. N. B., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Sisseton, D. T., and ordered for duty at Fort A. Lincoln, D. T. S. O. 61, Department of Dakota, June 5, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 13, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
June 6, 1885	4	13	71	4	100	70	0	0
June 13, 1885	4	18	74	5	95	59	0	0
Deaths.								
June 6, 1885	1	3	16	3	12	26	0	0
June 13, 1885	0	4	11	5	7	20	0	0

ANOMALOUS LACTATION.—Dr. W. F. Morgan, of Leavenworth, Kan., writes: "The case of anomalous lactation reported in THE RECORD of May 23d calls to mind one in my own practice here in 1873. A mulatto woman, about sixty years of age, was in the habit of putting her grandchild to her breast to quiet it at night, and in a few days was astonished to find that the baby had very substantial reasons for seeming satisfied with this plan, as it had excited a free flow of milk to breasts that had been dry for fifteen years."

Blond Hair and Exophthalmic Goitre.—Dr. J. C. Neal, of Archer, Fla., writes: "In all the cases of exophthalmic goitre I have seen for several years, the patients, mostly female, have had auburn hair. Is this a coincidence or not? Have others noticed such cases?"

The Herb Doctor's Paradise.—Consul Wright, of Santos, Brazil, encloses in a letter to the State Department notes upon the medicinal plants of that country. The compilation is the work of S. S. Schindler, a native-born citizen of the United States, who is now in Brazil. From Mr. Schindler's notes it appears that the country abounds in herbal remedies, and that alvelos, the new cancer cure, is but one of hundreds of plants possessing properties of value, as yet almost unknown to materia medica. Alvelos is a shrub, Mr. Schindler writes, discovered by an eminent physician of Pernambuco to be a specific for cancerous ulcers. The juice is a powerful caustic. Applied to cancer, it produces an irritating effect, which increases to a strong inflammation, and at length cicatrization takes place. The manner of application is this: A camel's-hair brush is dipped in the juice, which is applied to the cancer and allowed to dry. Twenty-four hours afterward a little lint dipped in water is applied to the cancer, and in another twenty-four hours the juice of alvelos is tried again. Dr. Velloso advises for a speedy cure the application of the juice every day, using an infusion of tobacco instead of the arnica and water. This course of treatment is more rapid. The inflammation is much stronger, but can be regulated by the physician according to the nature of the cancer and its proximity to vital organs. Mr. Schindler says that the alvelos treatment has proven successful in every case of cancer of the lips, tongue, nose, and breasts where it has been tried. Baycuru, Mr. Schindler says, is a curious plant of Brazil, which buries itself in the sand, a number of leaves rising above, seven inches long by two inches wide. The flowers resemble a saxifrage. The whole plant is sometimes for days together covered by the sea. The root is six to seven inches long, one inch thick, and of tortuous shape. Externally it is chocolate brown; internally, flesh colored. It is an unfailing remedy in all kinds of enlargements and glandular swellings. The juice of the fruit of the cajueiro tree is one of the most powerful blood-purifiers known. A decoction from the bark of the root of the calunga shrub is a remedy for dyspepsia and intermittent fevers. The leaves of the camapa plant contain a narcotic principle, and the juice of the root and fruit is found excellent for rheumatism and liver diseases. Boiled fruit of the arvore do pao tree makes a powerful poultice for ulcers. The fruit of the cabacinho has an admirable effect upon dropsy. The most stubborn coughs yield to a tea made from leaves of the malvarisco shrubs. Papaw has been found to possess the property of destroying the false membranes of croup and diphtheria. Papaine is another diphtheria cure. Poracary is a sure antidote for bites of snakes. Sapucareira bark makes a decoction which seems to be nature's remedy for kidney ailments. There are no less than three hundred and twelve plants or trees in Brazil which possess strong medicinal properties. Mr. Schindler's catalogue of them contains a remedy for every ill known to human flesh, and the wonder inspired in the reader is that people should ever die in that country.

The English Substitute for Chloroform.—Mr. Braine, who is a professional anæsthetist, says that in England, of late years, the place of chloroform has been chiefly taken by the A. C. E. mixture, which is equally portable with chloroform, and can be used in almost all the cases in which an anæsthetic is required. "For obstetric operations, and in dental cases in children, I generally use it. In fact, armed with a bottle filled with A. C. E., an anæsthetist is equal to most of the emergencies of his practice, and probably possesses an agent more nearly universally capable of application, with almost complete safety, than any other anæsthetic compound. The chief objection to it, perhaps is that it is somewhat slow in producing entire anæsthesia. Wherever practicable, it should be used rather than chloroform. The exhilarating effects of the three parts of ether seem to more than antagonize the depressing effects of the two parts of chloroform, so that scarcely any deaths, if any, have been reported from its use. Should syncope occur during its administration, the same measures as are recommended for such an emergency from chloroform should be adopted. But, in spite of this strong testimony in favor of A. C. E., I am yet of opinion that, of all the compounds hitherto employed for the production of anæsthesia, none other is equal in safety to nitrous oxide gas for short operations, or to the gas combined with ether, for longer cases."

Syphilis and Æsthetics.—The following flight of medical fancy from the *Columbus Medical Journal* will hardly be relished by Italian patriots: "As the fires of the Infernal had found an expression for their invisible forms through the soul of Dante, one of the most classic and beautiful of bards, so syphilis sought its darkest expression in his native land, unrivalled in the beauty of her classic wealth. This is no breach of consistency. Out of one extremity is born its counter-extreme—and among the *contras* to that extremity of æstheticism which once gave to Italy her fairest title to worth, must be classed the syphilis for which she served as an unhappy nidus."

The Safety of Nitrous Oxide.—Mr. Braine, in the *British Medical Journal*, says: "Pregnant women, even as far advanced as eight months, take nitrous oxide well. I may here mention the case of two patients, who were suckling, and in whom the shock from the extraction of a tooth, without the gas, stopped the secretion of milk; subsequently, having to undergo a similar operation, under like circumstances, they determined to take the gas, and in neither instance did any derangement of the functions of lactation occur. Great age is no bar to the administration of nitrous oxide; my oldest patient, a lady, having reached the age of ninety-four."

Failure of Pelletierine.—Dr. W. A. Miner, of Mount Kisco, N. Y., sends us the details of a case in which pelletierine entirely failed to cause the expulsion of a tape-worm. The patient was a gentleman, who had been passing segments of the worm daily. He was twice treated with the new drug, careful directions being given as to fasting and cathartics. Some large pieces were expelled, but the head remained. The medicine is expensive; it caused dizziness and cramps in the legs; it failed to cure, hence our correspondent thinks less highly of the new remedy. We would state that pomegranate has been found to expel the worm in 54 out of 134 cases, or forty-three per cent. Pelletierine has succeeded in seventy-six per cent. of cases. There is apparently no specific for tape-worm, but pelletierine is probably one of the best remedies.

Voluntary Acceleration of the Heart.—Dr. Tarchanoff has recently reported the case of a young medical student who has the power of accelerating the beat of his heart at will. The volitional impulse seems to act upon the accelerator nerves of the heart rather than on the vagus.

A Simple Treatment for Burns.—Dr. Squibb, in *The Ephemeris*, remarks that the officinal aqua creasoti, or creasote water, a simple one per cent. solution of wood creasote in water, is, like similar solutions of carbolic acid and of cresol, a most effective local anæsthetic and topical dressing to burns and scalds. It is no better than the solutions of carbolic acid, or of coal-tar creasote, for this purpose, but it is quite as good, so that whichever is most accessible or most convenient may be used.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 27, No. 26 NEW YORK, JUNE 27, 1885 Whole No. 764

Original Lectures.

ENURESIS, OR INCONTINENCE OF URINE.

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THE study of enuresis, or incontinence of urine, leads unavoidably to the consideration of some points in the physiology of the bladder; and while we cannot at present enter into the details of this subject, introductory to our theme two leading and important questions suggest themselves: First, to what extent is the function of the bladder dependent upon cerebral, spinal, or sympathetic action? and, second, in this action, how much is to be allotted to exciting, automatic, and inhibitory influences?

As we can intelligently answer these questions, so will be our understanding and solution of the various physiological and pathological problems which the bladder constantly presents to us.

At first sight, the evacuation of the bladder would seem to be wholly a voluntary act; indeed, it is by many so regarded. It is an indisputable fact that the bladder is, in great part, under the control of volition. No one will deny that its evacuation may be restrained or promoted, according to will. The voluntary relaxation of the urethral muscles as preliminary to the flow of urine; the power we possess of suddenly arresting the flow before complete evacuation has occurred; the power which we are at times called upon to exercise of deferring the act of micturition, though the bladder may be in an uncomfortable state of distention—these, together with the influence which the brain indirectly exercises on the movements of the viscus itself, as shown by faradization of the crura cerebri and restiform tracts, are sufficient evidences of the controlling influence of the mind upon the bladder function. But we observe that this power is exercised more upon the surrounding media than upon the bladder itself. And, after all, it is a limited power we thus possess; we may reinforce excito-motor reflexion by voluntary effort upon the striated urethral muscles for a time, but only for a short time, after which the reflex impulse to evacuation becomes too urgent to be resisted. This is notably the case when the sensibility of the vesical mucous membrane is from some cause augmented (irritability, inflammation, etc.). If we examine the subject more closely, we are forced to the conclusion that the accumulation and discharge of urine is effected more through involuntary than voluntary agency. It is a matter of common experience that perfect micturition may take place independently of the will or of consciousness. We have not only abundant clinical evidence of this fact, but experiments in this direction are also very conclusive. After section of the cord in dogs between the dorsal and lumbar regions, by which of necessity both sensory and volitional impulses are interrupted between the brain and bladder, the animals do not suffer with retention, but micturate perfectly at stated intervals and in large quantities. It has been observed in these instances that when the bladder is full, micturition often occurs spontaneously, or it requires but slight peripheral stimulus, such as "sponging the anus," or "elevating the animal from the recumbent posture by the forelegs," to bring it about. Thus, micturition as an involuntary act explains why peripheral irritation enters so largely in the causation of incontinence. But it is not necessary that the afferent impulses should proceed from the peripheral nerve-endings; they may originate in the brain—an idea, simple or emotional, may inhibit or exalt the micturition centre of the cord, and thus cause either incontinence or retention. That many men are unable to pass water in the presence of strangers who watch them; that some persons cannot approach a running stream without having an irresistible desire to micturate; the strong impulse of the student to empty his bladder before entering the "green-room;" the difficulty experienced by a novice to make water while in a moving wagon, an act easy enough for one who is accustomed to it,[1] and many more odd and hitherto unexplained phenomena which the bladder constantly exhibits both in health and disease, can, I think, be sufficiently accounted for in the inhibitory or exalting influence which cerebral operations exert upon the spinal centre governing the bladder. The motorial impulse which originates in the brain, and by which the bladder is animated to contraction, does not pass uninterruptedly or directly to the bladder. We have no evidence of such an arrangement; the volitional impulse descends the cord to a certain segment or centre of nerve-cells, whose molecular machinery it sets into action. Thus micturition, a complex act, is essentially reflex in its mechanism, whether the afferent impulse proceeds from the peripheral ending of nerves or descends from the brain.

Incontinence of urine is a common ailment of childhood. It is often met with in the aged, and less frequently during middle age. At these various periods of life, however, it has a different signification as regards etiology.

The causes of incontinence may be classified into mechanical, anatomical, neurotic (peripheral and central irritation), local (irritability of bladder, inflammation, etc.), traumatic (extreme dilatation or laceration of female urethra, cystotomy, etc.), and idiopathic.

The mechanical causes may be divided into: 1, Those operating within the urethra and bladder; 2, those operating external to the bladder. Under the first heading are those causes which induce an imperfect closure of the vesical neck, as occurs when the median portion of an hypertrophied prostate separates its lateral lobes and, acting as a wedge between them, renders the vesical orifice more or less patent. In like manner impaction of a calculus at the vesical neck gags the orifice, prevents complete closure, and causes trickling by the side of the stone.

Stricture of the urethra, when of long standing and deeply seated, may affect the sphincter power of the bladder. Traumatic perineal strictures especially tend, by thickening and induration, to encroach upon the muscular element of the membranous urethra, and interfere with the natural function of this part. Again, in consequence of the undue effort which the bladder is obliged to make to propel its contents through the obstruction, a dilatation or pouch, sometimes of considerable dimensions, forms behind the constricted part, forming, as it were, an accessory reservoir for the accumulation of urine, which dribbles away after the bladder has closed. This sort of incontinence is not at all uncommon with old strictures, and, as these post-strictural pouches or

[1] I know a gentleman, aged about forty, with no trouble with his urinary apparatus, who cannot pass water while on shipboard. During a trip to Europe he was obliged to resort to the catheter exclusively, both going and coming.

dilatation, are situated usually in the membranous and prostatic portions of the canal, they in time impair the physiological integrity of the external sphincter, enfeebling and rendering it incapable of resisting even a moderate hydrostatic pressure, and thus the individual is obliged to yield at once to the desire which comes upon him, or he is overtaken before he can help himself. Again, it is important to constantly bear in mind that an involuntary flow of urine in the adult often indicates primarily a retention of urine, not incontinence. Given an inordinately distended bladder, the prolonged and constantly increasing hydrostatic pressure overcomes the sphincter-power and passive overflow occurs. Hence, in all cases of involuntary flow of urine in the adult, we instinctively palpate the abdomen for the recognition of this cause. Among the causes operating externally are the various uterine displacements, abdominal and pelvic tumors, etc., which, by pressure, compromise and irritate the bladder to undue functional activity.[1] A contracted bladder or a concentric hypertrophy of its muscular coat is a common factor not only in the causation of "irritability," but of incontinence. As an anatomical cause atrophy of the sphincter is not uncommon with the aged, which may create a weakness varying in degree from a partial to a complete loss of retentive power. Atrophy and fatty degeneration may involve both detrusor and sphincter, and as one or the other set of fibres are mostly affected we shall have retention or incontinence predominating.

In the adjoining ward is a man whose sole complaint, aside from general feebleness, is difficulty in holding his water for any length of time. His stream is weak, but he micturates very often during the day and several times at night. He finds some difficulty in starting his urine, but when once the stream has commenced he is unable to withhold it. The impairment of his sphincter power is evident in the frequent micturition and his inability to arrest the stream once commenced, while textural change in the detrusor is manifest in the enfeebled expulsive action. The catheter does not detect residual urine, but in view of the pathogenetic changes that have already taken place in the detrusor he will now be taught the self-use of the catheter, and warned to see that complete evacuation of the bladder occurs, to avoid further and more serious trouble in the future.

My experience is that, after puberty, incontinence prevails more frequently in females than in males. Especially in those who have borne children, an enfeebled condition of the sphincter is often manifest. I have in mind several women in whom the slightest exertion, such as laughing, coughing, or sneezing, causes an escape of urine. With some this trouble has existed for years, with others it appears after each parturition and remains perhaps a few weeks. The suggestion is quite probable that in these cases the infirmity depends upon a paresis of the sphincter induced by extreme pressure of the fœtal head in delivery.

You are aware that from the same cause—undue or prolonged pressure—sloughing of the vesico-vaginal septum sometimes occurs, with the formation of fistula and constant dribbling as the consequence. But it is suggested[2] that the slough may not involve the whole thickness of the vesico-vaginal septum, but yet go deep enough to include a portion of the sphincter fibres in the destructive process, or else the healing of the vaginal slough corresponding *in situ* to the vesical neck may by subsequent cicatricial contraction act mechanically in drawing upon and preventing firm apposition of the vesical neck. The baneful effect of traction on the vesical neck is further illustrated in the case of a child three years old related by Estrada.[3] The labia were united and had sealed up completely the orifice of the vagina, leaving, however, the meatus urinarius free. The labia having been divided by a bistoury, it was found that the hymen consisted of intercrossing muscular fibres extending from below upward in such a manner as to draw the urethra downward and produce incontinence. The treatment, which was perfectly successful, consisted in dividing the parts freely and fastening them back with sutures to prevent reapposition.

One of the most common causes of the trouble is the existence of some peripheral irritation. In order to appreciate the rationale of this cause in the induction of incontinence we have but to call to mind the fact already mentioned, that micturition is essentially a reflex phenomenon, and that observation and experimentation clearly demonstrate the influence of peripheral stimuli in effecting a perfect act of micturition. In view of these facts we can readily perceive how easily any irritation existing in parts presided over by the same nerve-centre may produce the trouble in question. Thus phimosis, in retaining the secretions around the glans penis and preventing cleanliness and the adhesions which frequently result between the preputial mucous membrane and the glans, is a most common cause of incontinence. In many boys a very moderate degree of phimosis will be sufficient to cause incontinence. There may be an excessive length of prepuce with but little contraction of orifice, or there may be but slight elongation with considerable contraction, insufficiency of meatus, ascarides, hemorrhoids, fissure of anus. In women granular disease of the cervix uteri, vascular growths (carunculæ) at or in the neighborhood of the urethra are frequent sources of peripheral irritation.

Among the numerous central nervous disturbances that occasion this trouble, epilepsy, hysteria, and chorea are among the most common. A boy at present under my observation, who has had convulsions more than ten years, presents the peculiarity that he invariably wets the bed the night preceding a fit in the early part of the day. He never has incontinence at any other time, and this has now happened so often, that no matter how well he may seem when he awakes, we look upon the wet bed as a premonitory sign and ply him with bromide and chloral.

But there are many cases of incontinence of children in which we can discover no pathogenetic factor whatever to account for the trouble, and in which we seek in vain for any peripheral or reflex cause. These cases belong to a class by themselves and have purely an anatomico-physiological basis for their causation. If the harmony of action between the retentive and expulsive forces of the bladder are in any way disturbed, retention or incontinence will inevitably follow, and in the idiopathic incontinence of children it may be assumed that there is either an anatomical disproportion between the retentive and expulsive factors, or else there exists an inharmonious nervous action. In other words, the incontinence may depend upon the operation of a powerful detrusor against a feeble sphincter, a condition which is the normal relationship of these parts in infantile life, or else there may be a disturbed or unequal neurotic action, the detrusor being in a condition of exalted sensibility or excitability, while the sphincter is in a condition of deficient innervation. A nice point to decide is which of these conditions prevails in a given case, and both factors may play their part simultaneously. The anatomical disproportion of the sphincter to the detrusor in young children is so well known that this has always been regarded as an element in the causation of incontinence, but this cannot be the sole or even the first cause of the complaint, because often enough the malady is intermittent; children will suddenly cease wetting the bed for quite an interval at a time, and if the cause was simply one of deficient muscular development, this would not obtain. Also the remarkable effect of perhaps a single application of the faradic current, in permanently curing the malady, as experienced by Ultzmann and

[1] Stein, Alex. W., M.D.: Irritable Bladder, New York MEDICAL RECORD, May 16, 1885.
[2] Murray, R. Milne: Post-partem Incontinence of Urine, Edin. Med. Jour., April, 1881.
[3] London Medical Record, June 15, 1880.

others, is a therapeutic result which could only have been obtained in cases of deficient innervation perhaps, but not imperfect development of sphincter. We must not appear too wise about this matter; the fact is, our knowledge of the physiology of the bladder is too crude to enable us to explain the immediate cause of many cases of idiopathic incontinence, but we may assume that most commonly it is a neurosis, depending upon some temporary molecular disturbance of that segment of the cord which presides over and co-ordinates the movements of the bladder. It may be the disturbing influence comes to the micturition centre through peripheral nerves, in which case the involuntary flow is a purely excito-motor manifestation, it may be it comes by impulses from the encephalon, in which case it may be sensori-motor or even idio-motor, as when the child actually dreams that he is micturating against a wall or in the *pot de chambre* in the ordinary way.

Feeble, anæmic, badly nourished, scrofulous children are said to be most frequently the subjects of this infirmity, but this is by no means always the heritage of a feeble organization. Many such children are never affected with this trouble, while the healthy and robust often present the most obstinate forms of the complaint. The history as given is almost uniformly the same. The child empties his bladder, goes to bed, falls asleep, sleeping, perhaps, profoundly, and in a few hours wets the bed. Sometimes this occurs toward morning, when considerable urine has accumulated, sometimes soon after falling asleep, although the bladder was emptied just before going to bed. Some children will wet though they may be awakened two or three times during the night. Usually the sleep is profound, but this is not essential to nocturnal incontinence. Many children sleep so soundly that they may be undressed and moved about without waking, and they never wet, while others sleep lightly and yet they are habitual bed-pissers. Usually the wetting is effected unconsciously; sometimes there is a vague sense of the desire to micturate, the child dreams that he is urinating in a proper place and manner. The incontinence may be wholly nocturnal, but there is in these cases often some manifest weakness also by day, but now the passive contraction of the sphincter is supplemented and strengthened by cerebral influences which are in abeyance during sleep.

The incontinence of childhood is brought often enough to the attention of the physician, but it exists even more frequently than is generally supposed. Many parents regard the trouble as merely a nasty, lazy habit, which they do not care to speak of, especially as there is a popular belief that there is little to be done for it, aside from moral suasion and discipline, and they know that sooner or later they "grow out of it." It is quite impossible to say when the trouble begins. As I have already said, it would seem that in infantile life the expulsive and retentive powers of the bladder are not equally balanced, there is a deficient sphincter stimulus or resistance, the hydrostatic pressure required to overcome the sphincter is slight, and the child wets often; gradually, however, a proper harmony of action obtains between the expulsive and retentive forces, and usually before the second year the child has voluntary control of his bladder. If after this time he is unable to retain his urine we may assume that this harmony of action has not been established. a congenital weakness of the sphincter remains, and the child still suffers from incontinence. Thus idiopathic enuresis commences with infancy, and continues often until the eighth, ninth, and tenth, sometimes even to the seventeenth year. The trouble often terminates suddenly, or after a few relapses. Severe intercurrent disease, such as the acute exanthemata, have been known to arrest the incontinence temporarily, sometimes permanently. When the child has once clearly evinced his retentive power, and suffers from incontinence at a later period, it will be found to be due to some local or reflex cause and not to congenital weakness.

Success in the treatment of incontinence will depend upon the recognition of its cause. It is obviously illogical to direct treatment to a symptom whose exciting cause is still operative. In all cases, therefore, before internal medication is resorted to, we seek to ascertain the existence of some local or remote iritation, and we can afford to expend our energy in the recognition and removal of this, as further treatment will rarely be necessary. But there are cases, and not a few, which are not so readily disposed of. When the difficulty has existed from earliest childhood, as is so frequently the case, and continues without assignable cause, as is also often the case, it is more difficult of management than when it occurs at a later period of life. Some of these cases, let it be frankly confessed, baffle our best efforts, until a certain age is reached, when nature comes to the rescue and the evil terminates spontaneously, and if now we happen to have employed a new remedy or a new method of treatment, we are too apt to "lay the flattering unction to our souls" that the merit is ours, and hasten, perhaps, to publish the virtues of our "discovery." If we are to judge from the great variety of remedies that have been unsparingly vaunted in and out of print for the relief of this complaint, I am sure I do not draw inordinately on my imagination.

The methods of treatment may be classified into surgical, mechanical, and medical. Surgical treatment naturally includes all operations required for the removal of calculus, phimosis, adhesion of balano-preputial mucous membrane, enlargement of meatus, hemorrhoids, etc. At the same time let us be conservative in this respect, especially regarding circumcision. We are so impressed with the import of phimosis as a factor in the etiology of incontinence that a boy dare not confess having once "wet" without endangering his prepuce to amputation. I say this, because I have known circumcision performed so many times for the relief of incontinence, with scarcely a question, hesitation, or doubt as to the result, and with signal failure. The injunction of Dr. Landon Carter Gray[1] is, I think, here eminently fitting: "That in all cases of nervous disorders with accompanying genital irritation, we should not regard the latter as the cause of the former until all other probable, or even possible, causes have been rigidly excluded." The introduction of a bougie or sound every day, or every other day, is in some cases of decided benefit. Mechanical distention of the bladder by means of warm-water injections, repeated daily for a week or more, has been successfully resorted to, especially by Braxton Hicks (London), in the cases of several adult females. With the view of strengthening the sphincter power, and diminishing undue sensibility, the patient should be enjoined to hold water as long as possible during the day. In this connection may come up the question as to the propriety of waking the child at stated intervals during the night. Many insist upon this as an absolute necessity. So far as it prevents repletion of the bladder it would seem of service, but beyond this the importance of this precautionary measure has, I think, been much over-estimated. The degree of repletion of the bladder and incontinence do not necessarily stand in the relationship of cause and effect. Children with this infirmity will at times retain an astonishingly large quantity of urine, while again the bladder yields to the stimulus of a very small accumulation, and they will wet in spite of every precaution that may be taken to the contrary. I have now in mind a little fellow about nine years old, who is taken up at night, and, after much coaxing, perhaps threatening, on the part of the mother, and considerable effort on his own (in his partially roused state), to relax his sphincter, he passes a large quantity of water, much to the satisfaction of the mother, who congratulates herself that she has, in the nick of time, prevented a deluge, but as soon as the little fellow falls asleep he wets himself. This occurs almost invariably,

[1] Annals of Anatomy and Surgery, February, 1882.

and I have observed this peculiarity in several other instances. Many cases present in which there is no assignable cause, or in which, the exciting cause having been removed, the incontinence persists; simply from habit, a susceptibility is engendered on the part of the bladder to yield involuntarily to the stimulus of a small quantity of urine, and I question whether by calling upon the bladder to empty itself at stated periods, we do not promote this habit, and act inconsistently with our endeavor during the day to induce the bladder to retain its contents as long a time as possible. In regard to this question, a very important consideration is the fact, which I have often noted, that when children are taken up to micturate at night they are so imperfectly aroused that the evacuation of the bladder can scarcely be regarded as a voluntary act, and unless the child is thoroughly awakened and made to micturate with full consciousness and volition, I believe the practice does more harm that good.

The external application of the "essence of birch" is a favorite domestic remedy, and I have in mind at least two or three cases in which, I must confess, I saw it accomplish wonderful results, but these were instances in which the "weakness" was mostly diurnal and was largely due to negligence and bad habit. In the majority of cases, I believe with many, that the children are not responsible for this infirmity, and if psychical influences do not avail, if we cannot arouse their consciousness to the "filthy" habit, and appeal unavailingly to their sense of pride, etc., the slipper will rarely accomplish more.

The meatus and prepuce have been closed with collodion, and a variety of pads, elastic rings, clamps, and appliances have been devised for the purpose of mechanically preventing the escape of urine. Associated as some of these contrivances are with good names, yet it must be admitted that little ingenuity has been expended in their construction, and the philosophy on which they work is as feeble as the infirmity which they are supposed to correct. It is simply that in consequence of the impediment to the outflow of urine the child is wakened as soon as the sphincter relaxes. What possible good can we hope from this practice? What more is it, indeed, than a confession of ignorance, both as to the etiology and treatment of the complaint? Obviously nothing is done to remove the cause of the trouble, an additional source of irritation is created, and the practice, as we know, has already been responsible for much mischief. Œdema, inflammation, and even sloughing of the parts have resulted therefrom. Indeed, some of the most ardent advocates of these appliances recommend that they should "never be used with young children," and "only very intelligent boys are fit for this mode of treatment." It is with young children we have principally to do, and we should not like to be responsible for the degree of intelligence which would be necessary in a given case for the safe employment of these restraints. In short, I believe this treatment to be worse than useless, and the successes which have been claimed for it are no doubt to be attributed to the other measures or remedies that were simultaneously resorted to.

In view of the fact that children are most apt to "wet" when they lie on the back, and remain dry when they rest upon the side, it is suggested to tie a cloth, with a knot on the back, so that decubitus in this position is uncomfortable. With the same intent, it has been recommended to paint the lower portion of the spine with tincture of iodine—a suggestion, I think, that will not commend itself to most practitioners. But the patient should sleep on a hair-mattress with light covering, and the position in bed should be such that the urine will gravitate from the more sensitive neck toward the fundus of the bladder. Cold douches, sitz-baths, sea-bathing, and sponging the lower part of the spine at night, have been thought at various times to be beneficial, but of local treatment the most logical and undoubtedly potent is electricity. Both the galvanic and faradic currents have proved successful. Through an electrode (insulated nearly to the point), introduced into the urethra as far as the neck of the bladder, the positive current is sent, while the negative (a large, moist plate) is applied over the hypogastrium, or, which in young children is more practicable, both currents are applied externally, one over the sacrum, the other over the hypogastrium or perineum; or if this prove ineffectual, one of the electrodes may be introduced into the rectum, or vagina, as the case may be, while the other is applied over the bladder. The current at first should be weak and gradually increased each day, to the point of toleration, and the séances may last from five to fifteen minutes.

In the incontinence of urine of females, due to enlarged urethra, cauterization of the anterior half or three-quarters of an inch of the canal with argenti nitratis or sol. chromic acid has the indorsement of authority, and it seems to have proved of service in this hospital.[1] The constitutional treatment has for its object the correction of any condition of system that may give rise to irritating urine. Hence special attention is to be directed to the diet, not only in regard to fluids, which should be avoided or reduced to a minimum the latter part of the day, but also in regard to the food in general, which should be simple, highly digestible, and unstimulating to kidneys and bladder. Assimilation, primary and secondary, is to be favored and assisted in every way possible. The condition of the bowels should always be looked after, and the rectum kept free. In atonic conditions of system, scrofula, etc., iron, cod-liver oil, hypophosphites, strychnia, and cinchona suggest themselves as appropriate and important in improving nutrition and laying the foundation, perhaps, for more direct treatment.

The special remedies which have been recommended for this complaint are numerous—belladonna, chloral, ergot, nux vomica, and strychnine, bromides, creasote, camphor, digitalis, cantharides, etc. Our knowledge of the methodus medendi of these drugs is very unsatisfactory, and the widest discrepancy of opinion prevails relative thereto. As to the manner in which belladonna exerts its influence, we are remarkably at variance. Trousseau, H. C. Wood, Drysdale, Bradbury, and others believe that it diminishes the sensibility or undue irritability of the detrusor, which undue sensibility or irritability these gentlemen regard as the usual cause of the night-wettings. While Brown-Séquard, Ringer, Burney, and others take directly the opposite view, namely, that belladonna gives tone to the enfeebled sphincter, which, according to them, is always the factor in idiopathic incontinence. Whatever may be the correct explanation, clinical experience has established the efficacy of this drug in the idiopathic incontinence of children. In most cases it ameliorates the condition, and often effects a positive cure. It may be administered either in the form of extract or tincture. Older children may take the extract in pill form, beginning with an eighth of a grain at night for some days, and if improvement is manifest, the same dose continued; if not, it is gradually increased until the desired therapeutic effect is obtained, or the patient exhibits the physiological effects of the drug, such as dryness of throat and decided dilatation of pupils, but even then it should not be at once discontinued, but persevered in in smaller doses, for sometimes benefit is not obtained until the physiological effect of the drug has been manifest for a time. To younger children it is perhaps better to give the tincture in from five to thirty drops, two or three times a day, or only one large dose, possibly a drachm, according to age, at night. Of course so potent a drug as belladonna is always to be used with discretion and watchfulness, but it is well known that children bear it well, and are less susceptible to it than adults. It is often necessary to give them large doses and keep them at it before the malady yields, and when it has done so, in order to prevent relapse it is judicious to continue the remedy in diminishing quantity for some weeks or months after the complaint has entirely ceased.

[1] Dr. Kinney, THE (N. Y.) MEDICAL RECORD, May 15, 1871.

In hyperæsthetic conditions of the nervous system, in which an undue excitability of the vesico-spinal centre is suspected, chloral and the bromides seem most effectual. Chloral hydrate has proved of marked value in a number of reported cases. It is given at bedtime, in doses depending upon the age of the child, from three to fifteen grains, but it is notably a treacherous drug and requires watching. According to Bartholow, incompetency of the sphincter is met with half-grain doses of the aqueous extract of ergot with a quarter of a grain extract of nux vomica. Others also claim to have had good results with the fluid extract of secale cornutum and tincture of nux vomica. Holmes Coote recommends creasote in one-minim doses, three times daily, made in pill form, alone or combined with assafœtida and rhubarb, of each two grains. He reports five cases successfully cured by this treatment.

The fact that so many remedies have proved successful is in itself evidence that the factor in the causation of the complaint varies much, and if A succeeds with a drug which proves fruitless in the hands of B, which is so often the case, the inference is that the remedy was not equally indicated in the two instances. Thus, and finally, we must confess that for this class of cases much of our treatment is empirical, and although long experience has taught us to successfully apply "special means to special ends" the "reason for the faith that is in us" is often most obscure. When we shall possess a more intelligent appreciation of the relation of cause and effect, we shall approach these cases with more satisfaction than we do at present.

Original Articles.

RETINAL HEMORRHAGE IN MALARIAL FEVERS.

By EDWARD W. JONES, M.D.,

NEW ORLEANS, LA.

My attention having been called to the frequent loss of sight in patients suffering from malarial fever, I have given the matter special attention, and have kept a complete record of all cases which have come under my observation and treatment or two years past. I had noticed that when there was a loss of sight sufficient to call the patient's attention, I have invariably found hemorrhagic extravasations in the retina. I have searched all literature that was in my possession and found only one author who refers to it, and that is W. R. Gomers, M.D.

The patients as a rule are not subject to these hemorrhages until they have been sick for a week or more, and then the loss of vision comes on suddenly. There is usually nothing abnormal on inspection, but the moment that the ophthalmoscope is used, the diagnosis is easy. I will give the history and treatment of five cases, taken from my note-book which will serve to illustrate this condition :

J. M——, a merchant, married ; aged thirty-four years, went out hunting in November, in the swamps, was absent two nights and days. One day after returning home he had quite a severe attack of malarial fever, of remittent type ; was given quinine by the family physician and in five days was apparently well ; on the sixth day patient suddenly lost his sight in the right eye, and becoming very much alarmed, sent immediately for his physician, who called me in consultation. The eye, to all appearances, was perfectly normal. On examination with the ophthalmoscope, I found three large striated hemorrhages above the nerve along the course of the large blood-vessels, and a round one covering the yellow spot. There was no central vision in this eye, but at both sides of the eye it was $\frac{6}{60}$. The left eye was normal. Patient was put on iron and ergot in conjunction with the quinia. The hemorrhages have faded gradually away and only a few shining spots remain. The vision is now $\frac{20}{XXX}$.

In the three following cases the patients were laboring men who had been working on a railroad in Arkansas, they were all young men and had been sick for three weeks. Two of them had many small hemorrhages in both retinæ, and the third one had one large extravasation between the nerve and the yellow spot in the left eye, but none in the right ; this patient had quotidian ague. There was considerable optic neuritis. The first two patients recovered rapidly and the hemorrhages all disappeared, whereas, in the third case, recovery was very slow. His vision in the beginning was fingers at three feet, and now, at the end of four months, is $\frac{20}{60}$: his general health is very good, and has been so ever since, after his first attack of fever.

The last case was that of a German woman, aged thirty-seven years, who had been suffering with malarial fever for a week, but had taken no medicine until her physician was sent for at this time. Her case, he said, was a mild one, but she said she had lost her sight in the right eye. On examination with the ophthalmoscope. I found many hemorrhages along the course of the larger blood-vessels, the disk presented a pale appearance, and the blood-vessels seemed to be almost empty, there was also an extensive hemorrhage in the vitreous. Vision was, fingers at two feet ; on the third day the whole of the retina became hazy, but the vitreous remained about the the same. Patient was put on the same treatment as already mentioned. This occurred some fourteen months ago ; there now remain some small dark spots where the hemorrhages were, the optic disk is white, blood-vessels diminished in size, and there is well-advanced atrophy. Vision, when first seen, was fingers at two feet, now it is $\frac{10}{60}$. Patient left the city for some six or eight months and went North. Her general health is now perfect. The sight in left eye is $\frac{20}{XX}$. Out of some twelve cases this is the only one resulting in atrophy, and I suspect that the patient had attacks of malarial fever before this last one.

The remaining cases that came under my treatment showed nothing remarkable, excepting that some recovered much more rapidly than others. If put on quinine alone, without the ergot and iron, recovery was much retarded. There being nothing abnormal on inspection in these cases, I am led to believe, and am of the opinion that hemorrhagic retinitis is much more common than the general practitioner is aware of, and if the ophthalmoscope were used in those cases where there is loss of vision in malarial fevers, hemorrhages in the retina would be found in the large majority of cases.

OLEATE OF MANGANESE.

By FRANKLIN H. MARTIN, M.D.,

FELLOW OF THE CHICAGO GYNECOLOGICAL SOCIETY, CHICAGO, ILL.

SINCE manganese[1] first received notice in this country as a menstrual stimulant, and as a remedy in functional amenorrhœa, menorrhagia, and metrorrhagia, it has been a formidable problem to the minds of therapeutists, and pharmacists to get it into an acceptable shape for administration. The permanganate of potash, the original preparation used for experiments and administration in any form, is liable to act as an irritant to the stomach, and is very objectionable to many on that account. It has in many ingenious ways been made into pills, but as these pills must of necessity have for their basis kaolin, or some other inorganic substance, the drug is not satisfactorily observed. The compressed tablets of Wyeth & Brothers and others, are objectionable in many cases of irritable stomach, because of the irritating undiluted drug coming in direct contact with its mucous membrane The binoxide of manganese has, on account of its insolubility proved to be almost inert. On account of the many difficulties of administration, therefore, this valuable drug has not met with the warm reception that is its

[1] See Author's article in THE MEDICAL RECORD, September 29, 1883.

due. Through a suggestion of Dr. S. S. McArthur, I have succeeded in having an oleate of manganese prepared.

Method of application.—Of a twenty per cent. solution of the oleate, I should recommend that one drachm be applied to the abdomen of the patient, and its absorption promoted by friction produced by vigorous rubbing of the surface with the palm of the hand or with the fingers. The rubbing should be continued until the oil has entirely disappeared by absorption.

In cases where it is found impracticable to apply it to the abdomen on account of tenderness, it may be applied to the spine or the inner surfaces of the thighs.

In cases of amenorrhœa it should be applied if possible every night for a week preceding the expected menstrual period, or at the time the menstruation is due, and until it makes its appearance. In cases of menorrhagia or metrorrhagia it can be applied in smaller quantities every night until the desired effect is produced.

I am very anxious to see the profession give this preparation a good trial, because if there is any great value in this drug, it can only become popular as a remedy in some such unobjectionable form.

The oleate was prepared as follows: A solution of sulphate of manganese was made in distilled water, and to it a solution of sodium oleate was added. On mixing these two solutions gradually and with constant stirring, a precipitate of oleate of manganese resulted. This precipitate upon heating changed to a putty-like mass. This was thoroughly washed several times with warm distilled water, to remove the sodium sulphate, and the resulting putty-like mass was the pure oleate of manganese. This oleate, when dissolved in oleic acid to the required per cent., is ready for use.

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Progress of Medical Science.

Treatment of Cardiac Hypertrophy Occurring in Youth.—Germain Sée observes (*Archives of Pediatrics*, May 10, 1885) that in the hypertrophy of adolescence, as well as in the hypertrophic ectasis of childhood, the treatment should be exclusively cardiac, in other words, general tonics should yield to those which have a direct action upon the heart. Meats, however, raw or rare, and finely divided, should be partaken of in abundance. Digitalis is exclusively used (by the author) for temporary purposes; convallamarine is always to be approved, and the same is true of iodide of potash, the latter being considered one of the most powerful cardiac and respiratory agents. Digitalis is recommended for children in the form of a cold maceration of the powdered leaves, the dose being five to ten centigrammes of the powder. It is indicated in the arythmical forms of hypertrophy, and especially in cases of infantile cardiac dilatation, but its continued use provokes intolerance, loss of appetite, vomiting, and in some cases a kind of paralysis of the vagi. Iodide of potassium acts not only upon cardiac dyspnœa and the so-called cardiac asthma, but it has a powerful influence upon the myocardium as well as upon the vessels, increasing their contractile energy. It facilitates respiration at once, and effects a lasting tonic action upon the heart. From eight to fifteen grains may be given daily in the class of cases under discussion. Usually its use may be continued for months with no greater discomfort than the iodic coryza, or anorexia. Convallamarine is usually well tolerated, rarely troubles the digestive functions, and has no cumulative action like digitalis. In a very extensive experience with this drug, the author affirms that it has always sustained the contractile force of the heart, regulated the cardiac rhythm, produced a cessation of palpitations, and facilitated respiration and diuresis. It is very soluble in dilute alcohol, and may be given to children in doses of one-third to two-thirds of a grain. It has also been successfully given in valvular troubles, in Basedow's disease, in angina pectoris, palpitations, and all the painful affections of the heart. The unfavorable symptoms quickly disappear under its use, especially when combined with the iodide, and the commendation which it receives is unqualified.

Sanitation by Fire.—Colonel J. M. Keating (*The Sanitarian*) read a paper before the American Public Health Association, entitled "The Ultimate of Sanitation by Fire." From the testimony adduced in his paper, he concludes that the cremation of excreta and all household wastes and street wastes would: 1, Preclude the possibility of the return of such wastes in any deleterious form, as is the case now universally; 2, it would save to all cities two-thirds their present water-supply, and thus increase the quantity for personal sanitation; 3, it would put a stop beyond all question to soil saturation and sewer-gas; 4, it would reduce scavenging to the minimum of expense, and save much of the cost of hauling and of great sewerage works, like those of Boston and London; 5, it would put a stop to all the nuisances complained of from defective plumbing; 6, it would prevent the silting up of harbors with excretal matter, and their being choked with silt; 7, it would prevent the pollution of rivers, and so prevent the wholesale destruction, as is now the case, of fish, the poor man's food-crop; 8, equally applicable to hamlets, villages, towns, and cities, it would put a stop to the privy and cesspool system, and thus prevent the saturation of soils, which frequently drain into the water-courses that are the sources of supply for great cities; 9, it would solve all the problems that now vex sanitarians, from house connections to the outflow through which sewage finds its way into rivers and harbors: 10, it makes a finality of all the wastes of cities, of every kind, character, and description, the result being, according to Shaw's method, an ash of great value to farmers, and clinkers that have a special commercial value for builders.

Cancer of the Testicle in Infants.—Dr. Monod, of Paris, after describing a case of cancer of the testicle in a child aged four, gives an analysis of twenty-seven cases of cancer and sarcoma of the testicle in children. In more than half of the cases it is in the first year that the disease originates; after the fourth year cancer is exceptional. The influence of heredity upon the production of the disease appears to be null, that of traumatism is open to discussion, and may, at any rate, act as a determining cause. The clinical details of the cases are always the same. An apparently healthy child has an indolent, progressively-enlarging tumor of the scrotum. The tumor is usually noticed in the earlier months of life, sometimes even at birth; it occupies the testicle, is unilateral, smooth, ovoid, resisting with a sense of fluctuation, and heavy. The spermatic cord is always healthy, and usually the lumbar and inguinal glands. Hæmatocele may be thought of, but a puncture reveals the nature of this case. The growth of the tumor is rapid. The results of castration are not encouraging; the operation, when the case could be followed, having always been succeeded by a generalization of the new growth, most often in the lymphatics, and sometimes in the lungs as well, death taking place within the year. Histological examinations, though too rare for safe inference, seem to show that the disease is more often sarcoma than cancer.—*Annals of Surgery*, May, 1885.

Spontaneous Rupture of the Œsophagus.—At a recent meeting of the Midland Medical Society, Dr. Purslow showed a specimen of spontaneous rupture of the œsophagus into the left pleural cavity, from an infant aged eleven months. There was no appearance of ulceration in the wall of the stomach or œsophagus, and no trace of a foreign body. The child was admitted with bronchitis twelve hours before death, and the fatal termination was sudden and unexpected, and preceded by convulsions.—*Birmingham Medical Review*, May, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, June 27, 1885.

MEDICAL SOCIETY WORK, PAST AND FUTURE.

THE month of June sees the work by medical societies —national, State, and local—wellnigh completed. *Pari passu*, as the thermometer mounts, evidently the medical intellectual activity declines. By July 1st New York's medical societies, public and private, are ready for a state of æstivation which will last through July and August, and for the most part through September.

Of the three professions—medical, theological, and legal—the former, during the warm season, takes the most complete intellectual repose in so far as making a public expression of ideas is concerned. The clergymen come next, who, if they do not refrain from speaking once a week, placidly preach old sermons to congregations belonging to exchanging brethren. The lawyer's rhetoric may cool off a little with summer's heat, but its temperature has to be more even the year round.

What has been done in New York medical societies during the winter? A year's work has practically come to an end, and now a good opportunity is afforded for retrospection. All will agree that a number of valuable papers have been read and discussed in the various medical assemblages, papers which have had upon the profession a great influence, after having been read, through a wide dissemination by publication; nevertheless no one will dissent, we think, when we say that much more might be done, and that the medical societies another winter might take a higher and more advanced position, and wield a more powerful influence in the community and exact more deference from abroad.

How can this desirable state of affairs be attained? How can New York's medical societies so improve that their influence shall be increased at home and abroad?

This improvement depends on two factors—the presidents of the societies and the members. To be the presiding officer of a medical society requires especial genius. He is to the members what the bar of magnetized iron is to the induction coil. The more complete the mutual relationship, the more striking and powerful the result.

The other important factor—the members—are responsible for much. They must be interested, and to be this they should attend regularly. It is a great pity that often the older and more experienced physicians are not present at our societies; they appear meteor-like, at rare intervals, to read papers, but they do not take the time to come and discuss others. Absorbed in their profession, success in which has already been attained, they leave discussion and theorizing to younger men who are striving to climb the ladder. Possibly this is more encouraging to medical aspirants, but it is not as instructive to all, and lowers the standard of net results. The medical is the most exacting of all the professions, and leaves little time for scientific investigation and record of observation, which often leads to a scarcity of suitable papers to read before societies, or to the presentation of these too hastily and superficially prepared.

The medical man, if he has not much chance to write, likes to talk. Untrained to oratory and logic, as is the clergyman and the lawyer, he is not always fluent in the expression of his ideas, which, however valuable they may be, lose much through incoherency of utterance and rambling from the point in hand. So conspicuously is this fault displayed at times, that ill-natured brethren in the profession jeeringly remark: "Such and such a one only speaks because he wishes to see his name among those who talk at societies, and thinks thus to advertise himself."

Such an imputation is manifestly unjust; but doctors will lay themselves open to such a slander so long as they speak wide of the mark, and in a tedious manner.

To the members belongs the duty of suppressing "society bores." It will be a difficult task; but if it is accomplished, the result will tell in great advancement of the standard of society work, increased interest, and increased attendance.

We are inclined to believe that there are too many medical societies in New York, public and private, to flourish well and to produce the best results for the profession. It is true, the more societies the greater opportunity for distinction in the way of official appointment, so that Artemus Ward's ideal of an army, all officers, can be more nearly approached. The rambling talkers and society bores are distributed more evenly; but the forces which best result in society work are also scattered. We cannot help thinking that better work would be accomplished if the societies were to concentrate themselves. Let the County Medical Society, the Academy, and the Pathological Society represent the profession in general. The sections in the Academy would provide society work for specialists in every department, except the pathological, which should be continued in the Pathological Society.

To attain the happiest results in society work "the lion should lie down with the lamb;" or, to abandon figurative speech, the "Old Code" and "New Code" differences should be forgotten in the one aim of the scientific advancement of the medical profession.

In closing, we would say that, possibly, if the societies met in well-ventilated halls, the net results of intellectual endeavor would be greater. It may be interesting to such experimenters as Pettenkofer and Voit to know how much brain-work can be accomplished in an atmosphere of carbonic dioxide, and to have it proved, as it certainly has been this past winter, that doctors can carry off the palm in this respect; but having once been demonstrated, would it not be well to try a contrary experiment, and see another winter what the quality of society work would be in rooms or halls with say a moderate supply of fresh air.

THE LIMITATIONS OF ABDOMINAL SURGERY.

Some interesting speculations are suggested by reading the preface of Sir Spencer Wells' latest volume, which we notice in another column of the present issue. Like most other surgical expedients of any magnitude, abdominal section has had to fight its way against ignorance, prejudice, and inherent difficulties. One by one these have vanished or have been overcome. The position of the profession on this subject is to-day a proud one. We are led to inquire as to the possibilities of still further advancement. The paper of Mr. Treves, read in London some time ago, as well as the more recent one by Dr. Burchard before our own Academy, show us that "forward" is still the watchword. Long and careful discussion must, in matters of this kind, necessarily precede decisive action, and the discussions of the last few months on topics relating to abdominal surgery have been of a healthy nature, characterized by an earnest search after *truth rather than a desire for controversy.*

It is interesting to note what Sir Spencer Wells thinks of our present and possible future position. Referring to the removal of abdominal tumors, he says in his preface: "There is one fact which stands out with ominous significance in all our records, whatever may be our diagnostic accuracy and our operative skill; our success in the treatment of these cases is fatally affected by the influence of septicæmia. We have already reached as great an amount of success in the results of ovariotomy as can reasonably be hoped for, and shall in like manner approach success in the results of the extirpation of other organs," and he intimates that we cannot regard the battle as fully won until our antiseptic precautions shall much more fully than at present protect our patients against the ravages of septicæmia.

This is certainly a frank and modest statement from one whose labors have been crowned with such success. In alluding to the operative treatment of peritonitis, he notes Mr. Treves' advocacy of it in cases resulting from injury, gunshot-wounds, bursting of an abscess, and specified forms of perforation, but he adds the "caution against putting off the operation until too late—until the patient is dying of septicæmia."

In Wells' last series of one hundred ovariotomies but eleven died; of Lawson Tait's thousand cases of abdominal section (the peritoneum being involved in each) the mortality percentage was but nine and three-tenths Record, January 3, 1885). We have no reason to doubt but that in time to come a like favorable showing will attend laparotomy for acute idiopathic peritonitis. Of course, operative surgery will always be limited by conditions arising from previous ill-health, diseased kidneys, and the various constitutional vices. These must be a constant factor of failure. All true surgery is conservative. In abdominal section for peritonitis we remove no member and perform no mutilation. It is in the truest sense conservative.

INSTRUCTION TO TEACHERS.

We are glad to note that public interest is becoming aroused in regard to giving teachers instruction concerning the first symptoms of contagious diseases. A correspondent writes us from Bangor, Me., that such instruction has been given in the schools of that city for the past year, and that already great aid has been rendered in preventing the spread of disease among the scholars. The nature of the instruction given is such that the teachers are made watchful and careful in regard to their pupils, and often a so-called "spunky" fit is seen to be really the precursor of an actual sickness. It is one of the most cheering signs of the times in educational matters that the bodies of our scholars, as well as their minds, are being looked after. The practical inauguration of such a plan of instruction is not a difficult matter. Here in New York, if anywhere in the whole world, it is imperatively needed. The subject should be taken up by our city Board of Education. Let them organize the teachers of each grammar-school into a class to meet in their own building. Plenty of able men in the profession will volunteer their services as lecturers. Let the zeal of the teachers be stimulated by their receiving—after an examination on the subject-matter of the lectures—from the Board a certificate of proficiency in knowledge concerning the initial symptoms of the common contagious diseases which almost daily show themselves in every school-room in America. In short, let the method of instruction and examination imitate that of the Society for Instruction in First Aid to the Injured. Preventive medicine is the coming glory of the profession. Such a plan as we propose will entail very little work upon the officials of the Board. It can be accomplished with a trifling sacrifice of time on the part of the teachers, and, if held in the daytime, the lectures are absolutely free from expense to the city. Scores of our ablest practitioners will take hold of the work with heart and soul, if only given an opportunity. We must not allow Bangor to surpass New York in zeal for public hygiene.

BRAIN NOMENCLATURE.

Professor Wilder, the president of the American Neurological Association has distinguished himself in this direction. He has founded a new science which he calls *neuronomy*. His industry in coining words is even greater than that for searching out new cells, nerve-tracts, and blood-vessels of the brain, which is considerable. No one will dispute his title to the fame of having devoted more time to the naming of the contents of the cranium than any other English-speaking man. One is inclined to exclaim, Heaven forbid another from a like undertaking! The study of the brain now has become so complicated that it requires a bold determination on the part of the student to undertake it. It is as if he had entered a primeval forest in which wanderers, according to their own sweet will, had blazed trees in every direction until all the monarchs of the forest had received one or more instructing gashes, resulting in a wilderness more confusing than ever—the old trails becoming lost, and intermingling with the new. Could all the explorers in brain anatomy come together, settle upon a common basis, and adopt a universal nomenclature which should pass current everywhere, a great boon would be conferred.

Possibly Professor Wilder could succeed in pressing his nomenclature to a universal adoption, but it will take more than one generation to receive it with a cheerful acquiescence, and to accord to it the credit which we to-day are slow to give, and the appreciation which, justly or not, is withheld.

CHOLERA PATIENTS AND THEIR PHYSICIANS.

The scientific devotion of physicians in ferreting out the causes of cholera is little appreciated by the world at large. The intricacy of the problem, the difficulty of its solution pique the investigating zeal of the medical men in those countries in which the disease is raging, and their brethren in other countries watch with eagerness every detail of their work. On this side of the water we are surprised to hear of the opposition the doctors encounter among the poor and afflicted people.

Last summer in Marseilles physicians were in danger of being mobbed as they went about the streets, and now in Spain the telegraph brings us the same report. The people are afraid of the physicians and refuse to let them come near them.

It has been said that in no country are doctors so universally employed, or so much respected as in America. It therefore occasions the more astonishment here to learn of the lack of confidence displayed by the populace in the time of their extremity in the doctors. That such scenes could be enacted in New York, should cholera appear among us, seems hardly credible. The lowest classes here are more educated and enlightened, and, to judge from dispensary practice, are so liberally endowed with faith in the medical profession that to repulse it and drive it from them in the time of their extremity would be the farthest from their thoughts.

THE UTERINE CIRCULATION AND THE MECHANICAL PATHOLOGY.

Most American gynecologists have, a long time since, emancipated themselves from the mechanical pathology of uterine disturbances. The late Marion Sims was, perhaps, the last prominent man to lay great stress upon it. English gynecology, which has certainly been behind that of American in many respects, has also been slow to give up the old teachings with regard to the serious mechanical results of topographical uterine aberration. At a recent meeting of the Obstetrical Society of London, Dr. John Williams presented the results of his studies of the uterine circulation, and dealt another effective blow against the mechanical pathologists. The arrangement of the vessels of the uterus, as observed by Dr. Williams, is as follows:

"The ovarian and uterine arteries run along the sides of the uterus and give off numerous branches, which proceed horizontally inward and form circles around the organ; from these vessels run toward the uterine cavity in a direction perpendicular to the surface. It results from this that each portion of the uterus has its blood-supply secured to it at its own level, and is not dependent upon any segment above or below it. The arrangement of the veins is similar, and secures a free return of blood; the venous anastomoses of the veins outside the uterus are numerous and free, and," as *The Lancet* observes, "it is an almost every-day observation that the ovarian vessels may be tied without embarrassing the return of blood from the uterus in any serious or permanent manner. The chief practical importance of the paper lay in the assertion of the author that a ligature may be tied completely round the uterus, at any point above the vaginal injection, without affecting the supply of blood either above or below, and that, therefore, flexions of the uterus can have no effect upon the blood-supply, in the way of causing congestion."

Naturally, this statement awoke some discussion. Dr. Grailly Hewitt, the most prominent advocate of the mechanical theory, admitted that the vascular arrangements of the uterus were competent to prevent congestion in slight and temporary cases of flexion, but he asserted that if this were severe and persistent congestion would probably follow. Very little of a positive character, however, was brought forward against Dr. Williams' statement, and the sentiment of most of the speakers appeared to be with him. The etiological divorce between flexions and congestions seems now to be established on physiological and anatomical, as well as pathological grounds. Not that flexions are never followed or accompanied by congestions, but that the relations between the two conditions cannot be satisfactorily explained on mechanical grounds.

VISCERAL POPULARITY.

For those of the laity who do not regard the body as a homogeneous solid, there is differentiated a single organ, or portion of an organ, which represents to the seeker of lost health the seat of his or her woe. This all-important organ in ancient times was the heart, as the genius of our language shows. To the Greeks it represented brain, nerve, blood, everything which goes to make up the being of the individual, so that if he were very well, he was "hearty." There are more words compounded with heart to represent conditions mental, moral, and physical, than any other in the language. This all happened because the heart was the popular organ of the body at the time our language was becoming crystallized. If the popular organ of that day had been, as it is of this, the liver, we would not have had the meagre array of words we now have compounded with liver. Those which are, mean something else, as livery-stable, or the the word "livery," which has to do with the outside of the man and not at all with the predominating organ within. Possibly it was well for the language that it was formed at that period, when everything, whether good or bad, proceeded from the *heart* of man, as there was then unanimity of thought and feeling, which does not at all exist in this year of grace, 1885.

The organ of the body which is the fetich varies now for class and for individual. Perhaps, among the most ignorant, the kidneys are oftener held accountable for any aberrations from a state of health, and the kidney, whose wanderings are recognized by science, becomes even more errant than medical men are wont to allow, and locates itself according to the ideas of its owners any and everywhere.

Among the more educated classes the nervous system comes in for its share of attention. For practical purposes, it is divided into brain and nerves; and of the brain, the *base* is the favorite seat of trouble. The feminine portion of the community claim "the nerves," though they are not allowed the monopoly.

The stomach is too matter-of-fact an organ to hold the fancy and allegiance of any but dyspeptics. It was

somewhat popular in the olden time, as is shown by the fact that certain philosophers, more learned in metaphysics than anatomy, located the soul therein.

The spleen has never claimed much attention from its owner. The ancients made it the seat of anger and melancholy. At the present day it is, for the most part, ignored. It must certainly be a rare thing for a physician to be called upon to prescribe anything "to act upon the spleen."

As for the pancreas, it is almost never alluded to. Once, in fact, a young woman told a New York neurologist that she thought her pancreas did not emulsify sufficiently the fat which she had eaten with her food. The worthy man was so horror-stricken at this display of knowledge and its application, that he at once exercised all his mighty influence to banish forevermore from the sight of woman a book on anatomy and physiology. This dangerous apple of knowledge, that she possesses a pancreas, should be guarded with flaming sword from any daughter of Eve who should desire to possess it.

This brings us to the important question of the subject, which otherwise might not be worthy of discussion, except as a curious ethnological fact. Is it well for the laity to have a pet organ; to know, for instance, that they "have a liver," which renders them an easy prey to the patent-medicine vendor of pads and pills?

Should physicians advocate education in this direction? Should they try to mould and shape popular opinion? If this question is answered in the affirmative, a second immediately arises, How should this be done? Then, again, were this done in the best manner possible, unless all became physicians, which obviously would be exceedingly undesirable, would there not still remain a troublous pet organ, all the more troublesome because the owner would be able to put his hand over the region of it and centre all his feelings and imaginations upon it?

It certainly will not do to try to educate the present generation out of the idea of its pet organ. In all reforms one must turn to the rising generation. It becomes, therefore, all the more important to decide at once upon the matter, that no time be lost.

The relation of the physician to the existing popular organ is one of extreme delicacy. To roughly, rudely, or contemptuously handle it will often cost the physician his patient, who insists—and why not rightly?—that it shall be treated with the greatest consideration.

THE CONDITION OF GENERAL GRANT.

The progress of the disease from which General Grant is suffering is, barring accidental complications, necessarily slow. Comparing the condition of the patient with what it was a month ago, the changes which have taken place can be appreciated. Taking this period of time into consideration it can be said that the swelling under the angle of the lower jaw on the right side has increased, has become harder and more deeply fixed. It has shown a tendency to progress in a direction downward and forward upon the right side of the neck; the infiltration extending into neighboring glandular structures. The lancinating pains in those parts, although fortunately not frequent nor severe, have a significance which cannot be ignored. The ulceration on the right side of the base of the tongue has become deeper and more irregular, although its superficial area has not perceptibly increased. This is the seat of pain occasionally in swallowing and when certain examinations of the throat are made. The destructive process on the right side of the uvula is apparently quiescent, although a new portion of the margin of the palatal curtain is showing a tendency to break down.

The voice has been reduced to a whisper, due partly to inflammatory involvement of the vocal cords, and partly to nervous atony of the latter. There is some impairment of general strength and some loss in weight, although the appetite is unchanged and the usual amount of nourishment is taken. The removal to Mount McGregor has so far proved beneficial. It has enabled the patient to recover lost ground, and thus in a measure has counterbalanced the effects of his local malady.

News of the Week.

A Doctor Indicted for Manslaughter.—A physician of Batavia, N. Y., named Dr. H. J. Paton, presumably an irregular, his name not being in the Green Book, has been indicted for manslaughter in the second degree, the charges against him being that he killed a boy eleven years of age, whom he was attending in April, by administering hypodermically an overdose of morphine. The doctor has lived in Batavia only two years, but has secured, it is said, a considerable practice.

The Cholera in Spain continues its slow progress. In one day (June 22d) there were 771 new cases and 349 deaths, occurring in ten different cities or provinces.

The Vermont Medical Society held its semi-annual meeting at Bellows Falls on June 25th and 26th, under the presidency of Dr. Joseph Draper, of Brattleboro.

The Ohio State Medical Society at its last Annual Session elected the following officers: President—W. Morrow Beach, of London; Vice-Presidents—Drs. H. C. Gill, H. R. Kelly, Thomas Mackebright, and J. D. Robinson; Treasurer and Librarian—Dr. T. W. Jones, of Columbus; Secretary—G. A. Collamore, of Toledo; Assistant Secretary—Dr. E. C. Brush, of Zanesville. Akron was chosen as the place of the next annual meeting, the time being the first Wednesday, Thursday, and Friday of June, 1886.

An International Faith-healing Conference was held in London recently.

The Columbus Medical Journal discourses as follows *à propos* of the International Congress and its Committee: "We received the list of appointees some time ago, and failed to find anything to criticise. We thought the names had been selected with great care, to secure men of, as far as possible, national, if not international, reputation. But not so with all. The Committee had made no provision for the eloquent champion of the mothers of Texas; they had ignored the oleates; they had not tested all their appointees by the *shibboleth* of the Code; they had not given the 'rural deestricts' their *numerical* ratio of the offices; whole States and Territories were entirely ignored; even Ohio had but

fourteen, and of these her metropolis had all but one, while New York, Philadelphia, and Boston were liberally remembered. And so there was a kick. The original kick was kicked, it would appear, in Texas, whence—in the vigorous, but slightly *mixed*, figure of the *Courier-Record*—it (the kick) 'rolled into one mighty billow and at New Orleans inundated, swamped, aye, *snowed* under the whole arrangement.' And so it was decided to increase the size of the Committee, and otherwise so arrange matters that the ranches of Texas, the prairies of Kansas, the mines of Colorado, and the forests and wheat fields of the great Northwest should all be 'represented' among the officers of this Congress. Verily, we trust the original committee, and their rustic accessories, may duly exercise, the former, patience, the latter, humility, and both moderation, to the end that the Congress may be a success; for unless they do this we greatly apprehend the Texas kick will overturn the fat into the fire."

A New Medico-Legal Society has been organized in Rhode Island by the medical examiners of the State. —*Medical News.*

The Maine Medical Association held its annual meeting at Portland, June 9th, 10th, and 11th, Dr. T. A. Foster presiding. A committee was appointed on the Medical Registration Bill. It was reported that a satisfactory Board of Health had been organized. Dr. Sumner Laughton, of Bangor, was elected President; Dr. Charles D. Smith, of Portland, Permanent Secretary. The next meeting will be held in Portland, June 1st.

A Pharmacy Law compelling the registration of druggists has been enacted in Massachusetts.

Another Noble Doctor.—Prof. Richard Volkmann, of Halle, has been raised to the order of nobility.

The University of Marburg, and in particular the medical school, has received a legacy of 800,000 marks from the estate of the late Countess Louise Bose.

The Alumni Association Prize of the College of Physicians and Surgeons, New York.—This prize, of five hundred dollars, offered to the competition of Alumni of the College, will be awarded at the next Annual Commencement, May 11, 1886. The competing essays must embody the result of *original research* upon some medical subject. They must bear a motto or device, and be accompanied by a sealed envelope bearing the same motto, and containing the author's name and address. Essays should be sent before April 1, 1886, to any of the undersigned in New York City:

E. C. Seguin, M.D.,
J. West Roosevelt, M.D.,
M. Allen Starr, M.D.,
Committee.

Intermediate Transplantation of a Pivot Tooth with Restoration of Function.—A lady in South Bend, Ind., who had a false tooth set on a pivot, sneezed it out the other day while feeding chickens. An old hen thought it was a grain of corn and swallowed it as soon as it struck the ground. After a long chase the hen was captured, beheaded, its crop opened, the tooth found, and restored to the lady's mouth, where it afterward helped to masticate the old hen.

The Wisconsin Medical Code of Ethics.—The discussion that has raged in the New York Medical Society, and that has caused the expulsion of some of the ablest physicians in the world from the American Medical Association, has reached the Wisconsin Medical Society, and given rise to the usual and inevitable strong feeling. It has been brought up by Dr. Bartlett's address, in which he attacks the Code of Ethics which prohibits members of the Society from recognizing practitioners of another school.—*Milwaukee Sentinel.*

Death of Dr. Nachtigal.—This well-known traveller died at Cape Vincent, Africa, on May 5th. He was born in 1834, and for a time practised medicine in Cologne. Having acquired phthisis, he went to Algeria, and was later second physician to the Bey of Tunis. Since that time he has obtained a wide reputation as an African explorer, and, at the time of his death, had the charge of an important mission in connection with the German colonial enterprises in Africa.

The French Association for the Advancement of Science will meet this year at Grenoble, on August 13th, under the presidency of M. Verneuil.

Navy News.—Official List of Changes in the Medical Corps of the U. S. Navy, during the week ending June 20, 1885: Passed Assistant Surgeon George Arthur, granted leave of absence for one year, with permission to leave the United States; Passed Assistant Surgeon C. W. Deane, granted leave of absence for three months; Medical Inspector C. J. Cleborne, as member of Medical and Naval Examining Boards, Philadelphia, Pa., June 22, 1885; Passed Assistant Surgeon George C. Lippincott, detached from temporary duty, Naval Academy, and waiting orders; Surgeon Benjamin S. Mackie, as member of Medical and Naval Examining Boards, Philadelphia, Pa., June 22, 1885; Joseph Shafer, commissioned an Assistant Surgeon, Active List, June 12, 1885.

New Health Journal.—*The People's Health Journal* is the title of a new monthly periodical, published in Chicago and edited by Drs. L. D. and S. Ida Rogers.

Actinomycosis not a New Disease.—Mr. Shattock, at a recent meeting of the London Pathological Society, showed two specimens of actinomycosis of the liver, which he had discovered in the museum of St. Thomas' Hospital. The specimens were over twenty years old, but the presence of the fungus was distinctly shown under the microscope. Thus the disease itself is not new, although our knowledge of it, at least in man, is comparatively recent.

The Association of Ex-Internes of St. Luke's Hospital.—This Association was organized some three years ago, with the object of promoting and maintaining a feeling of good-fellowship among the former internes of St. Luke's Hospital. It has at present upon the roll the names of about forty members, residents of New York and the vicinity. The second annual dinner of the Association was given on the evening of Tuesday, June 9th, at the University Club, Twenty-sixth Street and Madison Avenue.

Reports of Societies.

AMERICAN NEUROLOGICAL ASSOCIATION.

Eleventh Annual Meeting, held in New York, June 17, 18, and 19, 1885.

First Day—Wednesday, June 17th—Afternoon Session.

The Association met in the Hall of the New York Academy of Medicine, and was called to order at 3 P.M. by the President, Dr. Isaac Ott, of Easton, Pa., who delivered a brief address before retiring from the Chair.

Dr. Ott directed attention especially to

THE RELATIONS OF THE NERVOUS SYSTEM TO THE TEMPERATURE OF THE BODY,

and said that the researches of various observers had led up to the conclusion that the temperature of the body, like the heart, is under the control of the nervous system. If this be true, the question arises, where are the heat-centres located? In 1884, Dr. Ott published a paper, showing that in the vicinity of the corpora striata were centres having a relation to the temperature of the body. Recently Aronsohn and Sachs have arrived at the conclusion that in the cerebrum are similar centres, whose situation corresponds to the corpora striata. During the last few months, Dr. Ott has attempted to more definitely map out the centres, and finds them located in the anterior inner part of the optic thalami.

In his experiments he used D'Aisonval's calorimeter, surrounding it with felt and feathers, and Voit's respiration apparatus, which served to note the quantity of air by its large meter, and at the same time was used as an aspirator.

These centres are veritable heat-centres, and not due to vaso-motor deflections. Removal of different parts of the cortex causes only a temporary rise, while the rise in the centres concerned lasts two or three days, and often amounts to about 4½° F.

Dr. Ott then introduced Dr. Leonard Weber, of New York, Vice-President elect, who discharged the duties of President Dr. B. G. Wilder, who was unavoidably absent.

ELECTION OF NEW MEMBERS.

The resignation of Dr. John J. Mason was accepted, and he was elected associate member.

Drs. Philip Zenner, of Cincinnati, O., and M. Allen Starr, of New York, were elected active members.

The Secretary, Dr. G. M. Hammond, of New York, read several

LETTERS OF REGRET FROM ABSENT MEMBERS,

and others from Dr. J. S. Jewell and Dr. H. Gradle, of Chicago; Dr. H. D. Schmidt, of New Orleans; Dr. C. K. Mills, of Philadelphia; Dr. J. T. Eskridge, of Philadelphia (now in Colorado for his health); Dr. S. F. Denillo, St. Petersburg, and Dr. A. Forel, of Zurich, thanking the Association for the honor of associate membership.

ELECTION OF OFFICERS.

President—Dr. Charles K. Mills, of Philadelphia.

Vice-President—Dr. V. P. Gibney, of New York.

Secretary and Treasurer—Dr. R. W. Amidon, of New York.

Councillors—Drs. Geo. W. Jacoby and E. C. Seguin, of New York.

Dr. A. D. Rockwell, of New York, then read a paper entitled

A CASE OF CHRONIC MYELITIS—RECOVERY.

It was a case of complete recovery from chronic, supervening upon acute, myelitis, occurring in the person of Miss B——, sixteen years of age, referred to him by Dr. J. O. Farrington. There was complete abolition of electro-muscular contractility, with bed-sore and paralysis of rectal and vesical sphincters. The acute attack followed immediately upon exposure to cold, and within a week there was complete paralysis of the lower limbs, and after six weeks a bed-sore developed in the region of the last lumbar vertebra.

Dr. Rockwell gave a most unpromising diagnosis, and it was only at the earnest solicitation of the father that further active treatment was attempted, which consisted in the use of galvanism, about thirty volts, repeating the application every other day, over the legs and the lower portion of the spine. Three weeks of persistent effort failed to elicit any response. The bed-sore, however, began to improve, and at the end of the fourth week faint muscular contractions were observed, and at the end of another week they were so well marked as to indicate distinctly that they were the reactions of degeneration.

The practical value of the case, so far as related to the pathological side, was in the distinct negative rather than in any affirmative. It was self-evident that, however much structural change had taken place in the way of atrophy of nerve-cells, or induration or overgrowth of connective tissue, the nutrition of the nerve-cells had not been sufficiently impaired to be beyond the influence of the reparative process.

Dr. E. C. Seguin, of New York, regarded the case as one of a somewhat modified polio-myelitis with some extension, perhaps, to the central gray matter; but certainly it was not in the category of transverse myelitis, of which he had never seen a case of recovery. The case was especially instructive with reference to the time employed in the treatment, which allowed chance for spontaneous restoration, although the galvanism had much to do with expediting the cure, and the restoration of the muscles.

The discussion was continued by Drs. Starr, Birdsall, and Gibney, of New York, and Dr. Gray, of Brooklyn, and closed by Dr. Rockwell, who said that he had omitted to state that all the groups of muscles were affected alike, that there was absence of patellar tendon reflex in the beginning which had returned, and that there was a good deal of agitation of the ankle when the foot was flexed.

Dr. M. Allen Starr, of New York, then read his inaugural paper on

THE METHODS OF STAINING NERVOUS TISSUE,

in which he gave the technique of Weigert's hæmatoxylin method, Weigert's acid fuchsin method, Seguin's modification of the anilin blue method, Sahli's methyl blue stain, Sahli's double stain with methyl blue and acid fuchsin, Sahli's methyl blue stain, and last, the saffranin stain.

The paper was discussed by Dr. E. C. Seguin, of New York, after which the Association adjourned to meet at 8.30 P.M.

First Day—Wednesday, June 17th—Evening Session.

The Association was called to order by the Vice-President, Dr. Weber.

Dr. George W. Jacoby, of New York, read a paper

ON THE USE OF OSMIC ACID IN PERIPHERAL NEURALGIAS,

in which he first gave a *résumé* of the cases reported by Neuber, Eulenburg, A. Wölfer, and Jas. Merces.

Dr. Jacoby treated his cases by the hypodermic use of a one per cent. watery solution of osmic acid, using half a gramme at each injection, inserting the needle as near as possible to the point of severest pain, and into the connective tissue surrounding the affected nerve. The pain caused by the injection was, in many cases, exceedingly severe, and occasionally local changes were produced. The action of the drug is probably a local one, no constitutional symptoms whatever being produced. Dr. Jacoby gave the details of only three of his cases: two

of sciatica and one of cervico-brachial neuralgia. His whole number of cases was eighteen, which showed eight cures, two improved, eight unaffected. Of the eight cured cases, five were sciatica. All the cured cases were old cases; the unimproved cases were three recent and two old ones. From his cases it seemed that the sciatic nerve was most impressionable to the action of this remedy, and that old inveterate cases presented the best chance of success.

The conclusions reached were (1) that we have in osmic acid a remedy which is of service in the treatment of certain cases of peripheral neuralgia and in some cases when every other remedy has failed; (2) that osmic acid is not an antineuralgic, its action is very localized, and it frequently fails when other remedies succeed; (3) that its employment is, in most cases, very painful and not altogether free from danger; (4) that it is dangerous to implicate a motor nerve in the injections.

Dr. Sachs, of New York, on invitation, participated in the discussion, and said that his experience in the use of osmic acid in the treatment of neuralgia had been only partially satisfactory; the impression which he gained being that in most cases it was unreliable. The drug was doubtless admissible where everything else had been tried and failed.

Dr. Seguin, of New York, had not used osmic acid, but he had had some experience in the application of the same general principle, namely, deep-seated counter-irritation by hypodermic injections of different drugs. He had seen two cases of sciatica cured by such treatment with nitrate of silver. He had also seen two cases of radial neuralgia, in which osmic acid was used without any relief, but they were not suitable cases for the remedy.

Dr. Jacoby thought that if Eulenburg's experiments were reliable, the benefit was not always due to counter-irritation. The remainder of the session was devoted to demonstrating the results of staining nervous tissue by different methods, and by means of a large number of sections, prepared by Drs. Starr and Seguin, after which the Association went into executive session.

Second Day—Thursday, June 18th—Afternoon Session.

The Association was called to order by the President, Dr. Burt G. Wilder, of Ithaca, N. Y.

The first paper was read by Dr. V. P. Gibney, of New York, and consisted of a report of two cases of

SPINA-BIFIDA CURED,

one followed by hydrocephalus. The specimen from one case had already been presented to the New York Pathological Society, but at that time had not been examined microscopically. The method of treatment was that adopted by Morton, of Glasgow, and consisted of aspirating one or two drachms of the fluid and injecting iodoglycerine, the quantity injected varying from a half to a drachm. The solution used contained iodine, grs. x.; glycerine, ʒ j.; and iodine of potassium, ʒ ss. In both cases the sac was obliterated. Both children died not long afterward, one from hydrocephalus, and the other from cholera-infantum.

Dr. L. C. Gray, of Brooklyn, then read a paper on

THE USE OF STRYCHNIA IN NERVOUS DISEASES,

in which he reported several cases where he had administered strychnia, with special reference to the method brought forward by Dr. J. S. Jewell, of Chicago, at a previous meeting of the Association, namely, the use of large doses, as much, perhaps, as one-twelfth of a grain in myelitics.

Dr. Gray had used the drug in acute, subacute, and chronic cases, and in the acute and subacute it had aggravated or produced alarming or unpleasant symptoms when carried as high as one-twenty-fifth of a grain. In the chronic cases better results were obtained, but the largest dose he had felt warranted in employing had been one-twentieth of a grain. His experience, therefore, did not sustain the method recommended by Dr. Jewell.

Dr. C. L. Dana, of New York, had used strychnia in functional nervous diseases, in doses as large as one-eighth, one-sixth, and one-fifth of a grain three times a day, and with marked benefit. He thought there was no danger from either the accumulative or explosive effects of the drug which had been reported.

Dr. Seguin, of New York, thought that not much advance had been made with reference to the dosage of strychnia. Brown-Séquard many years ago advised and gave large doses repeatedly, as much as one-fifteenth of a grain three times a day in cases of functional disorder, and with no unpleasant effects, as a rule.

With regard to Dr. Jewell's cases, he had suggested that the reason why no unpleasant effects were produced by the large doses, was because the patients had no centrifugal matter with which to respond, as all of them were old cases of myelitis. Dr. Seguin, however, had not dared to carry Dr. Jewell's plan out thoroughly. He had been in the habit of giving the drug hypodermically.

Dr. Dana said he knew that Brown-Séquard had recommended large doses of strychnia, but he was not aware that one-fifth to one-sixth of a grain could be given three times a day without other than pleasant results, until he discovered it in the treatment of his cases.

The President then delivered his address, entitled

PARONOMY *versus* HETERONOMY AS NEURONYMIC PRINCIPLES.

For the term neurological nomenclature, Dr. Wilder uses the single word *neuronomy*. His general object has been to introduce a system of neuronomy, which, with a minimum of disturbance, in the existing order of things, may insure greater accuracy and brevity, and facilitate the acquisition and communication of knowledge between neurologists of all nations, to a considerable degree in the present, and to a much greater degree for our successors.

More specifically, the principal modifications proposed by him are indicated in the first publication on the subject in The Medical Record, September 18, 1880.

What he proposes and advocates is simply this: as far as possible for each part of the neuron (central nervous system), there should be found or made a name, consisting of a single Latin word, and that for each such Latin name, there be likewise found or made an English equivalent, not a translation, but a paronym, and furthermore, that in obtaining these names, due regard be had to existing nomenclatures, and established rules of etymological conversion.

Discussion was postponed until Friday.

The Society then went into executive session.

Third Day—Friday, June 19th—Afternoon Session.

The Association was called to order at 3 P.M. by the President.

Dr. E. C. Spitzka read a paper on

THE RELATIONS BETWEEN THE SYMPTOMS AND THE LESIONS OF POSTERIOR SPINAL SCLEROSIS.

The author closed his paper as follows: "While it must be admitted that the primary lesion of tabes is competent, for each affected level of the root zones and gray horns to produce all the characteristic symptoms of tabes referable to that level, yet in the extent and distribution of the consecutive lesions, we have valuable gauges of the extent, severity, and duration of the primary disturbance, and we may attribute to the following special disturbances the ensuing degeneration of the tracts whose functions are abolished or diminished: 1. That of the column of Goll to the disturbances of muscular sense in the lower extremities. 2. That of the

comma-shaped internal bands of the column of Burdach to the corresponding disturbances in the upper extremities. 3. That of the triangular area, bordering on the periphery of the cord, and the posterior root entry, to the rarer analgesic developments. 4. That of the column of Clark, and direct cerebellar (Fovill's) tract, to the disturbed space sense."

The paper was discussed by Dr. Seguin.

The President then presented a mounted specimen consisting of an injected preparation of the so-called circle of Willis, which illustrated

A SELDOM-DESCRIBED ARTERY.

(A. termatica), with suggestions as to the names of the principal encephalic arteries.

The communication was discussed by Dr. Starr.

Dr. Wilder also presented sections of brains illustrating

TWO LITTLE-KNOWN CEREBRAL FISSURES,

with suggestions as to fissural and gyral names.

Dr. Wharton Sinkler's (of Philadelphia) paper, entitled,

TWO CASES OF FRIEDREICH'S DISEASE,

was then read by Dr. G. B. Massey, of Philadelphia. Both cases lacked the congenital and hereditary history, and in neither had an autopsy been obtained.

The paper was discussed by Dr. Seguin, who referred to his paper on this subject, published in The Medical Record, June 13th, and also presented microscopic slides prepared by Dr. J. J. Putnam, of Boston, illustrating the changes found in the spinal cord in two of Smith's cases. In the study of the disease, he had been impressed with the fact of absence of pain and anæsthesia, associated with so extensive degeneration of the whole of the posterior columns and other portions of the cord.

Dr. Amidon, of New York, gave the clinical history of two cases of Friedreich's disease still under observation.

Dr. Starr, of New York, described the lesions as shown in the specimen from the case first observed by Friedreich. The changes were limited to the posterior columns, the pyramidal tracts, and the lateral columns and the tract of the cerebellar columns. The cord was also deformed, so that Friedreich considered it to be a congenital deformity.

The discussion was continued by Drs. Jacoby, of New York, Massey, of Philadelphia, and Amidon, of New York.

Dr. George W. Jacoby, of New York, presented

AN ABSOLUTE GALVANOMETER AND A RHEOSTAT

devised by Dr. J. Rudisch, of New York. The principle of the galvanometer was that first employed by Hirschmann, namely, a pair of astatic needles in a vertical instrument.

The advantages claimed for the rheostat over the ordinary water rheostat were lack of evaporation, no breakage, and no polarization.

The communication was discussed by Drs. Starr, Dana, G. M. Hammond, Birdsall, and Amidon, of New York, and Dr. Massey, of Philadelphia.

Dr. M. Allen Starr, of New York, then presented two series of

SECTIONS OF THE HUMAN BRAIN,

mounted by Dr. H. D. Schmidt, of New Orleans.

The Association then went into Executive Session.

Third Day—Friday, June 19th—Evening Session.

Dr. E. C. Spitzka, of New York, presented a specimen illustrating

A PECULIAR DEFORMITY OF THE CEREBELLUM,

produced by congenital lipomatosis. He also presented microscopic sections of the central nervous system of the cat, illustrating

GUDDEN'S ATROPHY METHOD.

Dr. B. G. Wilder, the President, presented a brain which illustrated

THE CONTINUITY OF THE DIACŒLIAN ENDYMA FROM THE MISAL SURFACE OF THE THALAMUS OVER THE HABENA TO THE DIATELE.

Also specimen illustrating

THE INSULA IN THE DOG, MONKEY, CHIMPANZEE, AND PORPOISE.

Dr. E. C. Seguin, of New York, then read a paper entitled

A CONTRIBUTION TO THE PATHOLOGY OF THE CEREBELLUM.

The case was one of tumor of the cerebellum occurring in A. M. B——, thirty-seven years of age, single, without syphilitic history, who came under Dr. Seguin's observation in consultation with Dr. English, of New Brunswick, N. J., in 1877. The autopsy was made April 24, 1885, by Dr. English and Dr. Elmer, of Trenton, N. J. Dr. Seguin had diagnosticated tumor of the cerebellum involving the superior vermis.

The symptoms were summarized as follows: Beginning with headache and one or more epileptoid or apoplectiform attacks; impaired vision, optic neuritis, and partial atrophy; typical cerebellar titubation, nystagmus; slight difficulty in articulation; no distinct paralysis; no ataxia; no anæsthesia; patellar reflex raised. Death with cerebral and bulbar symptoms, stupor, difficult articulation and deglutition, ptyalism, and polyuria.

Lesion.—Cyst of the cerebellum destroying the larger part of the vermis, penetrating the right lobe and pressing upon the floor of the fourth ventricle. Extensive syphilitic arteritis with varying forms of softening within the brain.

Dr. Amidon, of New York, reported a case in which there was found at autopsy a sarcomatous tumor involving the superior vermis, extending through the cerebellum, and destroying considerable of the floor of the fourth ventricle. The communication was further discussed by Drs. Gray, Spitzka, and Seguin.

Dr. J. K. Bauduy, of St. Louis, read a paper entitled

PHYSIOLOGICAL, PATHOLOGICAL, AND CLINICAL NOTES ON HYDROCHLORATE OF COCAINE.

The paper was chiefly interesting with reference to the author's claim concerning the efficacy of hypodermic injections of one grain of the alkaloid in the treatment of insanity, especially melancholia.

A paper by Dr. H. D. Schmidt, of New Orleans, entitled

A CASE OF DESTRUCTIVE LESIONS OF THE TEGMENTUM AND THALAMI, ETC.,

was read by title.

The President appointed the following

COMMITTEE ON ELECTRICAL DOSAGE,

to report at the next annual meeting: Drs. George W. Jacoby, R. W. Amidon, and W. R. Birdsall, of New York.

The Association then adjourned to meet, subject to the call of the Council, in June, 1886.

Cigarette Rollers' Cramp.—Dr. Torino has recently described a new form of professional cramp occurring in some workers in a cigarette factory. It affected the abductor and extensor muscles of the thumb.

M. Dujardin-Beaumetz has recently been made an officer in the Legion of Honor.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE LATE SIR WILLIAM MUIR—REGIMENTAL SURGEONS—LORD WOLSELEY AND THE ARMY MEDICAL DEPARTMENT—AORTIC ANEURISM—THE GORDON MEMORIAL HOSPITAL AT PORT SAID—HARVEY'S LECTURE NOTES.

LONDON, June 6, 1885.

THE death of Sir William Muir, K.C.B., M.D., late Director-General of the Army Medical Department, breaks another link between the present and the last century. Educated at the University of Edinburgh, he was the pupil of Professor Syme, Sir Robert Christison, Sir Charles Bell, and Robert Knox, M.D., the anatomist. He took his M.D. at the early age of twenty-two, and entered the army as Assistant Surgeon two years later. He was nearly forty years on active service and served more than half of these abroad. Steadily gaining promotion he was appointed Director-General in 1874. An army surgeon of the old school, Sir William Muir passed through his career under the old system of regimental surgeons. When he became Director-General he took an active part in the abolition of the system under which he had himself served, and to him was entirely due the issue of the warrant of 1879 which established the Army Medical Department on its present basis. The medical officers are not now attached permanently to particular regiments, with which they always remain in the same manner as the combatant officers do, but form an entirely separate body, and can be sent anywhere where their services are needed. The change has not met with unqualified approval. Old army men allege that under the system of "regimental surgeons" the soldiers had more confidence in their doctors, because they were more intimately acquainted with them. The modern system of "short service" tends, however, to minimize this objection. An army may also chance to be left without its surgeons, as virtually happened in Egypt after the engagement of Tel-el-Kebir. Lord Wolseley gave orders that the transports containing the troops should weigh anchor and slip off from Alexandria under cover of night so as to surprise the enemy. No orders were, however, given to the Medical Department, which accordingly remained behind with the orderlies, bearers, and all appliances. I have been informed on competent authority that had it not been for the bearers and dhoolies of the Indian Contingent present, who worked well, many of the wounded must have been left upon the field. This could scarcely have occurred under the old regimental system, whatever its faults may have been. In talking over the above incident with an army medical officer of high rank and great experience I asked him plainly whether he did not think Lord Wolseley greatly to blame. He replied with grim humor: "Well, Lord Wolseley is Lord Wolseley." It may be remembered that "our only General" censured in no measured terms the Army Medical Department at the conclusion of the campaign, bringing charges against them which completely broke down in the course of the subsequent investigation.

I referred a few weeks ago to a case of aneurism which had been operated on by Mr. Pepper at St. Mary's Hospital. I now send a few more particulars. The patient was a laundress, and about thirty years of age. She was admitted into the hospital early in February last, having been suffering from symptoms only a few months. There was well-marked pulsation in the anterior thoracic region, and this extended up the right side of the neck. It was thought that this might be due to a diverticulum from either the carotid or innominate artery. There was dulness on percussion, but the dulness was almost entirely *on the left* of the sternum. There was well-marked dysphonia. The patient was kept in bed at absolute rest, the diet restricted, and iodide of potassium given in ten-grain doses every four hours. The dose was subsequently increased to twenty grains, under the influence of which an "iodide rash" appeared. The patient was one day suddenly seized with severe cerebral symptoms, viz., pain on the left side of the head, a sensation of "fire" in the left eye, and loss of sight in that organ. These symptoms went away in a few days and vision in the left eye returned. After a three-months' trial of rest, dietetic and medicinal treatment, an operation was consented to by the patient. The A. C. E. mixture was given, and the right carotid and subclavian arteries tied by Mr. Pepper, with antiseptic precautions. Pulsation in the right radial and superficial temporal arteries ceased immediately and did not return. Carbolized sponge was placed over the wound, then iodoform wool, and a bandage over all confining the arm to the side. The temperature did not rise above normal after the operation, and there was no suppuration. The "spray" was left off in a little over a week after the operation, and one of the ligatures came away in a fortnight. At the present date (a month after the operation) the patient is much improved, though not yet allowed to rise from bed. Pulsation is much less in the tumor and also in the neck.

The scheme for a Gordon memorial hospital at Port Said has been abandoned, as the site has been shown to be unhealthy. It is said that the committee literally jumped at this scheme simply because the Prince of Wales approved of it. Now that Port Said has been shown to be unsuitable, the Prince has readily withdrawn his recommendation, and the committee have found their tongues to say what they thought all along. The members of the committee seem to have been useless. They had better not have been appointed if they were afraid to open their mouths and say what they thought in the presence of the Prince of Wales.

An autotype reproduction is about to be issued of the original manuscript notes of William Harvey's lectures, delivered at the College of Physicians in 1616. In these lectures we find the first germ of Harvey's immortal discovery. A printed transcript is to accompany each page of the autotype reproduction.

THE PLYMOUTH EPIDEMIC.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: A recent number of THE MEDICAL RECORD contains an article by W. J. Torrey, M.D., of Scranton, entitled "The Etiology of the Plymouth Epidemic," which was apparently written with so little knowledge of the conditions existing there, and is so misleading as to the agencies at work in producing the epidemic, that an explanation of the real facts seems called for.

In this article Dr. Torrey states that there were at least four factors which contributed "to the production and continuance of the epidemic." These were, "First, contaminated river-water; second, contaminated reservoir-water; third, contaminated milk; and fourth, contaminated air."

It is evident that Dr. Torrey has not visited Plymouth, and is not familiar with the water-supply there, or he could not have ascribed to the river-water such importance in the production and continuance of the epidemic as he has done. As has been pointed out several times before, there are in two localities on the hill above the town between forty and fifty families, who are supplied with water by the Hudson Canal & Coal Co. All of this water is pumped from the river, and these families have not used at any time anything but this river-water. Among them only two or three cases of typhoid fever have occurred, and the persons affected all drank reservoir-water in the town.

There is still further proof to show that the river-water took no part in the origin of the epidemic. As Dr. Taylor, of Wilkesbarre, has pointed out, during the period from March 20th to March 26th, when the larger part

of the town was supplied by river-water, a certain portion received all of its water-supply from the reservoir. When in Wilkesbarre a few weeks ago, while returning from Plymouth, Dr. Taylor showed me a map of Plymouth, in which he had carefully outlined the streets which had received river-water, and those which had received only reservoir-water. There was no difference in the distribution of the fever cases through the town, and in those portions which received all of their water-supply from the reservoir the fever appeared as early, in as severe a form, and proportionately as large a number of cases occurred as in those parts where the river-water was used from March 20th to 26th.

More than this, a number of cases of typhoid fever occurred in families living along the stream below the reservoirs who dipped water from the stream produced by the overflow from the reservoirs.

Can any further proof be required to exclude absolutely the use of river-water as supplying any factor either in the production or continuance of the epidemic?

As to the action of the contaminated reservoir-water in causing the outbreak, there cannot be the slightest doubt. All the physicians who have visited Plymouth for the purpose of investigating the cause of the epidemic are unanimous on this point, and regard it as being the sole *exciting* cause of the outbreak. All the facts connected with the conditions existing at Plymouth and the appearance of the epidemic, point so strongly in this direction that this conclusion is unavoidable. Undoubtedly other factors have been active in contributing to the continuance of the disease, such as contaminated well-water, contact with the sick, the lack of proper precautions as regards disinfection of the stools, etc.

As regards the third factor, namely, contaminated milk, it seems rather absurd to ascribe much importance to the effects of drinking milk that is possibly diluted with contaminated water, when this same water is being constantly used for all purposes.

Certainly the second method of contaminating the milk suggested by Dr. Torrey—*i.e.*, "through the cows drinking the contaminated water, the poison being excreted with the milk"—is a new one. Dr. Torrey says, "There is no reason to believe that the specific element in the production of typhoid fever goes to play a part in the economy of the cow; but it is reasonable to suppose that in circulating through the body it might contaminate the secretions of the animal, although unable to produce its specific effects on it" [the cow].

There can be no doubt that the specific element in the production of typhoid fever is a micro-organism, and it is certainly assuming a good deal to say that this germ may be received by the cow in contaminated water, may pass into the blood without producing any effects on the animal, then be secreted with the milk, and finally produce typhoid fever in persons drinking the milk. I think that this scarcely needs further comment.

It is quite probable, as has been already pointed out, that the contamination of the air has had some influence in the continuance of the epidemic, but, of course, none in its production.

We are driven back now to the original conclusion, namely, that the contamination of the reservoir-water by the stools of a single case of typhoid fever situated on its bank was the sole exciting cause of the epidemic at Plymouth. Respectfully yours,

HERMANN M. BIGGS, M.D.

21 EAST TWENTY-FIRST STREET, NEW YORK, June 10, 1885.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Four cities and one medical society have sent committees of medical men to Plymouth to investigate the cause of the outbreak of a thousand cases of typhoid fever, which occurred in that town last April, and all have come unanimously to the same conclusion; namely, that it had its origin in the contamination of the mountain stream with the accumulated excreta of a typhoid patient which had been washed into it when the spring thaw occurred.

Dr. Torrey, however, writing from the seclusion of his office, without having gone over the ground, and apparently without having all the facts before him, comes to a different conclusion. Instead of one factor he finds four, the contamination of the mountain stream water being one of them, but "by no means the most important one."

I have these objections to make to Dr. Torrey's method of arriving at his conclusions: first, he fails to take cognizance of all the facts; second, he misstates facts; third, his own peculiar conclusions, notably numbers three and four, are unsupported by a single fact.

Take, for example, his conclusion that contaminated milk played an important part in the causation. Instead of adducing a single fact tending to show that a single person of the thousand could even be suspected of having taken the disease by drinking contaminated milk, he reasons as follows:

Typhoid fever is sometimes caused by drinking milk.

Presumably, Plymouth people drink milk.

Therefore contaminated milk was a factor in the causation of the Plymouth epidemic.

Without pointing out in detail the errors and misstatements contained in the Doctor's paper, I will say generally, that too many of his premises are wrong; but, even if they were right, his conclusions would not follow logically.

As it seems to me extremely desirable that a correct conclusion should be arrived at on this subject, I beg leave to submit to your readers some of the principal facts and arguments which have led so many investigators to adopt this so-called mountain-stream theory.

First.—There is the great fact, clearly established, that the accumulated excreta of a typhoid patient were actually carried into the stream when the spring thaw occurred, which was about April 1st.

Second.—Following this, after a period corresponding in length to that which has generally been recognized as the usual period of incubation of typhoid fever, an outbreak of a thousand cases of the disease occurred in the town.

Third.—These cases occurred only in those who used hydrant-water; those using well or other water exclusively escaping altogether.

But it is also true that from March 20th to 26th water from the river was pumped into the mains supplying the town, and the necessity of showing why this water may not have been at fault instead of the mountain-stream water, has been fully recognized by all the investigators.

The difficulties in the way of accepting the river theory, so-called, are many and, it seems to me, insuperable. Let me present a few of them.

1. It remains to be proven that the excreta of a single typhoid patient did actually find its way into the Susquehanna above Plymouth, during the month of March.

2. Admitting that there were some cases in the valley during that month, the frozen condition of the river and its tributaries would effectually prevent any excreta from getting into the river except through the sewers.

3. Admitting that excreta from fever patients did get into the river from the Wilkesbarre and Pittston sewers in March (which is not proven), yet, in view of the large body of water which is always present in the river, and that only such a small fractional part of this could find its way into the water company's pipes, and the fact that any contaminating material which may get into a running stream must all necessarily pass a given point in a very short time, it would seem that the objection of infinitesimalism which has been urged against the mountain-stream theory, applies with tenfold force to the river theory.

4. The time from March 20th to April 10th, when the first case of the epidemic occurred, is too long for what has generally been recognized as the usual period of incubation of typhoid fever.

5. That the excreta from the cases of fever which occurred in Pittston during the fall months could so pollute the river as that it should continue to retain its poison through all the winter months, and that in the last days of March it should possess a degree of virulence sufficient to produce one of the most extraordinary epidemics on record, seems to me highly improbable, especially in view of the fact that in the last week of December there was a great break-up and flood in the river, which lasted for many days.

6. But if river-water was so poisonous from March 20th to 26th as to cause a thousand cases of fever in those who used water obtained at one point in the river, it is difficult to understand why the inhabitants of Broadway and Ridge Row, a portion of Plymouth supplied during all the winter months and until April 1st with water pumped from the river at a point half a mile higher up the stream, should escape the fever altogether, the fact being that not a case has yet appeared among these people, numbering several hundred souls.

7. Again, if river-water was so poisonous in March, it is difficult to understand why Nanticoke, a town of eight thousand inhabitants, situated three miles below Plymouth, and which is supplied all the time with river-water, should not only be exempt from epidemics, but should be freer from typhoid fever during March and April than during any months of the past year.

8. But the considerations which bear with the greatest force as against the river theory, and in favor of the mountain-stream, and which seem to me to be conclusive on the subject, are derived from the histories of twelve cases of the fever, collected by Dr. Taylor, occurring in persons who moved to Plymouth between March 30th and April 5th, inclusive, and whose first opportunity, therefore, to drink Plymouth water occurred between these dates, this being from four to ten days after pumping from the river had ceased. Again, these twelve persons, who could not have possibly used river-water, began to be sick with the disease within the same period of time that the great majority of the other thousand cases were taken, viz., the first on April 12th and the last on April 22d.

The earliest case of the epidemic occurred on the 10th, but a great many occurred after the 22d. This latter fact, however, only serves to strengthen the conviction that the river-water could not have been the cause. Again, the period of incubation in these twelve cases, counting from the first day that they had an opportunity to drink Plymouth water, was from ten to eighteen days.

The period cannot be longer than this, but may be shorter, as it is impossible to tell how long after their arrival the fatal draught was taken. Now, ten to eighteen days being thus shown to be the longest possible period of incubation in these twelve cases, I leave all to judge how far we are justified in concluding that the period of incubation was of the same duration in all the other cases.

But, again, it being thus shown that in this epidemic the period of incubation in at least twelve cases was from ten to eighteen days, it is incumbent upon the advocates of the river theory to show why it is that not one single case of the thousand was taken ill in either ten or eighteen days from March 20th, when river-water began to be used, or even in less than sixteen days after March 26th, when the use of river-water ceased. The difficulty of accounting for this fact becomes greatly enhanced if it be true, as Dr. Torrey claims it is, that the period may be as short as three days.

These are some, though by no means all, of the facts and considerations upon which the opinion is founded that the washing into the stream of the excretion of poor David Jones was the great active cause of the epidemic, the one factor without which this terrible scourge would not have had an existence.

R. Davis, A.B., M.D.

Wilkesbarre, Pa., June 13, 1885.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 14, 1885, to June 20, 1885.

Porter, J. Y., Captain and Assistant Surgeon. Having been found incapacitated for active service by an Army Retiring Board, ordered to proceed to his home and report by letter to the Adjutant-General of the Army. S. O. 136, A. G. O., June 15, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 20, 1885 :

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
June 13, 1885.....	4	18	74	5	95	39	0	0
June 20, 1885	0	11	51	3	88	34	0	0
Deaths.								
June 13, 1885.....	0	4	11	5	7	20	0	0
June 20, 1885	0	2	11	3	18	31	0	0

Report of Committee on Disinfectants.—Dr. J. H. Raymond, of Brooklyn, N. Y., writes: "I notice in your issue of June 6th a criticism signed by J. R. Duggan, M.D., Ph.D., and C. T. McClintock, A.M., on the 'Preliminary Report of the Committee on Disinfectants of the American Public Health Association.' In the absence of Dr. Sternberg, the Chairman of the Committee, who is now in Europe attending the International Sanitary Conference, I will simply say that the writers of the criticism have evidently not seen the Committee's Report published more than a month ago; their observations are evidently based upon a former edition of the 'Preliminary Report.' In regard to the non-existence in the market of a solution of chlorinated soda containing at least three per cent. of available chlorine, the amount required for disinfection, I would say that Dr. Squibb, of Brooklyn, has a preparation containing six per cent. I regret that an answer to this communication is called for at this time when the Chairman of the Committee is absent, and feel that had the proper inquiry been made of the Secretary of the Committee, this 'criticism' would not have apeared in your journal. Copies of the report can be obtained by sending to Dr. Rohé, Baltimore, Md."

Early Medical Ethics.—To those, says the *Columbus Medical Journal*, who are fond of referring to the "good old times" the following slip, found the other day in an old copy of *Abernethy's Surgery*, may be of interest: "Dr. J. Heilbronn, late of the city of Philadelphia, has the honor to announce to the public that he has, in conjunction with Dr. Lobstein, commenced the practice of medicine in the town of Reading, and cherishes a hope that from his knowledge of the science of medicine, and his will to put it into practice and render justice and satisfaction to those who may need his assistance, he will merit a moiety of public patronage. Dr. Lobstein is a practitioner of great experience, and of known and acknowledged skill and abilities, both in Europe and America, which he is ready to verify when thereunto required. His private character may be objectionable (who is perfect?), but as a physician he stands unimpeached, and I trust that a generous and enlightened public will not condemn him untried or unheard.—J. Heilbronn, July 6, 1821."

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THE

MEDICAL RECORD

A Weekly Journal of Medicine and Surgery

EDITED BY

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Volume 28

JULY 4, 1885—DECEMBER 26, 1885

NEW YORK

WILLIAM WOOD & COMPANY

1885

TROW'S
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NEW YORK

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The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 1 NEW YORK, JULY 4, 1885 Whole No. 765

Original Articles.

A CASE OF CYSTIC TUMOR OF THE JAW IN A NEGRO, AND SOME NEW OBSERVATIONS ON THE PATHOLOGICAL HISTOLOGY OF THIS DISEASE.

BY AUGUSTUS C. BERNAYS, A.M., M.D. HEIDELBERG; M.R.C.S.E., F.R.M.S. LOND.,

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THE patient, W. G——, a full-blooded negro, about twenty years of age, was brought to me about October 1, 1884, by Drs. Skeele and Robinson, of Harrisonville, Ill. Fig. No. 1 shows his condition at that time. He was

FIG. 1.

in every way well developed, perfectly healthy, had never been seriously sick. He stated that his jaw had been slowly growing larger and more protruding for about two years. There had never been any severe pain during its growth, and it only troubled him recently on account of its large size, and because it now prevented him from closing his mouth entirely. There was considerable hypersecretion of saliva, which would be thrown from his mouth while speaking, and would continually overrun the corners of his mouth. His speech was but little disturbed by the tumor, the tongue being as yet quite free and movable. The teeth in the lower jaw were not in their proper positions. Some had been previously lost; in fact, only the two last molars were present on the right side, and only the præmolar on the left. The four incisors and the two canines were still present, but not in line. The teeth were all normal, except the second molar on the right side, which showed a deep cavity in its posterior median root. The teeth were all quite loose in their sockets. The eruption of the teeth, so far as known to the patient, had been normal. He had suffered considerably from toothache, and had lost the missing teeth by extraction, on account of the pain they gave him. He states that the growth of the tumor began soon after the extraction of the first right molar tooth, and believes that all his trouble came from this tooth. We shall see later on that very probably the growth of the tumor began previous to his toothache, and perhaps even caused his dental trouble.

The tumor was found to be nearly five inches in its largest diameter from right to left, a little below the line of the mouth. Its thickness from the chin to the alveolar process was about two and three-fourths inches. The tumor extended almost to the coronoid process, involving the entire body and a portion of the ascending ramus on both sides. It was almost regular in its form, showing only slight lumpy enlargements on its surface. The tumor was quite hard in some places, while in others the cystic growth had distended the jawbone so much that a crackling, as if of parchment, was conveyed to the examining finger. Some of these thinnest places were clearly fluctuating and almost translucent. The skin of the chin was very smooth, and the skin of the cheeks and neck was drawn out, as was also the lower lip, in order to cover the tumor. Little or no growth of beard was noticeable on the distended skin. There was no communication of any of the cysts with the cavity of the mouth; percussion over the tumor was dull (see Figs. 4 and 5).

Before describing the operation and its results, I will give a short *résumé* of what is known up to the present day about the cystic degenerations of the lower jaw, and finally describe the pathological histology of my case, comparing it with the observations of my fellow-workers in this field of research. A complete list of the literature used by me in this study will be found attached.

In the entire literature of this subject I have found the histories of 122 cases of tumors of the jaw, some of which are very accurately described, and others are only reported very briefly. In an attempt to tabulate them I found it thankless work, since many of the points which command our consideration were overlooked or imperfectly stated. Thus, for instance, the minute structure is not known of over 90 cases. In fact, I can only find reports of 24 cases that have been properly examined by the microscope. Instead of detailing these 122 cases singly I may be permitted here to give their description in a general way. Magitat has compiled 100 cases, and I must refer any one especially interested to his work (op. cit.).

These tumors have been variously called multilocular cystic tumor, adeno-sarcoma, cysto-sarcoma, jaw cysts, cysto-maproliferum maxillæ, follicular cystoma, cysto-fibroid, cysto-dermoid, and lastly, Mr. Eve has proposed for them the name of multilocular cystic epithelial tumor (*cystoma multiloculare epitheliale*). It will be seen that these names may cover a multitude of pathological formations of the jaw. The fact of there being so many different names points out that some real difference probably exists between these cystic tumors. The only correct course to follow in naming pathological formations seems to me to be based on an accurate investigation of their development or evolution. I will therefore defer the christening of my tumor until after we shall have considered its histo pathogenesis.

The disease is rarer in the upper jaw than in the lower,

the ratio being in my table as 1 to 11. The tumors vary in size from a pigeon's-egg to the size of a large head. They grow within the bone, expanding the compact outer layer, so that it forms a bony capsule of varying thickness around them. Fig. 5 will give a good idea of a section. There is a conglomeration of cavities of various sizes appearing like an irregular honeycomb. The cysts are separated by septa of dense fibrous tissue, or, as in my case, by completely ossified spicula and membranous lamellæ.

The contents of the cysts are fluids or semifluid, the chemical constitution of which has been found to be an albuminous fluid of different colors. A viscid mucus seems to be the most common occurrence. The color depends upon the accidental admixture of decomposed blood, and may be from a clear transparent to a turbid brownish or even reddish hue. Sometimes one of these cysts contains brown mucus, while another in the same tumor may be filled with a transparent clear liquid. The density or viscidity may also vary in cysts of the same tumor. We are accustomed to this peculiarity in multilocular ovarian tumors. I have often drawn six or seven different kinds of fluid from the larger cysts of one ovarian tumor. It is claimed that cholesterin crystals have been found in tumors of the jaw. I have never seen them. Some of these cysts contain air. Bryk's case gave a tympanitic sound on percussion. The cysts in this case were in open communication with the mouth. In some cases (Falkson and Magitat) the cysts intercommunicated. In my case the largest cysts were entirely distinct, and it was impossible to determine a communication between any two. In cases where this intercommunication or a communication with the mouth exists it is undoubtedly a secondary arrangement which has been brought about by purely mechanical agencies accompanying the growth of the cysts and the pressure of their contents, which may eventually cause erosion

Fig. 2.

and rupture. The size of the cysts varies from a cavity not visible to the naked eye to the size of a hen's egg. The walls of the cysts are, as a rule, smooth and lined by a dense fibrous layer of tissue. Bryk speaks of warty excrescences and scar-like figures in his case.

These tumors have frequently been known to follow some kind of inflammation or injury or irritation of decayed teeth. It is very certain that the growth of these tumors causes local inflammation about the gums, and finally even causes the teeth to become so loose that they fall out, or are torn out by the act of chewing. I cannot well imagine how a decayed tooth can cause a perverted action of the enamel organ which we shall directly find to be the cause of these tumors. Suffice it, we know nothing positive about the exciting causes of this rare disease. The most plausible hypothesis is, perhaps, the one which refers the origin of these cystic degenerations to a heterotopic, embryonic germ, a remnant

Fig. 3.

of the enamel organ, and confesses total ignorance in regard to exciting causes.

The disease is most common during youth, or about the time of puberty. My table would place the largest number of cases at about the twentieth year. Cases have been known to occur as late as the seventy-fifth year (Coote).

Wilks describes a congenital case. This is not surprising to me, as I have both seen a child born with twelve teeth, and known a gentleman who developed a new tooth at the age of sixty-seven.

The history of my case, given above, sufficiently indicates the clinical aspects of these tumors. They become very troublesome to their victims by their large size. Some cases have, however, been known where they were borne as long as twenty-five, and even twenty-nine years. By interfering with the functions of the organs in the mouth, they become dangerous as well as disagreeable, and are among the least beautifying of known tumors, since they cannot easily be hidden or made less hideous by cosmetic aids. They usually cause no swelling of the adjacent lymphatic glands and, in fact, are very slow to infect neighboring organs. Formerly the general impression prevailed that all multilocular cystic tumors were benign. Like most other tumors, advanced age, constitutional weakness, or infirmity no doubt increase the tendency to malignancy; during the early adult stage it is very small. Mr. Syme saw recurrence twice after partial removal. Mr. Eve quotes a case of Jonathan Hutchison's where the autopsy clearly showed secondary deposits in the lymphatic glands, and Mr. Heath saw a recurrence and removed it twelve years after he had completely removed the affected portion of the jaw. Both the latter specimens are in the Museum of the Royal College of Surgeons, Lincoln's Inn Fields, London. We have the authority of Mr. Eve for the state-

ment that the microscopical characters in both the tumors were those of multilocular cystic degeneration.

So far as known to me, the case which gave me cause for this study is the only one that has been observed in a negro. This race is noted for its fine teeth, so long as it remains pure. Dentists claim, however, that mulattoes are very much afflicted by decaying teeth. These circumstances may become of more value in the future when the etiology of tumors of the jaw can be judged on the basis of a more extensive material.

In October, 1884, the young negro was received at the Surgical and Ophthalmic Hospital, and in the presence of the graduating class of the College of Physicians and Surgeons, assisted by Drs. Louis Bauer, H. Wiehmann, Charles Bark, H. Harnisch, E. M. Powers, George J. Bernays, H. Summa, and others, I proceeded to remove the entire tumor. The patient was chloroformed while sitting upright in an operating-chair. The first incision was made in the median line, severing the lips and all the soft parts down to the hyoid bone. I now dissected back all the soft parts along the jaw up to the angle on both sides, and also freed the tumor, in its whole extent, on its lower surface. The most tedious part of the operation, namely, the sawing through of the healthy jawbone above the angles, was now performed. The bone was found to be of unusual hardness, and although two of the best Langenbeck's straight saws, which had been refiled and set, were used, this step of the operation consumed twenty minutes. I now secured the tongue by means of a loop of thread and forceps and quickly trimmed it away from the upper surface of the tumor. The hemorrhage during the operation was considerable. The mental, the submental, the inferior dentals, and the fascial artery of the left side were cut. The inferior dental arteries could not be tied, because they immediately retracted into their bony canals. I found it expedient to push a piece of a match, which was sharpened, into the canal of the right side, the place of section not being more than one-fourth of an inch from the lingula. The artery in the left ramus stopped bleeding after the finger had been pressed over the foramen a few seconds. The wound in the mouth was now closed by transversely stitching the

Fig. 4.

remnants of mucous membrane together under the tongue as well as was possible with twelve sutures. I was tempted to remove a portion of the bagging loose skin, but concluded merely to unite the cut edges and depend on contraction to reduce the immense pouch. As may be seen by Figs. 2 and 3, this expectation was fully realized. The union of the lip took place by first intention; the sutures of the mucous membrane had to be partially removed on the second day on account of a very severe secondary hemorrhage which came from the left inferior dental artery. It became necessary to cauterize the cut surface of the jaw with concentrated perchloride of iron in order to stop the hemorrhage. After this the healing process went on regularly; the patient left for his home in the fourth week. A very hard and unyielding scar now forms the base of the mouth and gives a good support to the tongue. The scar forms a sort of diaphragm extending across from one stump of the jaw to the other.

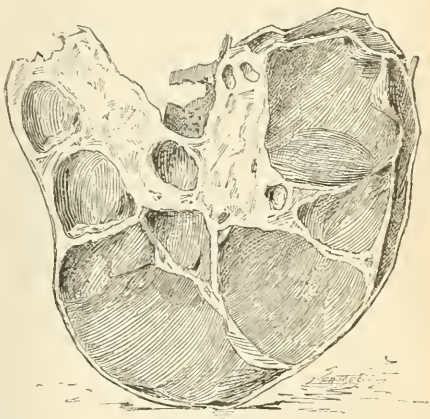

Fig. 5.

By contraction the ends of the rami have been somewhat approximated to one another. Fig. 2 represents the patient after a definite union of all the wounds had taken place.

In order to give the patient a better appearance, and also to prevent further contraction, I consulted Dr. F. W. Hermann, a dentist of this city, who has given considerable attention to prothesis and the special adaptation of artificial teeth in cases of defects of the jaws. He determined to try the very difficult task of making an artificial lower jaw of vulcanized rubber to fill out the defect between the stumps of the rami. The articulation was effected by means of springs attached to the last molars of the upper jaw. Fig. 3 shows the patient as he appears now, nearly six months after the operation, with the artificial plate in position. The cosmetic effect is certainly marvellous. I believe that, with practice and perseverance, the utility may also be much increased. Without the artificial jaw and teeth the patient will be compelled to use his fingers as opponents to the incisors of the upper jaw, in order to properly comminute or masticate solid food. His speech is but little inconvenienced by the loss of his jaw. The patient expresses himself well satisfied with his present condition. The illustrations were all made by the new photo-zincotype process after photographs.

Histo-pathology.—Up to the time of Magitat's investigations all tumors of the jaws were called cystoma, without regard to their microscopical structure, or they were denominated cysto-sarcoma, or cysto-fibroma, according to the opinion of the respective operators in regard to the malignancy or innocence of their cases. If thought to be very malignant, they were called cysto-sarcoma; if benign, cysto-fibroma seemed to fit the case.

Christopher Heath, in his fundamental work on the "Injuries and Diseases of the Jaw," is the first who expresses the opinion that many of these cysts or cystoids of the lower jaw, although apparently in no connection with the teeth, very probably originate somehow through the irritation of diseased or developing teeth.

Magitat, "On the Cysts of the Jaws," defines these tumors as follows: "A cyst of the jaw is a tumor well

bounded and limited on all sides, which has developed within the jaw-bone, and contains a fluid of variable consistency, mingled with solid parts. It always originates from the dental system, and dates back to various stages of development of the tooth-sac." Besides these tumors, which Magitat calls follicular, he distinguishes periosteal cysts. He distinctly says that these cysts do not originate from the enamel epithelium, or enamel organ, as it is usually called.

Falkson's contribution to our "Knowledge of Cysts of the Jaw" is the first investigation which clearly opposes Magitat, and claims the origin of the cysts from the enamel organ. He gives a description and a semi-diagrammatic illustration of the histological details of a tumor which was first macroscopically and surgically described by Caspary.

Professor A. Bryk, of Krakau, describes the minute anatomy of his case, and also gives a semi-accurate illustration of a microscopical section. He entirely corroborates Falkson's claim that the alveolar structure and cysts are an outgrowth of the enamel organ.

Mr. F. S. Eve has accurately examined twelve specimens of cystic tumor, and also corroborates the theory that these degenerations begin from the epithelial cells of the enamel organ, or even goes so far as to claim that they are ingrowths of the epithelium of the gums. Büchtemann also saw an unmistakable connection between the epithelium of the gums and the formation of the tumor.

It would seem, therefore, that the evidence in favor of the theory that these cysts originate from the enamel organ may be summarized as follows: 1, The constant appearance of one layer of narrow columnar epithelium which lines the alveoli; 2, the peculiar network of irregular, star-shaped cells which fill up the alveoli; 3, the absence of blood-vessels in the just-mentioned tissues; 4, the connection of the alveoli, in the form of ingrowths, with the epithelium of the gums.

In order to show more clearly in what respects the alveoli found in the cystic tumors, as just described, correspond to the enamel organ, let me briefly review the development of that structure, as it appears in the embryo. In the second month of embryonic life a dipping down or an ingrowth of the epithelial lining of the gum is noticed along the entire upper margin of the jaws. This is called the enamel germ. This germ now buds out in a number of places, and grows downward into the jaw. Each one of these consists of an outer layer of elongated cylindrical cells, corresponding to the deepest layer of the epithelium of the gum. The centre or interior of the bud consists of more stellate epithelial cells, which have differentiated a peculiar gelatinous intercellular substance. This bud now becomes invaginated, it being pushed forward by the primitive tooth papilla in such a manner that it forms an epithelial cap over the papilla. This cap is called the enamel organ, from which the beautifully regular enamel prisms are formed after the papilla and its cap have become enclosed by the tooth-sac (Kölliker, Waldeyer, Gegenbaur). The very marked similarity between the structure of the tumors and the enamel organ now becomes apparent at a glance. It would appear, then, that the above-quoted authors have established a very strong probability in favor of the hypothesis that these tumors are the result of abnormal growth of the enamel organ. I will now proceed to detail my own observations, and I am glad to be able to advance the above hypothesis to the rank of a positive fact by my observations on the tumor in my possession.

The tumor was of course quite fresh and in the best possible condition for histological examination. For the purpose of cutting and staining fine sections, I was compelled to use decalcinating reagents. By immersion of two small pieces, one from the centre and one from the periphery of the tumor, which had been taken off with a saw, in a two and one-half per cent. solution of muriatic acid, all the calcareous matter was dissolved in twelve hours, and the hardening process was next in order. I used a three-fourths per cent. solution of chromic acid, in which the specimens remained one day. The chromic acid was now reduced, and the hardening finished by placing them in absolute alcohol. The sections were stained in alkaline carmine and picrocarmine; they were then anhydrated and examined in the oil of cloves, which rendered them perfectly transparent.

A section of the fleshy, more porous portion, from near the centre, when viewed with a Hartnack objective No. 4 (equal to about seventy diameters), revealed an alveolar structure, the arrangement being very irregular, at the first glance much resembling an epithelioma. The alveoli were arranged into groups, separated from one another by fibrous layers in which blood-vessels and lamellæ of bone were plainly seen. The alveoli were mostly round, but some of them had processes budding out in various directions. Hartnack No. 7 (magnifying three hundred and fifty diameters) shows the cellular structures, and here, at the first glance, we see that the alveoli, besides being lined with a regular columnar epithelium, are surrounded by a layer of homogeneous pearly substances, which sometimes show slight lines like radii, as if they were projections from between the cylindrical epithelium. This layer was always present, and can be seen in Figs. 6 and 7, surrounding the alveolus, exactly corresponding to its shape, and of about the same thickness as the lining epithelium. This layer is evidently the product of the enamel epithelium, and is certainly enamel substance. The layer of genuine enamel has never been mentioned or recognized by any observer before; it furnishes the keystone in the arch of evidence, establishing the fact that these cysts are the result of pathological development of the enamel organ.

The contents of the alveolus are made up of a peculiar tissue composed of stellate and round cells, with a peculiar gelatinous intercellular substance, which is perhaps the product of degeneration of the cells. It must not be forgotten that these elements within the alveolus are also of epithelial origin. No other kind of tissue could possibly be found in this place, since by their origin the alveoli are as much products of the epidermis as are any of the other organs of the skin, for example the hair or the tallow glands. The whole alveolus, or group of alveoli, are surrounded by a fibrillary connective tissue, with few spindle-shaped cells.

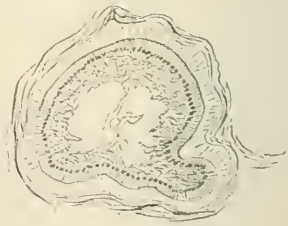

Fig. 6.—Section of an Isolated Alveolus. The centre has become liquefied. (Hartnack, No. 7.)

I may mention here that Mr. Eve, in his Fig. 3, has given a drawing of an alveolus which seems to me to be very similar to my own, and I am inclined to think that his drawing represents either the enamel epithelium with the surrounding enamel, or perhaps osteoblasts with a layer of bone. I cannot agree with his opinion about this most interesting case. It is specimen No. 2234, Royal College of Surgeons' Museum, and accompanied Mr. Christopher Heath's Jacksonian Prize Essay. Mr. Eve further says: "The growth, like all tumor formations, makes no attempt at the higher development of the normal structure," referring to multilocular cystic

disease in general. The tumor of the young negro does seem to make an attempt at a higher development, but certainly never reaches the perfection we find in a developed tooth.

FIG. 7.—Section of the Periphery of an Alveolus, showing the Cylindrical Epithelium, with its Product, the Enamel Prisms. Some indifferent epithelial cells within. (Hartnack, No. 9.)

Among the retrogressive metamorphoses of these tumors, I consider the formation of larger cysts the principal one. The largest cysts in the tumor examined by me had entirely lost their columnar epithelium. Their walls were formed by a dense fibrillary tissue, which appeared like a periosteum, lining the lamellæ of bone that formed the boundaries between the larger cysts. Only rarely was a very attenuated layer of enamel found between the bone and its periosteum, or endosteum, as it were. The process of gelatinous or colloid degeneration of cells has so often been described that I need only mention its presence in my specimen to account for the presence of such liquids in the cysts. I agree with Mr. Eve in the opinion that this peculiar metamorphosis depends probably upon the inherent tendencies of that portion of the gum from which the enamel germs originate. But I believe that these tumors, as a rule, will be found to originate from remnants of embryonic enamel germs, and only rarely, if ever, from epithelial ingrowths occurring later in life.

Falkson draws and mentions the so-called Perl-kugeln that we so often meet with in epitheliomata of the skin and mucous membranes as occurring in the alveoli of these cysts. I can corroborate this fact but cannot compare these formations to the Perl-kugeln of malignant tumors. These cornified plugs of epithelial cells are to be classed among the normal processes always found accompanying the atrophy of the remnants of the enamel organ. Kölliker ("Entwickelungsgeschichte," page 827), says they are found sometimes in connection with the remnants of the enamel germs, while they are often found quite independent between the tooth-sac and the epithelium.

FIG. 8.—Section of Trabeculæ of Developing Bone. Osteoblast cells, gelatinous degeneration of the cells adjoining the osteoblasts.

A section through the periphery of the tumor, near the large cysts, afforded me a very peculiar view. I have illustrated it in Fig. 8. It shows a young portion of cancellated bone-tissue, with the small osteoblast cells of Gegenbaur in the process of development. The interior of the bone is lined with osteoblast cells, but the centre is empty, the fluid which it contained having fallen out of the section. Only some few cells are attached to the osteoblasts, and these are in various stages of decomposition by gelatinous degeneration. This observation would seem to show that perhaps the osteoblast cells play an important part in the development of the cystic tumor. I have long become convinced of the truth of Gegenbaur's proposition, that the formation of true bone is always dependent upon the osteoblast cells. My observations have firmly established that fact in my mind. Seeing now that these cystic tumors are often accompanied by a proliferation of the bone, the question arises, whether or not the abnormal growth of the enamel rudiments is the primary cause of the cystic tumors? It seems plausible that the growth of the bony shell is merely a passive dilatation, but I have propounded the question in this place because it appears to me of importance for a full understanding of these tumors. Since in many cases the bony septa are wanting, and we find only connective tissue separating the cysts from one another, we may safely assume that the formation of these epithelial multilocular cysts of the jaw is dependent upon the abnormal and heterotopic proliferation of the enamel germ or remnants of the enamel organ. Based upon this understanding of these tumors, I may now be permitted to propose the simple but expressive term Enamelogenous Cyst, in the place of the numerous names heretofore used to designate these unique tumors.

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THE LAW OF BURIAL.[1]

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NEW YORK.

THE treatment of the dead and the selection and adornment of the places where the departed are laid to rest are matters of much more interest and concern than many seemingly more important things affecting the living. It is not a matter of surprise, therefore, that the laws of all nations from the very earliest times should have laid especial penalties upon any disrespect shown either the dead body or the tomb.

The history of burial rites, ceremonies, and laws is a most interesting one, and perhaps the best essay on the whole subject is found in the dry pages of a New York law book,[2] where the Hon. Samuel B. Ruggles treats in a most learned way of past laws and present duties in connection with the dead. The two modes of disposal of the dead in general use have been inhumation and burning, and Sir Thomas Browne, in his quaint treatise on urn burial, thus writes concerning them: "Men have been fantastical in the singular contrivances of their corporal dissolution, but the soberest nations have rested on two ways—inhumation and burning. That interment is of the elder date the examples of Abraham and the Patriarchs are sufficient to illustrate; but Christians have abhorred the way of obsequies by fire,

[1] Read before the New York Society of Medical Jurisprudence and State Medicine, March 12, 1885.
[2] 4 Bradford Rep., 502.

and though they stickled not to give their bodies to be burned in their lives, detested that mode after death, affecting rather a depositure than an absumption, and conforming themselves to the will of God, which required them to return again not to ashes, but unto dust. But burning was not fully disused till Christianity was finally established, which gave the final extinction to these sepulchral bonfires."

Sir Thomas Browne certainly stated the custom and the law correctly as regards Christian nations for the time when he wrote, but the chronicler of the present day will be obliged to record a partial return, at least, to the mode of cremation. In England itself, where conservatism is a matter of religious belief in a matter like this, the pendulum of practice has begun to swing to the other extreme, so that one of the principal judges of the realm has in a very elaborate opinion decided that cremation is not illegal; and societies to furnish facilities for cremation are springing up in various parts of Great Britain.

The Bible has frequent reference to the practice of sepulture as distinguished from burning, and it is recorded of the Patriarch Joseph that "when he died he was put into a coffin and embalmed." In an interesting case before the Consistory Court of London, in 1820 (Gilbert *vs.* Buzzard, 2 Hagg. Rep., 334), Sir William Scott says of the place of sepulture: "In ancient times caves seem to have been in high request, then gardens or other private demesnes of proprietors, inclosed spaces out of the walls of towns or by the sides of roads, and finally in Christian countries churches and churchyards, where the deceased could receive the pious and charitable wishes of the faithful who resorted thither on the various calls of public worship. In our own country the practice of burying in churches is said to be anterior to that of burying in what are now called churchyards, but this was reserved for persons of pre-eminent sanctity of life." The use of coffins or some similar receptacle for the dead has been almost universal in cases of sepulture, though the material used for such coffins has varied greatly. They have been made at different times of wood, stone, metals, marble, and even glass.

In 1786 the Grand Duke of Tuscany attempted to forbid the use of coffins, on the ground that the dissolution of bodies would be hastened and the health of the living better secured by depositing the bodies in the ground without any covering. The means adopted to carry this radical measure into effect were calculated to offend every sentiment of religion and humanity. It was ordered that the bodies of all dead persons, of both sexes and of every age and condition in life, whether dying of old age, at the very beginning of life, of loathsome diseases, or by accident, should all be brought out naked from the houses, tumbled into a night-cart at the sound of a bell, and conveyed to a pit without the city walls, there to decay in one undistinguishable mass. It is not surprising to learn that an edict of this kind utterly failed of its object, and was revoked not long after its promulgation.

The English law has been held to secure to a person what is called the right of burial; but there is no absolute right that a person should take with him to his last dwelling-place a coffin or large burial-chest. This was the very point decided in the case of Gilbert *vs.* Buzzard, just mentioned, where the relatives of the deceased insisted on burying him in an iron coffin, which the cemetery authorities refused, on grounds of health, to admit. Upon this issue the Court held that the only inherent right of a British subject, was that of burial of the body. Still, in this case, it was decided to admit the iron coffin, if a proper compensation was made for its supposed indestructibility. As the cemetery was established for the use of future generations as well as the living, it was not held right to admit iron coffins in such manner as to speedily fill it up without large compensation for the privilege.

Without discussing further the interesting question of the history of burial, the present law relating to the dead may be considered under three heads:

I. After death, and before burial.
II. At burial.
III. After burial.

The disposal of the bodies of the dead by cremation, or fire-burial, as it is generally termed in England, as has been stated, is becoming so common, by the rapid erection of furnaces where the dead really turn to ashes, that there may be in the future some slight changes in the application of existing laws.

The legal principles involved can hardly be varied, however, for they are inherent in the change from life to death and do not affect the methods used.

The adoption of cremation has been so recent and has had as yet so trifling an influence upon burial customs and laws, that but little attention need be given to any possible effect wrought by this new method.

In this country there has been no instance as yet where the propriety and legality of cremation has been called in question. It is not probable, however, that under the free spirit of our legal regulations, there will ever be a judicial decision interfering with perfect freedom of choice in regard to the mode of disposal of the dead. The paramount interest of the public health may at certain times prescribe some uniform mode for contagious diseases, but aside from this no interference is at all likely.

I. In considering the first point, viz., laws in regard to the body after death and before burial, it will be well to discuss first, ownership and custody of the dead, and secondly, the duty of burial

1. Ownership and custody of the dead. There is no such thing as ownership of the dead, in the sense that the term is applied to ordinary articles of barter and sale. The corpse cannot be sold by the surviving relatives for a price, though it would seem that the deceased could himself, by will or other written instrument, give such a right to the body after death that the donee, having once acquired possession of it, could hold it as against the relatives. If, however, the relatives have possession, and desire to bury it in a family plot, it is doubtful if any court of equity would enforce the delivery to a person claiming it under the will. Such an instance would be that of a person selling his body to a physician for purposes of dissection and the relatives refusing to recognize such sale (Am. Law Times, July, 1871). The question is viewed from the standpoint of public policy, health, and decency, and these considerations will be held to override any individual claims to the dead body. In a case reported in 90 Mass. Rep., 281, the rule is stated to be as follows: "A dead body is not the subject of property, and after burial it becomes a part of the ground to which it has been committed, 'Earth to earth, ashes to ashes, dust to dust.'"

Sir William Blackstone, in his Commentaries (2 Bl. Com., 429), says that although an heir has a property in the monuments or escutcheons of his ancestor, yet he has none in his body or ashes.

The same principle is stated in Secor's case (31 Leg. Intel., 268), and Guthrie *vs.* Weaver (1 Mo. App., 136). Sir Edward Coke (3 Inst., 110) writes thus in 1613, when the question was a novel one: "At the assizes in Leicester in Lent, *anno* 10 Jac., the case was thus: One William Hain had in the night digged up the graves of divers severall men and of one woman, and took the winding sheets from the bodies and buried the bodies again, and I advising hereupon for the rareness of the case, consulted with the judges at Sergeant's Inne on Fleet Street, where we all resolved that the property of the sheets was in the executors, administrators, or other owner of them, for the dead body is not capable of any property, and the property of the sheets must be in somebody; and according to this resolution he was indicted of felony in the next assizes, but the jury found it but petit larceny, for which he was whipped, as he well deserved."

A Missouri court (Guthrie *vs.* Weaver, 1 Mo. App., 136) has gone even farther than this, and maintains that there is no ownership even in the coffin and shroud. It says: "When a human body has been interred with the knowledge and consent of those who, up to that moment, may have owned the coffin and shroud, these articles are irrevocably consigned to the earth, and all property in the purchasers of them is at an end. In a later case, however (State *vs.* Doepke, 68 Mo., 208, 1878), this case seems to have been practically set aside as to this point.

There is in the law books but one case which takes the opposite view as to ownership, and in that (Bogert *vs.* City of Indianapolis, 13 Ind., 138) the Court states broadly: "The bodies of the dead belong to the surviving relatives in the order of inheritance as property, and they have the right to dispose of them as such within restrictions analogous to those by which the disposition of other property may be regulated." This decision has been much criticised, and is certainly not the law outside of Indiana.

In the case of dead bodies found on the seashore and cast up from a wreck, there is no ownership allowed to the finder, either in the bodies themselves or the articles upon them. In a Massachusetts case (13 Pick., 402) the removal of articles of dress by the finder was adjudged to be a felony.

It is true, nevertheless, that the courts recognize a sort of *quasi*-ownership on the part of near relatives as against those of more remote kinship, such as to enable them to keep, protect, and bury the body decently, should a claim be made for possession of it. The time usually elapsing between death and burial is so short that the question of *quasi*-ownership is not often brought before the courts until an interment has taken place, and then the question is complicated by this very fact, for public policy demands that a body shall not be disturbed except for the best of reasons. In regard to the rightful custodian of the dead, it is said in Secor's case (31 Legal Intelligencer, 268) by Judge Pratt: "The executor is the person having the lawful possession of the remains," and in Sears *vs.* Gidday, a recent Michigan case (2 Northwestern Rep., N. S., 367) it was held that the husband was liable for the funeral expenses of his deceased wife, although she left all her property to another person, and the latter individual assisted in the arrangements for the funeral. The liability for the expenses would naturally admit of the inference that whatever right of ownership existed was in the husband.

In an article in the *Albany Law Journal* (10 Alb. L. J., 70) on the subject "The Legal Custodian of Deceased Bodies, Who is?" the following deductions are made: 1. That the right to protect and bury a corpse is in the executor. 2. In the absence of any testamentary disposition it devolves upon the widow, husband, or next of kin. 3. The owner of the land has the right of action in trespass to protect a grave or sepulchre from detriment. 4. That a corpse is in no way subject to sacerdotal power or ecclesiastical cognizance. 5. That the right to protect a corpse implies the right to select the place of its sepulture. 6. That during her lifetime the widow of a deceased husband has the direction and control of the place of interment, and so the husband over his wife's remains.

2. In regard to the duty of burial. This obligation follows partly from the idea of *quasi*-ownership existing in the executor, and partly from considerations of public health and decency, which demand that this last sad office shall be speedily performed. In Rex *vs.* Stewart (12 Ad. and Ell., 773) an old case, it was held that the duty of providing for the corpse and carrying it to the grave decently covered is thrown upon the person under whose roof the death takes place; for such person can not keep the body unburied nor do anything which prevents Christian burial: he cannot, therefore, cast it out, so as to expose the body to violation, or to offend the feelings or endanger the health of the living. In 2 Williams on Executors, p. 829, it is said that the executor must bury the deceased. In Ambrose *vs.* Kenison (10 C. B., 776) it is held that the husband is bound to bury his deceased wife, and the wife to bury the husband.

In recent times it is also held to be a matter of duty devolving upon the public authorities, and an interment will always be provided at the public expense where there is an inability to bury the dead on the part of surviving relatives, or an absolute refusal to do so for any reason.

II. In discussing the second division of the subject, viz., at burial, the questions of the choice of a burial-place and the right to exclude persons from a funeral may be considered.

First, the choice of a burial-place. In regard to this, it may be said that the legal complications resulting from the exercise of the choice, do not usually arise before interment, but far more frequently afterward when the question of removal comes up.

It is generally conceded that a testator has a right to select in his will a place of burial, and that this wish must prevail over that of his family in case it is known before interment (Brick Church Case, 4 Brad., 503). In a recent unreported New York case this acknowledged right of the testator was held to have lost its force when the body had been buried for some years before a will was found which expressly directed that it be buried in another cemetery. The Court refused under the circumstances to order a removal.

In Durell *vs.* Hayward (9 Gray, 248) Judge Bigelow said: "The indisputable and paramount right as well as duty of a husband to dispose of the body of his wife by a decent sepulture in a suitable place carries with it the right of placing over the spot of burial a proper monument or memorial."

In the absence of any testamentary selection, the cases seem to hold that the wishes of the husband or wife shall have preference over those of the next of kin. This is, however, an inference drawn mainly from the cases on removal of the dead (see Wynkoop *vs.* Wynkoop, 42 Penn. St., 293).

In regard to the second point, of the right to exclude persons from the funeral, it may be said that it is a matter of surprise to have such a right claimed, because all animosities between the living should be quieted in the presence of the dead. When the funeral services are held in a church this question will probably never arise; there was, however, not long since, in Rhode Island, a case where the person who had custody of the deceased and charge of the funeral services held them in his own house and forebade a certain other person to attend. The latter was forcibly excluded from the house and afterward brought suit for damages, on the ground that the service was one which the public had a right to attend. The Court decided, however, that the occasion was not so public as to carry with it this right, and that the ownership of the house gave the legal right to the owner to forbid the attendance of persons objectionable to him.

III. The third division is the body after burial. This is practically the question of removal, as the body, when once decently interred, is not likely to be the subject of litigation or interference except as the attempt to remove it is made.

The dead body may be removed by the cemetery authorities, by the health officials, or by the relatives, when proper cause is shown. The statutes of most of the States permit cemetery authorities to remove bodies once interred to other locations when some paramount public interest is involved.

The march of business may possibly render a neighborhood so valuable as to cause a graveyard to be closed and the bodies removed. This is not often done, because public sentiment would naturally feel aggrieved and oppose the removal, but the law, under careful restrictions

as to notice, permits such removal if the application be approved by the courts.

The supreme interest of the public health will also allow the removal of bodies when their continuance is prejudicial to the health of the living. This is paramount to all considerations of affection or sentiment.

It is, however, when the attempt to remove the dead body is made by relatives that the great body of litigation on the subject has grown up.

The law of burial, as regards the place selected and the right of permanent resting-place, was very fully discussed in 1856 by Hon. Samuel B. Ruggles, Referee (4 Brad. Rep., 503), in an application for the widening of Beekman Street, New York City, which case has been already cited. The widening of Beekman Street made it necessary to cut through certain vaults previously used for burial, and required the disinterment and reinterment of the bodies in some other place.

The body of Moses Sherwood was in one of these vaults, and his daughter, Mrs. Maria Smith, insisted that the body should be reinterred in a grave by itself, and the cost of removal defrayed out of funds in court. The Referee reported in favor of this claim, and the Supreme Court confirmed the report. The conclusions of Mr. Ruggles' elaborate argument were to the effect that the right to bury a corpse and to preserve its remains in the absence of testamentary disposition belonged to the next of kin exclusively; that the right to protect the remains included the right to preserve them by separate burial, to select the place of sepulture, and to change it at pleasure (1 Am. Law Rev., N. S., 62). This latter point has been somewhat restricted by more recent decisions, and Mr. Ruggles explains that the statement that the right to bury the corpse belonged to the "next of kin" was not intended to exclude the right of the husband in the case of the wife, or *vice versa*.

The cases where removal is attempted by relatives range themselves under the following heads:

1. The husband or wife has not an absolute right to remove the body against the will of the next of kin.

2. The next of kin cannot remove the body against the will of the husband or wife.

3. The next of kin cannot remove the body against the will of other next of kin of equal relationship, and public institutions have no rights as against the next of kin.

4. The owner of the lot has no such absolute right to the realty as to carry with it the ownership of the bodies buried in the lot. These are held in trust.

These points prove by the mere statement that an interment is not a slight matter, to be changed by sudden whim or impulse.

The law favors "the repose of the dead," and while reinterments are frequently made, it is generally in those cases where every one interested is agreed that such a course is the proper one.

1. In Wynkoop *vs.* Wynkoop (42 Penn St., 293), tried in 1862, it appeared that Colonel Francis Wynkoop had been buried in his mother's plot in Mount Laurel Cemetery. A few months later the widow applied to the Court, in the capacity of widow and also as administratrix of the estate, for an injunction restraining her husband's mother, sister, and brother from interfering with her plan of removing the body to another cemetery. The Court refused the application, saying: "The bill asserts a fixed legal right in the plaintiff in two capacities, (1) as administratrix and (2) as widow. As to the first, the absolute duty to bury terminated at the burial; second, as widow in this case she would appear to have no rights after the interment. Suppose a woman has had three husbands, who have all died leaving her a widow (3 Rawle, 304), is she to be burdened with the duty and vested with the charge of their three bodies against the express wishes of blood-relations and next of kin of each?"

The Court further said that "the fact that the body is deposited in the burial-place of his mother, in consecrated ground, and that he was buried with the ceremonies of the church and the honors of war, is sufficient to justify us in refusing permission to a removal under the circumstances."

A more recent case, Weld *vs.* Walker, tried in Massachusetts in 1879, is more favorable to the claim of the husband to remove the body of his wife, but still places some restrictions upon its exercise. In that case Mary P. Weld, wife of the plaintiff, died at Boston, in 1875, and was buried in Forest Hills Cemetery, in a lot belonging to the husbands of her two sisters. Mr. Weld owned a lot at the time in Mount Hope Cemetery, but allowed the interment to be made in the other cemetery. He afterward wished to remove the body to Mount Hope Cemetery, and alleged that in the resting-place where it was, he had no right to enter the plot to erect a monument or adorn the grave. In rendering the decision permitting the removal, Judge Morton said: "I think that the right to select the place of burial of the wife involves the right in the husband to change it, if from a change of circumstance or other good reason he desires to do so. The fact that the husband consented to the original burial is not conclusive against his right to make a change. It may be that the right of the husband is not an absolute right. If he should act in wanton disregard of the rights of the other relatives or of the feelings of the community, perhaps a court of equity would not aid him. But his rights will be protected by a court of equity when he acts properly. In the case at bar, the plaintiff gave a reluctant consent to the burial of his wife in the lot in Forest Hills Cemetery. This was not, however, expected to be her final resting-place, as the parties contemplated that, at the death of the husband, her remains were to be removed and laid beside his."

2. The next of kin have no absolute right of removal against the wishes of the husband or wife. In Secor's Case (31 Leg. Intel., 268), it appeared that the widow had buried the remains of her husband, when shortly afterward the son, who said that he had purchased another burial-place in accordance with the directions of his father, attempted to remove the body. The Court granted a perpetual injunction against any attempt of the kind, saying: "A proper respect for the dead, a regard for the tender sensibilities of the living, and the due preservation of public health, require that a corpse should not be disinterred or transported from place to place except under extreme circumstances of exigency."

3. The next of kin have no fixed rights as against each other, and public institutions have no rights at all against the next of kin. The case of Lowry *vs.* Plitt (11 Am. Law Review, 781) is a Pennsylvania case tried in 1877. Mrs. Lowry, at the time of her death (1866), had no burial-place and her children also had none; she was therefore buried in the lot belonging to her sister, Mrs. Plitt. Three years later one of her sons died, leaving $5,000 for his executors for the purpose of erecting a family tomb, where should be placed his own body, that of his mother, and other members of the family, if they desired. The executors with another of the sons applied to the court for permission to remove the body from Mrs. Plitt's lot. One of the sons joined Mrs. Plitt in opposing the removal and the Court refused to permit it, saying: "The law favors the repose of the dead. When they are inurned in the places selected by them, it must be something more than sentiment or abstract right which will induce us to enforce the claim of the next of kin by the invasion of the burial-place of another. In such case it may well be questioned whether a right of the next of kin exists at all."

It occasionally happens that the prominent position of the deceased, especially in political matters, makes the question of removal a public one. An illustration of this is found in the desire of Congress, expressed many years ago by a resolution, to remove the body of George Washington from Mount Vernon to the Capitol, but the legal

representatives declined to permit it and the matter was dropped. The City of Philadelphia, in the case of Stephen Girard, the celebrated philanthropist, desired to remove his body from Holy Trinity Church, but the court intervened to prevent the desecration (4 Am. Law J., 97).

4. The owner of a burial-lot holds the bodies buried in it under a trust. This was decided in Pierce *vs.* Swan Point Cemetery (10 R. I., 227). Mr. Metcalf, the deceased, was buried in a lot belonging to himself in Swan Point Cemetery. This lot fell by inheritance to his only daughter, Miss Almira F. Pierce. Thirteen years later the widow, Mrs. Metcalf, removed the remains to another plot, and Mrs. Pierce applied to the courts for an order directing their return to the first resting-place. The Court directed this to be done, saying in the opinion: "The person having charge of a dead body cannot be considered as the owner of it in any sense whatever. He holds it only as a sacred trust for the benefit of all who may from family or friendship have an interest in it, and we think that a court of equity may well regulate it as such, and change the custody, if improperly managed. So in the case of the custody of children, certain persons are *prima facie* entitled to their custody, yet the Court will interfere and regulate it." The position of the Court was that the ownership of a burial-lot was a trust to be regulated like other trusts, and did not permit the ordinary exercise of the rights of absolute uncontrolled ownership.

This theory of the trusteeship of the owner of the burial-lot is an advance upon former decisions, and in principle would properly apply not merely to the owner of the lot, but to any one who by kinship, such as husband, wife, father, or child, has a claim to the custodianship.

The last important case on the subject, that of Weld *vs.* Walker (*supra*), goes farther than this one in Rhode Island, and, while recognizing a trusteeship to be regulated by a court of equity, states that the husband has a right to remove the body of his wife, "if from a change of circumstances or other good reasons he desires to do so."

The judge of what constitutes the "change of circumstances or other good reasons" is not the husband himself, but the Court to which the facts are made known. There is no criterion by which a person can determine in advance the right of removal. Each case will have to be judged by itself, with the certainty that the Court will favor the "repose of the dead."

DOES LARYNGEAL STENOSIS CAUSE PULMONARY HYPERÆMIA?

By R. VAN SANTVOORD, M.D.,

NEW YORK.

In The Medical Record of May 30, 1885, Dr. J. E. Winters answers certain critics who have ventured to question his assertion that prolonged croup leads to congestion, splenization, and œdema of the lungs, and he cites an apparently formidable array of authorities in his support. I should like to say a few words in answer to his article.

It is not to be denied that if stenosis of the larynx resulted in a more or less enduring increase of the mean negative pressure within the lungs, the congestive phenomena so well outlined by Dr. Winters would probably be occasioned. Such a mechanism appears to be exemplified in many deaths that occur from rapid suffocation in previously healthy subjects. Tidy (vol. ii., p. 339) states that in death from asphyxia the "lungs in most cases are gorged with blood." Many cases of suffocation may be cited in demonstration, such as that of a man suffocated by inhaling a piece of potato-skin into the larynx, in whom congestion of the lungs and right cavities of the heart was found,[1] or the case of a workman smothered in sand, in whom intense uniform congestion of the lungs was found.[1]

M. Tardieu, in commenting on a case under discussion,[2] speaks of the finding of a quantity of foam containing very fine bubbles as precisely the state of affairs almost constant in strangulation and suffocation. In cases of death in which occlusion of the air-passages might be supposed to have been the principal factor, the absence of congestion or œdema of the lungs may often be plausibly explained by supposing that the blood-vessels of the lungs have expelled, by post-mortem retraction, the excess of blood that existed in them during the active struggle for air, or death, though apparently due to obstruction of the air-passages, may in reality be caused by some other factor, as shock, etc. Dr. Loeven [3] found that when a ligature was suddenly tied around the trachea of a rabbit so as to *totally* occlude it, death resulted after only two or three convulsive inspirations. After section of the pneumogastrics the same procedure caused death from gradual asphyxia in about a minute. The possible factors that may cause death in apparent asphyxia are discussed in works on medical jurisprudence, etc.

It is conceivable that death might occur in diphtheritic croup from the sudden occlusion of the larynx by a detached piece of membrane, or from the sudden stoppage of a tracheotomy tube, and in these cases congestion of the lungs might indeed be produced as in the above-cited instances. As a rule, however, we have to do with a *stenosis* causing dyspnœa, which lasts for hours and perhaps days, with exacerbations and remissions produced by temporary lodgment of secretions in the narrowed air-tube, etc. It is my belief that under these conditions the violent inspiratory efforts of the patients draw in more air past the obstruction than is forced out again, the result being that the mean pressure in the interior of the alveoli and bronchi is greater than normal, and that this increased intra-alveolar pressure more than overcomes the tendency to pulmonary congestion, which otherwise would exist. This belief is founded on the facts that in persons suffering from laryngeal or tracheal obstruction the chest is observed to be greatly distended, and in the examination of the lungs removed post mortem from patients who have died with narrowed air-passages an amount of emphysema is seen, which to me appears more extensive than could have been caused secondarily to other lesions. I have made fourteen autopsies on children who have died in the Randall Island Infants' Hospital from diphtheria with laryngeal stenosis, tracheotomy not having been performed in most of them. In all extensive bronchitis existed. In all but one catarrhal pneumonia is recorded as having been found. It is possible that among the earlier of these I recorded some cases of atelectasis with congestion as pneumonia.

These cases were, for the most part, in foundlings, in whom uncomplicated bronchitis is very common, or in diphtheria following measles or scarlet fever. The percentage of pneumonia is, then, far larger than might be expected in the ordinary run of cases, judging from the records of other observers. In one case only was there any pulmonary congestion that was not accounted for by pulmonary collapse or pneumonia. The latter did not differ, in character or distribution, from similar lesions found in cases of bronchitis in which no laryngeal lesions exist. The emphysema, in cases which I have seen since, being especially interested in the subject, seemed more extensive than would be expected as a secondary effect of the inflammatory lesions, although it must be confessed that uncomplicated bronchitis in children is often attended by a good deal of emphysema. It seems probable, however, that the distention of the lungs found post mortem does not fully represent their distended condition during the active struggle for breath before death.

[1] Taylor's Medical Jurisprudence, vol. ii., p. 90.

[1] Chever's Medical Jurisprudence, p. 622.
[2] Annal. d'Hyg., 1855, p. 139.
[3] Les diverse formes d'Asphyxie, Gaz. des Hôp., xlv., pp. 68–74, 1872

My own experience confirms the description given by Oertel, to whom Dr. Winters appeals, unless when Oertel writes of hyperæmia of the lower lobes, etc., he means a hyperæmia distinct from that which always accompanies atelectasis and broncho-pneumonia. The high position of the diaphragm spoken of by him would result from the atelectasis. Oertel says nothing about the mode of production of these lesions, beyond what may be inferred from his statement that the consolidation found in such lungs is identical with what is usually called "catarrhal pneumonia." As in my fourteen cases I found only one of diffuse hyperæmia and one of diffuse œdema, I believe that these conditions, being exceptional, must have been due to something else than the laryngeal stenosis.

I shall not attempt to follow Dr. Winters in his copious citation of authorities. I prefer to appeal to the results which have been found to follow artificial obstruction of the air-passages in previously healthy animals, as these results show the effect of uncomplicated stenosis, and afford a solid basis of fact which is far more satisfactory than an attempt to interpret directly complex phenomena which have to do with so intricate a subject as the physiology of respiration and its effects under different circumstances on the pulmonary circulation.

Köhler[1] produced tracheal stenosis in healthy animals by twisting lead-wire about the trachea so tightly that marked dyspnœa was caused. The immediate effect of the ligation was marked diminution of the number of respirations per minute. In every case respiration was so increased in depth that more air was inspired and expired at each respiratory act than in normal respiration. In rabbits the total amount breathed in a minute was less than normal. In dogs and cats, however, a given volume of air was inhaled and exhaled in about one-half the time in which it would have been done normally. Up to a certain point the frequency of respiration diminished, the amplitude of respiration and total amount of air breathed increased with the increase of the obstruction.

After from three to five weeks, respiration would again approach its normal frequency, and the animals would die from the following secondary changes in the heart and lungs: First, a high degree of dilatation of both heart-cavities; second, a very intense hyperæmia of the lungs, such as is otherwise seen only as the result of lesions of the cardiac valves, with unaltered parenchyma; third, extensive vesicular and intralobular emphysema; fourth, the finest bronchi were filled with catarrhal secretion.

In the production of this emphysema Köhler mentions two factors: First, paralysis of bronchial muscular fibres, which takes place gradually as the result of over-exertion incident to very deep inspiration; second, the limited outflow and stagnation of the bronchial secretions caused by the tracheal ligature.

Bernard[2] states that "it is certain that in violent inspiratory efforts the pulmonary tissue may break and tear," and that he has seen the lungs become emphysematous, in previously normal animals, after breathing irrespirable gases. He states also that the same effect is produced by the slow and labored breathing following section of the pneumogastrics. More or less extensive rupture of alveoli is seen in many cases of rapid asphyxia, as in death from strangulation (Tidy, vol. ii., p. 429). This tearing takes place more readily in the tender tissues of young animals than in the old (Bernard). It is therefore an established fact that pulmonary emphysemas found after death from stenosis of the upper air-passages may occur entirely independent of previous collapse or other lesion.

Köhler found also extensive hyperæmia of the lungs, a hyperæmia such as is commonly seen only as the result of lesions of the cardiac valves. He states that this hyperæmia was due to the secondary giving out of the heart and vaso motor centre. The right side of the heart is strained by the large amount of blood aspirated into it by the distention of the thorax, by the increased positive intra-pulmonary pressure caused by deep inspiration, by which the passage of the blood through the lungs is rendered difficult, and by the "vesicular and intralobular emphysema which develops inevitably after long-continued mechanical obstruction to respiration." This emphysema, he states, "gives rise to marked contraction of the capillaries of the affected parts, and from this results again obstruction to circulation (checking the flow of blood in the central vessels), accumulation of carbonic acid from lessened exchange of gases, and so to deficiency of oxygen."

The special strain on the left heart comes mainly from the increased blood-pressure in the peripheral vessels, which has been shown to exist (Köhler) in animals with stenosed trachiæ. The contraction of the peripheral vessels giving rise to it, results from irritation of the vagi and the constant muscular effort of labored breathing. This last factor, of course, makes large demands on the heart as a whole.

In one of my own cases, above referred to, diffuse hyperæmia of the lungs existed, in another œdema. In these two, cardiac changes secondary to the stenosis may have occurred. In the others, the absence of any hyperæmia "resembling that seen otherwise only as the result of valvular lesions of the heart," would seem to indicate that death resulted from causes other than heart-failure secondary to laryngeal stenosis.

Finally, Köhler found that the smaller bronchi were filled with catarrhal secretions. This condition recalls Niemeyer's statement that bronchial catarrh is a necessary consequence of laryngeal stenosis, because the rarefaction of the air in the lungs caused by the obstruction to entrance of air during deep inspiration must cause hyperæmia, just as would a cup applied to the skin.

Dr. Winters alludes to this explanation, and to the criticism on it by Steiner, in his article on croup in Ziemssen's "Encyclopedia," with great emphasis. Steiner's comment is, "Niemeyer seems to me in this explanation of catarrh in croup, which indeed is not to be disputed, to lay too little stress on the condition of inflammation of the air-passages, and too much on the mechanical factor." The considerations given above, together with the fact that in long-standing tracheal stenosis dilatation of bronchi below the stenosed point exists,[1] seem to indicate that this mechanical factor, in laryngeal *stenosis*, has no existence. Köhler incidentally states in his above-quoted article, that rabbits, which can live for weeks in a state of marked dyspnœa from a ligature about the trachea, die in from twelve to thirty-six hours from catarrhal pneumonia if the mucous membrane of the air-passages is exposed. Certainly, with them direct irritation causing inflammation vastly outweighs the mechanical factor, if indeed the latter exists at all. Köhler's statement that the accumulation of mucus in the air-passages of the animals experimented on is due to the stenosis of the trachea, seems most probable, especially as no catarrhal pneumonia resulted. In the human subjects under discussion the bronchitis results, I believe, from the extension of the inflammation downward, as a rule. The obstruction of the air-passages, by preventing the egress of inflammatory products, may indirectly favor the development of collapse and broncho-pneumonia; and early performance of tracheotomy may, *after inflammatory changes have developed below the point of obstruction*, do something toward limiting their extent. The above-mentioned fate of the rabbits in whom the air-passages were opened recalls dangers resulting from operation upon which little stress has been laid in the present discussion.

To recapitulate, I believe that it has been proved:

[1] H. Köhler: Archiv für exper. Pathol. u. Pharmakol., vii. p. 1, 1877.
[2] Leçons sur les Anesthésiques et sur l'Asphyxie, p. 347. Paris, 1885.

[1] Riegel: Ziemssen's Handbuch, B. v., Hft. 2, p. 234.

1. That total or almost total occlusion of the air-passages may give rise directly to pulmonary hyperæmia. 2. That tracheal or laryngeal *stenosis* does not give rise directly to pulmonary hyperæmia, but, on the contrary, to over-distention, emphysema, and anæmia of the lungs; *secondarily*, heart-failure and consequent congestion of the lungs may occur. 3. The pneumonia found complicating laryngeal croup is catarrhal pneumonia developing from the extension of the inflammation downward, just as would happen if no stenosis existed. The only effect the latter has upon its development is indirect, in that stenosis of larynx or trachea prevents the free egress of bronchial secretions.

There are good reasons for the early performance of tracheotomy, but the danger of pulmonary congestion, "splenization, and œdema" occurring as a direct result of laryngeal obstruction, is not, in my opinion, one of them.

DIAGNOSIS OF CATARACT WITHOUT THE AID OF AN OPHTHALMOSCOPE.

By C. A. BUCKLIN, M.D.,

NEW YORK.

The first class of cases having cataract who call on their physician for advice are those who have exhausted the resources of the optician in trying to obtain glasses, without success. Before taking the necessary steps to establish the diagnosis of incipient cataract, the observer should exclude a few common causes of imperfect vision, for the simple reason that should he examine for cataract and fail to find it, he would be prevented for several days from excluding several other common causes of defective vision.

Irregular forms of refraction, which the optician would probably overlook, are excluded by directing the attention to a large clock-dial at ten feet; if some two opposing figures are decidedly darker than any other figures on the dial, there is an irregular refractive error which requires correction. If the figures all appear *equally* dark, this irregular form of refraction can be excluded with reasonable certainty.

Should the pupils be very large, one would be suspicious of glaucoma; while if, on the other hand, they are small, this disease is excluded with reasonable certainty, provided neither eserine nor atropine has been used. You may next proceed to the demonstration of the existence of incipient cataract.

Drop one or more drops of a solution of atropine, containing one grain to two fluidrachms of water, in the eye. If the pupil dilates full and round, another common form of disease which is frequently mistaken by the inexperienced observer for cataract is excluded, namely, attachments of the iris to the lens with exudation into the pupil.

The pupil being fully dilated, the room is darkened as well as possible. To examine the left eye, place a lamp to the left hand and a little in front of the patient; it should be at about the same height as his eye. You should carefully focus the light on the dark, large pupil with a magnifying glass (Nos. 2, 3, or 4 will answer best). The light should be so thrown upon the pupil that a line passing through the centre of the lens would form an angle of forty-five degrees with the line representing the optical axis of the eyeball. If there are any opacities in the lens, you will see them as small punctate spots.

To examine the right eye, the position of the lamp or patient is so changed that the light may be focused upon the pupil at a corresponding angle. Light thrown by a concave mirror into the eye will show these spots as black specks on a red ground.

The second class of cataract cases who consult their physician are those who have a white spot in the pupil, which is so easily seen that the most careless observer cannot fail to see it.

The questions which immediately arise are: Is it complicated? Is it ripe? Can it be cured?

At the present day it is only necessary for the successful removal of cataract that the patient, with back to the window, can no longer count fingers at a greater distance than two feet, and can distinguish the light from a candle in a dark room at fifteen feet, equally well when held above, below, to the right, and to the left of the eye. I consider these requirements the minimum which is necessary to make one confidently expect satisfactory results. If they can count fingers at a greater distance than two feet it is very questionable if the cataract is ripe enough to warrant one who makes any pretence of being conservative, in operating. I have operated with good results, and without any reaction following the operation, where the person could count fingers promptly at three feet. You are very apt, however, in these cases, to leave too much of the cataract in the eye.

There are occasional cases where the changes are principally in the cortex of the lens and its nucleus is perfectly clear. Such persons may count fingers at a great distance, and still be ready for operation. On the other hand, the change in the lens may be chiefly in the nucleus, and only slight changes in the cortex, in which case, although the fingers were counted badly, the cortex would stick to the capsule when the lens was extracted. The physician can only depend upon the distance at which fingers can be counted when the back of the patient is turned to the light of the window for his measure of the degree of development the cataract has attained. The less the distance at which the fingers can be counted, and the greater the distance at which the light can be seen, the greater are the chances for a favorable result.

When one considers that some respected authorities state that if fingers can be counted, "it precludes the idea of an operation in ordinary cases of cataract," it will be at once seen that what I state as being the minimum requirements are much more liberal. I ask for no riper cataract than one through which fingers can be counted at twelve inches only. I do not hesitate when they can still count fingers at two feet, and have repeatedly operated where fingers could be counted at three feet. No experienced specialist would ever allow any process of artificial ripening to be practised on his own eye.

The statements I make regarding the necessary requirements to make the prognosis in cataract operations favorable are based upon my own personal experience, and have not been influenced by the data or dogmas of other operators. I would never think of operating on an unripe cataract without making the peripheral cut in the capsule. I consider all other methods of opening the capsule objectionable where fingers can be counted.

The time having arrived when a cataract can be removed, all delay beyond this period only increases the chances of accident. The vitreous may become fluid and the chances of intra-ocular hemorrhage be increased by the same degenerative changes which cause the lens to atrophy.

Diabetes in India.—Glycosuria is frequent among rich elderly natives in Calcutta, many of whom are fat and indolent and immoderately fond of sweetmeats. Dr. Norman Chevers states that he has heard of several fatal cases of carbuncle in such diabetic patients. Writing in 1871, the editor of the *Indian Medical Gazette* remarked, that he believed that "among the upper and middle classes of natives in Calcutta, almost every family had lost one or more of its members from diabetes."

Poem of the Occasion.—The following has been sent us by a delegate:

There was once a great medical meeting
To arrange to give Europe a greeting;
Said they all, Well, we guess
We can kick up a mess,
So each one for his State began bleating.

Clinical Department.

STRICTURE OF THE URETHRA FOLLOWING MASTURBATION—INTERNAL URETHROTOMY—RECOVERY.

Dr. William Stone Torrey reports the case of a young man seventeen years of age who consulted him concerning an acne of the face which he asserted was due to masturbation. Examination showed a redundant and constricted prepuce, a contracted meatus, and an organic stricture of the urethra. The stricture was located one inch above the meatus, and extended upward a distance of two and a quarter inches. Its calibre was 25 mm., the normal calibre of the urethra being 34 mm. Circumcision was first performed, and when the wound had healed an Otis' urethrotome was introduced and dilated up to 34 mm., and the stricture was divided along its whole extent. Previous to the operation one-half drachm of a four per cent. solution of cocaine was injected and allowed to remain for about five minutes. The subsequent incision of the meatus and division of the stricture were accomplished without the slightest pain to the patient. The stricture was tough and fibrous, and was remarkable in its extent and consistence, as masturbation was the sole cause, the patient never having been the subject of a gonorrhœa.

THE CAUSE OF CORNEAL OPACITY FOLLOWING INSTILLATIONS OF COCAINE.

Dr. J. Craft, of Cleveland, O, offers an explanation of the evil results sometimes observed to follow the continued employment of cocaine after operations upon the subconjunctival tissues. He recalls the fact that the drug acts not only as a local anæsthetic but also as an excitant of the vaso-motor nerves, causing a marked depletion of the vessels of the part. "Now I can readily see that in an operation upon an eye in which the conjunctiva is healthy and its vessels scarcely discernible, this second action might be overlooked. And the repeated application of cocaine, to relieve any pain subsequent to the operation, might occasion such absolute depletion of the vessels as to produce turbidity, and finally even necrosis of the cornea from lack of nutrition. Atropine instilled into the eye reverses this state of affairs; vaso-motor irritability is overcome, reaction ensues, and the turbidity of the cornea clears up. Such, I conceive, from my experience with cocaine, is the cause of the unpleasant effects recently reported." Dr. Craft suggests that the artificial production of anæmia may be prevented, without impairment of the anæsthetic effect, by the addition of a little atropine to the cocaine solution.

TWO CASES OF ACUTE MYRINGITIS RELIEVED BY COCAINE.

Dr. B. J. Baldwin, of Montgomery, Ala., has recently seen two cases of acute inflammation of the membrana tympani which were speedily and effectually relieved by instillations of cocaine. The first case was that of a young lady who had suffered intensely for two days, obtaining no relief, from any of the ordinary remedies. There was a blister the size of a hemp-seed in front of the umbo. The Doctor had refrained from using cocaine, relying upon the assertion of Knapp that the drum-membrane was unaffected by this drug. However, he determined to try it at last, and was no less delighted than astonished to find the pain entirely relieved in six minutes after two applications. The blister disappeared and the ear was well in four days. The second case was that of a man, twenty-four years of age, an inspection of whose drum-membrane showed a tense, yellowish, transparent blister involving the posterior and superior portions. This disappeared in two days without having ruptured. The patient suffered agony for a few hours until a cocaine solution could be obtained, but within seven minutes after the instillation of a few drops of a four per cent. solution was entirely free from pain, and remained comfortable under repeated applications of the drug during the three subsequent days of active inflammation. Dr. Baldwin recognizes that two cases are not enough to base any positive conclusions upon, but he maintains that they are amply sufficient to controvert Knapp's statement to the effect that cocaine will not anæsthetize the drum-head.

MORE FAILURES WITH CHLOROFORM IN THE TREATMENT OF TAPEWORM.

Dr. Charles G. Duncan, of Socorro, N. M., writes that he has met with three failures in the past year in the use of chloroform in tapeworm. The mixture which he employed was as follows: Chloroform, one drachm; castor-oil, two ounces; croton-oil, one-half drop; mucilage of acacia sufficient to make an emulsion. The remedy was given after a fast of from twenty-four to thirty hours, and in no case was the entire worm expelled. The Doctor subsequently cured these and several other cases with the mixture of pomegranate bark, pumpkin seed, ergot, male fern, and croton-oil, as given in The Medical Record of July 12, 1884.

COCA IN PHTHISIS.

Dr. J. Blake White, of 941 Madison Avenue, states that he has for several weeks been testing the effects of coca in phthisis, and the results thus far obtained tend to confirm his belief in the therapeutic value of the drug in this and other wasting diseases. "Prescribed in some cases of advanced phthisis associated with great physical depression it exerted a wonderful tonic effect, substituting a cheerful and hopeful state for one of despair, and in proportion establishing an improved condition of health. In some cases in which night-sweats were quite profuse the remedy seemed to have exercised a controlling influence. A more refreshing repose and a better appetite were observed in patients who had taken the wine of coca for a week or more, when prior to this treatment insomnia and anorexia were painful symptoms." Dr. White adds that coca is now being thoroughly tested in his service in Charity Hospital, and he hopes to be able to supplement this notice with a more full report concerning the value of the drug in the management of consumption.

RECOVERY FOLLOWING VERY RAPID CARDIAC ACTION IN AN ADULT.

Dr. Walter F. Morgan relates a case of puerperal convulsions occurring in a primipara, an inmate of the Kansas Home for the Friendless. There were about forty distinct paroxysms, with the usual biting of the lips and tongue. There was stertorous breathing, the patient was profoundly insensible, and the axillary temperature was 103° F. "The peculiarity of this case was that, although the pulse was as high as 180 per minute, and was very weak and fluttering, the patient finally recovered. Ringer states that in febrile diseases, when the adult pulse reaches 160, the patient almost always dies. In deference to this statement and influenced also by a previous history of defective heart action and by the symptoms as a whole, I gave an unfavorable prognosis."

How the French give Castor-oil to Children.—A French method of administering castor-oil to children is to pour the oil into a pan over a moderate fire, break an egg into it, and stir up; when it is done, flavor with a little salt or sugar or currant-jelly.

Progress of Medical Science.

Hydrophobia following a Rat-bite.—A young sailor, aged twenty years, engaged in the coasting trade in France, was bitten during sleep, some time in December, 1883, by a large gray rat, first in the upper lip, and then four times in the left hand. The wounds healed quickly and kindly, not having even bled. But after a fortnight swelling came on in the bitten hand, combined with fever and diaphoresis. These passed off, but returned again in the course of a few weeks, to be followed, in January, by a sudden appearance of purpuric spots on the bitten arm, the thorax, and the back. These disappeared under the influence of collodion and acid drinks, but during the whole time the patient was subject to nervous dysphagic attacks, during which the face became congested, a constriction was felt at the throat, with whistling respiration from closure of the glottis, and he could neither speak, swallow, nor breathe freely. On February 27th he came under the care of M. Millot-Charpentier, who at once thought of hydrophobia, an idea which had not been present to the patient's mind at all. He was then very anæmic, with purpuric spots, a daily recurrence of the nervous symptoms, and an attack of fever every three or four days, lasting for some hours. He was ordered a tablespoonful of a one per cent. solution of permanganate of potash three times a day, nine grains of quinine every evening for fourteen days, and afterward on alternate evenings, and once a week a saline purge in some bitter infusion, with nitrogenous diet, exercise, and medicinal doses of alcohol. In the course of the next month he had only two severe attacks, but on March 28th a small tumor, of the size of an egg, and of a violet color, appeared in the region of the last rib on the injured side, accompanied by more ecchymosed spots. With this was combined excessive muscular weakness, so that, when seated, he was unable to rise without assistance. The treatment was continued with good results; the condition gradually improved, and in November he could be looked upon as cured. While the symptoms had a great resemblance to those of hydrophobia, they were also very like those of snake-bite, especially the purpura, the muscular weakness, and the great anæmia; and the case shows the connection which exists between different forms of animal poison introduced by means of a bite.—*The London Medical Record*, May 15, 1885.

Hernia of the Lungs into the Neck.—Surgeon-Major Knox describes two cases of displacement of the lung into the neck. The first occurred in a thin, delicate man, aged twenty-two. He had been healthy up to December, 1882, when he was admitted into hospital with bronchial catarrh, and remained one hundred and forty-six days under treatment. In February, 1884, while on the march, he had a violent fit of coughing, and felt something give way in the left side of the neck. After a short rest he walked back to camp, and discovered a tumor above his left clavicle, of the size of a hen's egg. The man continued on duty until June, 1884, when he presented himself at hospital complaining of slight pain in the chest, with dyspnœa on exertion and dry cough. The tumor was examined, and found to be soft and compressible. On auscultation respiratory sounds were audible over it, accompanied by small, dry crackling râles. The left lung was emphysematous. The patient remained in the hospital until December, 1884, during which time the hernia increased to the size of a large orange, but the general condition remained the same. The second case occurred in the practice of Dr. Wilkin. The patient was an Indian, who was admitted into hospital suffering from fever and general debility, and who frequently had attacks of asthma. Six days afterward the man died suddenly from syncope, about half an hour after returning from the latrine. At the post-mortem examination the left lung was found to beemphysematous, especially along the anterior border and at the apex. The right lung was emphysematous on the anterior border; the apex was protruded beneath the clavicle into the neck, and was dilated into a translucent tumor, about the size of a man's fist, in which most of the alveolar structure of the lung had disappeared.—*London Lancet*.

Syphilis and Tabes.—Professor Eulenburg, of Berlin has published an article on the question, so much discussed of late years, concerning the relation between syphilis and locomotor ataxia (*Virchow's Archiv*, January, 1885). The following propositions represent the views which he now entertains on the subject: 1. There is an absolute and relatively somewhat large percentage of tabetic patients who have suffered from syphilis; the number of these is considerably larger than was generally admitted until within the last few years. 2. The exact relation of syphilis to tabes is uncertain. Probably in most cases syphilis acts only as a debilitating predisposing cause, like many other agencies—such as heredity, mental affections, etc.; but perhaps in some instances syphilis is the direct cause of tabes. 3. At any rate, syphilis can hardly be considered to be the most frequent and most important cause of tabes. 4. The cases of tabes which have been preceded by syphilis present no constant and characteristic symptoms, nor any peculiarity in their course, by which they can be distinguished from other (non-syphilitic) cases. 5. As regards prognosis and treatment, also, there is no clear and characteristic distinction between the two classes of cases. Those with syphilitic antecedents may in certain circumstances improve, perhaps even recover, either with or without specific treatment; while, as a rule, such treatment is either of no avail or only attended by temporary benefit. 6. The investigation of the etiology and pathogeny of tabes in relation to syphilis, which has been prominent of late years, has not yet afforded any definite solution of the question; nor, according to the experience of the author, can the discussion be said to have yet led to any permanent result as regards the best treatment of tabes.

Is Tuberculosis Transmissible through the Sputum?—Sirena and Pernice have carried out a series of experiments concerning the transmissibility of tuberculosis through the agency of tubercular sputum. The animals employed in their studies were rabbits and guinea-pigs. Their conclusions may be summed up as follows (*Gazet. degli Ospitali*): The liquid obtained by the evaporation of tubercular sputum is always free from Koch's tubercle bacillus; therefore, when placed upon the cornea, injected into the subcutaneous cellular tissue, or into the peritoneal cavity, it does not give rise to tubercle. 2. Tubercle bacilli do not rise in an atmosphere moving over moist tubercular sputa, even when the sputa are very rich in bacilli. 3. The respiration for several hours, or even for several days, of tubercular exhalations does not give rise to phthisis in animals. 4. Animals obliged to respire an atmosphere charged with the dried dust of tubercular sputum do not catch phthisis. 5. The subcutaneous injection of tubercular sputum produces for the most part a specific abscess, as is proved by the presence of the tubercle bacillus in the pus; then, after a variable period, it produces tuberculosis of the abdominal and thoracic organs. 6. Injection of tubercular sputum into the peritoneum produces at first local and then general tuberculosis, capable of successive inoculations in animals. 7. The injection of solutions of tubercular sputum into the trachea, even in animals affected with bronchopneumonia, does not cause a specific infection, but for the most part a septic croupous pneumonia, characterized by the existence of micrococci in the exudation.

Graduation of a Chinese Lady.—Miss Hai-Mè King, a native of China, received the degree of M.D. at the Commencement of the Women's Medical College on May 29th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, July 4, 1885.

THE RESULTS OF COLLECTIVE INVESTIGATION REGARDING OLD AGE.

WITH every year the average duration of life is increased, and we have more old people on our hands. Naturally, the question becomes of increasing interest, how shall we secure a healthful old age, and how can we prolong in comfort this senility.

Some curious information regarding this subject, though more especially regarding what may be called "centenarianism," has been published by a gentleman of Syracuse, N. Y., who, we are informed, has collected the histories of 10,000 people that have passed the age of one hundred years. According to this authority, the United States leads in centenarian longevity, while Connecticut is ahead among the States. As to sex, women; as to occupation, soldiers, sailors, and farmers are the longest lived. Among the professions, 100 ministers, 30 doctors, and 10 lawyers reached their centennial.

Of more practical and scientific character are the statistics regarding longevity obtained by the British Collective Investigation Committee. These are based upon over five hundred returns, and relate to persons who have reached or passed the age of eighty.

Professor Humphrey, of Cambridge, has given some interesting deductions based upon these returns in an oration recently delivered before the Medical Society of London.

The first requisite for longevity must be an inherent quality of endurance, a something which is inborn and perhaps inherited. It is noticeable that the phthisical taint does not necessarily lessen the capacity for longevity. Among five hundred aged persons, phthisis appeared in fathers, mothers, brothers, or sisters of eighty-two, that is, in about seventeen per cent. In one case both father and mother were phthisical.

A second requisite for long life is freedom from exposure to casualties. It is on this ground, in part, that more women than men reach extreme age. Other reasons, however, are, perhaps, a greater natural vitality, since even in early life the mortality is less among females than males. It does not seem to be proved by the data collected that short and small men and women have any advantage over those who are taller and larger. The average height of old Englishmen is 5 ft. 6 in., that of women, 5 ft. 3 in.

Professor Humphrey would limit quite sharply the changes which normally occur in old age. They are quantitative rather than qualitative. There is a diminution in material and force, with perhaps a slight increase in the oily matter of the tissues—all other changes are pathological.

Among the most marked of senile changes are those of the bones. These lose in weight, but not necessarily in size; indeed, they may even increase in size by a sub-periosteal ossification. The interior of the bones becomes softened and filled with marrow; the walls become thinned. The ends of the bones are particularly affected in this way, and hence the liability of the bones to fracture at these parts. The alveolar processes waste away, so that in men above eighty the number of teeth is only six, while in women it is but three. The cranium generally becomes thinner and lighter. In some cases, however, the skull-walls are actually increased in density and thickness by the osseous deposits on the interior of the brain-case.

Contrary to a generally received view, the cartilages of healthy old people do not calcify and harden, but remain elastic. They, however, undergo some atrophy, which accounts for the decrease in height.

In the same way Professor Humphrey believes that calcification of arteries is not a process normal or common in advanced age. Among 382 returns relating to the pulse, it was found incompressible in only 72. In 362 returns, the arteries were found knotty in only 40. We cannot, however, place very much dependence upon such data.

The rate of the heart-beat in old age has been said by some physiologists to be increased, by others to be diminished. The Collective Investigation shows that there is not much change. From the age of eighty to ninety it averages 73–74 in men, 78–79 in women. The respirations are a little increased in frequency, especially in women. Urinary troubles are a well-known source of discomfort and suffering among old people. They do not, however, necessarily attend the decline of life. Among 157 males from eighty to eighty-five years of age, only 6 had any disease of the prostate or bladder. In the next half decade, however, the proportion was greater.

In old people wounds are known either to heal rapidly or to slough. The reparative process is often as rapid as in the young.

Sir Henry Thompson in a recent article on "Diet in Relation to Age," has called attention to the harm that comes from attempts to over-feed old people. They are injured, he truly says, by the solicitous relatives, who think that in feeding there is sure help for the waning strength. The old need a light diet to correspond with the lessened work and slower nutrition and waste of their tissues.

NITROGEN IN PHTHISIS.

THE first physician who ever studied the medicinal properties of nitrogen was an American, Dr. Winthrop Saltonstall (New York, 1796), who evidently got his ideas from his teacher, Dr. Mitchell. Dr. Saltonstall's essay was of a fanciful character and added nothing to practical knowledge. Another and more valuable contribution was made by Dagoumer in 1816. Subsequently Nysten, a co-worker of Bichat, injected nitrogen into the veins of

animals, and found it to have a sedative action upon the heart. In 1829 M. Marc, in the "Dictionnaire de Therapeutique," cites cases in which inhalations of nitrogen were used with good effect in phthisis.

Demarquay in his "Pneumatologie Médicale," 1866, describes two series of experiments with nitrogen. Injected subcutaneously, or into the peritoneum, it caused an increase in the exhalation of oxygen and carbonic acid. Applied locally to wounds it had some slight sedative effect.

Of late years a number of carefully conducted experiments have been made in order to determine the exact status of nitrogen as a remedy in pulmonary troubles. The names of Valenzuela, Treutter, Siefermann, Mermagen, Krüll, Kohlschulter, are associated with these experiments. Dr. Treutter, of Blasewitz, has recommended for some years inhalations of rarefied or partly deoxidized air in phthisis. In 1879 he ventured the opinion that the nitrogen was actively beneficial. Mermagen has affirmed this view with much more positiveness, and gives experimental data in support. Siefermann in a review of the subject (*Gaz. Méd. de Strasb.*, January 4, 1885, *Lond. Med. Record*, May, 1885) states that when patients are made to breathe air to which nitrogen has been added in the proportion of two to seven per cent., certain well-marked symptoms are observed, and these are repeated so constantly as to justify the belief that they are to be referred to the inhalations. With the first inspirations the patients assert that they breathe more easily, the dyspnœa diminishes, and a general sensation of well-being supervenes. The pulse becomes small, often filiform, from contraction of the radial artery. The patients—weak, anæmic, and nervous—experience, during the operation, vertigo, a sensation of weakness and pressure on the head, which may occasionally lead to syncope. The symptoms only are observed in the first two or three sittings.

According to Krüll and Mermagen the best therapeutical results are obtained when from two to seven per cent. of nitrogen is added to the atmospheric air. Inhaled in this proportion night-sweats cease, apical dulness disappears, the appetite improves, colliquative diarrhœa is relieved, and sleep produced. All authors agree that the nitrogen has some soporific and sedative effect.

The physiological effects of inhaling air containing an excess of nitrogen at ordinary barometric pressure have been studied by Legallois, who shows that less oxygen is absorbed and less carbonic acid exhaled, a lowering of respiratory function occurring. But, besides this, there seems to be a specific sedative effect produced by the nitrogen. It is to be recommended, therefore, in inflammatory lung troubles, especially in early phthisis.

THE PATHOLOGICAL ANATOMY AND TREATMENT OF SPINA BIFIDA.

THE pathology and treatment of spina bifida are subjects still involved in some uncertainty, and the physician who is called to treat a case always feels that he must exercise the greatest judgment and circumspection. Spina bifida is a rare condition, fortunately, yet mortality rates show that in all probability about one child in every fifteen hundred is born with such defect. An interesting report upon the subject has recently been made by a committee of the London Clinical Society, Mr. R. W. Parker, being chairman. This committee made a special study of the numerous specimens illustrating spina bifida in the Museum of the College of Surgeons.

As regards the pathological anatomy their conclusions were that spina bifida presents three different forms. The first and most frequent is that in which there is a protrusion of the spinal meninges together with the spinal cord and its appertaining nerves (meningo-myelocele); in the second form, which stands also second in frequency, there is a protrusion of the membranes only (simple meningocele); in the last and rarest form there is a protrusion of the membranes together with the spinal cord, the central canal of which is dilated so as to form the sac cavity, the innermost lining being constituted by the expanded and atrophied substance of the cord (syringo-myelocele). A careful dissection is often necessary to distinguish between a simple meningocele and a syringo-myelocele. The committee make the important statement that in the ordinary form of spina bifida (meningo-myelocele) the spinal cord traverses the wall of the sac unchanged, giving off its nerves regularly as it lies in the sac wall. The descriptions of pathological anatomy which imply that the nerves are sent into the sac from an intraspinal portion of the cord are therefore incorrect. The central canal of the cord also, in these cases, continues on through the cord as it runs in the sac wall, and is not unclosed or dilated as has been sometimes asserted.

The theory which best explains the pathological anatomy of spina bifida is that which assumes a primary defect of development of the mesoblast, from which the structures closing in the vertebral furrow are developed. Spina bifida, is not, therefore, primarily a neural defect.

The question of the proper treatment of spina bifida is sometimes a very difficult, and is always a sufficiently unpromising one. In 1882 there were 649 deaths from this condition in England and Wales, 612 of these occurring in infants under one year of age Undoubtedly this represents the majority of all the cases occurring during that year. Every mode of treatment has secured some successes, but perhaps, up till lately at least, expectant and symptomatic measures have been best. In 1881 Dr. James Morton reported a series of 27 cases, in which he claimed to have obtained 21 cures out of the total operated upon. His method of treatment consisted in injecting, at intervals of seven to ten days, half a drachm of a solution made by dissolving ten grains of iodine and thirty of iodide of potassium in an ounce of glycerine. The committee of the Clinical Society reported that their collected tables showed a percentage of successes by Morton's treatment of from fifty to sixty. The higher mortality (of forty to fifty per cent.) was due to the fact that the method was adopted in unsuitable cases. Despite it, the committee advocated the plan of treatment by injection, and against that by excision or ligature.

REGULATING MEDICAL PRACTICE IN PENNSYLVANIA.

THE Report of the Committee on Regulating the Practice of Medicine, of which Dr. Traill Green is Chairman, was made to the Pennsylvania State Medical So-

ciety, and after some debate was adopted by a large majority.

The report is an admirable and judicious presentation of the subject, and deserves the attention of all interested in promoting the standing of the profession. The two main points made were these: first, that laws regulating the practice of medicine, by compelling registration, are ineffectual, so long as "the diploma of any legally chartered medical college is made the only requirement for registration; second, that the power of license to practise medicine should be taken from the colleges and be vested in a single State Board."

The present registration law of Pennsylvania is not a satisfactory one, nor do any of the registration laws, as yet, do all that can be expected from wise legislation.

The Committee of the Pennsylvania Society is empowered to draw up a bill which will embody the views above presented. This bill, after approval by the Society, will be brought before the Legislature. We trust that Pennsylvania will be more successful than New York has been in piloting between the Scylla of quackery and the "pathies," and the Charybdis of the medical colleges.

AN EASILY KILLED BACILLUS.

Dr. Robert Koch has shown that the cholera bacillus is rather a tender plant, and can be destroyed without any great difficulty. Drs. Nicati and Rietsch have more recently (*Rev. d'Hygiene*, May 20) contributed further facts of importance regarding this subject. These observers found, first of all, that the bacillus lives in the human body on the average only six days from the date of the attack. After this period the individual contains no specific germs, and is not a contagion bearer. In some cases the bacilli were gone in four days; in two cases a few were found on the eleventh day.

As Koch showed, the cholera bacilli are killed after twenty-four or thirty-six hours by the bacteria putrefaction. They are also killed by drying, by heat to 140° F., and by many alkalies and acids. In moist earth the bacillus lives from fourteen to sixteen days; in distilled water, twenty days; in sea-water, sixty-four to eighty-one days; in bilge-water of an iron ship, thirty-two days.

It appears that under the most favorable conditions the comma bacillus dies easily, and we can hardly understand how its delicate constitution survives a European winter, as it undoubtedly does.

Asylum Tragedies.—News comes from Marseilles of a sad occurrence in the Saint Pierre Lunatic Asylum. A keeper put two patients each in a separate bath, left them, and went to breakfast. One of the lunatics got out of his bath, during the absence of the keeper, and turned on the tap of hot water into the bath of the other. When the keeper returned he found that the unhappy creature had been scalded to death. In the Asylum at Sébon, near Dinan, a lunatic suddenly assaulted one of the attendants, another attendant who started to the rescue was attacked by a second lunatic. Both the attendants were knocked down and one mortally wounded. The two homicides then started for the central building with the intention of killing the superintendent. They were, however, captured and secured.

News of the Week.

Blonde Hair and Exophthalmic Goitre.—Dr. A. D. Rockwell writes in regard to the relation of exophthalmic goitre and auburn hair that "my own experience leads me to believe that Dr. Neal's cases were coincidences. Out of more than twenty exophthalmic patients that I have seen and treated, only a small minority had auburn hair. Black and brown greatly predominated."

Prevention of Cholera.—The City Council of Chicago has taken an important step toward insuring the perfect sanitation of the city by allowing the Health Department a special fund of $100,000. Of this amount $12,000 is to be expended toward increasing the force of inspectors, by which 50,000 houses will be inspected by September 1st. The sum of $40,000 will go toward the cleaning of alleys, and the remainder will be held for an emergency fund.

Dr. W. G. Bullock, of Savannah, Ga., born in 1811, a graduate of Yale College and of the University of Pennsylvania, Class of '33, is dead. He was frequently President of the Georgia Medical Association, and was corresponding member of many medical bodies.

Dr. Noël Gueneau de Mussy, whose death occurred in Paris recently, was well known as a physician and a contributor to medical literature. He married an English lady and frequently visited England, where he was well known and greatly liked by his medical confrères.

Professor Gerhardt, of Würzburg, has been placed first in the list of names of candidates for the Chair of Medicine in Berlin University, as successor to the late Prof. Frerichs.

Over-study and the Teeth.—The latest fad among Parisian physicians who are worried about the over-education of children is that it causes a deterioration of the teeth.

Vivisection in England.—The usual annual reports showing the number of experiments performed on living animals in Great Britain and Ireland during the year 1884 have been issued. Out of a total of 454 experiments, 170 were merely inoculations; of these inoculations, 24 were performed for the purpose of medico-legal inquiries, and involved the death of three frogs and six mice by strychnine; in 10 other cases the experiments were made in order to infect fish with a species of fungus very fatal in certain streams, and five experiments led to the death of about thirty minnows and sticklebacks, which died when placed in distilled water. In 47 other experiments, in which the animal operated on was allowed to recover from the effects of the anæsthetic, the animals subsequently suffered from partial paralysis unattended by actual pain. In 220 other cases the animal was not allowed to recover consciousness.

An Interesting Debate.—At the annual meeting of the British Medical Association at Cardiff this year, in connection with the Section of Pharmacology and Therapeutics, there will be a special debate on Anæsthetics, in which Dr. Dujardin-Beaumetz (Paris), Professor John Chiene (Edinburgh), Dr. Dudley Buxton, Mr. Wood-

house Braine, Mr. Bailey, Mr. Marcus Gunn, and others, will take part. There will be an exhibition of apparatus, and Dr. Buxton and Dr. Stockman (Edinburgh) will illustrate the action of the various drugs on the frog's heart. The subject of local anæsthesia will be discussed, and Dr. Karl Koller (Vienna), the introducer of cocaine, has promised to attend.—*British Medical Journal.*

A Medical School at Oxford at Last.—Our English exchanges are congratulating themselves on the fact that steps are now in progress which will restore the medical faculty at Oxford, arrange the classes necessary for the first two years of medical and scientific subjects in the curriculum, and provide reasonable regulations for examination for the titles of M.B. and M.D.

The Acquittal of Lucille Yseult Dudley for homicidal assault upon Rossa furnishes an exquisite illustration of the workings of our lunacy law. The woman is epileptic and has had several attacks of mania. She evidently does not possess a healthy mind, nevertheless it was unquestionably shown that at the time of her shooting Rossa she knew very well the "nature and consequences of her act." It was not done in an outburst of maniacal rage or epileptic frenzy. According to law, therefore, she should have been convicted. Nevertheless the jury saw deeper than the letter, and unconsciously assumed the medical position that the act was tainted with insanity, and was the offspring of a diseased brain.

New York Polyclinic.—Dr. M. Allen Starr has been made a Professor of Diseases of the Mind and Nervous System in the New York Polyclinic.

A Possible Explanation of Ferrán's Cholera Inoculations.—A recent cable report to the *Herald* gives the following statistics of Ferrán's work at Alcira: "The population of Alcira is 20,000 or 22,000. Of these the correspondent finds 9,100 inoculated, 7,500 of whom were reinoculated. Rich and poor and the middle class have all submitted to be vaccinated. Altogether 320 cases of cholera have been recorded at Alcira. Of these 130 died and 138 recovered, while 52 are under treatment. The deaths of non-inoculated persons were 120, against 7 inoculated and 3 reinoculated. Of the inoculated and reinoculated 20 had the disease and were cured." Thus in the halt of the population which was inoculated the number of cholera cases was 30, and of deaths 10, against 290 cases, with 120 deaths, among the non-inoculated. Assuming these figures to be approximately correct, we may take the smaller percentage of cases and deaths among the inoculated to represent the prophylactic effect of a feeling of security caused by the operation. In other words, inoculation may be interpreted as a kind of faith-preventive. A factor of importance, also, is probably the inoculation of the more intelligent and careful. Altogether, we can see, as yet, nothing in the least demonstrative in the results of Ferrán's inoculations.

The College of Surgeons.—The younger members of the Royal College of Surgeons are clamoring for a reform in that august body, but the members of the Council, at least the majority of them, are obdurate, and do not see the necessity of a change. Nearly seventeen thousand of the twenty-five thousand medical men in the "Register" are members of the College of Surgeons, but of fellows there are only about twelve hundred. Only fellows are eligible for election to the Council, and of them only such of fourteen years' standing as are in the actual practice of their profession as pure surgeons. There are twenty-four members of the Council, each of whom retains his seat for eight years and is eligible to a re-election. Only fellows have a vote in the election of councillors, and they must attend personally at the college to record their vote. The practical working of this rule is, of course, that only a minority of the fellows vote, usually not more than two or three hundred, or less than one-fourth of the total number. All power is vested in the Council, and the natural consequence is that they elect a large proportion of their own number to lucrative examinerships. Members have no power and no privileges. It is therefore not surprising that the fellows, and still more the members, of the college are in open rebellion against the existence of a close corporation of this sort. They have hitherto accomplished little, but are now trying to prevent the Council from obtaining a new charter.

The Meeting at Chicago of the New Orleans Committee of the American Medical Association on the International Congress.—The Committee in question, consisting of the original committee and gentlemen representing each State and Territory, the District of Columbia, Army, Navy, and Marine Hospital Service, held a meeting, June 24th and 25th, at Chicago, pursuant to call. Twenty-nine members were present out of the whole forty-five, as follows: Dr. R. Beverley Cole, of California; Dr. John V. Shoemaker, of Pennsylvania; Dr. D. A. Linthicum, of Arkansas; Dr. George A. Ketchum, of Alabama; Dr. A. Y. P. Garnett, of Washington; Dr. William E. Duncan, of Dakota; Dr. Robert Battey, of Georgia; Dr. E. P. Cook, of Illinois; Dr. F. W. Beard, of Indiana; Dr. D. W. Stormont, of Kansas; Dr. W. H. Wathen, of Kentucky; Dr. A. H. Wilson, of Massachusetts; Dr. A. R. Smart, of Michigan; Dr. N. F. Essig, of Missouri; Dr. John S. Lynch, of Maryland; Dr. George F. French, of Minnesota; Dr. William Pierson, of New Jersey; Dr. J. W. S. Gouley, of New York; Dr. E. Eliot, of New York; Dr. X. C. Scott, of Ohio; Dr. I. Minis Hays, of Pennsylvania; Dr. F. L. Simm, of Tennessee; Dr. J. W. McLaughlin, of Texas; Dr. E. F. Upham, of Virginia; Dr. Nicholas Senn, of Wisconsin; Dr. G. Baird, of West Virginia; Dr. John S. Billings, of Washington, U. S. Army; Dr. John B. Hamilton, of Washington, U. S. Marine Hospital Service.

The resignation of Dr. Austin Flint was read and accepted. Dr. J. W. S. Gouley, of New York, was appointed in his place.

Dr. Battey offered a resolution: "That it was the sense of the Committee that in the absence of members from its meeting, the vacant places should be filled, if at all, by members of the American Medical Association for the vacant States or Government departments." This, with an amendment refusing to receive proxies, was adopted.

The Committee then proceeded to ballot for permanent chairman and secretary. On the first ballot Dr. Lynch, of Baltimore, and Dr. Cole tied. Dr. Cole was elected on the third ballot by a vote of 17 to 11. Dr. Lynch was

made vice-chairman. Dr. John V. Shoemaker was then elected permanent secretary, receiving 16 ballots out of 26.

A sub-committee was then appointed to prepare a revision of the rules and preliminary organization of the Ninth International Medical Congress. The committee consisted of Dr. Scott, of Ohio; Dr. Wathen, of Kentucky; Dr. Billings, U. S. Army; Dr. Shoemaker, of Pennsylvania; Dr. Hamilton, Marine Hospital Service; Dr. Upham, of Vermont; Dr. Gouley, of New York; Dr. McLaughlin, Texas; and Dr. Linthicum, of Arkansas.

A resolution was passed that fifteen members should form a quorum at future meetings.

At the evening session Dr. X. C. Scott reported that the sub-committee had been at work, but required an extension of time. Dr. Garnett presented an opinion received from the Hon. Samuel J. Randall relative to the legal status of the present Committee. The opinion was to the effect that the Association had not exceeded its powers in the appointment of the present Committee.

At the meeting of the Committee on the next day, June 25th, the sub-committee made its report. They recommended a decrease in the number of sections from nineteen to sixteen. The following gentlemen were selected as chairmen: Histology, Prof. Stanford E. Chaille, New Orleans; Anatomy, Prof. Joseph Leidy, Philadelphia; Physiology, Prof. J. C. Dalton, New York; Pathology, Dr. Francis Delafield, New York; Practical Medicine, Dr. J. M. Da Costa, Philadelphia; Surgery, Dr. D. W. Yandell, Louisville; Gynecology, Dr. Robert Battey, Rome, Ga.; Ophthalmology, Dr. E. Williams, Cincinnati; Otology, Dr. C. J. Blake, Boston; Dermatology, Dr. W. O. Hardaway, St. Louis; Laryngology, Dr. J. N. Mackenzie, Baltimore; Public and International Hygiene, Dr. H. A. Johnson, Chicago; Collective Investigation, Nomenclature, Vital Statistics, and Climatology, Dr. N. S. Davis, Chicago; Military and Naval Surgery and Medicine, Dr. David L. Huntington, U.S.A.; Practical and Experimental Therapeutics, Dr. H. C. Wood, Philadelphia; Diseases of Children, Dr. J. Lewis Smith, New York.

By the above arrangement the sections on Dental and Oral Surgery, Nervous Diseases and Psychiatry, Obstetrics, and Medical Education and Legislation are left out. A section on Histology is established. Dr. A. Jacobi is removed from the presidency of the section on Children's Diseases. We learn that among the gentlemen removed from all official connection with the proposed Congress are: Drs. A. L. Loomis, R. F. Weir, A. Jacobi, T. Addis Emmet, C. R. Agnew, P. F. Mundé, A. H. Smith, C. S. Bull, H. Knapp, D. B. St. J. Roosa, S. Sexton, Allan McL. Hamilton, L. Johnson Ripley, Wm. H. Draper.

The Committee adjourned to meet in St. Louis the first Monday in May, 1886.

The International Medical Congress and the Medical Profession of Philadelphia.—A meeting of the members of the medical profession of Philadelphia concerned in the organization of the International Medical Congress of 1887, was held at the hall of the College of Physicians, on Monday, June 29th, Dr. Alfred Stillé in the chair. Dr. David W. Yandell, of Louisville, was present by invitation.

After hearing a report of the proceedings of the new Committee, at the meeting held in Chicago last week and after considering the changes in the organization which were made, including the restriction of the scope of the membership, by which a large proportion of the profession of the country would be excluded from the Congress, the following preamble and resolution were unanimously adopted:

Whereas, Certain serious changes have been recently effected in the preliminary organization and rules for the International Medical Congress of 1887, it has seemed desirable for the members of the General Committee and the officers of the Sections resident in Philadelphia to meet for consultation; and

Whereas, It has appeared that these changes are inconsistent with the original plan, and detrimental to the interests of the medical profession in America, and of the International Medical Congress; therefore, be it

Resolved, That we, the undersigned, consider that our duty to the profession and to ourselves requires us to decline to hold any office whatsoever in connection with the said Congress as now proposed to be organized.

D. Hayes Agnew,
Roberts Bartholow,
John H. Brinton,
Charles H. Burnett,
R. A. Cleemann,
J. M. Da Costa,
Louis A. Duhring,
William H. Ford,
William Goodell,
Samuel W. Gross,
Robert P. Harris,
I. Minis Hays,
William W. Keen,
Joseph Leidy,
S. Weir Mitchell,
William F. Norris,
William Osler,
John H. Packard.
Theophilus Parvin,
William Pepper,
Edward T. Reichert,
Albert H. Smith,
Robert Meade Smith,
Alfred Stillé,
George Strawbridge,
William Thomson,
James Tyson,
Horatio C. Wood,
David W. Yandell.

Reviews and Notices.

A Manual of the Medical Botany of North America. By Laurence Johnson, A.M., M.D., Lecturer on Medical Botany, Medical Department of the University of the City of New York, etc. New York: Wm. Wood & Co. 1884.

This volume constitutes the December number of Wood's Library for 1884. It is a work valuable alike to student and practitioner, for it contains precisely the kind of information regarding the medicinal plants of North America, that is conspicuous by its absence from most text-books and almost all college lectures on materia medica. A valuable feature of this manual is found in the abundance of well-executed drawings and colored plates. The latter reflect high credit both upon Dr. Johnson, who designed them, and the publishers who had them faithfully reproduced. The work will be of decided assistance to medical men as a manual containing reliable botanical information. It is divided into two parts, the first of which deals with the essential elements of botany, and the second being specially devoted to a consideration of the medicinal plants of North America. The author has wisely refrained from giving a detailed description of all the medicinal species found in our country. But all the important ones have received ample attention.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE HOSPITAL SERVICE, for the Fiscal Year 1884.

BESIDES the regular official report the present volume contains a number of scientific and clinical communications, which give to it a permanent value.

KIRKES' HANDBOOK OF PHYSIOLOGY. By W. MORRANT BAKER, F.R.C.S., and VINCENT DORMER HARRIS, M.D. Lond. Eleventh Edition, with nearly 500 Illustrations. 2 vols. New York: William Wood & Co., 1885. Wood's Library of Standard Medical Authors.

A MANUAL OF HUMAN PHYSIOLOGY, INCLUDING HISTOLOGY AND MICROSCOPICAL ANATOMY, with Special Reference to the Requirements of Practical Medicine. By DR. L. LANDOIS. Translated from the Fourth German Edition, with Additions by WILLIAM STIRLING, M.D., Sc.D. 2 vols., 8vo. Vol. I., pp. 514. Philadelphia: P. Blakiston, Son & Co. 1885.

IT is an excellent sign of the times that so many thoroughly good text-books on physiology have of late been given to the American profession. Our students have too long been nurtured upon home works, which were both defective in method and provincial in tone. The translation into English of Hermann's and of Landois' treatises, the issuing of text-books by Foster, Martin, and Yeo; the rehabilitation of the standard works of Kirkes and Mapother, all indicate an interest in advancing physiology which cannot but react most favorably on medical practitioners.

There are now several almost equally good text-books on physiology in the market. Among the best, undoubtedly, is that of Kirkes, as enlarged and edited by Baker and Harris. Both these gentlemen have had experience in physiological teaching and writing, and their names are a guarantee that their book is brought up to the times. They have added a large number of new illustrations, besides remodelling many parts, and adding some new chapters. The present edition of Kirkes' Physiology is intended as a guide for students, "especially at an early period of their career," hence it does not deal with controvertible questions or go into minute details of purely scientific interest. For the practising physician who wishes to learn what is now accepted as established in physiology the volumes are well adapted.

There are also very good histological descriptions prefacing the physiology of the different organs. The printing and the illustrations are, with a few exceptions as to the latter, all that could be desired.

Professor Landois' large work on Physiology has already gone through several editions in a short space of time. It has also already been freely plundered from in the past few years, especially by English writers. The present translation is another tribute of a most creditable kind to its merits. Landois' Physiology is without question the best text-book on the subject of physiology that has ever been written, and fully deserves all its honors. Its aim has been to unite the scientific with the practical. The various vital phenomena of the human body are classified, analysed, and described in scientific order, and with minuteness and exactness. At the same time their bearing in medical practice is kept in view, and to each chapter is appended a brief description of the disorders which the normal mechanism is subject to.

We fear, however, that Professor Landois' work, though so complete and admirable, would utterly floor the average American medical student, whose mind is very apt at receiving impressions, but not at comprehending scientific relationships. And the present volumes, despite their practical appendices, might dismay him with their apparent eruditeness. It would be a benefit to the student ultimately, however, if he were compelled to drill over them, while the practitioner cannot but find them valuable.

Dr. Stirling has done his laborious work of translation well. He has also contributed a number of useful comments of his own, as well as increase the illustrations from one hundred and six to one hundred and seventy-six. The American publishers have done their work carefully. The type is clear—very much like that of the original—and the illustrations are also good. We trust that the book will become a familiar one to American physicians.

THE MEDICAL ANNUAL, AND PRACTITIONER'S INDEX. 1884-85. 8vo., pp. 428. Henry Kimpton, 82 High Holborn, London, W. C.

THIS annual contains a review of progress in general and medical science, notice of new inventions, facts about medical education, sanitary memoranda, a brief description of European health resorts, and statistical data regarding English medical societies, hospitals, etc.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM, ESPECIALLY IN WOMEN. By S. WEIR MITCHELL, M.D. Second edition, revised and enlarged, with Five Plates. Pp. 287. Philadelphia: Lea Brothers & Co. 1885.

IN the present edition of this book the author has altered considerably some of the early lectures and has added others on the difficulties of diagnosis in hysterical diseases of joints, on the relations of hysteria to organic disease of the spine, and on hysterical disorders of the rectum. Dr. Mitchell records many facts of a character that are strange and unusual to the ordinary practitioner. All the more, his book is valuable to those who sometimes become puzzled by obscure nervous manifestations. Perhaps the author's experience is especially peculiar, in that he observes such severe manifestations of purely functional diseases among his patients. The record of a Miss B——, who showed almost every evidence of organic spinal disease including De R., but who was finally cured, is most important, as it has led to some statements that De R. may appear in hysterical paralyses. The probabilities are, however, that there was some true organic change in the nerves, if not in the cord. The various chapters in Dr. Mitchell's book have already been reviewed in these pages and need not be referred to again here.

JAHRESBERICHTE ÜBER DIE FORTSCHRITTE DER ANATOMIE UND PHYSIOLOGIE. Herausgegeben von DR. FR. HOFMANN und DR. G. SCHWALBE. Zwölfter Band. Literatur, 1883. II. Abtheilung. Physiologie. Pp. 490. Leipzig: Verlag von F. C. W. Vogel. 1885.

THE volume is a careful and critical summary of physiological and toxicological progress in 1883.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY FOR THE YEAR 1884. Pp. 408. New York: D. Appleton & Co. 1885.

THIS volume is in nowise behind its predecessors in interest. Among the contributions are papers by Drs. Thomas, Mundé, Taylor, Bozeman, and Lusk, of New York. A memoir of Dr. J. Marion Sims, by Dr. Van de Warker, of Syracuse, closes the work. Among the by-laws, which, with the constitution, are printed in the introduction, we note the following terse statement: "Any Fellow who shall neither attend nor present a paper for three successive years shall, unless he offers an excuse satisfactory to the Society, be dropped from fellowship." A modification of this rule might be of service to some of our local societies.

INSOMNIA AND OTHER DISORDERS OF SLEEP. By HENRY M. LYMAN, A.M., M.D., Professor of Physiology and of Diseases of Nervous System in Rush Medical College, Physician to Presbyterian Hospital, Chicago. 16mo, pp. 173. Chicago: W. T. Keener. 1885.

WE have examined this book with interest. The author very fully discusses the nature and cause of sleep. The latter, he thinks, must be sought "in the molec-

ular structure of the brain rather than in fluctuations of the blood-current." "Sleep must be regarded as the cause rather than the consequence of the so-called cerebral anæmia which obtains during sleep." His arguments in maintenance of this view are forcible and interesting. The causes of insomnia are treated of at length. Under the head of remedies is discussed the new hypnotic paraldehyde. The author regards it as a valuable addition to our Pharmacopœia. He gives it in doses of from forty-five to one hundred and sixty grains. Sixty grains is fair dosage. The chapter on the treatment of insomnia in particular diseases contains many practical hints. Interesting discussions on dreams, somnambulism, and hypnotism close the book. We can commend its graceful diction and logical style. It is a valuable contribution to medical literature on the subject of the relations of our mental and physical natures.

Insanity and Allied Neuroses, Practical and Clinical. By George H. Savage, M.D., M.R.C.P. With Nineteen Illustrations. Pp. 544. Philadelphia: Henry C. Lea's Son & Co. Clinical Manuals for Practitioners and Students.

Dr. Savage has not aimed so much to write a systematic manual for students, as to put on record the results of his large experience with insanity. As physician for twelve years in the Bethlem Hospital for the acute insane, London, and as a teacher at Guy's Hospital, his advantages have been exceptionally good, and his views, embodied in the treatise before us, will be consulted with great interest. Regarded as a clinical work, concisely and judiciously written, we find Dr. Savage's treatise to be a very satisafctory one. And imprimis, we must congratulate the author upon having written his work without giving a new definition of insanity; it is a remarkable evidence of literary self-control. Dr. Savage's "ideal classification" of the different forms of insanity is a rearrangement of old clinical terms. It is not adopted by the author himself, who divides insanity into a large number of clinical groups, and discusses them seriatim. Perhaps this is the most practical way, and it is certainly the easiest. We wish, however, that Dr. Savage had shown a little more courage in dealing with the question of classification, and had applied his synthetic powers and excellent judgment to the production of something better and more cohesive than "clinical groups."

The chapters on causation of insanity are particularly good, and we feel a pleasure in corroborating the conservative views that he expresses regarding the influence of heredity, education, intemperance, masturbation, etc., in producing insanity.

On taking up his different clinical groups, we find ourselves disappointed in reading the chapters on hysteria, hypochondriasis, and neurasthenia. The author seems familiar only with one phase of these complicated conditions. The chapters on general paralysis are evidently written *con amore*, and are among the best in the book. Especially good, also, are the chapters on idiocy and imbecility, and on the legal relationships of insanity and the responsibility of lunatics. There is not so full a description of the therapeutics of mental disease as could be desired

Dr. Savage writes in an attractive way, and, without making attempts at literary embellishment, he succeeds throughout in holding the attention of the reader. We trust he will have many thus to hold.

Elements of Practical Medicine. By Alfred H. Carter, M.D. Lond. Third Edition. New York: D. Appleton & Co. 1885.

Only a short time has elapsed since the issue of the last edition of Carter's "Elements," a sign that this practical little volume is appreciated by medical readers. As the work has undergone no noteworthy alteration since the second edition was published, it is unnecessary to repeat here what was then said regarding its merits and shortcomings.

Urinary and Renal Derangements and Calculous Disorders: Hints on Diagnosis and Treatment. By Lionel S. Beale, M.D., Fellow of the Royal Society and of the Royal College of Physicians, etc. 16mo, pp. 356. Philadelphia: P. Blakiston, Son & Co. 1885.

In this volume Dr. Beale maintains his vigorous, interesting style which has charmed so many readers in years past. His opening remarks concerning the therapeutic use of acids and alkalies in the treatment of urinary disorders contain much timely advice. The division of the work relating to urinary deposits is complete, and contains all those facts which every-day work calls to the notice of the practitioner. A full discussion of the various theories of albuminuria is given, and a *résumé* of the treatment of kidney diseases in general. The chapter on diabetes is particularly interesting. Full directions about diet in the latter malady are inserted. Dr. Beale suggests that toasted bread may be used sparingly, as "by this process much of the starch is converted into matters which do not yield sugar when acted upon by the saliva or pancreatic fluid." He does not regard all cases of diabetic coma as due to the presence of acetone in the blood. The book will be a valuable addition to any library.

Diagnosis and Surgical Treatment of Abdominal Tumors. By Sir Spencer Wells, Bart. 12mo, pp. 216. Philadelphia: P. Blakiston, Son & Co. 1885.

This book is an embodiment of the latest ideas of the English ovariotomist. It is in many respects a new work, as its scope is wider than that of any previous works of the author. He has condensed his former writings and added thereto and given us a manual within the reach of every student of surgery. Part I. is on ovarian and allied tumors. Part II. treats of uterine and other abdominal tumors, and is brought down to the present time. It contains allusions to all that is authentic concerning the surgery of the liver, kidney, spleen, omentum, gall-bladder, stomach, and intestine. In the first part an interesting chapter is given on the subsequent history of patients who recovered from ovariotomy, as obtained from the patients themselves in reply to circulars sent them. Sir Spencer Wells is evidently watching with great interest the progress of the operative treatment of peritonitis, though he does not in this volume very fully discuss the subject. It is hardly necessary to add that his style has lost none of its clearness, and that his statements are as frank as ever. From the outset of his career he has never wavered from his original determination to give the whole truth concerning his cases of abdominal surgery. The result of this conscientiousness is seen in the commanding position he now occupies, and in the valuable records his works of the last quarter century contain. No better volume than the present could serve as an introduction to a comprehensive study of the broad subject of abdominal surgery.

An Ingenious Expedient.—Recently I was called to examine a woman who has had vesico-vaginal fistula for years. The sufferer has kept herself cleanly and comfortable by using in the vagina a globular pessary made of compact sponge. The fistulous opening is near the urethral outlet; and the pessary holds the false orifice so high that the urine can be retained for hours. The patient never urinates, but evacuates the bladder every three or four hours through the agency of a catheter —an instrument she has become expert in using. The expedient might possibly be adopted in some cases where an operation for closure of the rent is not practicable. I commend the ingenuity of the woman who, unaided by even a professional suggestion, has kept herself from being offensive to herself and others.—"H.," in *Eclectic Medical Journal.*

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 8, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. W. P. NORTHRUP presented, in behalf of a candidate, a specimen of *cystic kidney with dilated ureter.*

DR. WESLEY M. CARPENTER described

A NEW IMBEDDING PROCESS

in microscopical work, devised by Dr. Maurice N. Miller, of New York, and consisting in the use of bayberry tallow. For a complete description of the method, see THE MEDICAL RECORD, April 18, 1885.

DR. WACKERHAGEN presented the specimen, and reported a case of

EXSECTION OF THE UPPER THIRD OF THE TIBIA IN A CHILD

two and a half years old. Josephine R——, born in Brooklyn, of German parents, fell on the pavement in May, 1884, bruising the left knee. As the injury appeared to be slight and the pain soon disappeared, the parents gave it no further attention until a month later, when it gradually became swollen, red, and painful. Poultices were then occasionally applied, but surgical attendance was not employed until September 25th, when an opening was made just below the knee-joint, and a quantity of dark-colored blood slightly mixed with pus was discharged.

After this treatment the swelling disappeared, leaving a small opening, just below the spine of the tibia, from which a small quantity of unhealthy pus was discharged daily.

October 15th.—Dr. Wackerhagen saw the child in consultation, and upon examination with a probe, discovered two sinuses—one taking a direction obliquely upward and inward toward the internal condyle of the femur, and the other extending downward and inward. Each sinus was about an inch and a half in length.

October 19th.—An operation was performed for the removal of the diseased bone. The sinuses were both found to be superficial. The opening in the head of the tibia was then enlarged, and the cancellous structure found to be soft and easily removed with a sharp spoon. While operating in an upward direction an opening was discovered leading into the knee-joint. He then determined to remove, by subperiosteal exsection, the entire head of the bone and about one-third of the shaft, which was found to be diseased.

Upon exploration of the knee-joint he found the crucial ligaments almost entirely destroyed and the intercondyloid space filled with unhealthy granulations. These were removed with the sharp curette, and the joint thoroughly irrigated with bichloride of mercury solution—1 in 2,000—a rubber drainage-tube was introduced into the joint, and the wound packed with iodoform and bichloride gauze.

There was no inflammatory reaction, and the temperature did not go above 99° F. Since the operation the child has greatly improved in health and appearance, the bone has been reproduced from the periosteum, and she can flex the leg to an angle of forty-five degrees and can extend it as in normal condition.

Bauer's hip-joint instrument has been applied for the purpose of continued extension. The shortening is not more than half an inch.

DR. WACKERHAGEN also presented a small

SEQUESTRUM REMOVED FROM THE INNER SIDE OF THE FEMUR AT HUNTER'S CANAL.

Mr. B——, aged forty-six years, U. S., first suffered from carbuncle over left shoulder-blade, February 15, 1883. It was treated by deep incisions. On April 20, 1883, he complained of swelling of the anterior surface of the left thigh, middle third, which proved to be an abscess. This was freely laid open, thoroughly irrigated with bichloride solution—1 in 2,000—large drainage-tubes introduced, and the wound packed with antiseptic gauze. In February, 1884, Dr. Wackerhagen was called to see the patient by his family physician, and found a sinus opening on the anterior surface of thigh, about its middle, and extending in a direct line to the femoral artery. From this sinus pus was discharging in small quantity, and necrosed bone was then discovered by passing a large leaden probe.

An operation was performed February 5, 1884, by cutting down upon the probe. When the femoral vessels were reached they were held aside by retractors, and the cloaca being enlarged, several pieces of sequestra were removed. The patient recovered with a perfectly useful limb.

DR. VAN GIESON asked if any hemorrhages had occurred before the operation.

DR. WACKERHAGEN answered that hemorrhage had not occurred, although the opening was directly under the artery, and if the piece of dead bone had been discharged it would have probably penetrated the blood-vessel.

DR. VAN GIESON referred to a case in which profuse hemorrhage took place as the result of a spicule of bone penetrating the artery.

DR. L. EMMETT HOLT presented a specimen of

EXTRA-CAPSULAR FRACTURE OF THE NECK OF THE FEMUR,

occurring in a woman seventy-three years of age, an inmate of the Baptist Home for the Aged, on March 16th. While stepping from one chair to another in her room, she tripped and fell to the floor, striking she knew not how. She was unable to rise without assistance. The signs presented upon examination were complete disability; slight eversion of the foot; shortening, which varied somewhat at different measurements, probably one inch; swelling and tenderness, but no marks of contusion about the hip; the trochanter carried up higher than its fellow and rather more prominent; crepitus not sought on account of the pain, which was very severe on any attempt at movement. A long side splint was applied.

On the fourth day she became suddenly unconscious, and developed an incomplete right hemiplegia. She died comatose four days afterward, and exactly one week from the receipt of the injury.

At the autopsy there were found, not to dwell minutely upon the general lesions, thrombosis of the middle cerebral artery of the left side, an atheromatous condition of all the cerebral vessels, a fatty heart, and granular kidneys. All the tissues about the left hip were filled with extravasated blood for a considerable distance in all directions. There were also some recent inflammatory products. The fracture was found to be extra-capsular, impacted, and comminuted. The line of fracture corresponded quite closely with the classical cases. It extended from the anterior superior border of the trochanter major to the base of the trochanter minor, following the anterior intertrochanteric line. Posteriorly it corresponded roughly with the posterior intertrochanteric line, the lines of fracture uniting just above the trochanter minor. The lower fragment was slightly rotated outward upon the upper, which was impacted into it. The greater part of the trochanter major was broken off as a third fragment. The bone tissue showed only moderately the usual changes found at that period of life, but the angle at which the neck joined the shaft was found by measurement, on restoring the fragments to their normal relations, to be 120°.

The comminuted character of the fracture, and especially the fact that the trochanter major was broken off, rendered it more than likely that the patient had fallen upon the trochanter when the injury was sustained.

The explanation of the rather unusual symptom of an abnormal prominence of the trochanter was apparent on examination of the specimen. The lower part of the neck was deeply impacted into the shaft, while its upper part was only slightly impacted. When removed from the body the angle of the neck with the shaft a little less than 110°.

It is an interesting question whether the unusual angle of 120° in an old lady had anything to do in causing an extra-capsular rather than an intra-capsular fracture.

THE PRESIDENT thought it important to examine the femur on both sides in such cases, and alluded to a case already reported to the Society, that of a supposed intra-capsular fracture of the femur, in which the specimen was obtained several years after the receipt of the injury and recovery of the patient, and it presented no small amount of evidence of fracture within the capsule; but on showing it to Dr. Frank H. Hamilton, he said that it could not be admitted as proof of bony union, because the other femur was not present with which the specimen could be compared, and that the deformity might be due to the partial change in the angle of the shaft with the neck, the result of senile atrophy.

DR. R. E. VAN GIESON presented a section of the skull with several fragments of bone, the result of

A GUN-SHOT WOUND OF THE HEAD.

Mary W——, thirty-nine years of age, a widow, was admitted to St. Catherine's Hospital, Brooklyn, February 21, 1884. The patient, while delirious after an attack of typho-malarial fever, went to the cemetery where her husband was buried and shot herself twice, with a pistol of 32-calibre, near the junction of the frontal with the parietal bone on the left side of the head.

When admitted to the hospital, two wounds of the soft parts in the region mentioned were found, about one and a half inch apart; apparently a wound of entrance and exit.

On using the probe a bullet was found between the openings mentioned, imbedded in the bone. Both tables of the skull at this point were fractured and depressed; there was a small slit-like opening in the dura mater, and subsequently a hernia cerebri formed. About two months after the receipt of the injury, exfoliations of bone took place (accompany specimen), and these continued until September, 1884, when the wound was entirely healed. From this time on, the patient had frequent attacks of pain, starting from the point of injury, and running to the back of the neck. But this did not prevent her from doing her work about the wards. She was also queer at times, and very stubborn. Three weeks before death she took to her bed with acute rheumatism, and developing pericarditis, died March 19, 1885, at 3½ A.M. Autopsy same day at 11 A.M.

Body.—Well nourished, slight rigor mortis.

Head.—Meninges are thickened, congested, and there is new connective tissue at the site of the wound. In the left anterior lobe there is adhesion of brain to the dura, and the dura to the pericranium. Around this, which is the site of the gun-shot wound, the brain is in a state of yellow softening. At the junction of the frontal and parietal, on the left side, is a round hole through the skull with rounded edges, just above and to the inner side of the hole are five pieces of lead, two of which are imbedded in the bone.

Lungs.—Few old adhesions at right apex.

Heart.—Soft, recent pericardial adhesions, wall of ventricle white, and fatty throughout the entire thickness, one or two vegetations on the mitral valve.

Liver and spleen.—Normal.

Kidneys.—Markings indistinct.

Uterus.—Retroflected, and firmly bound by adhesions, ovaries adherent to pelvic wall.

Dr. Van Gieson remarked that there was a negative point of interest in the case, namely, the woman was left-handed and the injury inflicted was close to the centre of speech, and yet there were symptoms of aphasia throughout the entire case.

Dr. Van Gieson also presented

A LEG REMOVED BY AMPUTATION FOR DRY GANGRENE,

in which he had been specially interested in ascertaining, if possible, the seat of obstruction in the arteries.

Franz H——, twenty-nine years of age, a native of Bohemia, and by occupation a brewer, was admitted to his service in St. Catherine's Hospital, February 25, 1885, with the following history:

About six o'clock in the morning, while loading the elevator with half-barrels of beer, one of two barrels which had been placed on the same hook, was thrown off by a sudden jerk of the chain and struck the patient on the head and chest, knocking him to the floor; the barrel then rolled over his left leg. It was found that the patient had received the following injuries: A contusion over the left eyebrow, a loss of incisor teeth, lacerated wound of lip, fracture of a rib on the right side, and a complete forward dislocation of the left knee-joint. The condyles of the femur projected into the calf of the leg, arresting circulation and producing paralysis. The tibia was found forward, its head and the patella making a marked prominence, and just above the head of the tibia and the patella was a very deep depression. The quadriceps extensor muscles were very lax, and the tendon could be easily grasped and moved from side to side. The leg was shortened about one and a half inch, and the foot turned inward. One hour after injury the dislocation was reduced by the house surgeon. The patient being under ether, the thigh was partially flexed, extension made on the ankle, and by manipulation the bones were brought in proper relations to each other.

It was noticed after reduction, that with the leg extended, and the knee as a fixed point, the leg could be abducted, adducted, and flexed forward, showing the extensive laceration the ligaments had sustained.

Posterior and lateral splints were adjusted, and ice bags applied to the knee.

February 26th.—Circulation is still poor in the foot of the injured leg.

March 2d.—Foot looks blue, feels cold, the toes are shrivelled; there is loss of sensation below the ankle. Ordered hot applications to the foot.

March 22d.—Dry gangrene of the foot is complete, with line of demarcation above the malleoli.

March 30th.—The leg was amputated by Dr. Hesse, Visiting Surgeon, at the knee-joint, with the long anterior and short posterior flaps.

There was an abscess just below the popliteal space, surrounded by baggy tissue at the time of the amputation.

Dr. Van Gieson had injected the limb with a ten per cent. solution of gelatin colored with fuchsin, which entered the vessels well, and it seemed that the anterior tibial artery was the one mainly affected, but he did not succeed in finding the exact location of the obstruction.

Another interesting point in the case, one which was raised at the consultation, was concerning the propriety of amputation at the knee-joint.

THE PRESIDENT suspected, on account of the very free lateral motion at the ankle-joint, that it also had been injured.

DR. H. J. BOLDT presented the trachea and larynx removed from the body of a man fifty-five years of age, who had suffered from

CHRONIC LARYNGITIS

for twelve or fifteen years, and about three months ago signs of pulmonary tuberculosis developed.

The question of interest was whether the laryngitis was primary or secondary, and the specimen was referred to the Committee on Microscopy.

INTUSSUSCEPTION.

DR. J. LEWIS SMITH presented a specimen showing intussusception, with the following history: Y——,

male, aged six months, bottle-fed since the age of a few weeks, has been fretful, and has had frequent attacks of colic and indigestion, as long as he has been artificially fed. On the afternoon of March 28th, he began to vomit, and to suffer more than usual from pain, which occurred in frequent paroxysms. In the intervals he was apparently comfortable and without suffering. During the subsequent night he slept little, in consequence of the pain and vomiting, and on the following morning I first visited him. His surface at this time was cool, and he was apparently without fever. He took his food readily from the nursing bottle with apparent relish, but most of it was soon after rejected. In the intervals between the attacks of pain he was quiet, and without symptoms to indicate the severe disease which was present. As he had been an habitual sufferer from indigestion, I did not at first suspect intussusception; but as the pains seemed to me to be too severe for ordinary colic, I returned in a few hours for a more thorough examination. I was informed that, during my absence, the infant had passed a few drops of blood, without fæces, and that the vomiting and pain had not abated. This excited my suspicion of an intussusception. A large clyster of tepid water was now used. This was returned, with a considerable quantity of blood and small blood-clots, and with only two small fecal masses, which had probably, from the beginning of the intussusception, lain below the invaginated part. No tumor could be felt in the abdominal cavity.

Twenty-four hours had elapsed since the displacement had occurred; there was no marked distention or tenderness of the abdomen, and apparently no fever. Immediately the treatment was commenced which, in my hands, has been most successful. The nates were raised nearly to a perpendicular above the shoulders, the rectal-tube for the adult introduced, the anus pressed firmly against the tube, and as much tepid water as possible injected. The amount retained could not be estimated, as a considerable portion of it was forced back by the efforts of the infant. When the abdomen was distended by the water, it was firmly kneaded, the fingers following the course of the colon, so as to aid in pressing back the invaginated gut, the displacement being always from above downward. During the operation, and immediately after, the sufferer always seemed somewhat relieved, but the symptoms soon after returned. The enemata and the kneading were repeated at intervals, but the displacement remained. On the following day the temperature was 100⅘°F., the abdomen was not notably distended, the loss of flesh and strength was not great, and I proposed laparotomy as the only means of saving life. Consent was not obtained until the following day, the 31st, when Dr. Sands, who saved the life of an infant of the same age by the operation, saw the case with me. As the pulse was 146, the temperature, 103½°, the abdomen considerably distended, as if from peritonitis, which, however, had not occurred, and no tumor had been, and none could be, detected, it was thought expedient not to perform laparotomy. On the following night the infant died.

Autopsy.—Abdomen much distended from fecal matter above the intussusception, and water below it; no peritonitis; the invaginated mass lay in the site of the first half of the transverse colon, against the under surface of the liver, and deeply located. Its length was about three inches, and the appendix vermiformis and the ileum protruded from its lower end. The ileum occupied the site of the ascending colon.

Remarks.—With few exceptions intussusception begins with prolapse of the ileum through the ileo-cæcal orifice, so that is is surrounded and grasped by the valve, or with the inversion of the caput coli, which becoming invaginated in the ascending colon draws after it the ileum. Hence the caput coli and the terminal portion of the ileum are the incarcerated part, and the ascending colon is the external or incarcerating portion. All the parts engaged in an intussusception may pertain to the colon, as in the specimen which I presented to the Pathological Society in 1882, which was removed from the body of a child who had suffered from the displacement several weeks, and had had the tumor in the left side of the abdomen, which was pervious so as to allow daily fecal evacuations. The displacement may also occur in the course of the small intestine, but such instances are so rare that, when called to a case, we may safely assume that we are to treat an intussusception which has commenced in one of the two ways stated above.

During the last two years I have treated successfully by water enemata, employed in the manner mentioned above, three cases of what I diagnosticated intussusception, basing the diagnosis on the presence of constipation, severe pains, vomiting, bloody stools in two of the patients, and an evident tumor in one of them. It is very important for success that the physician should be called early, make a correct diagnosis, and employ the enemata perseveringly during the first day, unless the symptoms indicate that the disease is removed. Unfortunately, as I have had opportunities to observe, the patient is often treated for dysentery on account of the bloody stools, until the displacement is too great to be remedied. Purgatives, as castor-oil, given to obviate the constipation increase the intussusception. Early diagnosis and early and correct treatment by the water enemata will, I believe, cure a large proportion of cases. Professor Sands, when inspecting the specimen in the present case, made the remark that we nearly succeeded in the reduction. Probably success might have been achieved by treatment commenced twelve hours earlier.

Formerly I have employed inflation by carbonic acid gas, which can be used by inverting a siphon of carbonic acid water and attaching the tube to the arm of the bottle. I have also employed air introduced by the bulb, especially the double bulb which accompanies the ordinary atomizer, but my preference is decidedly in favor of treatment by water. In one instance I think that the air ruptured the gut, but the child had been some days sick.

The impossibility of detecting the tumor in certain cases, and the fact that it does not remain where it formed, but passes along by the tenesmus in the course of the colon, drawing after it the ileum, as shown by this case, are noteworthy particulars.

Dr. W. P. Northrup remarked that treatment of intussusception by means of enemas of water seemed to be the best method that could be adopted. He had been interested in seeing how readily intussuceptions found at autopsy unravelled when the rectum was attached to the hose-pipe and a moderate stream of water allowed to enter. He believed that the method of treatment by injections of water was the best that could be employed, short of an operation.

Dr. L. E. Holt referred to cases reported in the *British Medical Journal*, in which the gut had been ruptured by distention with gas and water, and the writer took the ground that when these measures did not succeed within forty-eight hours, laparotomy should be performed at once, before inflammation and adhesions had taken place.

Dr. Smith thought the condition of the gut showed that an operation on Tuesday would have been proper in his case; but of course they did not know for certainty, at that time, what the exact condition was.

Dr. Holt said, the point which he wished to make was, that changes in the gut as the result of the strangulation were liable to be so great that the operation, if performed at all, should not be delayed.

The President remarked that it had been his custom not to wait longer than twelve to twenty hours, even if the diagnosis was somewhat doubtful, before making an exploratory incision at least, which, if antiseptically performed, was not specially dangerous.

REPORT OF THE COMMITTEE ON MICROSCOPY.

Dr. L. Waldstein reported that the specimen of supposed *congenital umbilical hernia*, presented in behalf of a candidate at the last stated meeting, was found to be as was supposed, and that it had one point of interest, namely, there was an adhesion which extended from the cœcum to the inner side of the peritoneal covering of the sac, and not in the direction of the umbilical cord. Congenital umbilical hernia was of two kinds, (1) that which occurred in the neighborhood of the umbilicus, and (2) that due to persistence of the omphalo-mesenteric ligament or duct, which cause in this case could be excluded.

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 18, 1885.

A. Jacobi, M.D., President, in the Chair.

Dr. H. W. Mitchell read a paper entitled

OBSERVATIONS ON THE OPERATION FOR LACERATED PERINEUM, WITH DEMONSTRATIONS AND CASES.

The author of the paper regards the perineum as a wedge-shaped body interposed between the rectum and the vagina. The common sequelæ of laceration of the perineum were rectocele and cystocele, one or both. He had seen only partial closure of a laceration as the result simply of placing the woman's limbs in a proper position, and therefore regarded it as proper, when the parts are torn, to restore them as nearly as possible to their original integrity, which can be accomplished only by an operation, that may be one so simple it can be performed by any one possessing ordinary surgical skill and having an ordinary anatomical knowledge of the parts involved. Introduce the left fore-finger into the rectum—the laceration being separated widely by two assistants—trim off the ragged edges; denude the mucous membrane, with a pair of ordinary curved scissors, down to the median line and up as high as may seem desirable; approximate the denuded surfaces; introduce deep silver-wire sutures and superficial sutures; gather the twisted ends of the sutures in a bundle and wrap them with cloth; draw the urine with a catheter, and the operation is completed.

Dr. Mitchell discards the silk loop usually used to draw the silver wire through, and threads the needle directly with the wire, and he uses curved needles. He had operated in forty cases during the last fifteen months, and in each instance union by first intention took place. No antiseptics were used, except in five cases, and then carbolized water was employed. Strict cleanliness was observed. The bowels were kept confined for six days. The histories of the forty cases were read.

Dr. Post favored keeping the bowels open daily, after operation for lacerated perineum.

Dr. M. McLean thought that the silk loop was of great advantage in introducing the sutures. He also favored the straight and discarded the curved needle. He asked why the patients did not suffer pain after Dr. Mitchell's operation, as the sutures were introduced through the skin.

Dr. Baruch favored keeping the bowels open, and objected to the curved needle. He recommended the use of the silk loop. He was pleased to know that the author of the paper was among the minority who held that the perineum was not a buttress for the support of the uterus, etc., but rather that the pelvic organs were suspended.

Dr. Mitchell, in closing the discussion, said that he could not tell why the patients did not suffer pain. They suffered from slight pain in some cases, but the operation as he had performed it had been practically painless.

Dr. Joseph A. Andrews then read a paper on

CONTAGIOUS CONJUNCTIVITIS,

in which he dealt specially with the cause, prevention, and treatment. Under the head of "causative," he referred somewhat extensively to the history of the gonococcus, and gave the history of a single case in which he inoculated the conjunctival surface with the seventh generation of pure culture, with the result of producing a typical gonorrhœal ophthalmia.

With reference to the cause of *ophthalmia in the newborn*, Dr. Andrews said there was no positive proof that normal lochia ever gave rise to conjunctival blenorrhœa.

As to *granular conjunctivitis*, he had searched in vain in the tissue for the gonococcus or cocci like it; but cocci were found in the secretion from these eyes, which was undoubtedly contagious, and the secretion was capable of carrying the disease.

Concerning the prophylaxis of ophthalmia neonatorum, it consisted in the thorough and judicious cleansing of the vagina before labor, and, after birth, the eyes of the child, with a saturated solution of boracic acid, followed by dropping one drop of a two per cent. solution of nitrate of silver into the conjunctival sac. Then followed an extended presentation of the views of numerous observers with reference to the efficiency of Crede's method, and the measures best adapted to prevent the occurrence of the disease.

The treatment of purulent conjunctivitis consisted of washing away the matter and rendering the conjunctival surface antiseptic as nearly as possible. For irrigation the best solutions were a saturated solution of boracic acid or a two per cent. solution of carbolic acid.

Dr. Andrews exhibited an instrument which he had devised to aid in this part of the treatment, namely, a form of eye-speculum, but hollow, and so arranged that a fountain-syringe could be attached to it and a stream of the solution carried in to cleanse the conjunctival sac.

When the eye has been cleansed, paint the conjunctival surface with a two per cent. solution of nitrate of silver—if very much swelling is present, with a four per cent. solution, neutralize with a solution of chloride of sodium, and then cover the conjunctiva with an antiseptic dressing consisting of vaseline and boracic acid. Apply cold by means of pledgets of lint or pieces of muslin from blocks of ice. In severe cases the cornea is in special danger, and the douche must be used frequently.

Dr. Andrews had used iodoform, quinine, and bichloride of mercury, but found that they had no advantages over the boracic acid or carbolic acid solution.

After the adjournment, which was to the first Thursday in October, Dr. Dadirrian, introduced by Dr. Post, exhibited samples of

MATZOON, OR FERMENTED COW'S MILK.

Since the earlier periods in history fermented cow's milk has been used abundantly in Armenia, Persia, Turkey, Arabia, and other Eastern countries, by all classes, and in all seasons of the year. It is made in every house, and ordinary milk is not at all used as an article of diet.

In large cities, selling fermented milk is as prominent a business as selling milk and cream in this country. It is prepared mostly by women in the country, in the evening, and carried to market early the next morning in bags and pails.

There are two kinds: one is thick, sometimes like jelly or condensed milk; the other is liquid, like buttermilk or koumiss.

These two kinds, the one or the other, according to preference, are used for the following purposes:

1. As an article of diet. It is highly nutritious. It is used as commonly with bread by children as is butter and bread here. In Asia Minor, and even in Constantinople, matzoon is put upon the table in a large dish, and is eaten with bread as a kind of dessert.

2. In the Oriental countries ice cannot be obtained regularly or abundantly; nor are sugar and lemons readily obtained, and. when found, are expensive. Nor can beer be obtained; and again, soda water has not been introduced. The farmers. therefore, use matzoon when in the field, and by workingmen generally it is used to quench thirst. Travellers carry it in a bag on horseback, and when they reach water mix it with cold water, and use it both as a drink and for eating with bread.

3. It is used as an antidote for all kinds of poisoning. There is a general belief among the people that matzoon is an antidote for every poison, and therefore, when anyone gets poisoned they do not inquire as to what the poison is, but at once administer matzoon, and this practice has been adopted with benefit for many centuries.

4. It is used as a prophylactic during every epidemic. During the severe epidemics of cholera, typhus fever, etc., in Asia Minor and Constantinople, those who used much alcoholic stimulants and ate different kinds of fruit nearly all died, while those who used matzoon chiefly as a beverage and as food nearly all escaped. Probably the matzoon acted in two ways: (1) as a nutritious, easily digested diet; (2) antiseptically, as an acid killing the micro-organisms.

5. It is used as a panacea in all acute febrile diseases. In the interior of Asia Minor, where, in the space of one hundred square miles scarcely one regular doctor can be found, sick persons are treated either by their own families or by their neighbors. When, for example, one of the family gets sick with typhoid, typhus, or scarlet fever, measles, or small-pox, etc., all kinds of other food, either solid or fluid, are at once stopped; the patient is not allowed even pure water, but from beginning to end matzoon in the liquid form is administered. In this way the patient gets nourishment, abundance of water, and also medicine.

6. It is used particularly for impaired digestion and for chest troubles.

During his three years' practice in Asia Minor, and twelve years in Constantinople, including the period of the Russo-Turkish war, Dr. Dadirrian had ample opportunity, in the government hospitals and in private practice, to test the efficacy of fermented milk in these affections.

Matzoon is more savory than koumiss, although the two do not differ entirely from each other. The specimens of matzoon exhibited were prepared in his own house, and this was the first time it had been presented to the profession. Dr. Dadirrian also prepares Leben, used in Arabia mostly, and approved of by Professor W. H. Thomson.

Tobacco and Cholera.—The Anti-Tobacco Society of France offers a prize for the best essay bearing upon the question of the liability or otherwise of smokers to contract cholera. The essays must be based upon actual facts, as the object of the Society in offering the prize is stated not to be the condemnation of tobacco in the face of facts, but to ascertain the facts as they are, although the anti-tobacconists would doubtless not be displeased to find themselves supported in their hobby by statistics. Possibly, if a healthy stomach be a safeguard against cholera, excessive smoking may dispose to the disease by disordering digestion.

A Chromatic Diagnosis of Leprosy.—In the purchase of slaves in China, it is said, great care is taken to see that they are perfectly sound, and especially that they are free from the taint of leprosy. For this reason they are usually taken on trial for a month. In examining for leprosy the slave is taken into a dark room, and a blue flame is then passed before the face. If the skin assume a greenish hue, the master is satisfied, but if there be a red reflection from the face the presence of the dread disease is suspected and the slave is returned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

PROFESSOR WOOD'S LECTURES AT THE COLLEGE OF SURGEONS—THE LAST MEETING OF THE MEDICAL AND CHIRURGICAL SOCIETY—MR. SUTTON ON THE ORIGIN OF FATTY TUMORS—MR. HUTCHINSON'S CASE OF LYMPHO-SARCOMA OF THE TONGUE—THE PEEL-GROVE BURIAL-GROUND CASE—THE HOLLOWAY SANITARIUM.

London, June 13, 1885.

As Hunterian Professor of Surgery and Pathology, Mr. John Wood, F.R.S., Surgeon to Kings College Hospital, is now delivering a short course of three lectures at the College of Surgeons, on "Hernia and its Radical Cure." Mr. Wood's views may, perhaps, not be generally acquiesced in by all surgeons, but they cannot fail to, at any rate, command respect. The subject is one which Mr. Wood has made peculiarly his own, having been engaged in its study during the last twenty-four years, that being the period which has elapsed since Mr. Wood gained the Jacksonian prize, at the College of Surgeons, for an essay containing his (then new) method of operating for the radical cure of hernia. Until within the last few years this has been the operation mainly practised by English surgeons. Mr. Wood dwelt at some length, in his opening lecture, on the "Pathology and Causes of Inguinal Hernia." He remarked that while disproportionate development in the intestines and abdominal viscera may predispose to, and assist in the formation of, a rupture, the chief causes "lie in the imperfection of the structures from delayed evolution in and about the deep hernial apertures." Speaking of the omentum, the lecturer said that, if it is elongated and so formed as to easily slip into a hernial sac and keep it open, or pressing upon the deeper hernial openings, an operation for radical cure cannot really be effective unless a portion of the omentum be also removed at the same time. "Such removal of the omentum," said Mr. Wood, "I have, in my later operations, always effected when required. Any attempt at shortening of the mesentery seems so far, even in these days of daring abdominal enterprises, to be out of the scope of practical surgery."

Mr. Wood dwelt at considerable length on the anatomy and mode of formation of inguinal herniæ. A few practical remarks were made on exercise in relation to hernia. Among exercises favorable to the prevention and cure of herina he placed hanging and swinging by the hands upon a trapeze, climbing up a pole or rope-ladder with the hands, and generally "any motion or posture which stretches out the body and increases the tension of Poupart's ligament." But force applied with the legs bent on the body and the inguinal structures relaxed, is injurious, remarked Mr. Wood. Rowing, lifting heavy weights, and straining with the diaphragm were mentioned as injurious, and tricycling received his unqualified disapproval. In all these, he said, Poupart's ligament and the adjoining structures were relaxed. The transversalis muscles forced the viscera down upon the relaxed structures in the groin. causing them to give way, and thus a rupture was produced. The rectus, also, in contracting pressed backward its sheath and the conjoined tendon and so tended to open up the canal.

The Medical and Chirurgical Society closed its labors for the present session on Tuesday last. Two papers were then read. One of these was by Mr. J. B. Sutton, and was virtually a pathological essay, being an elaborate disquisition on the origin of fatty tumors. Mr. Sutton's theory is that any of the soft tissues of the body, normal or pathological, may degenerate into fat, and that, in some cases, this retrograded tissue assumes an autonomy and grows into a veritable fatty tumor. This theory Mr. Sutton elaborated with a good deal of ingenuity and

learning. He referred to cases which lent support to the notion that congenital fatty tumors containing bone are really examples of parasitic fœtuses whose soft parts have retrograded wholly or partially into fat. In the ensuing discussion Mr. Sutton remarked that a parasitic fœtus may remain attached as long as thirty years and even then move its limbs, thus showing that it is certainly a rudimentary fœtus enjoying life.

The other paper was by Mr. Hutchinson, and described very fully the history of a case in which a large lympho-sarcomatous tumor was removed from the tongue by Mr. Hutchinson. The growth began in early life in the substance of the tongue, and ultimately attained such a size as to fill the mouth. Its growth had been slow and painless. It was of stony hardness, its surface covered at one part with papillary outgrowths, but there was no tendency to ulceration. There was no gland-disease. When the patient (a medical student) was twenty-two years of age it was removed on account of its bulk, the patient being otherwise in good health. When removed it was found to weigh seven ounces, having been at least twelve years in growing. After two years immunity, a new growth suddenly developed in the scar, increased very rapidly, and caused the death of the patient.

The case of the "Peel-Grove Burial-ground," has been before the law courts again during the last few days. The plaintiff sued the defendant for rent, the land having been let for building purposes. Since the ground was let, an Act of Parliament has passed forbidding building on any disused burial-ground. On this ground the claim was resisted. I will not weary your readers with a discussion of the legal questions brought forward, but will briefly draw attention to a few points of sanitary interest. The first interment took place in 1840, and the burial-ground was closed in 1855. Its total area was less than three-fourths of an acre. The chaplain, who officiated from 1844 to 1855, gave evidence that he had officiated at the burial of 11,300 persons. The total number buried, he estimated to be between seventeen and eighteen thousand. The graves were from twenty to twenty-five feet deep. Each grave contained the bodies of ten or twelve adults and double as many children. There was no space between the coffins. The neighborhood is now densely populated. I am glad to say the judge disallowed the claim, remarking that the whole proceeding was an unholy compact.

On Monday next the Prince of Wales is to open the "Holloway" Asylum, at Virginia Water, designed for the care and treatment of the mentally afflicted of the middle classes. The institution is a handsome building of red brick and stone, and has been erected with a large legacy bequeathed for that purpose by "Professor" Holloway, of pills and ointment fame. A duly qualified medical superintendent has been appointed.

OUR PARIS LETTER.

(From our Special Correspondent.)

CALORIFICATION—TRANSPLANTING AN EYE—CHOLERA—THE TREATMENT OF PROGRESSIVE MYOPIA—DEATH OF DR. NOËL GUENEAU DE MUSSY.

PARIS, June 12, 1885.

In pursuing his researches on the temperature of the human body, Dr. Charles Richet lately communicated a note to the Academy of Sciences on the influence of the nervous system on the process of "calorification," or generation of heat in the organism. His new experiments have proved that the nervous system is the regulator of animal heat, it is more by an action on chemical life than by an influence of the vasomotor system. In fever one loses more heat than in the normal condition; in the state of algidity one loses less heat than in the normal, so that the temperature, in these two conditions is in constant relation with the production of heat. Hence the changes in the production of heat, at least in animals provided with a thick fur, have more importance in determining the general temperature of the body than the changes caused by loss of heat.

The operation of skin-grafting was justly considered a great achievement in surgery, but up till now the grafting of entire organs, except perhaps teeth, and that with those of animals completely dissimilar in their nature has not to my knowledge been heard of. Dr. Chibret, of Clermont-Ferrand, lately astonished the Paris Academy of Medicine with a note, announcing that he had replaced the eye of a young girl, which he had to remove to prevent sympathetic ophthalmia of the other, with that of a rabbit. A fortnight after the operation, when Dr. Chibret forwarded his communication, matters seem to have been in the most satisfactory condition, that is as far as the fixing of the eye is concerned, but no mention is made as to whether the patient can see with the eye or not. But for the high standing of the author in the profession, who is a distinguished ophthalmologist, the whole affair might have been considered a joke, but as he promised to give full details of the case at an early opportunity, we must suspend further comments on the subject.

After having ascertained that the epidemic now raging in the province of Valencia is the genuine Asiatic cholera, and after having hesitated to put into practice Dr. Ferrán's method of cholerization, the Spanish Government has organized a special commission to report on it, after having personally observed the effects of the inoculations practised by Dr. Ferrán with the microbes cultivated from the dejections of choleraic patients. The experiments were to be performed on persons and animals. Children were to be inoculated with the consent of their parents, whilst adults were to receive instructions direct from Dr. Ferrán. The persons inoculated were to be taken from divers classes of society, and the report of the Commission is to be forwarded to the Faculty of Medicine of Madrid for its opinion and for ultimate publication.

The report of the outbreak of cholera at Marseilles has been officially contradicted. Nevertheless, every precautionary measure is being taken to prevent an incursion of the plague.

In a memoir addressed by Dr. Dransart to the Academy of Sciences on the treatment of progressive myopia by iridectomy and sclerotomy, the author, supported by numerous observations, considers that, as these operations have effected a revolution in the treatment of glaucomatous affections, the same operations would be still more efficacious to combat progressive myopia, which in his opinion contributes largely to the number of cases of blindness noticed each year. The following are the conclusions of the memoir: 1, the circulatory theory which explains the production of glaucoma is also that which explains the genesis of myopia; 2, it is expedient to practise sclerotomy or iridectomy in the cases of progressive myopia, in which the visual acuity is reduced to one-fourth, and even to less, and in which the progress of the malady had not been arrested by the ordinary therapeutic means; 3, these operations arrest the progress of the disease, maintain visual acuity, which may be even doubled, or even restored, in certain cases, when it has disappeared altogether, either qualitatively or quantitatively; 4, iridectomy should be almost always performed as a preventive of detachment of the retina, and in this way suppress the principal factor of cecity by myopia.

At the meeting of the Academy of Medicine last week the President announced the death of Dr. Noël Gueneau de Mussy, which had just taken place, and to which he referred in the most touching terms. By this death the medical profession of Paris has lost one of its most eminent members. Gueneau de Mussy was born on November 6, 1813, and was the grandson of the celebrated Professor Hallé. Besides being a distinguished physician, he was a man of letters. After having taken his degree in 1839 he was chosen by Chomal as his Chef de Clinique. In 1847 he was promoted to Ayrégé, and in

1867 he was elected member of the Academy of Medicine. He was for a long time Physician to the Hôtel Dieu, which post he held till within a few years ago, when he was obliged to retire, owing to his having reached the limit of age (sixty-six) allotted to hospital physicians. He was, however, retained as consulting physician, and his vast experience and great diagnostic powers were taken advantage of whenever opportunity offered. He was well versed in the English language, which enabled him to introduce into French medical literature the theories and experience of the great English and American authors. He had just completed the fourth volume of his "Clinique Médicale," which treats of cases observed by him in his hospital and private practice. The third volume of this work was devoted exclusively to typhoid fever, and may be considered almost a reproduction of the works of Dr. Murchison and of other British authors on the subject, at least in so far as is concerned the etiology of the disease.

ON RUPTURE OF THE PERINEUM.[1]

To The Editor of The Medical Record.

Sir: Will you please publish in The Record my supplementary remarks on Rupture of the Perineum, made after the reading of the paper. They were substantially as follows:

Gentlemen: As I cannot remain until the discussion of the several papers to be read this evening is closed, the President has permitted me to make a few supplementary remarks.

Speaking of the means to be employed to prevent a rupture of the perineum, Dr. Barker, in his excellent treatise on "Puerperal Diseases," says that, to avert this accident, he has often, near the close of labor, pushed the chloroform to the production of *profound* anæsthesia, with the result of relaxing the muscular fibres of the perineum and without delaying the progress of labor.

I regard this as an error in theory and of observation. I do not think the muscular fibres of the sphincter vaginæ ever offer any resistance to the advance of the head at this stage of labor. They have been stretched beyond their normal length four or five times at least, and in this condition they must have lost all contractile power. Certainly, while the distending force is continued no degree of anæsthesia could cause these fibres to relax. It might diminish the force of the uterine contraction and thus relieve the perineum, but when the contractions returned the perineum would be subjected again to the same strain. Dr. Barker intimates, however, that the uterine contractions are under these circumstances in no way affected. To my mind his theory is incredible, and his observations are therefore erroneous.

I wish further to call your attention to some remarks of Dr. Meigs, the late Professor of Midwifery in the Jefferson Medical College, Philadelphia, who enjoyed a very large obstetrical practice for many years, which will show how seldom in his personal experience a perineal rent demanding operative interference occurred. "I defy," he says, "any one to point out the sample of a female who has suffered under any durable lesion, etc., who has been attended by me." He objects also to the primary operation as worse than useless.

Such testimony as this as to a matter of fact—and it corresponds with my own personal experience—cannot properly be ignored, no matter how old the testimony may be.

And last, I wish to call your attention to the letter of the Vienna correspondent of The Medical Record. In the number of that journal for June 13, 1885, he states that in the Vienna Obstetrical Hospital there are confined every year about nine thousand patients. The building has been used for this purpose the last hundred years. Antiseptic precautions are enjoined, but some of the most important precautions do not receive practically the slightest attention. During the three months preceding his report seven hundred women were delivered, and only three died, one of which number was a Cæsarean section, and this was the only septic case. The average mortality of the hospital is placed at less than one-half of one per cent.

Speaking of the general management of labor in this hospital, the writer says: "The entire absence of medicine to hasten the labor when too slow, or relieve severe pains, or to induce them when wanting or feeble, is noticeable. Avoidance of *any kind of interference* in labor is carried to the greatest extreme. Even for forceps operation or a version, unless extremely difficult, no anæsthetic is administered. Great care is taken also to prevent the least injury to the os uteri. The utmost respect is paid during labor to this part. It must dilate normally and in its own time. Artificial dilatation is not permitted, even with the finger, and all mechanical appliances for dilatation are 'inventions of the devil.' The placenta is usually expelled by Crede's method."

"Rupture of the perineum in onecase in a hundred of primiparæ is a rarity;" but when it does occur it is at once closed by silk sutures. Upon this latter point alone my opinions are not in accordance with the opinions and practice of the Vienna surgeons, and this is a point of relatively small importance.

Frank H. Hamilton, M.D.

[1] Supplement to Dr. F. H. Hamilton's paper, read before the New York County Medical Association, June 15, 1885, and published in this Journal, June 20, 1885.

MEDICAL MANNERS.

To the Editor of The Medical Record.

Sir: Your ingenious fellow-countryman, Mark Twain, tells us, in a foot-note to his "Answers to Correspondents," that the advice given to the "Young Poet" was taken *au grand sérieux* by the *Saturday Review*, which seized the occasion to hold up to British scorn the invincible ignorance of American editors. We have all been rather pleased to think that the omniscient *Saturday Review* should have been caught tripping, but it seems that what is very obviously a joke on this side of the Atlantic may be regarded as solid material for a serious article in the New York Medical Record, and may actually afford a basis for congratulation "to the profession in this country" (*i.e.* America) that you are "not so dependent upon manners" as your brethren in England.

I can assure you that the letter from a practitioner of "fifty-one years' standing" was undoubtedly a *jeu d'esprit*. Another time he ought to be careful and write himself a practitioner of "a hundred and fifty-one years' standing," and then there would be no mistake of this kind. You evidently have not noticed that the *Medical Times* has been making vigorous efforts to take rank as a serio-comic paper. Its efforts so far have been heavy, but they are none the less exceedingly well meant.

Manners here, as elsewhere, are based mainly on good sense and good taste, self-control, self-respect, and respect for other people. These are qualities which I hope are cultivated and regarded with equal favor on both sides of the Atlantic, as they certainly form a most important element of success in the stock in trade of any young physician.

I am, yours obediently,

Robert Saundby, M.D.

Birmingham, Eng., March 4, 1885.

Infant Mortality in Russia.—More than sixty per cent. of the children in Russia die under the age of five years, about two millions of them perishing every year. Not one-half of the males attain to the age of thirty-five, and one-third of those who survive this age are incapacitated for military service by reason of their low stature or of constitutional debility.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 21, 1885, to June 27, 1885.

HARTSUFF, ALBERT, Major and Surgeon. Assigned to duty at Fort Hamilton, N. Y. H. S. O. 133, Department of the East, June 24, 1885.

MIDDLETON, J. V. D., Major and Surgeon. Granted one month's leave, with permission to apply for fifteen days' extension; to take effect about 15th prox. S. O. 88, Department of the Missouri, June 19, 1885.

BROWN, H. E., Major and Surgeon. Assigned to duty as Post Surgeon, Fort Reno, Ind. T. S. O. 91, Department of the Missouri, June 24, 1885.

TAYLOR, BLAIR D., Captain and Assistant Surgeon. Ordered from Department of Texas to Department of the East. S. O. 141, A. G. O., June 20, 1885.

CARTER, WILLIAM F., Captain and Assistant Surgeon. Ordered from Department of the East to Department of Texas. S. O. 141, A. G. O., June 20, 1885.

DAVIS, WILLIAM B., Captain and Assistant Surgeon. Leave of absence extended three months. S. O. 142, A. G. O., June 23, 1885.

EBERT, R. G., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month, to take effect about July 5. S. O. 97, Department of Colorado, June 17, 1885.

ROBERTSON, R. L., First Lieutenant and Assistant Surgeon, now on leave of absence, directed to report in person by July 7, 1885, to Commanding Officer of Columbus Barracks, Ohio, to accompany detachment of recruits to Department of Texas. On completion of this duty to rejoin his proper station. S. O. 143, A. G. O., June 24, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 27, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
June 20, 1885	0	11	51	3	88	54	0	0
June 27, 1885	0	12	46	1	109	70	0	0
Deaths.								
June 20, 1885	0	1	7	2	17	23	0	0
June 27, 1885	0	3	9	1	21	34	0	0

THE HEALTH OF BARCELONA.—We have received from Señor Bolibar, the editor of *Industria e Invenciones*, a pamphlet of nearly one hundred pages, treating of the sanitary condition of Barcelona, and of the means necessary to improve it. The author, Señor García Fària, is thoroughly impressed with the necessity of instituting sanitary reforms in his native city, and has performed his laborious task with a zeal worthy of his object. The work is accompanied with thirty-seven statistical tables, showing the comparative death-rates in all the principal cities of Europe and America, their mean temperature, their elevation above the sea, their sanitary condition, etc., compiled with great care from official sources. The necessity of the work is shown by the fact that the death-rate of Barcelona is 32.5 per one thousand, while that of London is but 19. Over fifty per cent. of the deaths are of persons under thirty years of age, and forty per cent. are from infectious diseases. This high death-rate is not chargeable to the unfavorable situation of Barcelona, but, as the author points out, to insufficient sewerage, poor water-supply, and defective pavements. On account of its tables this monograph will be very serviceable to many who take no particular interest in the sanitation of Barcelona apart from that of other cities.

VASELINE IN PASTRY.—A French sanitary committee has recently reported adversely against the practice of certain bakers of using vaseline instead of butter in pastry. The chairman in his report said that cakes made with vaseline did not become sour, but that this was a disadvantage for the consumer, as he was thus more liable to be deceived as to the freshness of his purchases. Vaseline furthermore was deficient in the nutritive properties possessed by butter and lard, and data were wanting to prove that it was not even injurious to the organism.

A NEW BRAZILIAN JOURNAL.—The first number has appeared of the *Revista dos Cursos Praticose Theoricos da Faculdade do Medicina do Rio de Janeiro.* The editors are Drs. Cypriano de Freitas, Hilario de Gonvêa, Erico Coelho, Martin Costa, and Lima e Castro. It is the official organ of the medical faculty of Rio de Janeiro, and, as it is published at the expense of the government, it may well anticipate a life as long as its name. And, indeed, if the subsequent numbers equal in excellence the first, the longevity which we wish it will be deserved.

THE SUGAR OF THE BLOOD.—According to Dr. J. Seegen (*Annales de la Société Médico-Chirurgicale de Liège*) the sugar contained in the blood is glucose. It is found in large quanties in the liver, and is decomposed in the organism, but it is only slightly, if at all, diminished in amount in its passage through the lungs. The blood of the carotid artery contains about the same proportion as does that of the right ventricle, but the blood of the hepatic veins is charged with double the quantity that is found in the portal vein. The total mass of the blood in dogs contains from one to one and a half parts per thousand of glucose.

A NOVEL THEORY CONCERNING THE PREVENTION OF CHOLERA.—Lyons is said to have hitherto enjoyed a singular immunity from cholera. Numerous theories have been advanced to account for this, but certainly one of the most original, if not the most satisfactory, was that invented many years ago by M. Levicaire, of Toulon, and recalled by the *Lyon Médical* of a recent date. This eminent physician regarded cholera as a poisoning by hydrocyanic acid. The alleys in Lyons, it seems, are used by the male population as public urinals, much as they were formerly in Cincinnati and other of our Western cities. "And it is precisely because every one makes water in the alleys that Lyons enjoys a freedom from cholera, for the ammonia so produced neutralizes the hydrocyanic acid," said M. Levicaire.

ANCIENT DENTISTRY.—In the museum of Cometo, in Tuscany, von Marter recently discovered a skull containing false teeth. They seemed to have been made from the teeth of animals, and were fastened to their natural neighbors by means of narrow gold bands. The tomb from which this skull was taken, was said to date back to the fifth or sixth century before the Christian era.

ADONIDIN.—This substance is a glucoside derived from the adonis vernalis, a plant of the family of ranunculaceæ. It increases arterial tension, regulates the action of the heart, and augments the renal secretion. It is administered in daily doses of one-thirteenth to one-ninth of a grain, gradually increased to one-third or one-half a grain. It is said to possess a cumulative action and its administration should therefore be suspended every fourth or sixth day.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 2 NEW YORK, JULY 11, 1885 Whole No. 766

Original Articles.

CASE OF .
POISONING RESULTING FROM CHLOROFORM TAKEN INTERNALLY—RECOVERY.

SUPPLEMENTED WITH A TABLE OF REPORTED CASES.

By LLEWELLYN ELIOT, M.D.,

ATTENDING PHYSICIAN TO ST. ANN'S INFANT ASYLUM, CENTRAL DISPENSARY, EMERGENCY HOSPITAL, ETC., WASHINGTON, D. C.

REPORTS of cases of poisoning following the internal administration of chloroform are scattered through the literature of medicine. To collect these various reports and to show their treatment is the object of this paper. When summoned to the case which is recorded below, I was struck with the absence of information regarding treatment in text-books upon materia medica, therapeutics, and toxicology. The table accompanying is the result of an investigation into this subject, extending through two years: it shows upon its face the picture of each case, but for the use of those who may desire to extend this investigation beyond its present limits, as well as for the purposes of general information, the record of each case is appended in abstracts.

Glancing at our table we find death resulted in 16 cases; of this number but 6 died in twenty-four hours, the other 10 surviving varying periods until the eighth day. A fatal issue results from the intensity of the œsophageal, tracheal, and gastric symptoms. One case (No. 15) should properly be excluded from consideration, as it is surrounded by such an element of doubt; this would give a mortality of 15 in 56 cases, or 26.78 per cent.

Chloroformum, methenyl chloride, terchloride of formyl, according to Wood, was discovered by Mr. Samuel Guthrie, of Sackett's Harbor, N. Y., in 1831. It results from the action of bleaching powder (chloride of lime) upon methyl or ethyl alcohols, or of chlorine upon marsh gas. It is a heavy, colorless fluid, practically uninflammable, but will burn with a greenish flame; its smell is powerful and agreeable; taste hot, sweetish, and aromatic; solvent powers extensive; specific gravity 1.525 at zero and boils at 62° C. (143.6° F.); insoluble in water, soluble in alcohol and ether; unaffected by concentrated sulphuric acid. There are two officinal forms—chloroformum venale and chloroformum purificatum.

Chloroform is introduced into the system through the lungs, the stomach, and the skin. Whether its action depends upon an altered condition of the blood or upon its direct action upon the nerves is not certain; it is more than probable that both theories are correct—upon the blood by increasing its carbon and rendering it thicker, and upon the nerves by its paralyzing effect. That it acts upon the blood by destroying its red disks in the body is proven by the appearance of icterus following its administration either by inhalation or by the mouth (L. Hermann: *Archiv für Anatomie, Physiologie, etc.*, 1866).

Chloroform from its quickness of action and smallness of dose is superior for surgical and obstetrical purposes to any other anæsthetic, although it has an increased amount of danger over ether, nitrous oxide, and bromide of ethyl. Its mortality is 1 to 5,860, that of ether 1 to 16,542, that of nitrous oxide 1 to 100,000. It is not an agent to be used indiscriminately nor in the absence of proper antidotes.

Deaths are rather due to paralysis of the heart and respiratory organs. When administered internally the symptoms produced are of the same character only more intensified and more lasting than those following inhalation. A stage of transient excitement, most marked in athletes and drunkards, muscular relaxation, abolition of sensibility and consciousness, profound narcosis, stertorous breathing and abolition of reflex actions are the essential symptoms following the administration of this drug either by inhalation or by the mouth. Although rarely prescribed internally it is sometimes useful in neuralgia, colica pictonum, delirium tremens, renal calculi, ague, and to relieve the pain and vomiting of cancer of the stomach. Chloroform is administered under but three conditions, namely: first, by surgeons for surgical purposes; second, by medical men and others to induce sleep, obtain relief from pain, or for suicidal purposes, and third, for its intoxicating effects. A few cases have occurred where it has been taken by mistake for some other fluid. I have never seen its successful administration to sleeping subjects, although I have experimented upon them.

It is impossible to state with exactness the amount of chloroform that can be administered by inhalation; the concentration of the vapor and the length of time during which it is used are to be considered. In a successful case of puerperal eclampsia where I assisted there was one pound and a half administered during thirty-six hours. The same holds good in regard to the fatal dose taken by the mouth. Recorded cases show quantities varying from half a drachm to six ounces. The indications of the administration of a fatal dose, in addition to general muscular relaxation, perfect anæsthesia, and insensibility, are cyanosis, convulsions, jaundice, sudden paleness of the face and lips, stoppage of the pulse and respiration, involuntary passage of urine and fæces. In treating cases of narcosis following internal administration, the first indications are to evacuate the stomach by an emetic, or preferably by the stomach-pump. The stomach may be washed out and the restorative remedies introduced. Fresh air, sinapisms, flagellations, cold douche, strong coffee, with ammonia, strychnia, digitalin, or morphia sulphate hypodermically administered are the measures to be adopted; at the same time artificial respiration, lowering the head to the general level of the body, drawing the tongue forward, lifting the chin, application of hot irons to the skin, and the inhalations of nitrite of amyl should be employed. Electricity is advocated upon theoretical grounds. Recently subcutaneous injections of apomorphia have been suggested by Dr. Reuss (Case 41); the employment of this powerful emetic would no doubt hasten recovery if used in time, but few physicians have it always at hand. The employment of ammonia as a stimulant, in preference to alcohol, is based upon theoretical considerations, alcohol increasing the already increased amount of carbon in the blood, while ammonia acts merely as a powerful stimulant. This view was brought forward by Spence.

The post-mortem[1] appearances are not pathognomonic. The gastro-intestinal tract is reddened, ecchy-

[1] In the abstracts all post-mortem appearances not connected with the result of chloroform-poisoning are omitted.

mosed, and shows other signs of severe and intense inflammation.

The dose generally prescribed for internal administration is from fifteen drops to one drachm in mucilage, glycerine, or sweetened water.

On Sunday, January 14, 1883, about four o'clock in the evening, I was summoned to see General B——, sixty years of age, who had swallowed chloroform. Upon my arrival at the house, ten minutes after, his wife informed me that he had taken the bottle containing six ounces of Squibb's chloroform and swallowed two ounces. She had given him mustard-water and "a few drops of water of ammonia." He was lying upon the bed in an apparently exhausted condition, with sunken eyes, anxious expression, dilated pupils, coldness of the extremities, a weak pulse of 70, intense burning in throat, stomach, and over the abdomen, sighing respiration, and great inclination to sleep. He was given pulv. ipecac, zinc sulph., āā 1 gramme, to be repeated; soon violent nausea and retching set in, and the stomach was emptied of a yellowish fluid, smelling strongly of chloroform; this vomiting was repeated twice, when the fluid was streaked with blood. To combat the drowsy condition very strong coffee was given him; to allay the burning sensation plenty of sweet oil. In about two hours he was sufficiently recovered to be left with his attendants, leaving instructions to continue a systematic series of pulling and calling and administration of strong coffee. I promised to call at 8.30 the same evening, when his only discomfort was the excessive burning about the mouth and throat. The free use of sweet oil afforded relief. On the next morning he appeared very well, was ordered a gargle of chlorate of potash and slop diet. In a week he was entirely recovered.[1]

Case 1.—Adult male, aged twenty-two, took four ounces. Seen in three hours. Appeared as if intoxicated; skin below normal; pupils dilated and insensible to light; respiration tranquil; pulse 65 and small. Stomach was washed out with tepid water; then with brandy-and-water; then one gramme of compound spirits of ammonia introduced. Vomiting followed; became profoundly comatose; breathing stertorous and puffing; skin cold; pulse imperceptible; general convulsions. Placed in blankets and surrounded by warm water in tins; sinapisms to chest and large blister to nape of neck. Became sensible thirteen hours after taking the chloroform; on the fourth day he was discharged entirely cured. He stated that he lost sensibility from the time he drank the chloroform.

Case 2.—F. D. M——, aged thirty-one, took thirty grammes thirty drops. Heat and burning of air-passages, œsophagus, and stomach; in ten minutes was delirious; pupils neither dilated nor contracted, mobile; respiration unembarrassed. Given sweetened water and a few drops of aqua ammonia, without effect. Recovery. This occurred in a case of treatment of colica pictonum.

Case 3.—Wm. W——, aged twenty-seven, on December 6, 1851, took two mouthfuls. Seen in six hours. Breathing stertorous and heavy; pupils dilated; pulse 60, full and soft; total insensibility; face livid; lips almost black. Stomach washed out with warm water and mustard; turpentine over chest and abdomen, also by enema. Improvement. Death in thirty-six hours. Post-mortem examination showed congestion of mucous surface of pharynx and of the brain.

Case 4.—Male child, aged four, took from one to two drachms. Seen in thirty-five minutes. Insensibility; pupils contracted; breathing laborious; pulse quick and full; face pale; extremities cold; afterward pupils became alternately dilated and contracted; face livid and pale; pulse quick and full, then imperceptible; breathing stertorous. Treatment: Sulphate of zinc; stomach-pump; sinapisms; ammonia to nostrils; leeches; artificial respiration; then warm bath. Died in three hours. No post-mortem examination.

Case 5.—Mr. H—— was ordered for delirium tremens the following: ℞. Chloroform, ʒ v.; pulv. glycyrrhiza, ʒ j.; mist. camph., ʒ ixss. M. Sig.: One ounce dose. He took the whole at one dose. No bad effects followed; was jaundiced. Recovered. No notes in detail.

Case 6.—Female, aged twenty-one, on May 19, 1856, took two ounces. Seen in twenty minutes. Symptoms resembled opium poisoning; perfectly unconscious; pupils contracted; temperature normal; respiration tranquil and regular; pulse 78, soft and tolerably full. Treatment: Stomach-pump; sinapisms; aromatic spirits of ammonia with brandy. Respiration continued to decrease until it fell to two in the minute, and finally ceased for nearly two minutes. Galvanism; stimulating enemata every half hour. May 25th was able to sit up, and the following day returned to work.

Case 7.—Adult male, who took six ounces in the Royal Infirmary, Edinburgh, some years ago. He recovered from the immediate effects, but died in forty-eight hours of acute gastritis. Stimuli and galvanism were used. This case is related from memory, and the name of the medical attendant is not given.

Case 8.—H. P——, male, adult, on August 12, 1856, took three and a half ounces. Seen in a few minutes. Immediate symptoms of intoxication; vomiting violently and in a state of wild excitement; insensibility; hiccough; pulse frequent, weak, and jerking. Pupils varied, sometimes dilated at others contracted; breathing became slightly stertorous. Treatment: Stomach-pump; galvanism; cold affusions; shaking. Recovery from poisoning in nine hours. Slight gastritis followed.

Case 9.—C. C——, aged twenty-three, took four to five drachms. Seen in two hours. He immediately experienced burning in the throat, fauces, and epigastrium; in half an hour he vomited; breathing became slower; pupils contracted and then dilated to such an extent that scarcely any iris could be seen, and so remained until his recovery; surface became cold; pulse imperceptible; jaws firmly clenched; respiration but faintly perceived; blood and mucus exuded from mouth and nostrils. Treatment: Cold affusions, artificial respiration, and enema of turpentine. Recovered entirely in a few hours with no bad results except slight subacute gastritis.

Case 10.—Mary McN——, aged thirty-five, took an ounce and a half. Seen in twenty minutes. Insensible; stertorous breathing; pulse slow and feeble; pupils contracted. Treatment: Mustard sinapism; dry cups; frictions; stomach-pump, and brandy. Gastritis followed and she died in twenty hours. Autopsy showed softening of the mucous membrane of the stomach to such an extent that it could be scraped off in shreds.

Case 11.—Harry T——, Company F, Second Cavalry, took two ounces. Seen in ten or fifteen minutes. Had vomited; insensible; breathing stertorous; pulse about 60; respiration became very slow and feeble; pulse reduced to 40, scarcely discernible and intermittent; face purple. Treatment: Stomach washed out with a pint and a half of warm water. Spt. ammon. aromat., ʒ ij., introduced before tube was withdrawn. Cold douche; stimulating enema; sinapisms. Sensibility returned in seven hours. Slight gastritis and jaundice followed. He was returned to duty.

Case 12.—Female adult, aged twenty-two, on March 24, 1857, took nearly one ounce. Seen in five minutes. Total insensibility; pupils dilated; pulse full and oppressed; foam at the mouth. Treatment: Fresh air, brandy-and-water, stomach-pump, ammonia to nostrils, cold water dashed in the face. March 27th was up, walking about; pulse regular and equal. Subject was an epileptic.

Case 13.—Female adult took on October 27, 1858, a wineglassful. Seen four and a half hours afterward. Pupils slightly contracted; pulse 84, moderately full; breathing abdominal, without stertor; total insensibility;

[1] For assistance in collecting the cases from the German medical journals I am greatly indebted to Drs. Behrend and Kolopinski, of this city.

Table of Reported Cases of Poisoning by the Internal Administration of Chloroform.

No.	Reference.	Reporter.	Sex.	Quantity taken.	Time elapsed before seen.	Pulse.	Respiration.	Pupils.	Result.	Remarks.
1	Lond. Med. Gaz., vol. xii., p. 675, 1851.	A. S. Taylor, M.D., F.R. S.	Male, 22 yrs.	ʒ iv.	3 hours.	65, small, became imperceptible.	Tranquil, afterward became stertorous and puffing.	Dilated, insensible to light.	Recovery complete in 4 days.	
2	Bull. Gen. de Thérap., etc., Paris, vol. xlii., p. 296, 1852.	Dr. F. A. Aran.	Male, 31 yrs.	30 grs. 30 gtt.	10 minutes.	Between 72 and 80.	Without uneasiness.	Neither dilated ner contracted.	.....	This case occurred during the course of treatment of "colica pictonum.
3	Monthly Jour. Med. Sc., Lond. & Edin., vol. xiv., p. 77, 1852.	E. R. Bickersteth, Esq.	Male, 27 yrs.	Two mouthfuls.	6 hours.	60, full and soft.	Stertorous and heavy.	Dilated.	Died in 36 hours.	Autopsy.
4	Ass'n Med. Jour., Lond., vol. i., p. 354, 1834.	F. H. Hartshorne, Esq.	Male, 4 yrs.	ʒ j to ʒ ij.	35 minutes.	Quick and full, then imperceptible.	Laborious, then stertorous.	Contracted, then varied.	Died in 3 hours.	No autopsy.
5	Dublin Hosp. Gazette, vol. i.,	Dominic Corrigan, Nov. 15, 1854.	Male, adult.	ʒ ivss.	.....	.....	.....	.....	Recovery.	In a case of "delirium tremens," no bad effects.
6	Lond. Lancet, vol. ii., p. 159,	J. Spence, Esq., F.R.C.S.E. 1856.	Female, 21 yrs.	ʒ ij.	20 minutes.	78, soft and tolerably full.	Regular and tranquil, but continued to decrease until it fell to two a minute, and finally ceased for nearly two minutes.	Contracted.	Recovery complete in 7 days.	
7	Lond. Lancet, vol. ii., p. 159,	J. Spence, Esq., F.R.C.S.E. 1856.	Male, adult.	ʒ vj.	.....	.....	.....	.....	Died in 48 hours of acute gastritis.	Occurred at the Royal Infirmary, Edinburgh, cited from memory.
8	Ass'n Med. Jour., Lond., vol. ii., p. 733, 1856.	T. Holmes, Esq.	Male, adult.	ʒ iijss.	Few minutes.	Frequent, weak and jerking.	Became slightly stertorous.	Varied.	Recovery, with slight gastritis following.	
9	Virg. M. and S. J., Richmond, vol. vii., p. 369, 1856.	— Frick, M.D.	Male. 23 yrs.	ʒ iv. to ʒ v.	2 hours.	Imperceptible.	Became slower until faintly perceived.	Contracted, then very widely dilated.	Recovery in a few hours, gastritis following.	
10	Med. Exam., Phila., vol. xii.,	Junius Wdliams. p. 659, 1856.	Female, 35 yrs.	ʒ jss.	20 minutes.	Slow and feeble.	Stertorous.	Contracted.	Died in 20 hours.	
11	Am. Jour. Med. Sc., Phila., vol. xxxiv., p. 367, 1857.	C. H. Smith, A.S., U.S.A.	Male, adult.	ʒ ij.	10 to 15 minutes.	About 60, became reduced to 40, and scarcely discernible and intermittent.	Stertorous, became slow and feeble.	.....	Recovery, with slight gastritis and jaundice.	
12	Med. Times and Gazette, Lond., p. 615, 1857.	H. D. Dean, M.R.C.S.L., S.A.	Female, 22 yrs.	Nearly ʒ j.	5 minutes.	Full and oppressed,	.....	Dilated.	Recovery in 3 days.	
13	Lond. Lancet, vol. i., p. 400, 1859.	W. P. Bain, M.D.	Female, adult.	Wineglassful.	4½ hours.	84, moderately full.	Abdominal, without stertor, stopped for thirty seconds.	Slightly contracted.	Died on eighth day of acute gastritis.	Autopsy.
14	Am. Med. Times, N. Y., vol.	T. C. Finnell, M.D. ii., p. 153, 1861	Female, 18 yrs.	ʒ j.	20 minutes.	Feeble and quick.	Stertorous.	Contracted and insensible to light.	Recovery in 3 hours.	
15	Be. f. gerichtl. anthrap. Nurnberg, Bd. xii., p. 317, 1861.	.....	Male, 28 yrs.	¼ lb.	2 hours.	.....	.....	.....	Death.	This case is very doubtful.
16	Med. Times and Gazette, Lond., vol. i., p. 478, 1862.	Alex. Lamm, M.D.	Male, 35 yrs.	ʒ jss.	7 hours.	Full though slow.	Hurried and audible.	Highly dilated, and insensible.	Death in 23½ hours.	Autopsy.
17	Med. Times and Gazette, Lond., vol. i., p. 577, 1862.	H. M. D. S., M.D.	Male, 50 yrs.	ʒ ij.	7 hours.	Slow and feeble.	Movements of thorax scarcely perceptible.	Widely dilated, and insensible.	Recovery complete in a week, gastritis following.	
18	Lond. Lancet, vol. ii., p. 7,	George Harley, M.D. 1863.	Female, 12 yrs.	ʒ vj.	About 20 minutes.	Became imperceptible at wrists.	Stertorous, reduced to six in a minute.	Contracted.	Recovery complete in 10 days.	Chloroformic anodyne.
19	Med. Times and Gazette, Lond., vol. ii., p. 378, 1863.	W. B. Woodman, M.D.	Male, 72 yrs.	Nearly ʒ j.	1 hour.	Impercep- tible.	Slow, imperceptible.	Contracted.	Recovery in 2 days.	Liniment of chloroform and olive oil.
20	Australian M. J., Melbourne, vol. ix., p. 108, 1864.	F. Dowling.	Male, 28 yrs.	ʒ jss.	.....	Small, fast, and failing.	Slow and stertorous.	Dilated.	Death in 27 hours.	Autopsy.
21	L'Union Medicale, Paris, vol. xxiii., p. 155, 1864.	Dr. Martinenq.	Male, 40 yrs.	10 gms.	.....	.....	.....	.....	Recovery.	
22	Gaz. Med. de Strasbourg, p. 168, 1864.	Dr. Macker.	Male, 27 yrs.	50 gms.	½ to ¾ hours.	100, very feeble and small.	Stertorous, stopped at times.	Enormously dilated.	Recovery.	
23	Med. Times and Gazette, Lond., vol. i., p. 34, 1866.	Edward Bradford.	Male, 25 yrs.	ʒ j.	2½ hours.	At wrist scarcely to be felt; heart, pulsations about 120.	Stertorous, short and jerky, 20 in a minute. at times they almost ceased.	Contracted.	Death in 12 hours.	Autopsy.
24	Med. Record, N. Y., vol. ii., p. 54, 1867.	O. D. Pomeroy, M.D.	Female, 45 yrs.	ʒ v. to ʒ ix.	3 hours.	About 70, and feeble.	.....	.....	Death on eighth day of acute gastritis.	Autopsy.
25	Leavenworth Med. Herald, vol. i., p. 49, 1867.	D. W. Stormont, M.D.	Male, 26 yrs.	ʒ ij.	About 1 hour.	.....	Stertorous.	.....	Died in 1 hour.	Autopsy.
26	West. J. M., Indianapolis, vol. ii., p. 720, 1867.	J. E. Tefft, M.D.	Male. 28 yrs.	ʒ ij.	2 hours.	80, strong and full, became more frequent and feeble, and finally absent.	Stertorous and labored.	Natural, became dilated.	Recovery complete in a week.	
27	Pacific M. and S. J., San Fran., vol. ii., p. 499, 1868.	I. R. Prevost, M.D.	Female, adult.	ʒ ij.	2 hours.	Rather full and accelerated, soon became pulseless.	Stertorous.	Dilated.	Died in 19 hours.	

Table of Cases of Poisoning by the Internal Administration of Chloroform (Continued).

No.	Reference.	Reporter.	Sex.	Quantity taken.	Time elapsed before seen.	Pulse.	Respiration.	Pupils.	Result.	Remarks.
28	Deutsche klin. Biol., Bd. xxi., p. 196, 1869.	E. Fitzau.	Male, 57 yrs.	90 gms.	3 hours.	Small and intermittent, became regular.	Impeded.	Widely dilated, insensible to light.	Death in 29½ hours.	
29	Australian M. J., Melbourne, vol. xvi., p. 108, 1871.	J. F. Neild, M.D.	Male, 28 yrs.	℥j.	½ hour.	Too small to count.	Labored and interrupted.	Widely dilated.	Death in 60 hours.	Antopsy.
30	Australian M. J., Melbourne, vol. xvi., p. 108, 1871.	— Blair, M.D.	Female, adult.	℥ij.	.....	.....	.....	.....	Recovery.	Related in discussion of No. 29, Med. Soc. Vict'a. (case of 1865)
31	Australian M. J., Melbourne, vol. xvi., p. 210, 1871.	W. C. Rees, M.B., M.R.C.S.E.	Male, 13 yrs.	℥ss.	4½ hours.	100, feeble and irregular.	Sighing and laborious.	Dilated ⅗	Recovery complete next day.	
32	Phila. Med. Times, vol. i., p. 277, 1871.	A. Fricke, M.D.	Female, 45 yrs.	Tablespoonful.	Immediately.	.....	.....	.....	Recovery.	
33	Med. and Surg. Rep., Phila., vol. xxiv., p. 495, 1871.	S. M. Snyder, M.D.	Male, adult.	About ℥xij.	¾ hour.	80 to 88, feeble.	40, quick and somewhat difficult.	Dilated, then varied.	Recovery, with gastro-enteric symptoms following.	
34	Deutsche klin. Biol., xxiii., p. 415, 1871.	Bd. H. Böttger.	Female, 58 yrs.	30 gms.	Immediately.	Pulseless.	Intermittent.	.....	Recovery.	Ether and chloroform, each 30 gms.
35	Indian Med. Gazette, Calcutta, vol. viii., p. 182, 1872.	Banergie, Sub. Asst. Surg.	Male, 40 yrs.	About ℥j.	4 hours.	Exceedingly feeble, and almost imperceptible.	Heavy and stertorous.	Contracted.	Recovery in 8 hours.	
36	Am. Jour. Med. Sc., Phila., vol. lxiv., p. 430, 1872.	S. C. Busey, M.D.	Female, 4 yrs.	Teaspoonful.	½ hour.	Almost imperceptible.	Short, quick, irregular, and superficial.	Contracted.	Recovery complete in 4 hours.	
37	Am. Jour. Med. Sc., Phila., vol. lxiv., p. 431, 1872.	S. C. Busey, M.D.	Female, 30 yrs.	℥iij.	1½ hour.	78, small and very weak.	16, very superficial, every fifth long drawn and full.	Contracted to a point, and insensible to touch. Nothing peculiar.	Recovery complete next day.	
38	Med. Arch., St. Louis, vol. viii., p. 79, 1872.	J. C. Whitehill, M.D.	Female, 50 yrs.	℥ss.	15 to 20 minutes.	Quick, feeble, and almost indistinct.	Labored.		Recovery.	
39	Atlanta M. and S. Jour., vol. x., p. 236, 1872.	J. T. Johnson, M.D.	Female, adult.	Nearly ℥vj.	½ hour.	80, full.	36, imperfect.	Dilated.	Recovery in 3 or 4 days with slight gastritis.	
40	Arch. f. klin. Med., Leipg., Bd. x., p. 309, 1872.	Dr. Degen.	Male, 48 yrs.	℥j.	3 hours.	Slow, full, regular.	Slow and regular.	.....	Recovery.	
41	Lond. Lancet, vol. i., p. 113, 1874.	B. M. Webster, M.D.	Female, adult.	℥j.	Few minutes.	Almost gone.	....	....	Recovery with slight gastritis.	
42	Canada Lancet, Toronto, vol. vi., p. 209, 1874.	H. J. Saunders, M.D., M.R.C.S.	Male. 60 yrs.	℥ss.	10 minutes.	Almost imperceptible	Shallow and prolonged, became feeble and expirations cold.	.....	Recovery in 1 day.	
43	Med. Times and Gazette, Lond., vol. i., p. 36, 1878.	Hamilton and Bateman,	Male, adult.	℥iss.	45 minutes.	Very intermittent.	Irregular, occasionally stopped.	Dilated and fixed.	Died in 26¾ hours.	Antopsy.
44	Louisville Med. News, vol. vi., p. 15, 1878.	J. A. Larrabee, M.D.	Female, 20 yrs.	℥j.	5 hours.	Pulseless.	.....	.....	Recovery.	
45	Chicago M. J. and Exam., vol. xxxvi., p. 398, 1878.	E. F. Ingals, M.D.	Female, adult.	℥vj.	¼ hour.	80, and failing.	Nearly normal, became inefficient, and ceased, so that life was only sustained by artificial respiration.	.....	Recovery.	
46	Brit. M. J., Lond., vol. ii., p. 94, 1879.	Barclay and Macrae.	Male. 23 yrs.	℥ijss.	8 to 10 hours.	Not to be felt anywhere.	Slow, shallow, and at long intervals.	Dilated and fixed.	Recovery.	Hanged himself on the third day, from depression of spirits.
47	Chicago M. J. and Exam., vol. xxxix., p. 379, 1879.	P. O'Connell, M.D.	Male, 27 yrs.	℥iij.	2 hours.	72, full and soft.	Full, deep, and quick.	Dilated.	Recovery next day.	
48	Jour. de Thérap., Paris, vol. vii., p. 140, 1880.	Dr. Reuss.	Female, adult.	50 to 60 gms.	3 to 4 hours.	Imperceptible at radial, thready at temporal and carotid; became stronger.	Difficult and stertorous.	.....	Death in 31 hours.	Autopsy.
49	South. M. Rec., Atlanta, vol. x., p. 398, 1880.	W. T. Nicholson, M.D.	Female, adult.	℥j.	Several hours.	80, weak.	Stertorous and difficult; 45 in a minute.	.....	Recovery.	Temperature in axilla, 94.7° F.; vagina, 95.2° F. Chloroform and olive oil, equal parts.
50	Aerzt Bericht des k. k. Allegem. Krankenhaus zu Prag., for 1880, p. 41.	Eiselt's Med. Clinic Thomayer).	Male, 60 yrs.	20 gms.	½ hour.	72, moderately full and rhythmic, became dicrotic.	Stertorous, became labored.	Highly contracted, and insensible.	Recovery.	
51	Brit. M. J., Lond., vol. i., p. 775, 1882.	James Oliver.	Male, adult.	℥iij.	1½ hour.	20, hardly felt at wrist.	Had ceased.	Widely dilated.	Recovery.	
52	St. Louis Cour. Med., vol. x., p. 228, 1883.	J. Freedman, M.D.	Female, adult.	Tablespoonful.	....	.....	.....	.....	Recovery.	
53	St. Louis Cour. Med., vol. x., p. 228, 1883.	J. Freedman, M.D.	Female, adult.	℥ij.	.....	.....	....		Recovery.	Equal parts of laudanum and chloroform.
54	St. Louis Cour. Med., vol. x., p. 229, 1883.	J. Freedman, M.D.	Female, adult.	℥j.	....	... ...	....		Recovery.	
55	Arch. Pediatrics, vol. i., p. 108, 1884.	T. E. McArdle, M.D.	Female, 6 yrs.	℥ij.	Soon after.	Nearly pulseless.	Very feeble.	.....	Recovery complete in a few hours.	
56	Annuaire de Thérap. vol. xviii., 1855.	....	Female, 21 yrs.	℥j.	20 minutes.	70, soft and full, became almost imperceptible.	Regular, became slow and stertorous, and fell to two a minute.	Contracted.	Recovery in about a week.	See addenda 56.
57	....	L. Eliot, M.D.	Male, 60 yrs.	℥ji.	10 minutes.	70, weak.	Sighing respiration.	Dilated.	Recovery.	

respiration stopped for thirty seconds. Treatment: Stomach-pump and sinapisms. Gastritis followed and she died on the eighth day after taking the poison. Post-mortem examination showed congestion and ulceration of the stomach.

Case 14.—Julia W——, aged eighteen, took one ounce. Seen in twenty minutes. Fell to the floor; burning pain in stomach; pulse feeble and quick; countenance pallid; extremities cold; became gradually comatose; breathing stertorous; pupils contracted and insensible to light. Refused to take medicine. Treatment: ℥j. powdered ipecac was forced down her throat, vomiting followed. Mustard to extremities, cold water dashed on face, and flagellations at short intervals. In three hours she was entirely recovered. Case of attempted suicide.

Case 15.—Adult male, aged twenty-eight, was found in a semi-comatose condition. Had attempted to disembowel himself; had shot himself in each side of the chest, and stated that he had taken one-fourth pound of chloroform. Taken to hospital. No smell of nor any symptoms of chloroform poisoning. Was seen in two hours. Death.

[This case is abstracted from a newspaper report, contains no physician's name, and is of very doubtful authenticity.—L. E.]

Case 16.—Mr. P. M——, aged thirty-five, between 12.15 P.M. and 7.15 A.M. (in seven hours) took about an ounce and a half. When seen pulse full, though slow; respiration hurried and audible; pupils highly dilated and gave no evidence of sensibility. Treatment: Fresh air, ice-bladders to head, cold effusions along the spine, and a common enema; electricity; warm jars to feet; lavement, with the addition of twelve to fifteen drops of caustic ammonia was given and retained. There was partial return of sensibility. Death occurred at a quarter to twelve, midnight, twenty-three and a half hours after taking the first dose. Post-mortem examination showed congestion of brain, lungs, and stomach.

Case 17.—Mr. ——, aged fifty, on April 6, 1862, took two ounces. Seen seven hours after. Condition: Deep coma; pupils widely dilated and insensible; pulse slow and feeble; body colder than natural; movements of thorax scarcely perceptible; sensation generally abolished. Treatment: Ammonia, sinapisms, bottles of hot water, and cold affusions, without apparent benefit; stomach-pump tube introduced, stomach evacuated of chloroform, mucus, and watery fluid. Patient soon showed signs of returning consciousness, and in two hours was able to give rational answers. In a week he had entirely recovered from the gastritis which followed.

Case 18.—M. A. McG——, aged twelve, on January 10, 1862, took six drachms of chloroformic anodyne. Seen in about twenty minutes (approximated time, E.). Felt sick and vomited; was in a deep stupor in ten minutes, perfectly insensible; pupils contracted; face livid; breathing stertorous, reduced to six a minute; pulse became imperceptible at wrists. Treatment: Stomach-pump, then, three hours after, an injection into the stomach of a pint of hot coffee with three drachms of spirit of nitric ether, and repeated; cold stream of water to the head. In fifty-four hours she was up and able to walk across the room. She suffered about ten days from bronchitis, the result of the cold water. The chief ingredients of chloroformic anodyne are: strong solution of opium, some chloroform, and a few drops of hydrocyanic acid (prussic acid odor was perceptible in the vomited liquid).

Case 19.—An Irishman, aged seventy-two, took, on February 20, 1863, nearly an ounce (wineglassful of a liniment composed of chloroform and sweet oil). Seen in one hour. Insensible; cold; slow, imperceptible respiration; pallid face; imperceptible pulse; pupils contracted. Treatment: Emetics; stomach-pump; internal stimulants, coffee and brandy; hot bottles to feet. Recovered on second day.

Case 20.—R. K——, male, aged twenty-eight, on February 16, 1864, at 2 P.M., took an ounce and a half. Body cold; breathing slow and stertorous; pulse small and fast failing; pupils dilated. Treatment: Stomach-pump. Death at nine o'clock on the 17th (in twenty-seven hours). Post-mortem examination showed: Brain and membranes much congested; lungs congested; heart natural; mu-cous membrane of stomach and duodenum much congested.

Case 21.—Male, aged forty, took ten grammes. "I felt at first an acrid taste with a constriction of the windpipe, then quite a painful heat in the epigastric region; then followed a grinding pain in the intestines, finally a desire to have a passage, which was accompanied by a smarting and strong intestinal pains at the anus." He had taken some Seidlitz water in the morning. Treatment: Emollient and albuminous drinks, oil injections, and fresh air. Recovered.

Case 22.—Male, adult, aged twenty-seven, on October 29, 1863, took fifty grammes. Seen in half an hour. Had vomited. Dorsal decubitus, completely immobile; skin discolored and cool; extremities cold; eyes convulsed and turned up; pupils enormously dilated; respiration stertorous; pulse, 100, very feeble and small; heart-beat short and clear, at times tumultuous. Unconscious. Respiration ceased from time to time. Treatment: Heated iron to chest, frictions to all parts of the body; titillated pharynx with feather; artificial respiration; injections of strong infusion of coffee; internally strong coffee and aqua ammonia. Some gastritis and icterus followed. Recovered.

Case 23.—Male, aged twenty-five, took, on November 25, 1865, one ounce. Seen in two and a half hours. Complete insensibility; countenance pale; lips livid; pupils contracted; breathing stertorous; body warm; pulse at wrist scarcely to be felt; pulsations at heart heard and felt, about 120; respirations short and jerky, 20 in a minute, at times they almost ceased; unable to swallow. Treatment: Attempted to excite vomiting by feather; strong ammonia to nostrils; cold water dashed on face with no effect; stomach-pump tube introduced induced suspension of respiration and pulse, and was abandoned; ammonia to region of heart, legs, thighs, nape of neck, and spine without good effect; injections of hot water and turpentine thrown into the rectum. There was slight improvement, but death took place twelve hours after taking. Autopsy showed congestion of lungs and cardiac vessels. (This was a case of supposed chloroform-poisoning; the amount taken was approximated. "The coroner's jury were unable to come to a decision as to the immediate cause of death."—L. E.)

Case 24.—Mrs. D——, aged forty-five, recovering from a drunken debauch, took, with suicidal intent, from five to nine drachms. Seen in three hours. Profound coma; extremities cold; pulse about 70, and feeble. Death seemed so imminent that no efforts were made to counteract the drug. The chloroform produced sleep in a few minutes after taking it. In three hours more (six all told) she had somewhat reacted. In seven hours she had recovered consciousness. Acute gastritis set in and she died on the eighth day. Was jaundiced on the fourth day. Autopsy: Left lung collapsed and slightly adherent to pleura, right in state of gray hepatization; liver normal in size, fatty, presenting signs of commencing cirrhosis; kidneys normal in size and a little granular; œsophagus, nothing worthy of notice; stomach, fulness of blood-vessels, spot of extravasation on inner wall, nearly an inch in diameter; its mucous membrane at this point seems to be destroyed. Gastritis was the cause of death.

Case 25.—Mr. G. H——, aged twenty-six, took two ounces. Seen in one hour, a few minutes before his death. In three minutes (estimated time) he could with difficulty be aroused from the stupor into which he was sinking; could not speak, but indicated that he had severe pain in the stomach. In five minutes he was entirely unconscious, lying still, breathing stertorously

Medical assistance arrived too late to be of service. Post-mortem examination showed congestion of lungs, œsophagus, and stomach. Mucous membrane could be pulled off with the finger-nail.

Case 26.—Male, aged twenty-eight, took two ounces undiluted. Seen in two hours. Profound coma; pupils natural but insensible to light; pulse about 80, strong and full; breathing slightly stertorous. In two hours the pulse became frequent and feeble; respiration gasping and stertorous; pupils dilated; pulse became entirely absent at wrist; breathing very labored. Treatment: Sinapisms; dry heat; friction to extremities; administration per rectum of brandy and carbonate of ammonia; hot brandy and hot turpentine to the spine. Gastritis followed, but was recovered from in a week.

Case 27.—Female, adult, with suicidal intent, took two ounces (approximated, L. E.). Seen in two hours. Most profound insensibility; lips and face cool and bluish; extremities still warm; breathing stertorous; pupils dilated; pulse rather full and somewhat accelerated. A physician had been called, but pronounced the case hopeless and had abandoned it. Deglutition was impossible. Drew forward the tongue, ventilated the room, dashed cold water in the face, and had the extremities rubbed with hot mustard-water, ammonia occasionally applied to the nostrils; galvanic battery; injections of warm infusion of coffee, and hot bottles to the feet. She grew worse, becoming soon entirely pulseless, extremities icy cold, conjunctiva injected, and pupils still more enlarged. Application of galvanism continued; in an hour the breathing had lost its stertor, and she opened her eyes at intervals. Injection of coffee and brandy, and external stimuli. She regained sensibility slowly; the stomach rejected brandy and coffee. Pulse could not be detected at the wrist. Hemorrhage from the bowels. Given aromatic spirits of ammonia and tincture of larch. Her bowels had moved three or four times. Death in nineteen hours. Autopsy not permitted.

Case 28.—Physician, aged fifty-seven, took ninety grammes. Vomited; deep sopor came on. Was bled and cold applied to head. Dr. Fitzau arrived in three hours. The extremities were warm; there was complete anæsthesia; total paralysis; heart weak, every third beat intermittent; respiration impeded; bowels distended with gas; pupils insensible to light and widely dilated. Stomach-pump. Pulse became regular. Owing to the paralysis, when the tongue, which had been held out, was let go, the respiration ceased. Sensibility was completely restored. Severe gastritis followed. Death in twenty-nine and a half hours. Post-mortem examination not permitted.

Case 29.—Adult, male, aged twenty-eight, on March 27, 1871, took one ounce. Seen in half an hour. Insensibility; breathing labored and interrupted; pulse too small to count; pupils widely dilated; extremities cold; anæsthesia complete. Salt-and-water emetic, followed by vomiting. Stomach-pump, hot bottles to feet and sides, and covered with blankets; injections of ammonia into median-cephalic vein, repeated. Improved, but died in sixty hours. Autopsy: Brain congested; right lung and pleura congested; lower part of trachea congested; œsophagus congested; mucous membrane of stomach congested.

Case 30.—Female, adult, took two ounces. Given sulphate of zinc, then aromatic spirits of ammonia. Recovery. This was related in the discussion upon the preceding case.

Case 31.—Boy, aged thirteen, on May 25, 1871, took half an ounce. Seen in four and a half hours. Comatose; respiration sighing and laborious; pupils dilated two-thirds; pulse feeble and irregular, 100 to the minute; extremities cold; no convulsions; vomited. With stomach-pump threw in one drachm of sulphate of zinc, and repeated; given coffee and carbonate of ammonia. Recovered, and returned home next day.

Case 32.—Mrs. H——, aged forty-five, took a tablespoonful in water for liq. ammon. acetat. Was instantly given a pint and a half of lukewarm water; vomiting followed. Complained at once of burning sensation; in eight minutes she was unconscious. Bowels and bladder evacuated involuntarily. Brandy freely given, also salad oil and yolk of egg. In the afternoon much improved, but very feeble.

Case 33.—Male, adult, took about twelve drachms. Seen in three-quarters of an hour. Insensible; pulse 80 to 88 and feeble; pupils widely dilated; breath highly charged with chloroform, and respiration 40, quick and somewhat difficult. During the first four hours the pupils remained dilated, then dilated and contracted every few minutes and not affected by strong light. Pulse remained about the same throughout. The respiration was affected singularly. When the body rested on the right side with the head drooping forward and downward it would be about 40 and regular. If the body were placed on the back it would be entirely suspended. The face was livid, the lips red and dry. Cutaneous surface during first six hours was natural, during the last two covered with free perspiration. Comatose condition lasted eight hours. Treatment consisted in free ventilation, cold applications to the head, and whenever the respiration was arrested forcing the finger up under the diaphragm. After consciousness had returned symptoms of gastro-enteric inflammation were present. He recovered completely.

Case 34.—Frau N. N——, aged fifty-eight, took thirty grammes each of sulphuric ether and chloroform. Seen immediately. Præcordial anxiety; pulseless, senseless, and with intermittent respiration; skin was bleached, cyanotic; paralysis general. Had vomited. Artificial respiration; faradization to nervous phrenicus for two hours, when this was stopped the respiration stopped; it was continued for six hours. Sensibility returned. Was given a subcutaneous injection of strychnine. Recovery was complete.

Case 35.—A jemidar, aged forty, on March 26, 1872, took about one ounce at 4 A.M. to poison himself. Seen at 8 A.M, four hours later. Condition: Perfectly insensible, with half-shut eyes and contracted pupils; countenance pale; breathing heavy and stertorous; pulse exceedingly feeble, almost imperceptible; all the muscles relaxed and there was no sensation. Stomach-tube introduced and about two pints of water containing twenty grains of sulphate of zinc injected. Stomach washed out several times. Brandy and ice given. In eight hours he walked away unassisted.

Case 36.—Female, aged four, on May 28, 1872, took a teaspoonful. Seen in half an hour. Appeared as one partially intoxicated. Had been given teaspoonful of olive oil, this was followed by draught of warm water. Vomiting soon followed; sank quickly into profound coma; pallor of features; sunken eyes, contracted pupils, insensibility of cornea; unusual muscular relaxation; complete anæsthesia; coldness of extremities; almost imperceptible pulse; short, quick, irregular, and superficial breathing. Treatment: Elevated chest, lowered head; artificial heat; small quantities of brandy. Deglutition interrupted, slow, and difficult. Artificial respiration. Consciousness returned in one hour, and in four hours she was entirely recovered

Case 37.—Female, aged thirty, took three drachms. Seen in about an hour and a half. Convulsions; intense pain in the abdomen; perfectly insensible; pupils contracted to a point, corneæ insensible to the touch; universal anæsthesia; extreme pallor of face; cold hands and feet, general surface cool; pulse 78, small, very weak; respiration 16, very superficial, every fifth respiration long-drawn and full. Treatment: Emetic of warm water and salt and mustard; ice to spine; brandy internally. Recovery complete in one day. In this case the patient had taken chloroform, ʒ iij.; tinct. camphor, ʒ iij.; and tinct. opii, ʒ jiss., in addition to ʒ ij. of tinct. of opium.

Case 38.—Tillie ——, aged fifty, took half an ounce for lime-water. Seen in from fifteen to twenty minutes.

Breathing labored; pulse quick and feeble, almost to indistinctness; impossible to arouse her; surface covered with cool perspiration; nothing peculiar about eyes. Treatment: Fresh air, frictions to extremities, warm milk and lime-water freely, with whiskey or brandy and ammoniated tincture of valerian. Gastritis for several days following.

Case 39.—Woman, took nearly six drachms. Seen in half an hour. Pulse 80 and full; respiration 36 and imperfect; pupils dilated. Treatment: Enema of one ounce spirit vini gallici; three-fourths grain morphia subcutaneously. The effect was immediate and marked; patient rallied, but depressive sinking again threatened in an hour or two, to be as promptly relieved by a repetition of the treatment. Six hours after swallowing the chloroform she gave the first sign of consciousness. Gastritis followed for three or four days.

In the discussion which followed Dr. Wilson stated that he had seen a man supposed to have taken four ounces; he appeared wild and excited, as if he had been on a spree (Report Atlanta Academy of Medicine).

Case 40.—Adult male, aged forty-eight, took one ounce. Seen in three hours. Respiration slow and regular; pulse slow, full, and regular; stomach emptied at time of taking by vomiting. After twelve hours sensibility returned. Complete recovery. No bad effects followed.

Case 41.—Adult female, took one ounce. Seen in a few minutes. Pulse almost gone, face livid; deglutition impossible. Treatment: Lowering the head of the bed and the use of ammonia externally with friction. Recovery with slight gastritis.

Case 42.—T. D——, male, aged sixty, took ℥ ss. Seen in ten minutes. In five or six minutes became insensible; respiration shallow and prolonged; pulse at wrist so feeble as to be almost imperceptible. Mustard to pit of stomach, nape of neck, and calves. Paralysis of sphincter ani, ammonia and brandy not retained. Respiration became feeble and expirations cold; artificial respiration. In about two hours after taking the chloroform he was able to sit up and take some weak brandy-and-water. No bad effects followed.

Case 43.—C. McK——, admitted to Royal Free Hospital, October 20, 1877. Had taken one ounce and a half from 6.30 to 7.15 P.M. Seen in forty-five minutes. Unconscious; breathing irregular and occasionally stopped; pulse very intermittent; pupils dilated and fixed. Teatment: Stomach-pump, artificial respiration, and galvanism; nitrite of amyl on lint without effect; enema of three drachms aromatic spirits of ammonia; brandy and milk. Died about 8.45 P.M., October 21st. Autopsy showed lungs intensely congested; stomach congested; intestines, first five feet congested, vessels of intestines generally congested; peritoneum and omentum congested; other organs normal.

Case 44.—German woman, aged twenty, took one ounce. Seen in five hours. Deep stupor; pulseless and fast sinking. Treatment: Electricity of no use. Nitrite of amyl inhalations same. Hypodermic of digitalin, one-tenth grain, over scorbiculis cordis, repeated in an hour, then one-tenth grain of atropia an hour later. Recovery without gastric or œsophageal trouble.

Case 45.—Young lady, took six drachms. Seen half an hour after. Thoroughly anæsthetized; respiration nearly normal; pulse 80. Had vomited, and vomited again on arrival of Dr. Ingals. Respiration became inefficient and pulse failing. Inhalations of ammonia and one-twentieth grain of strychnia sulphate given hypodermically, a second one of one-fortieth grain in about three-quarters of an hour. Respiration ceased so that life was only sustained by artificial respiration. Electricity to nape of neck, the other pole to the pit of the stomach and various parts of the chest. Recovered consciousness in five hours after taking the drug. Nausea and vomiting were the only bad effects.

Case 46.—Male, aged twenty-three, from 9 to 11 P.M. took two and a half ounces. Seen in eight to ten hours. Pale; pupils dilated and fixed; breathing slow, shallow, and at long intervals; pulse not to be felt anywhere; heart-sounds could not be heard by stethoscope; trunk warm, extremities cold. Warm brandy-and-milk injected into bowels; sinapisms, frictions, artificial respiration. Recovery from chloroform, but died on third day by hanging, from depression of spirits. Autopsy showed lungs congested.

Case 47.—R. S——, male, aged twenty-seven, on August 16, 1879, took three grammes. Seen in two hours. Pulse 72, full, soft, normal probably; respiration full, deep, quiet; pupils dilated; no danger apprehended. Recovery next day. August 19th, 7 A.M., jaundiced; respiration labored; pupils widely dilated; no pulse at wrists; temperature 36.70° C. in axilla. Death at 4 P.M. There is much doubt about this case. Autopsy afforded no evidence. Dr. O'Connell does not think it was chloroform, but phosphorus.

Case 48.—Adult female, on January 17, 1879, took fifty to sixty grammes. Seen in about four hours. Deep intoxication; artificial respiration. Respiration returned, but difficult and stertorous; pulse at radials imperceptible, at temporals and carotids thready; extremities cold and rigid; strong contraction of jaws. Titillation of pharynx, cold affusions and flagellations. Pulse became stronger. Given strong coffee and acetate of ammonia. Gastritis followed. Died (9 A.M. on 18th) in thirty-one hours. Autopsy showed ulcerations in pharynx, œsophagus, stomach, and intestines; mucous membrane of œsophagus corroded in its whole length; ulcerations of stomach small, of intestines enormous; lungs intensely congested.

Case 49.—Female, adult, took about one ounce. Not seen for several hours. Profound narcosis; stertorous breathing; cheeks and face pallid and cold; the eyes remained open or shut as they were left; pulse 80, weak; respiration 45 per minute, and difficult. Thermometer in axilla registered 94.70° F., taken three times; in the vagina it registered 95.2° F. Treatment: Caffeine hypodermically and per orem, then hypodermics of strychnia, and whiskey with carbonate of ammonia (ammonia carbonate one gramme dissolved in one drachm of whiskey), followed quickly by strychnia sulphate, gr. $\frac{1}{15}$. Recovered.

Case 50.—Laborer, aged sixty, took liniment of chloroform and oil, each twenty grammes, at 3 P.M. At 3.30 P.M. unconscious; stertorous respiration; cheeks, lips, and tongue highly cyanosed; whole body in viscid perspiration; pulse 72, moderately full and rhythmic; pupils highly contracted; cervical veins distended. No reflex excitability; vomited once. Stomach-pump brought away chloroform-smelling yellow fluid; stomach washed out. Pulse dicrotic; respiration labored; conjunctivæ insensible. Tongue drawn out, respiration became easier; ammonia to nostrils; cold frictions; black coffee introduced into stomach by pump; involuntary evacuation of the bowels; vinegar enema. 5 P.M.: Spontaneous cough. In removing mucus from mouth, brought out tobacco-quid not observed before. 5.15 P.M.: Semi-conscious. Twenty-four hours afterward chloroform-smell from contents of stomach drawn through pump.

Case 51.—Frenchman, took three ounces. Seen in an hour and a half. Respiration had ceased; pulse twenty per minute and hardly felt at wrist; surface cold and of dusky pallor; lips livid; pupils widely dilated. Treatment: Artificial respiration; magneto-electric machine; enemata of beef-tea and brandy; subcutaneous injections of ether over heart. Inhalations and subcutaneous injections of nitrite of amyl gave but temporary relief. Recovered.

Case 52.—Adult female (about a tablespoonful) half ounce. Severe convulsions; burning pain in stomach. Morphia sulphate, gr. $\frac{1}{4}$ hypodermically. Only sequelæ were burning of mouth and throat.

Case 53.—Adult female, took half ounce of toothache-

drops composed of equal parts of chloroform and laudanum. Only bad result burning of throat and mouth.

Case 54.—Adult female (old) took one drachm. In five minutes had convulsions. Hypodermic of morphia sulphate.

Case 55.—Louise R——, aged six, in December, 1883, took two drachms Squibb's chloroform undiluted. Seen soon after. Respiratory efforts very feeble; heart-beats scarcely perceptible; conjunctivæ not responsive; teeth clenched; limbs fell listlessly where placed; cold and nearly pulseless. Had been given emetic of sulphate of zinc; vomited. Artificial respiration and electricity over phrenic nerve; after improvement, cracked ice, stimulants and keeping patient awake were the measures employed. Recovery complete in a few hours. [In a communication from Dr. McArdle, he states he saw this patient in about half an hour.—L. E.]

Case 56.—"The patient was a female, twenty-one years of age, who had swallowed two ounces of pure chloroform. She was found within twenty minutes afterward in a deep stupor; the pupils contracted; respiration regular; pulse 70, soft and full; the face not congested. External irritants were applied; the stomach-pump used, and brandy and ammonia given. The respiration then became slow and stertorous, the pulse fell, and the face became livid. Galvanic shocks were employed and continued for two hours, with stimulating enemata, and heat to the limbs. The respiration fell to two in a minute; the pulse at the wrist was almost imperceptible. The remedies were persevered in, and reaction gradually took place. In five or six hours . . . consciousness returned. On the following day there was thirst, nausea, pain in the abdomen and lumbar region, and frequent and bloody stools. In about a week recovery was complete."

[Note: This case is extracted from Stillé's "Therapeutics and Materia Medica," vol. i., p. 194, ed. 1860, as the volume of the "Annuaire de Thérap." is not on file at the Library of the Surgeon-General's office. I think it corresponds to Case No. 6 by Spence.

June 7, 1885.

TREATMENT OF LOOSE CARTILAGE OF THE KNEE-JOINT.

By ALEXANDER HADDEN, M.D.,

NEW YORK.

For the treatment of loose cartilage in the knee-joint there have been devised, baring the radical cure by direct or indirect incision, several means, none of which have proven as efficacious as the method which I have adopted in the following case.

About a year ago Mr. G——, aged fifty-five, consulted me concerning a loose cartilage in his knee-joint, for which he had sought advice from many of our prominent surgeons in this city, none of whom, except by operation, could offer him any positive alleviation from this troublesome affection.

Often, he stated, while walking through the streets, he would be suddenly seized with a pain in the joint so severe that he would fall to the ground entirely helpless. He had tried all the palliative methods recommended by the surgeons whom he had consulted—such as posterior splints, plaster-of-Paris bandages, elastic knee-caps, and even absolute rest for some months at a time—none of which remedies prevented the cartilage from slipping down and being caught between the articular surfaces of the bones of the joint and causing him this excruciating pain. Upon physical examination I found the joint swollen and very tender, and by a little manipulation could detect a small cartilaginous ovoid body (about half an inch by three-fourths inch) under my fingers, which could be pushed from one position to another without much difficulty when the leg was extended.

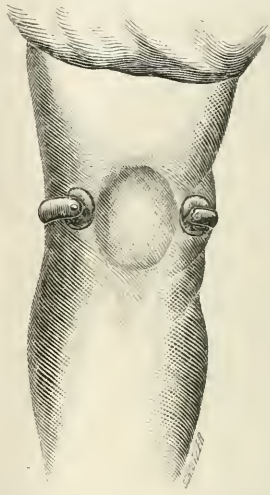
As long as the leg was flexed the cartilage could not be displaced, but was fixed in the position where it was, held by the surrounding structures then in a tense condition.

When the leg was extended I could push the cartilage up, by the side of the patella, around in the synovial sac, beneath the tendons of the quadriceps extensor muscles and accessory band of the vastus internus, down the other side of the patella and back again.

There seemed to be a canal through which this little body bobbed up and down and in and out of the joint-cavity. The bandages which had been applied relieved him as long as he did not walk about.

As his business required him to be up and about, and as he did not wish to run the risk of an operation, which the surgeons pronounced hazardous, he consulted me to find out if I could not do something for him.

By manipulating the cartilage I got it up beside the upper border of the patella, and thought if I could only keep this little body in that position, and retain it there by some appliance which would at the same time occlude the passage through which it got down into the joint, I would have accomplished the desideratum, which rest, splints, and bandages failed to do.



Accordingly, the most practical appliance I could obtain at the time for this purpose was an infant's double truss, placed so that the two pads pressed upon the lower end of the femur between the condyles and the patella, with the greatest pressure on the former bone. This fitted it quite well, and demonstrated the practicability of my idea.

I accordingly gave orders to have a single steel spring made with pads to press on each side of the patella, as shown in the above figure; the curvature of the spring being so formed as to clear the popliteal space behind and so as not to interfere with flexion of the leg, and of sufficient strength to close the canal while the limb was in a straight position.

A small strap may be fastened to the pads over the patella, and tightened to suit the convenience of the patient, and which may help to keep the spring in a more fixed position; this, though, is not entirely essential. This apparatus has so far succeeded that from the time of its application to the present day the cartilage has never slipped down to give him trouble, and the patient has been about pursuing his business without the least inconvenience from it.

Homœopathic Pies.—The Boston *Traveller* tells the following on the authority of a truth-telling auctioneer of that city: "A year or more ago, the auctioneer had for sale a lot of homœopathic medicines. All these medicines were dumped into one pile, and disposed of in one lot, there being various kinds of medicines in the mass. A boarding-house keeper bought the lot, and some days after the purchase, the auctioneer asked her, 'What did you do with that homœopathic medicine, Mrs. ——?' She replied, 'I thought I could use it, and it was cheap and so I crushed it under the roller and then filled my sugar-bowls with it. The boarders seemed to like it, and especially when powdered over pies.'"

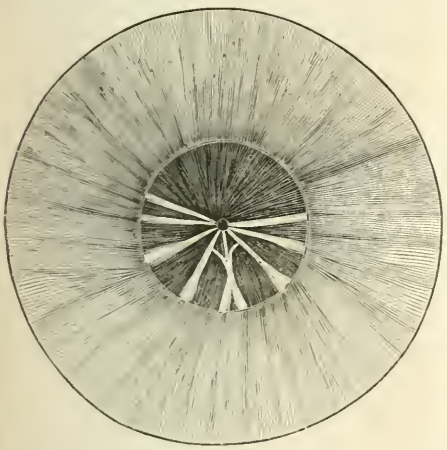
PERSISTENT PUPILLARY MEMBRANE.

By GEO. HOWE, M.D.,

COLUMBIA, S. C.

In your issue of April 4, 1885, Dr. F. C. Riley reports a case of persistent pupillary membrane which is very interesting, and which induces me to report a similar case which occurred in my practice in 1881.

F. T——, female, ten years old. O.D.V. $\frac{15}{40}$ by looking askance, O.S.V. perception of light, with questionable perception of form. By oblique illumination congenital cataract was discovered in the left eye. In the right eye there was a persistent pupillary membrane, which extended over the temporal half of the right pupil. It consisted of eight or ten bunches of fibres of a brown color, a shade lighter than the iris. These fibres united at the centre of the pupil. They were wider at the edge of the pupillary margin of the iris, and became more attenuated as they approached the centre of the pupil. Here they came together, forming a thickened point. Under the influence of atropia the fibres were lengthened, and became thinner.



The accompanying drawing was made from memory, and does not show the irregularities of the different masses of fibres.

Thinking that vision might be improved by breaking down the fibres, I introduced a stop-needle and tore them loose. They contracted promptly toward the iris. There remains, however, an opacity at the point of attachment to the lens capsule in the centre of the pupil.

Vision was improved sufficiently to enable her to read by holding her book so as to look through the clear portion of the pupil on either side of the central opacity.

The eyes do not seem over-sensitive, but tire somewhat after protracted use.

THE POWER OF DISINFECTANTS.—Volkmann says: "A surgeon who disinfects himself well, can immediately, after making a post-mortem examination, undertake any operation known to surgery. Every morning, from six to eight, during the summer I am obliged to give the students operations on the cadaver; and from ten to three I am busy in the hospital, operating and dressing wounds. I have never yet infected a patient. In the winter I have no operations on the cadaver. Comparing my results in the clinic, I can assure you that the mortality in summer is not greater than in winter." Says Esmarch: "If you have thoroughly disinfected yourself, you can immediatetely enter upon obstetric practice. Time does not destroy septic dirt."—*Medical News.*

HERPES OF THE THROAT.

By SOLOMON SOLIS-COHEN, A.M., M.D.,

SENIOR CLINICAL ASSISTANT AT THE THROAT DEPARTMENT OF THE PHILADELPHIA POLYCLINIC.

MR. W——, aged forty-five, presented himself at my class at the Philadelphia Polyclinic on May 29th. "He had been troubled," to use his own words, "for fifteen years with something that comes down in the throat and bursts. Sometimes it gets ulcered." It was a source of annoyance to him, causing unpleasant sensations of discomfort, heat, and dryness, and rendering speech and deglutition somewhat painful. This was his fourth or fifth visit to the clinic, but it was the first occasion upon which I had been able to see for myself the phenomena he so vaguely described. A somewhat close questioning of the patient had given me an inkling as to the true nature of the case; but as these instances are so infrequently met with, ocular demonstration is necessary to a positive diagnosis. Upon illumining the patient's mouth and throat by a strong light, a few scattered vesicles were noticed upon the soft palate, most of them of pin-head size, but one equal in size to three others. When the larger vesicle was punctured a drop or two of liquid escaped, and the walls of the vesicle collapsed. The case was, therefore, a genuine one of herpes of the palate, and was of extremely chronic nature. From the patient's manner and speech there could be no hesitation in classing him among those of decidedly neurotic temperament.

Chronic herpes of the throat occurs in this class of individuals, and is also occasionally found associated with a strumous or tuberculous diathesis, being then particularly obstinate. The initial manifestations of the disease are rarely seen. At first one or more minute papules are developed, isolated or in groups, upon the mucous membrane of the palate, of the tonsils, and exceptionally of the pharynx. Vacuolation of the superficial epithelium taking place, the papules are replaced by vesicles. These vesicles sometimes disappear by reabsorption of their contents. Usually, however, they soon rupture, leaving small superficial ulcers, which in some instances heal without a trace. As a rule, the ulcers become covered with fibrinous exudation, and, repair taking place beneath the exudation, it becomes disintegrated and detached, and no mark of the lesion is left. The patient remains free from annoyance for variable intervals—in this case a few days to three or four weeks—when the process is again repeated.

The acute form of the disease is not at all uncommon, but is often unrecognized. The vesicles are surrounded by an inflammatory areola. There is often decided pyrexia. Odynphagia is sometimes quite severe, the soreness of the throat and the local heat and dryness being more marked than in ordinary pharyngitis or tonsillitis. In some instances the attack is preceded by malaise and accompanied by depression.

I believe that many so-called mild cases of diphtheria are of this nature, and that the vaunting of indifferent remedies for diphtheria is not rarely due to the fact that during their exhibition cases of herpetic sore throat have recovered. The coalescence of several patches of exudation upon the surface of the vesicular ulcers gives rise to limited sheets of false membrane, apt to deceive the uninformed or careless observer.

Rarely, indeed, is a case of acute herpes of the throat seen in the papular or vesicular stage, and the diagnosis must be based upon the absence of the constitutional symptoms of diphtheria, the absence of glandular enlargement, the superficial character of the exudation, and its circumscribed location upon palate or tonsils. Some observers refer to the presence among the patches of exudation of small ulcers, such as ordinarily follow the rupture of the vesicles, or the appearance in isolated situations of small spots of false membrane, which indicate by their circular shape the previous existence of a vesicle, and by their transparency the recency of their formation.

In a case of acute herpetic tonsillitis which I had the opportunity of observing, the exudation presented, upon my first visit, as a number of scattered circular patches upon both tonsils. Upon the second visit, the tonsils appeared to be completely sheathed in a uniform false membrane. This is the only case I have seen at so early a stage. Sometimes herpes of the skin, of the lips, or of other mucous surfaces, co-exists with the throat affection. In some cases the differentiation from diphtheria is impossible even by the most experienced observer. Obviously the safest plan in such a case would be to treat as for the graver malady. The treatment of an undoubted case of herpetic sore throat is to be conducted on the principles applicable to inflammation of the mucous membranes of the throat in general. Rest, regulation of the diet, the administration of mild febrifuge and anodyne mixtures, with sedative inhalations when indicated by pain, may be supplemented during the detachment of the exudation by sprays of antiseptic and detergent solutions. Should a tendency toward phagedena become manifest, or genuine diphtheritic phenomena become superimposed, it will be necessary to employ more active measures appropriate to these conditions. The treatment of chronic cases consists in local applications, daily or every other day, of the dilute acids, and in the internal administration of such remedies as are indicated by the special diathesis of the patient; giving due attention to the regulation of his diet, the correction of any errors of habit, and the improvement of his general hygienic surroundings. Preparations of cinchona, of nux vomica, of arsenic, and of iron may be prescribed with advantage. In those of neurotic tendencies opium is said to have a specially beneficial action. As the stimulant rather than the sedative effects of the drugs are desired the doses must be small.

Clinical Department.

AN IMPROVED FRACTURE-BOX.

Dr. S. Bradbury, of Oldtown, Me., sends us a photograph representing the "box and railway" devised by himself for the treatment of compound fracture of the leg. The box is the ordinary fracture-box of every-day use, but the improvement consists in mounting it upon four grooved wheels riding upon two rails. He writes: "I have just removed the apparatus from a patient who had a compound comminuted fracture of the middle and lower third of the left leg, and I believe it the best apparatus for this kind of injury which we possess. The railway is screwed to the cross-bar at the foot of the bed, and rests upon a good hair-mattress. The leg is placed in the box, and imbedded in bran, which is retained in its place by a piece of sheeting laid in the box. The great advantage of the railway is that it prevents the ends of the upper and lower fragments from being crowded together by any movements of the patient during sleep. If the patient moves up or down, the box slides with the leg, and no harm is done. The attendants of the patient above referred to told me that this would often happen while he was asleep, the trucks riding to and fro over the rails without the least disturbance to the position of the leg in the fracture-box."

RHINOLITHS.

Dr. R. E. Beach, of Vandalia, Ill., writes that his attention was called recently to an article on this subject, by Dr. J. S. Bettman, in the *Journal of the American Medical Association*, and he was led thereby to send a report of two cases occurring in his own practice. Some twelve years ago a child was brought to him for advice concerning a catarrhal affection of the nose which had existed for eight months. The Doctor's suspicions having been aroused by the fact that the right side only was affected, he made a careful examination, and discovered a foreign body resting upon the middle turbinated bone. It was dislodged by slight traction with the forceps, and was found to be a rhinolith having a small seed for a nucleus. The second case was that of a little girl, four years of age, who had been suffering from a nasal catarrh for about eighteen months. The father asserted positively that the child had never introduced anything into the nose. Inspection showed an object lying on the floor of the right nasal fossa near the posterior termination of the inferior turbinated bone. The mucous membrane was much swollen, and covered completely the upper portion of the foreign body. The latter was slightly movable, and was supposed to be a detached sequestrum. Its removal being determined upon, the child was placed under chloroform, and the object was withdrawn by a hawk-bill forceps. It was found to be a calcareous body of oblong shape, three-fourths of an inch in its longest and one-half inch in its shortest diameter, and containing a cherry-pit as a nucleus. Dr. Beach says that he can recall numerous instances of the introduction of foreign bodies into the nostrils, and he insists upon the necessity of a careful and thorough examination of the nasal cavities in every case of catarrhal affection, especially when occurring in children.

ACUTE ALBUMINURIA OF POSSIBLY TRAUMATIC ORIGIN.

Dr. Walter F. Morgan writes that he was recently in attendance upon a boy, seven years of age, and had considerable difficulty in making a diagnosis until an analysis of the urine revealed the presence of fifty per cent. by volume of albumen. This condition had not been preceded by any of the specific fevers or other of the generally recognized causes of acute Bright's disease in children. "Possibly it may have been due to a fall upon the back, which the patient had had about a month before. The fall had been succeeded by a gradual deterioration in health, with great disturbance of the heart's action, convulsions, and cyanosis. During the convulsive attacks the heart-beats were irregular and about forty to the minute. An unfavorable prognosis had been given, but after a month of close attendance Dr. Phillips and myself had the pleasure of seeing convalescence begin. Diplopia and incoördination of the muscles of locomotion persisted for several weeks, but the patient is now in perfect health."

SALICYLATE OF IRON IN RHEUMATISM.

Dr. C. C. Duffy, of 263 West Fifty-fourth Street, writes to call attention to the value of salicylate of iron in the treatment of rheumatism, particularly when occurring in the subacute form. The impoverishment of the blood, so commonly occurring in the later stages of an attack of rheumatism, is to be attributed, he believes, not only to the disease itself, but also, when salicylic acid is exhibited, to the action of this substance upon the iron of the blood. He was in the habit, for a time, of prescribing some form of iron in alternation with salicylate of sodium, but met with no signal success. He then determined to exhibit the remedies in combination and has had most satisfactory results. He uses a mixture each dessertspoonful of which contains eight grains of salicylic acid, four grains of sodium salicylate, and one grain of ferrous malate. This is the usual dose, though sometimes even double the quantity is given. Dr. Duffy relates two cases of a number in which he has used salicylate of iron. The first case was that of an engineer, twenty-six years of age, suffering from an acute attack of rheumatism, involving both knees and ankles and the left elbow. The salicylate of iron mixture was given in dessertspoonful doses every four hours, and at the end of three days the patient was able to return to his busi-

ness and has remained well. The second case was one of an acute exacerbation of chronic rheumatism occurring in a domestic, twenty-two years of age. She had had her first attack some three years previously, and for the past six or eight months had never been free from pain, though able to perform her ordinary duties most of the time. The salicylate of iron mixture was given in the usual dose four times a day. At the expiration of about a month she was entirely relieved. In neither of these cases were any local applications made to the affected joints, nor were any other remedies employed. In a number of other cases a similar treatment was followed by equally good results, and in no instance was it necessary to resort to any other medication.

STRETCHING OF THE SCIATIC NERVE FOR SCIATICA.

Dr. Fraser C. Fuller, of this city, reports a successful case of sciatic-nerve stretching for sciatica. The disease was probably perineuritis, and for its relief the patient had been subjected to almost every known means of treatment. He was a man aged fifty, naturally strong and robust, but had become greatly reduced in strength and flesh. His sufferings were so intense that he was unable to sit at the table sufficiently long to take proper nourishment. The operation was performed November 16, 1884. The incision over the sciatic was made in the lower portion of the thigh, and the nerve readily found. Very slight tension, as compared with other cases, sufficed to give the sensation indicating that sufficient traction had been produced. The pain ceased immediately after the operation. Unfortunately, primary union was not obtained, and some suppuration ensued, perhaps explainable by the patient's low grade of vitality. A slight recurrence of the pain took place, but was cut short by the use of the Paquelin cautery. He has now been free from pain five months, and has increased over thirty pounds in weight. There appears to be a permanent condition of anæsthesia and numbness in the calf of the leg, probably due to rupture of the nerve-filaments, but it causes no inconvenience.

A NEW TREATMENT FOR VESICO-VAGINAL FISTULA.

Dr. B. Ruppe, of New York, recently read a paper before the Medico-Chirurgical Society of German Physicians, in which he described the circumstances which led him to the discovery of a novel method of treatment of this condition. He had been hastily summoned to attend a primipara, thirty-four years of age, who was in labor. She had had a severe chill and high fever the night before, and labor had commenced and the bag of waters had ruptured previous to his arrival. The pains were sluggish, and the presenting part could be felt only with the greatest difficulty. It was not until the following day that the pains returned with sufficient force to bring the head within reach, when the forceps were applied and the woman was delivered of a dead child. More notice was then taken of the other symptoms, and it was found that the woman was suffering from typhoid fever; and three days later it was discovered that she also had a vesico-vaginal fistula of sufficient size to permit of the introduction of the index-finger into the bladder. Dr. Loewe saw the case at this time, and it was determined to operate by Marion Sims' method after the patient had recovered from the typhoid fever. The patient being wretchedly poor and unable to provide the linen necessary for cleanliness, it became a problem how to obviate the irritation and other evil consequences following the constant dribbling of urine. Finally a large wash-tub was procured and provided with three pillows—one for the back, one for the knee-bend, and the third to sit upon.

The patient was placed in the tub, which was then filled with lukewarm water. The walls of the vagina were kept apart by means of a wire speculum. By means of this arrangement all the indications were fulfilled—the urine was prevented from irritating the parts, and the general temperature was brought under control by the bath. To the water, which was frequently renewed, was added at first an infusion of chamomile, but subsequently an oak-bark infusion was employed. The patient remained in the bath twenty-one days. During the third week, the patient frequently said that she had an inclination to urinate, and an examination the day after her removal from the tub revealed the fact that no fistula was present. Dr. Loewe appeared at the appointed time to assist at the operation, but was astonished to find nothing to operate upon.

"In the majority of cases," Dr. Ruppe says, "it would not be necessary to keep the patient in the bath longer than a week."

The method is especially applicable in cases in which an operation is contra-indicated, or in which it has been performed without success, or it might be employed in conjunction with the silver-suture method.

THE IMMEDIATE OPERATION FOR PARTIAL RUPTURE OF THE PERINEUM.

Dr. D. L. Gaillard, of Greenville, Tex., writes that, according to his experience, the chief cause of failure in the immediate operation for rupture of the perineum lies in the swollen condition of the parts immediately after parturition. The sutures are inserted and drawn as tight as the state of the tissues will permit, but in a short time they become loose, and apposition is not maintained. He relates a case in which this occurred, and in which he repaired the fault by a simple procedure. The patient was a primipara who had sustained an extensive lacerated rupture of the perineum. As soon as possible after delivery chloroform was given, and the edges of the wound were drawn into close apposition by quill sutures. The bladder was emptied by the catheter, and opium was given to prevent movement of the bowels. On the fourth day the swelling was so reduced that water, used in injection, together with the lochial discharge escaped between the lips of the laceration. Having prepared several little square pieces of lead, cut on one surface so as to form a clamp, Dr. Gaillard proceeded to tighten the sutures. Drawing the suture as tight as possible with one hand, the clamp, held in the teeth of a pair of pincers, was passed over the thread and held close to the quill. Then, when all the slack of the suture had been taken up, the lead was clamped. In this way the edges of the wound were again drawn into close apposition without disturbing the parts in any way. The parts had shrunken to such a degree that the sutures were shortened nearly an inch. The patient suffered subsequently from cystitis excited by the catheterization, but the wound healed readily without any further trouble. The writer does not favor silver sutures, but prefers the quill suture, as it is possible to draw it tight when required and thus keep the lips of the laceration together.

Fruit, Wine, and Tea.—In his recent Lettsomian lectures on Indigestion, Dr. Lauder Brunton declares acid fruit to be indigestible and apt to cause intestinal irritation. He believes sour wines to be peculiarly liable to cause indigestion, and, when taken regularly, to cause gastric catarrh. The tannin in tea interferes very considerably with the digestion of fresh meat, though such is not the case with dried meat, such as ham or tongue. Tea at breakfast is not apt to produce gastric disorders, but afternoon teas are pronounced bad. Infusions of tea should be "light drawn" and drained from the leaves before serving, as by this means only a small portion of the tannin becomes dissolved in it.—*British Medical and Surgical Journal.*

Progress of Medical Science.

The Treatment of Migraine.—Dr. Clifford Allbutt has found two drugs useful in the treatment of migraine. The first is guarana, given in two or three doses at short intervals. This is applicable to those cases which begin with some slight warning in the early day. Croton chloral is the other drug; this should be given in repeated doses until twenty grains in all have been taken. As migraine is a disorder that originates in childhood, the hope of a cure must be based upon a healthful life, a healthful growth, and a healthful education. With regard to tonics a combination of bromides with quinine has answered best; then come cannabis indica and ergot, and after these chloride of ammonium. The well-known fact that ocular anomalies may cause migraine is also duly emphasized by Allbutt.

Treatment of Acute Epididymitis with Fuller's-earth.—This substance was recommended some time ago by Professor Botkin, of St. Petersburg, in the treatment of aneurism, and of certain peripheral neuroses, and more recently Dr. Lukashevitch has employed it with success in the treatment of acute epididymitis. He makes the earth into a paste with water and applies it, spread upon cloth, to the inflamed testicle. It is necessary to renew the application two or three times in the twenty-four hours, and they are to be continued for from four to six days. Their almost constant effect was an alleviation of the pain within a few minutes, and at the end of two or three days the swelling began to diminish. The author attributes the good results obtained to the metallo-therapeutic properties of the clay, but it is not improbable that the cure was due to the constant moisture and pressure of the application rather than to any therapeutic properties residing in the substance itself.—*Gazzetta Medica di Roma*, April 1, 1885.

The Cumulative Action of Digitalis and Helleborе.—Dr. Van der Heide has recently undertaken a series of experimental investigations touching this much studied but yet imperfectly understood topic (*The Therapeutic Gazette*, May 15, 1885). In all cases in which digitaline and helleboreine were given in small or large doses, either subcutaneously or by the stomach, the following secondary appearances, lasting for as long as four weeks after the cessation of the administration of the drug, were observed: First, the pulse was in all cases slowed, only returning to normal after numerous fluctuations; second, irregularity of the pulse, which was more marked as an after-effect in those cases in which irregularity was a prominent symptom during the administration of the drug. When uniform doses were given for some time, in no case did the most powerful action on the heart occur after the first dose, and when the dose was gradually increased, the action on the heart became intensified, but without definite relationship to the increase of the dose; so that when the doses were rapidly increased, the effect is not as marked as would be expected from the size of the dose. From this it is clear that the action of digitaline and helleboreine on the heart is not a true cumulative one, but rather the heart becomes accustomed to the drug. The remarkable fact was further noticed by the author that when the administration of the drug is commenced with small doses, and these gradually increased, nervous disturbances are in nearly all cases observed, usually after the third or fourth dose has been administered. These symptoms last only one or two days, and then disappear, even if the drug is given continuously in the same doses, thus showing that the nervous system can also accommodate itself to the action of this drug. So, although this action is at first a true cumulative one, the nervous system rapidly becomes accustomed to the drug, even in a more marked degree than is the case with the circulation. We see, therefore, that while many facts determined by the author point to a cumulative action of these drugs, symptoms pointing to an accommodation of the organism are quite as marked. The following applications of these and other facts detailed by the author may be made as regards the employment of the drugs under consideration. It is better to give digitalis at intervals of twenty-four hours, and in small doses, rather than with smaller intervals and larger doses. Even when symptoms of cumulative action appear after prolonged use of digitaline or helleboreine, there is no great danger of a fatal or even serious result; for in all the author's experiments the toxic phenomena disappeared even during the continuation of the use of the drug. When, however, after the first day of the use of these drugs, no action appears on the heart, great care must be observed in the continuance of their use, since a further administration of the drug can produce the most dangerous symptoms or even death; thus in the author's experiments, in which death followed a small dose, no action appeared on the heart until the very time and occurrence of death. As regards the therapeutical value of helleboreine little is known, though that little seems to prove an absence of all useful properties in the treatment of heart diseases.

The Clinical Pathology of Chorea.—Dr. H. C. Wood, in the *Therapeutic Gazette*, May 15, 1885, publishes a clinical study of chorea, from which we extract the following points: "Precisely as at one time paralysis was supposed to be a disease, so at a later period was chorea believed to be a distinct affection. Indeed, many of the profession still use the term as though it were the name of a distinct ailment, and most of the treatises upon nervous diseases have a chapter upon chorea as a separate affection. It is, however, perfectly clear that the word should be employed as analogous to, or having equal rank with, paralysis or tremor. The term choreic movements is unnecessary; or, if it still be used, the term chorea should be considered to represent that condition in which choreic movements occur." There can no longer be any doubt that in acute human chorea alterations of the spinal ganglionic cells frequently exist. Dr. Wood says: "I do not mean to assert that an appreciable lesion of the spinal cells is always to be found in St. Vitus' dance; indeed, I am quite confident that the disease may prove fatal without such lesion. Nevertheless, I am well assured that such alterations are very frequent in fatal cases, and have in not a few instances been overlooked, because not appreciated and sought for. The marked tendency of the choreic movements to affect one side of the body, or one limb, has led many observers to confine their careful examinations to the brain, this hemi- or monoplegic tendency being believed to show that the movements originate in the brain and not in the spinal cord. A clinical study of the various human affections of the motor ganglia of the cord shows, however, that in such disorders spinal monoplegias are not at all uncommon, and that in some cases hemiplegias may be seen. In many cases of chorea of the dog this localization of the movements in one limb or in one side of the body is quite pronounced; indeed, this was the case in dogs in which I positively determined the spinal cord to be the seat of the lesion: it cannot, therefore, be considered that a hemiplegic, much less that a monoplegic, chorea is necessarily of brain origin." According to the evidence adduced by the author, "choreic movements in the child, as in the dog, may originate from a diseased condition of the ganglionic spinal cell. Further, as a diseased condition of the spinal ganglionic cells has been found in several cases of human chorea, it must be allowed that such diseased state is at least one of the fundamental pathological alterations of human chorea. It is perfectly clear, on the other hand, that the disorder is not confined to these multipolar cells. The researches of Dr. Putnam, already quoted, show that in the cat alterations may be found, at least in some cases, in the brain ganglionic cells, and every clinician knows that the cerebral functions are often profoundly affected in the

choreic child. The will, the intellectual and the emotional faculties are all prone to show the presence of an abnormal influence in chorea, and it seems, therefore, that we must consider that in the choreic child the ganglionic cells in the whole cerebro-spinal system suffer, and that this alteration is the base of the disease; or, in other words, the morbid pathology of chorea, or St. Vitus' dance of childhood, may be said to be a diseased condition of the ganglionic structures of the cerebro-spinal axis, which abnormal state may exist without alterations of structure sufficient to be determined by the microscope, or may go on until it is accompanied with marked structural lesions. Further, this condition must be looked upon as one of lowered tone, and it must be allowed that it may be produced by various causes, but is little prone to occur in persons of robust nervous system. The vital choreic depression of the nerve-cells may be the result of emotional disturbance, as in the chorea produced by fright. It may be the result of the influence of the rheumatic diathesis or poison upon the affected tissues. It may be the result of the partial occlusion of the circulation by cerebral capillary thrombosis or embolism, and there are probably other efficient causes in its production. The course of a chorea, as well as the severity of the symptoms, very naturally depends upon the cause of the abnormal condition, and hence we have the varieties so plainly marked in this so-called disease."

Multiple Myoclonus.—By this term Friedreich designates an affection which he observed in a lady fifty years of age. It consisted in clonic convulsive attacks occurring at irregular intervals in certain symmetrical muscular groups. The flexors and extensors of the forearms and legs were chiefly affected. The convulsions persisted during sleep, and were exaggerated by irritation of the skin. They were absent during voluntary movements. After existing for five years the affection disappeared spontaneously in the space of ten days. Friedreich believed that it was to be referred to a functional disturbance of the anterior ganglion cells of the cord.—*Rivista Clinica e Terapeutica*, May, 1885.

The Action of the Alkaloids of Quebracho Bark.—According to Harnack and Hoffmann (*The London Medical Record*, May 15, 1885), six alkaloids have been obtained from the bark of the aspidosperma quebracho. Four of these are crystalline—viz., aspidospermine, quebrachine, which presents the most beautiful crystals, quebrachamine, and aspidospermatine; and two amorphous—aspidosamine and hypoquebrachine. All these alkaloids produce in frogs respiratory paralysis, probably in consequence of annihilating the excitability of the respiratory innervation. Quebrachine acts in like manner most intensely on the respiratory centres of the mammalia; aspidospermine, however, in a less degree. They paralyze the central nervous system in frogs, gradually arresting the voluntary, and later, also, the reflex motion. Aspidosamine, when given subcutaneously in not too minute doses, brings on vomiting in mammalia, probably by its action on the corresponding nervous centres. The other preparations merely produce violent nausea. All these alkaloids also call forth symptoms of central irritation of the medulla oblongata. Paralysis of the peripheral terminations of the motor nerves has only been exclusively observed as the effect of aspidosamine and hypoquebrachine, but never of the other alkaloids. All the bases of quebracho produce in frogs direct paralysis of the striped muscles; in mammalia, however, a direct influence on muscular irritability could not be proved. In frogs, the heart also participates in the general paralysis of the striped muscles, which is likely to be preceded by paralysis of its motor ganglia. The arrest of the action of the heart, however, in every instance takes place after complete cessation of the respiration; in mammalia, this effect on the action of the heart is less striking. Of all these alkaloids, quebrachine is the most powerful in its effects, next to it ranks aspidosamine, whilst aspidospermine is the weakest. Although the emetic properties of aspidosamine somewhat resemble those of apomorphia, their dissimilarities are of the greatest importance in their therapeutic bearing. A subcutaneous injection of apomorphia is a less energetic emetic, but it acts as a most violent irritant on some portions of the brain, and especially on the respiratory centres. The greatest therapeutic value of quebracho bark consists in its property of reducing the irritability of the respiratory centre. It will prove beneficial in cases of dyspnœa not depending on impeded aëration—*i.e.*, on insufficient oxidation of the blood in the lungs, and not being a mere compensatory symptom; namely, in dyspnœa, in consequence of disorders of circulation and of diseases of the heart. In other cases, in which the dyspnœa constitutes a purely compensatory manifestation, any attempt at lessening the irritability of the respiratory centres may, under certain circumstances, be fraught with danger, although this remedy may even then occasionally assist in alleviating this distressing symptom. This effect is produced by all the alkaloids of the bark; but quebrachine and aspidosamine deserve the preference, especially the first, the emetic action of a subcutaneous injection of which acts most speedily and energetically. Hydrochlorate of quebrachine is given both internally and subcutaneously in doses from five-sixths of a grain to one grain and a half.

Hiccough Cured by the Extraction of Nine Needles from the Epigastrium.—Liégeois has described in the *Revue Méd. de l'Est* (January 4, 1885) a case of intractable hiccough in a nervous woman, aged twenty-one. The paroxysm lasted twenty-four days, and was so violent that the whole body was shaken, and the noise could be heard at a distance of forty yards. Bromide of potassium and ether had been given without success. Chloral and hyoscyamine produced a temporary improvement, but the paroxysms reappeared after a time. Opium and atropia were then administered, and the hiccough ceased for about a month, when a new attack occurred. Five months later, a small abscess formed in the epigastric region, and a needle, which projected through the skin, was extracted by the patient's sister. An incision was then made by Dr. Liégeois, who found eight other needles in the subcutaneous tissue. This operation was followed by a complete cure, but the author is unable to state whether the needles had been swallowed or introduced under the skin by the patient herself.

The Tendon Reflex in Glycosuria.—Professor S. Rosenstein has made a number of observations concerning the condition of the patellar tendon reflex in cases of diabetes mellitus, from a study of which he comes to the following conclusions (*Allgemeine Medicinische Central-Zeitung*, No. 28, 1885): 1. In a certain number of cases of glycosuria the patellar reflex is permanently abolished, and is not restored, as happens in chronic alcoholism, by the subcutaneous use of strychnine. 2. The abolition of the reflex does not depend upon relative proportion of sugar, or of acetone, nor upon the presence of substances in the urine reducible by the chloride of iron test; and it cannot, therefore, be regarded as a toxic symptom. 3. It is likewise independent of the general nutritive conditions of the body and of the patient's strength, and cannot therefore be due to weakness. 4. The disturbance of the reflex process between the crural nerve and the lumbar cord is, as far as can be determined by one autopsy, purely functional, and is not due to any organic change in the cord. As regards the prognostic value of this symptom, the author does not agree with Bouchard, that it is of very grave import. He also regards it as of slight diagnostic value in comatose conditions, as he has found the patellar reflex absent in uræmic as well as in diabetic coma.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, July 11, 1885.

THE PROPOSED INTERNATIONAL MEDICAL CONGRESS.

FROM any point the present prospects of a successful International Medical Congress in 1887 are discouraging. It is true that the appointment and action of the New Orleans Committee have been accepted as technically correct, and their revision of the preliminary organization has been promulgated. So far the skies have been cleared and progress has been made. But this progress has only led into further difficulties. For, though the new committee have met and done the work of decapitation and redistribution laid out for them, they have in so doing already created so much bitterness and opposition as seriously to raise the question whether all their efforts at securing international co-operation will not be paralyzed.

In considering the basis of this opposition, the existence of which is so regrettable, two facts stand broadly out, viz.—that the Congress had been satisfactorily and legally organized, and was progressing smoothly, and that then certain men stepped in, not all with motives above suspicion, and instigated the changes resulting in the present troubles. These changes introduced questions of medical politics and geography, of no international or scientific interest, and involved the removal and humiliation of some of the best and most representative physicians in this and other States. It is natural that some feeling is created, while the general verdict can not but be that the action was most unwise.

The justice of the introduction of the question of geography will bear discussion. The East would, we believe, have cheerfully conceded all that was desired; but the introduction of the dead and wearisome Code issue was a most deplorable and irretrievable mistake, a mistake begotten of cretinous prejudice and of a stupid, short-sighted provincialism, which it is painful to have to confess the existence of in our country and profession. This action of the Association can be justified by no reason or argument, and the superlative folly of it is quite beyond the reach of adequate characterization. The only plea put forward is that of a ridiculous and irrelevant "consistency"—a consistency of which the great philosopher of Concord must have had some prophetic inkling when he wrote: "A foolish regard for consistency is the hobgoblin of little minds." All this exhibition of obtuseness and folly is the more exasperating to those who, as we have done, have sincerely desired the success of the Congress, and on this ground alone have wished that politics should be left out.

But beyond all these questions it seems that the treatment of the original committee and its work has caused the withdrawal of many of the best men of Philadelphia, including some prominent officers of the Congress. We regret to learn, also, that the example in Philadelphia will probably be followed in other cities.

Notwithstanding these dark clouds upon the horizon, we might expect little actually to come from them, were it not for the unfortunate fact that it is so much easier to prevent a Congress from being international than to make it so. Our foreign colleagues can only come here in any event at much trouble and expense. They will not come if there is a split and a quarrel, more especially if they see that this takes away from the meetings many of the men whom they would most like to see. They care nothing about squabbles over medical etiquette, and will be disgusted, we fear, to learn that such a thing has been introduced into a scientific body, in order that a few gentlemen who "run" the American Medical Association may be "consistent."

The facts, then, are that there has sprung up a serious and aggressive opposition to the present organization and policy of management of the International Medical Congress; and the matter comes to this: Will these gentlemen who have been thrust aside by the new committee be persuaded to submit peacefully and patriotically to a rule which they do not respect, and join hands to make a successful Congress? Or can not some concessions and compromises yet be made?

Certainly, unless one of these things is done, the international as well as the national character of the Congress is seriously endangered. We earnestly trust that matters may not be driven to an extreme issue, and that some arrangement for securing harmony may yet be perfected.

THE FAILURE OF CIVIL SERVICE IN MEDICAL APPOINTMENTS.

POLITICS has been defined as "the science of putting the ins out and the outs in." Its laws have never been very clearly differentiated, and they have of late received a new disturbing factor in the shape of Civil Service reform. This subject is now occupying the minds of men, of the politician especially. The daily press has teemed with articles on the relations of this reform to the various classes of the community, except to the medical profession. Certain recent developments have raised the query as to what these latter relations really are. We refer to the recent appointment of sanitary inspectors for the summer corps of the Health Board.

Early in February an examination was held for medical positions under the City Government. Thirty-nine men competed, and of these twenty-eight received the seventy per cent. required for passing. In this examination due regard was paid to previous experience in medical work, and to the ability of candidates in speaking French and German (see THE MEDICAL RECORD, February 28, 1885). The criticism was made that the questions upon medical topics were in many instances unpractical. This criticism could not, however, be brought against the questions given in a second examina-

tion held early in June. In this second examination about one hundred and ten competed and eighty passed, but of this number one half stood as low as seventy-five per cent., or only five per cent above the minimum allowed. Thus, altogether, one hundred and eight men had met the requirements of the Civil Service examiners, and their names were sent to the Health Board. At this juncture, however, and in the hands of the latter authorities, the spirit of Civil Service reform experienced a sudden check.

In our former article, above referred to, it was stated that the "weak point of the present system in this city is that when openings occur in any department, the three highest on the list are sent in for each vacancy, but the appointing power is not obliged to select from this number, and can have repeated names sent in, in classes of three, until a selection is made. In this way it is possible for any one standing quite low on the list, but having strong political influence, to obtain an office." This weakness has been glaringly illustrated in the appointment of the corps for the present summer. That the gentlemen chosen passed the examination no one can deny. That they will perform their duties faithfully there is no reason to doubt; but they were not chosen in accordance with the spirit of Civil Service. They were not, in the great majority of cases, those who had most ably responded to the test of the Civil Service examiners themselves. The City Government made a standard, and then repudiated it.

In the second list, with eighty names, the man ranking first was passed over; the man ranking seventy-sixth was chosen, simply because he had stronger political backing. Other instances were just as flagrant. It may be said that several of the successful men had had previous experience on the corps. Presumably this experience was credited to them, and yet even with this prestige they were not, in the opinion of the examiner himself, qualified to head the list.

This is not the spirit of our Civil Service laws. It is simply a perpetuation of the old "influence" system under a different phase. The appointments were in many instances the payment of political debts to those signing the credentials. It was frankly stated at the office of the Health Department that the Board rarely considered a man's examination standing, and that his appointment depended on the amount of "pressure" he could bring to bear upon those in power. This admission is at least frank, and shows just what estimate the Health authorities place upon the present Civil Service law. The statements we have made are facts. They can be verified by inspecting the official records of the city. With no disrespect to the gentlemen whose political backing has allowed them to crowd out those who better responded to the required test, we characterize the present Civil Service of the Health Board as a broad farce.

IMPROPER ADMINISTRATION OF OPIUM.

Considering that nearly all the drugs of the Pharmacopœia which in small doses are capable of producing beneficent results, are, in large doses, capable of destroying life; and considering, also, the amount of medicine-prescribing and medicine-taking which daily takes place in the United States, discriminate and indiscriminate, it is really a marvel that a greater number of serious mishaps do not occur.

It is exceedingly rare for a physician to be brought to the bar of justice to answer the charge of manslaughter because he has carelessly administered a fatal dose of morphine to a patient; but could those physicians who have rendered their patients victims to the living death of an opium-eater be summoned to answer this serious charge, there would be a large assembly. In this array the number of country physicians would not be small. The mischief done by these men is seldom realized by themselves. The enormity of their unconscious guilt is more often manifest to city physicians, hospital and other, whose wide reputation brings the rural sufferers to them, as the last resort, for relief. It is then too often found that the remedy has proved worse than the disease, and that morphine and opium pains are what are making the patient wretched; and the cure depends upon the possibility of curing the opium habit.

The temptation of the country physician to give opium in some form is very great. His patients are scattered over a wide territory. The only visit he can make in the day must be one which will bring relief, sure and speedy, to his patient. He has no time to try if less potent medicines will prove of avail; therefore he prescribes opium.

In some instances the physician himself is a slave to the insinuating drug, and prescribes it to his patients, prompted by that feeling which opium begets of liking to share its pleasures.

Another class of physicians who administer opium are those young in the profession, who wish to impress their clients with their power and skill by producing prompt results.

Could a strict justice overtake those physicians who, by an uncalled-for use of opium, introduce to the dreadful habit those who are made slaves for life, a burden to themselves and friends, it would possibly bring about a state of affairs in which such an event would be of as rare an occurrence as the administration of a promptly fatal dose. Unfortunately we can see no way in which this can be brought about.

SUCCESSFUL TREATMENT OF HAY FEVER.[1]

If a successful treatment of hay fever has been discovered it will be a great boon to those weeping, wheezing, afflicted sufferers, who in the time of roses and new-mown hay, or when the pollen of insignificant weeds pervades the air, are obliged to travel to certain regions to find relief.

These unhappy individuals, according to Dr. Sajous, possess "as a result of heredity or of diseases implicating markedly the nervous system, nerve-centres which have become abnormally sensitive and are therefore inordinately influenced by the external elements to which they respond."

As a result of local disease the nasal mucous membrane becomes hyperæsthetic and transmits to the abnormally sensitive nerve-centres the impressions made

[1] Hay Fever and its Successful Treatment. By Charles E. Sajous, M.D. Philadelphia: F. A. Davis, Publisher. 1885.

by the "external elements" (pollen, etc.), which results in a paroxysm of "hay fever."

These are the three conditions necessary for a paroxysm, and when one is absent, as is the case with the external visitants a portion of the year, and all the year in certain regions, it will not take place. Hence to cure the disease is to render the hyperæsthetic nasal membrane oblivious to the annual visitation of the external cause. The writer maintains that this can be done by cauterizing the hyperæsthetic portions of the nasal membrane, which he has accomplished with pleasing and permanent results by means of the galvano-cautery or acids.

He describes these hyperæsthetic areas as consisting of three—posterior, middle, and anterior. The posterior area is implicated when reflex asthma is the most prominent symptom; the anterior when the head symptoms alone are present; the middle is the starting-point of all the symptoms combined.

He recommends that abnormal conditions of the nasal cavities, such as hypertrophies, polypi, exostoses, etc., be eradicated before using the superficial cauterization. The best results are obtained by instituting treatment six weeks at least before the onset of a paroxysm, though it may be conducted during a paroxysm resulting sometimes in an arrest of it or a beneficial modification. Immunity depends on the thoroughness with which the treatment is conducted.

It would seem from the perusal of Dr. Sajous' monograph on the subject that the hay fever might become unknown, provided its victims would put their hyperæsthetic nasal membranes under the treatment of an adept in rhinology. The banishment of hay fever from the list of diseases would be a boon to all except the hotel-keepers of those resorts where, since the "external irritant" does not lurk in the atmosphere, the cause is removed and a cure is effected.

With the mechanism of the disease still in mind there remains one other method, which will be as much superior to that advanced by Dr. Sajous, as his is better than the now prevailing method of changing abode, namely, that of finding a remedy which will act directly upon the abnormally sensitive nerve-centres. We commend this to investigators.

SIR SPENCER WELLS AND OVARIOTOMY.

Exception has been taken by a Western journal to what was said in a recent Record editorial concerning the relation of Sir Spencer Wells to the revival of ovariotomy. The claim is made that to Washington L. Atlee, of Pennsylvania, is due the position which the English surgeon has "arrogated."

The history of nearly all surgical operations emphasizes the fact that they are rarely the product of the genius of any one man. Each age, dating back to the birth of medical literature, with its consequent dissemination of ideas, has suggested some valuable theory which later times have put in practice. The process has been one of evolution. In many directions the highest type has not yet been reached. Perhaps no operation more clearly illustrates this idea than that of ovariotomy. Nearly two hundred years ago it began to be seriously talked of, but after a century and a half it still had many more enemies than friends. During this period isolated contributions were made concerning our knowledge in "condition, indication, and operative technique." Men were at work in England, and later in America, each generation profiting by the experience of its predecessor, and advances were made step by step toward the goal of demonstration. In the category of contributors toward this end, both Atlee and Wells occupy enviable positions. The impulse given to the development of the operation by the Atlee brothers is very justly, we think, ascribed by Dr. Emmet (last edition) to Dr. Charles Clay, of Manchester. The statement of Carl Braun, that "Atlee performed the operation two hundred and forty-six times from 1843 to 1871, and by this has contributed the most to its enfranchisement," is simply a begging of the question. To "enfranchise" anything is, according to Webster, to liberate it from slavery. When Wells began to operate in 1858, ovariotomy was most emphatically under the yoke. That he profited by the publication of Atlee's cases in 1855 is doubtless true. By 1872 he had completed his first five hundred cases, or more than twice as many as Atlee, in three years' less time. If figures are to be the criterion, the case needs no further argument. The tone of medical literature in 1858 was decidedly against the operation, but Wells by his splendid and increasing successes speedily brought the cause to a triumphant issue.

THE ACTUAL DEATH-RATE OF WAR.

Some tables have recently been published, based upon a report of the Adjutant-General of the United States Army, showing the actual per cent. of deaths from sickness and by battle during the War of the Rebellion. It is a truism that in war disease kills more than the bullet. The detailed facts showing this, however, in the case of our own war, are of special interest.

The States and Territories contributed to the army of the Union 3,500,000 men. Of these, during the four years of war, there were killed in action 67,030, or 2.88 per cent.; there died of wounds 43,000, or 1.85 per cent., making a total of deaths from violence 110,030, or 4.73 per cent. On the other hand there died from disease 224,586, or 9.68 per cent., disease being thus twice as fatal as the bullet.

The total mortality among Union soldiers during the war would be 334,616, or 14.41 per hundred of those engaged. Thus over fourteen out of every hundred soldiers died in the four years' war.

This is an enormous death-rate, but the figures are often wrongly used, and they do not accurately indicate the mortality rightly attributable to the war. The ordinary death-rate among male adults is about nine per thousand annually in this country. During the four years of the war there would have occurred under any circumstances among the three and a half million of soldiers about 126,000 deaths, leaving, therefore, only somewhat over two hundred thousand deaths attributable to the war. To put it in a general way, instead of four men who would have died in the natural course of events, fifteen men out of every hundred died in the course of the war.

The death-rate from bullets is only a little greater than the death-rate in civil life, but the soldier has added the enormous risks from disease.

A CONTRIBUTION TO PULMONARY SURGERY.

It is not so very long ago that diseases of the internal organs, both abdominal and thoracic, were looked upon as exclusively within the domain of the physician. They were to be relieved, if possible, by medical means, but if these failed, as they often did, there was no recourse left to the patient but to settle up his earthly affairs as best he could and resign himself to the inevitable. But the present generation has seen great changes in this respect. We are no longer content to stand by with folded arms and watch the gradual destruction of any organ by disease, but the surgeon steps in, and with his knife cuts out the offending part, with as little hesitancy as he formerly amputated a diseased limb. Having conquered the field of abdominal surgery, we now turn to the thoracic organs. The distended pericardium is tapped, and even pulmonary cavities are entered with the needle, and their fetid contents removed. Experiments have also been made on animals to determine how much of the lung itself could be cut away without destroying life.

A further contribution to pulmonary surgery was made at a recent meeting of the London Clinical Society, an account of which we have received from our London correspondent. At this meeting, Dr. Cayley, who has already done much to advance surgery of the lungs, related a case of hæmoptysis, in which he had artificially induced pneumothorax, so as to collapse the lung, and thus arrest the hemorrhage. The patient was a porter, twenty-one years of age, who was admitted into the Middlesex Hospital, on February 9th, for hæmoptysis. During the next four or five weeks he had repeated attacks of severe hemorrhage, despite active treatment. There were no well-marked physical signs of pulmonary disease, and Dr. Cayley thought the hemorrhage was due to a pulmonary aneurism, or to the ulceration of a large vessel. He determined to induce pneumothorax, with the expectation that the great diminution of the circulation through the collapsed lung, together with the pressure exercised by the air, would arrest the hemorrhage. And if it should be subsequently found that there was active development of tubercle in progress in the lung, no harm would have been done, and it might even be checked for a time. The pleural cavity was accordingly opened on March 10th, by Mr. Hulke, and a double drainage-tube introduced. Carbolic gauze was placed over the opening, and air passed in and out freely. The breathing was greatly accelerated, and the apex of the heart was moved over to the right. The patient coughed up blood twice during the night following the operation, but there was no more hemorrhage after this. He died suddenly on the fifth day after the operation. At the autopsy both lungs were found studded with recent gray miliary tubercles. The right lung was free from any old tubercular disease. In the apex of the left lung there was a very small old vomica. The lower lobe, and part of the upper lobe, were collapsed, and the pleural surfaces smeared with recent lymph. In the lower part of the upper lobe was a cavity as large as a walnut, nearly filled by a light-colored laminated clot. There was a small cavity in the centre of the clot which communicated with a good-sized branch of the pulmonary artery.

The wisdom of this procedure might be questioned by many, yet it would seem in this instance, on the whole, not to have been unjustifiable. For there were no signs of old pulmonary disease during life, and the operation arrested, at least temporarily, the hemorrhage, which was sapping the patient's strength, and threatened to cause his death. Possibly, as was suggested during the discussion of this report, the same result as regards arrest of the hemorrhage might have been obtained by the injection of carbolized air into the thoracic cavity, through the needle of an aspirator, or even of a hypodermic syringe. This experiment will doubtless be repeated, and it may prove, in the end, a valuable means of arresting hæmoptysis, uncontrollable by ordinary medical measures.

News of the Week.

Navy News.—Official List of Changes in the Medical Corps of the U. S. Navy during the Week ending July 4, 1885: Assistant Surgeon Joseph Shofer, assigned for duty on board U. S. Receiving Ship St. Louis, League Island, Pa., July 10, 1885.

College of Physicians and Surgeons of Chicago.—Dr. N. Senn, of Milwaukee, Wis., has accepted the Chair of Principles and Practice of Surgery, and Professor Christian Fenger that of Clinical Surgery in the College of Physicians and Surgeons of Chicago.

New York Post-Graduate School.—Dr. Horace T. Hanks has been elected Professor of Diseases of Women, in the New York Post-Graduate Medical School and Hospital. Dr. Lewis S. Pilcher has been elected Professor of Clinical Surgery in the same school.

The Medical Register for 1885-86.—The twenty-third volume of the "Medical Register" of New York, New Jersey, and Connecticut comes to us promptly in its usual style. It contains the names of 6,545 physicians, as follows: New York State list, 2,775; New Jersey State list, 756; Connecticut State list, 514, an increase of 89, 18, and 18 respectively, or a total of 125. The New York City list comprises 1,902 names, an increase of 113. The Brooklyn list contains 598 names, 87 more than last year. Total increase in the three States, 325. Of those registered in the New York City list last year 316 have changed their residences in the city, and 26 have died. There are now 142 serving in the different hospitals and asylums.

Graves' Disease in Blondes.—Dr. George C. Mosher, of Kansas City, writes: "Dr. Neal's query in No. 25, vol. xxvii., of The Medical Record, calls to mind five cases of Graves' disease which I have seen, two in Ohio and three here, all occurring in female subjects. Each of these persons had blond hair. The coincidence, if nothing more, is striking."

The Dublin Medical School.—A sum of from $50,000 to $60,000 is about to be expended in adding to the buildings of the Dublin University Medical School, which, owing to the steady increase of the school in recent years, are no longer adequate for its accommodation.

A Novel Review and Criticism.—For a picturesque evacuation of rubbish commend us to an editorial review of "An Ethical Symposium" in a recent issue of the *New England Medical Monthly*. Our usually amiable and progressive contemporary is not only two years behind time in its wholesale denunciations of some very honorable and clear-sighted gentlemen, for "appealing to the public," but it quite forgets that a similar work to the "Ethical Symposium," appealing to just as wide a circle, was first issued by one of its own *dei majores*. In the name of the Prophet, dear contemporary, let us have peace.

The *New Orleans Medical and Surgical Journal* comes to us in a new dress and improved make-up, highly creditable to its present energetic editors.

Collective Investigation in Russia.—A meeting of delegates from the different medical societies has been held in the Red Cross Hall, in St. Petersburg, for the purpose of organizing collective investigation in Russia. The question arose as to whether it would be better to establish an independent central committee in Russia, or to send the individual reports direct to the International Committee in London. The meeting unanimously decided in favor of the former alternative, on account of the difficulty of entering into an extensive correspondence in a foreign language. The meeting consequently resolved itself into the Collective Investigation Committee for Russia, and arranged to keep up communication with the English Committee.

Further Withdrawals from the Organization of the Congress.—We learn that at a meeting of the Boston officers of the International Medical Congress, resolutions to withdraw from the organization of the said Congress were adopted. Drs. R. Amory, C. J. Blake, H. I. Bowditch, James R. Chadwick, Derby, Wadsworth, and, in fact, all the officers, are included in this movement. It is also stated that Drs. S. C. Busey, Swan, Burnett, and other Washington physicians; Dr. J. N. Mackenzie, of Baltimore, and Dr. George J. Engelmann, of St. Louis, have withdrawn.

A Practical Attempt at Reform in Medical Charity.—The Northeastern Dispensary, of this city, which is earning an excellent reputation for liberality in management, has undertaken to carry out a practical measure of reform with regard to the dispensing its charity. The following circular has been drawn up, signed by every member of the medical staff, and forwarded to the managers, who, we understand, have heartily approved of it: "We, the undersigned, Attending Physicians to the Northeastern Dispensary, feeling the great evil resulting to medical charity throughout our city from neglect of the use of proper means to rid our institutions of charity from those able to pay, and other unworthy applicants for gratuitous service, and feeling that we, as a class, have placed at our disposal means intended only to relieve the *worthy poor*, feel called upon to request, that on and after September 1, 1885, the Northeastern Dispensary co-operate with the Charity Organization Society in the work of compelling this nuisance to cease, assisting in avoiding the abuse of medical charity throughout our city."

Vacancies Left in the Organization of the International Medical Congress by the Withdrawal of the Philadelphia Members.—The withdrawal of the Philadelphia physicians from any connection with the International Congress, leaves some important official vacancies in the revised preliminary organization. The office of Secretary-General has been made vacant by the withdrawal of Dr. John H. Packard; the Presidency of the Sections on Therapeutics, Medicine, and Anatomy, are made vacant by the withdrawal of Drs. H. C. Wood, J. M. Da Costa, and J. Leidy; Vice-Presidents of the Sections on Pathology, Medicine, Surgery, Obstetrics, Ophthalmology, Dermatology, and one Vice-President of the Congress, Dr. Alfred Stillé, have withdrawn. The Secretary of the Section on Therapeutics, and three members of the Committee of Arrangements have withdrawn. Philadelphia is left practically unrepresented in the organization of the Congress. Out of forty-eight officers twenty-eight have withdrawn, and these include nearly all who held prominent positions. The resignation of Dr. David W. Yandell leaves vacant the Presidency of the Section on Surgery. Thus, four of the most important sections are left headless.

The Representation of New York City in the International Congress.—Only twenty-nine physicians of this city, nearly half of whom are connected with the same medical college, occupy official positions in the preliminary organization of the proposed Congress. Philadelphia, with fewer physicians, was given forty-eight positions, and Boston, with one-fourth the number of doctors, was given twenty positions.

One was Taken and the Other Left.—

Taken.	*Left.*
A. L. Loomis.	J. G. Curtis, E. G. Janeway.
E. Curtis, R. F. Weir.	J. C. Dalton, F. Delafield.
S. O. Vander Poel, A. Jacobi.	E. G. Griswold, E. T. Sabine.
F. H. Bosworth, T. Addis Emmet.	H. Goldthwait.
G. M. Lefferts, D. B. St. J. Roosa.	H. M. Biggs, T. G. Thomas.
L. D. Bulkeley, C. R. Agnew.	A. Clarke, A. R. Robinson.
E. L. Keyes, A. McL. Hamilton.	E. Elliot, D. B. Delavan.
F. N. Otis, S. Sexton.	J. W. S. Gouley, R. P. Lincoln.
R. W. Taylor, L. Johnson.	A. Flint, F. H. Hamilton.
A. H. Buck, J. H. Ripley.	A. Flint, Jr.
Wm. H. Draper.	L. A. Sayre, J. L. Smith.
E. Noeggerath, P. F. Mundé.	B. Robinson, S. Smith.
T. M. Prudden.	W. T. Lusk, C. A. Leal.
H. Knapp.	H. D. Noyes.
A. H. Smith.	T. M. Markoe.
W. H. Dwinelle.	F. S. Dennis.
E. A. Bogue.	E. G. Loring.

The Canada Medical Association holds its annual meeting at Chatham, Ont., September 2d and 3d, under the presidency of Dr. Osler.

A New Cancer Cure.—Dr. Pampilo, surgeon of St. Peter's Hospital, Pernambuco, cites many cases in which he has cured cancers, chancroids, epitheliomas, and malignant erectile tumors by the use of the Piscidea erithrina juice, etc.—*Progr. Med., Cincinnati Lancet and Clinic.*

The Deterioration of Chrysophanic Acid.—The editor of the *Journal of Cutaneous and Venereal Diseases* calls attention to the fact that chrysarobin (chrysophanic acid) has much deteriorated in quality in the past few years, so that ten per cent. solutions do not accomplish now what five per cent. solutions used to do.

The New Army Medical Museum.—The plans for the new National Medical Museum building will soon be completed by the architects and submitted to the Board of Commissioners for Approval. The Board consists of the Secretary of War, the Secretary of the Smithsonian Institution, and the Architect of the Capitol. The site selected for the structure is the Smithsonian grounds, just east of the National Museum. The original estimate of its cost was $250,000, but Congress appropriated only $200,000, and provided that the completed structure shall not exceed that sum. It will extend three sides of a parallelogram, with a plaza front to the south, and will have between fifteen and eighteen thousand square feet of space upon a single level. The ground floor is to be used for the pension records of the War Department.

A New Brazilian Journal.—We have received the first number of a new Brazilian Medical Journal, entitled *Revista dos Cursos Praticos e Theoricos*. It is the official organ of the Faculty of Medicine of Rio Janeiro, and is edited by five professors of that Faculty. The present issue contains a number of carefully prepared articles.

The late Dr. John F. Gray, of this city, a well-known homœopathist, used to prescribe stibium so often that he once said he expected to have inscribed on his tombstone, "John F. Gray, Stibium." Stibium is a good old remedy, much used in the days of Paracelsus and the chemical school. Dr. G. used it in physiological doses.

Proposed Medical Legislation in Georgia.—The Medical Association of the State of Georgia, says the *Atlanta Medical and Surgical Journal*, has raised a committee to call the attention of the General Assembly to, and invoke its action on, two subjects of interest to the medical profession. Bills in relation to them have been introduced, referred to appropriate committees, favorably reported on, and are now pending before that body. The object of one of them is to provide for the payment of reasonable compensation to witnesses sworn as experts in judicial trials; the other, to facilitate the study of anatomy, by permitting, under proper instructions, the procurement of the necessary material for that purpose.

Consultations with Homœopaths in Canada.—The *Canadian Practitioner* complains that several prominent physicians in the Province consult habitually with homœopaths. It very correctly deplores this practice, but incorrectly urges the Dominion Association to take action in the matter. Any attempt on the part of a body of physicians to combine and try to take away the right of the individual to consult with whom he pleases will fail in the future, as it has done in the past. The best way to get rid of homœopaths is to show the people that rational medicine is the best, and includes all the good in homœopathy or any other "pathy."

The Cholera in Spain.—In the past fortnight the spread of cholera in Spain has been extraordinarily rapid. Up to the last week in June about 4,000 cases had been reported. Since then the total number of cases has reached the neighborhood of 15,000. Every day the papers report a total number of new cases ranging between one and two thousand. The mortality, if correctly given, is somewhat less than one-half, and does not differ greatly from that of last year's epidemics. But it will be seen that already the epidemic in Spain has had more victims than that of last year in France. As this result has been reached so early in the summer the outlook is a bad one.

A New City Hospital for Contagious Diseases will shortly be opened, under the direction of the Health Department, on North Brothers Island. It is intended to take the place of the Riverside Hospital. The hospital building is of brick, two stories high, heated and ventilated with the most improved appliances. There is a large ward on each floor, lighted on three sides, and overlooking each ward is a small glass-incased room to be occupied by nurses when their actual attendance in the sick-room is not required. The hospital is designed to hold seventy-five patients. The plans call for ten additional frame buildings, capable of holding forty people each, to be used in case of an epidemic, but only three of these will be built at present.

Reviews and Notices.

Intestinal Obstruction: Its Varieties, with their Pathology, Diagnosis, and Treatment. By Fred. Treves, F.R.C.S., Surgeon to, and Lecturer on Anatomy at, the London Hospital, Hunterian Professor of Anatomy at the Royal College of Surgeons of England. With Sixty Illustrations. Philadelphia: Henry C. Lea's Son & Co.

This work is in substance the essay to which the Jacksonian Prize for 1883 was awarded by the Royal College of Surgeons of England. It is a thoughtful and well-written monograph on a subject that interests both the physician and surgeon. Dr. Treves has classified the various forms of intestinal obstruction according to pathological data, because, as he truthfully remarks, our clinical knowledge of the subject is less precise than our knowledge of the morbid anatomy of intestinal obstruction. The work is illustrated by some well-executed original drawings, and is altogether worthy of being read and studied.

A Manual of the Practice of Surgery. By Thomas Bryant, F.R.C.S. With Seven Hundred and Twenty-seven Illustrations. Fourth Edition, thoroughly Revised. Pp. 1039. Philadelphia: Henry C. Lea's Son & Co. 1885.

The present edition of Bryant's "Surgery" has been very thoroughly revised by so competent a surgeon and literary critic as Dr. John B. Roberts. It shows many marks of improvement over earlier editions, and in size and typography it is quite the model for a student's and practitioner's manual. Mr. Bryant's work has gone through three American editions, and it is familiar to American readers. The author is a skilful surgeon of long experience, and his work is clear and practical in its character. Mr. Bryant is anti-Listerian in his views, and the fact that there is now a fashion for antiseptics has, perhaps, lessened the prestige of his work. We believe that Mr. Bryant is probably as successful a surgeon as any of the ultra-Listerians, yet he has unquestionably erred in exhibiting a certain amount of prejudice against the antiseptic methods; for, whatever may be the theory, nothing is more certain than that the young surgeon should be emphatically taught the value of antiseptic cleanliness in its most minute details. This Mr. Bryant does not do.

We do not propose to go into any analysis of the work before us. Bearing in mind the criticism that has been made, the book can be safely trusted to guide the student and practitioner.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D. Fourth American Edition, from the Fifth English Edition, with Notes and Additions, by Robert P. Harris, M.D. Philadelphia: Lea Brothers & Co. 1885.

In the preface to the first edition of this work, in 1876, the author states "that there is no department of medicine in which more has been done of late years, and none in which modern views of practice differ more widely from those prevalent only a short time ago." In the last decade this cannot be said with as much truth. Consequently this edition contains few striking changes, and these naturally occur in that department in which at present investigation is most rife, namely, embryology.

The work is regarded by teachers in obstetrics, from the conciseness of its statements of theories, and its clearness, as one of the best for students, and it will probably maintain its position for some time to come among the standard works on the subject of which it treats.

A Treatise on Asiatic Cholera. Edited and prepared by Edward Charles Wendt, M.D., Curator and Pathologist of St. Francis' Hospital, New York Infant Asylum, etc. 8vo, pp. 403. New York: William Wood & Co. 1885.

We have nothing but praise for the careful and painstaking work of Dr. Wendt, in this the most complete volume on the subject of cholera that has appeared on this side of the water. His associates are those best qualified to write on their respective topics. The work is divided into seven parts. Part I. treats of the "History of Asiatic Cholera." Section I. is by Dr. John C. Peters, of New York, on the "General History of the Disease, and the Principal Epidemics up to 1885." Dr. Ely McClellan writes Section II., giving a "History of Epidemic Cholera as it affected the Army of the United States."

Dr. Wendt's work, proper, begins with Part II., concerning etiology. Successive parts treat in turn of symptomatology, course, duration, mortality, complications, and sequelæ. The chapters on morbid anatomy and pathological histology are full and complete. Part V. gives a full account of the methods of bacterioscopy and the preparation of pure cultures. Treatment is discussed in Part VII.

Part VI. is divided into three sections. The first, by Dr. George M. Sternberg, U.S.A., is on the "Destruction of the Cholera Germs." The second, by Dr. John B. Hamilton, Surgeon-General United States Marine Hospital Service, concerns the "Prevention of the Spread of Cholera." The third, by Dr. McClellan, is on "Cholera Hygiene as Applied to Military Life."

It will be seen that while the scope of the work is a wide one, no more able corps of *collaborateurs* could have been associated in its preparation. The early history of cholera in New York is treated of in full by Dr. Peters, and is the most complete *résumé* of the subject yet published. A wide range of discussion is taken by the other associate editors concerning international and municipal sanitation. It is about Dr. Wendt's part of the work, however, that public interest will most centre. He discusses the various etiological theories of the last half century, dwelling particularly on that of Koch. A translation is given in full of the latter's memorable address before the Berlin Conference last summer. In regard to Koch's doctrine, Dr. Wendt takes the middle ground, that "while it has not been finally established as a scientific truth, it has much in its favor." He truly says that "the extremely divergent opinions regarding cholera, entertained even at the present day, would scarcely justify an attempt to present a completely harmonious picture of the disease." His conclusions are as follows: Cholera originates in India, where it is now endemic. Its specific cause is an organized body capable of rapid multiplication both within and without the human organism. Any extension of the disease is caused solely by human intercourse. It never originates *de novo* in a given locality. Its outbreak and dissemination may be favored by local conditions. Such dissemination may occur from direct personal contagion, but far more frequently by fomites and water-channels (rivers, pipes, sewers); exceptionally by air, but only at very short distances. The virus acts first and with greatest intensity upon the intestinal tract.

Dr. Wendt does not think we possess any specific cure for the disease, yet he earnestly deprecates any resignation to the idea that we cannot control the disease by treatment. We should promptly control every premonitory diarrhœa with the opium tinctures and mineral acids (preferably sulphuric). Complete rest and abstinence from food should be enjoined. If the disease develops into well-marked cholera, he recommends before collapse morphine hypodermatically, with iced fluids, weakly acidulated, for thirst. In incipient collapse a warm bath by means of slaked lime is deemed of service. In well-marked collapse all medication should be stopped. During reaction careful nursing and strict diet are all important. Solid food is dangerous. Opium should be avoided, as a rule, in this stage. Then gradually build up the system. Ferrán's inoculation experiments Dr. Wendt does not regard, as yet, as by any means decisive.

Robert Boyle: A Biographical Sketch. By Laurence Saunders. Pp. 104. London: Gilbert Wood & Co. 1885.

The name of Boyle was borne by two Englishmen, father and son, whose chief aim was to establish a scientific system of ventilation for large buildings and for vessels. In the literature of sanitation their work has been fully recognized. This biographical sketch is well written, and highly extols Boyle as an inventor and philanthropist.

The Regimen in Gout. By William Ebstein, Professor of Clinical Medicine in Göttingen. Translated by John Scott, M.A., M.B., Honorary Physician, Manchester Hospital, etc. 8mo, pp. 64. London: J. & A. Churchill. 1885.

Many practical suggestions are contained in this small volume. The author has no particular hobby, and advises moderation in all things, without inclining at all to the starvation plan. All gouty manifestations he regards as due to uric acid, which is a "chemical poison which can cause not merely inflammatory but also necrotizing and necrotic processes in animal tissues." Animal and vegetable diet are permissible. Fat is regarded by Ebstein as a valuable food in gout, within necessary bounds. Alcoholic drinks may be used in moderation. The intestines should be irritated as little as possible. Baths are valuable, the warm bath being generally preferable in cases with renal complications.

The Diaphragm and its Functions: Considered Specially in its Relations to Respiration and the Production of Voice. By J. M. W. Kitchen, M.D. "The Voice" First Prize Essay. Albany: Edgar S. Werner. 1885.

This little treatise calls attention in a forcible way to the often overlooked importance of the diaphragm in the human economy. It is, however, of greater value to professional singers than to the practitioner, who is supposed to be familiar with the evils of tight-lacing and similar offences against the chief respiratory muscle of the body.

Reports of Societies.

KENTUCKY STATE MEDICAL SOCIETY.

Thirtieth Annual Session, held at Crab Orchard Springs, Ky., June 4, 5, and 6, 1885.

(Special Report for THE MEDICAL RECORD.)

FIRST DAY—WEDNESDAY, JUNE 4TH—AFTERNOON SESSION.

THE thirtieth annual session of the Kentucky State Medical Society was called to order at Crab Orchard Springs on Wednesday afternoon, June 24th, by the President, Dr. Pinckney Thompson, of Henderson.

Prayer was offered by the REV. J. BOGLER, of the Presbyterian Church of Hustonville.

COLONEL W. S. HAYES, of the *Louisville Courier-Journal*, President of the Crab Orchard Springs Co., delivered the address of welcome, which was supplemented by one from Dr. EDWARD ALCORN, of Hustonville, Chairman of the Committee of Arrangements.

DR. WM. BAILEY, of Louisville, delivered the report on the

PRACTICE OF MEDICINE.

He thought the common practice of encumbering the office table of the practitioner with new preparations in pharmacy had grown to be a great nuisance. He had not the courage to undertake to uncork the one tithe. He thought the physician should go before and ask the pharmacist to prepare such a medicine, not the pharmacist urge the physician to use his preparations. He believed that it called forth too much free medicine taking. He recommended that new remedies be first thoroughly tried by competent hands in public institutions, then given to the profession if found worthy. He discussed cholera and ascribed all honor to the brave men who were investigating it so diligently. The germ-theory of disease is the great question of the age, whether it stands or falls. All conditions in regard to this disease have not been maintained in most cases, and we are compelled to argue solely upon analogy or inference. To prove that the comma bacillus is the cause of cholera it is necessary to find the bacilli in the blood of the patients sick with cholera; that they shall be found in every case; that they shall never be found where the disease does not exist, and that inoculation with them shall produce the disease. Dr. Strauss claims that the shorter and more violent the attack of cholera the fewer were the bacteria found in the intestines. This is an important consideration in determining the causative relation between cholera and "commas." To my mind they should yet be held *sub judice*. I feel like asking you on this account to further make use of your knowledge of punctuation, and after every "comma" (,) to place an interrogation (?), as denoting that further inquiry or investigation is to be made before the period (.) can be reached, and then Eureka (!!!). These investigations can be carried on but by the few favorably situated for study. Therefore we must possess our souls in patience and wait till the conclusion is formed. He thought from the history of cholera that it is due to climatic influences, as malaria, for instance, or epidemic dysentery and yellow fever. Improved sanitation should be the watchword. He inclined to the plausible germ-theory, and stood ready to bow to the inexorable power of logical demonstration.

The report was discussed by Drs. Dudley S. Reynolds, Louisville; J. M. McCormic, Bowling Green; J. B. Marvin, Louisville; and John Jaeger, Campbellsburg.

FIRST DAY—WEDNESDAY, JUNE 4TH—EVENING SESSION.

DR. PINCKNEY THOMPSON, of Henderson, by virtue of his office, delivered the

PRESIDENT'S ADDRESS.

He congratulated the Society on its ability to meet together at such a pleasant place. He paid a beautiful tribute to the dead members. In viewing this gathered assembly he proudly thought, "I, too, am a physician." He spoke of the profit to be gained from such gatherings, all sharing each other's labors and experiences—in fact, a sort of universal clinic. The wealth of wisdom of the wise and the great becomes more or less the actual possession of the humblest member of our profession. We are second to no other class of men in the world. A wise old Roman long since said: "Men are at no time so like the gods as when they try to give health to other men."

He spoke of him who lifted the practice of medicine from a tyrant priesthood and a mercenary craft to an unselfish profession. He who takes upon himself the office of a physician takes upon himself a very grave responsibility. Neglect or abuse must be most culpable. At the door of the physician he laid the responsibility of many of the crimes of the world. For to whom are the feeble constitutions and the defective intellects more chargeable? To have a good brain we must have good blood. "Blood will tell." Whence can blood, physiologically speaking, come to him who has been born and bred in disregard of the laws of health; wanting good blood the brain-power fails. Then the whole life, mental, moral, and physical, fails and falls; degeneration results. He referred to the physical, mental, and intellectual degeneration of American women. "Then like brings forth like: this so-called course of life is a course of death. Who, if not the doctor, can stem this fatal tide." Overpressure at school was considered. He compared the school-children of the city with those of the country. Who of us have not seen again and again the country boy go to the town or city, and with his robust constitution and cranium full of brain-power, ride over his city or town competitors. The women of this have not improved over the former generation. He would like to think each girl an angel, and every woman a goddess. But they would be very sick angels and very feeble goddesses. The city school-houses, which he termed elevated slaughter-houses, came in for their share of condemnation. He referred to the increase of gynecological sanitariums, and said that when a man marries himself to one of these latter-day girls, brought up in a five-story school-house, he mortgages himself to some doctor for the whole time his wife shall live. He lauded the prevention over the cure of disease, and appealed to the profession to do all in its power to mitigate this evil. He thoroughly believed in educating the people, especially the mothers, in the proper care of their daughters.

DR. E. WILLIAMS, of Cincinnati, next read a paper on

THE PHYSICIAN'S OPPORTUNITY FOR BEING AND DOING GOOD.

By physician he did not mean the patent-medicine man or advertising quack. All proprietors or dealers in and advertisers of such so-called medicines will have to face an account at the last day that no physician would be willing to meet. The toot-horn quack has too much brass and cheek for an honest doctor. His brazen pretentions can pass current only with ignorant people. He may make money, but money cannot save him from the bottomless pit, where he will seethe forever in the all-healing vapors of his infallible nostrum. He then defined a good physician. It was not, he said, goody-goodness, which is pious taffy, neither nasal twang righteousness. Modest modesty never whines. He next considered the relations of the minister and physician, saying that they should be co-workers, not antagonists. The following is the prayer of the doubting physician at the death-bed: "O God, if there be a God, have mercy on this man's soul, if he have a soul." No half-way shanty, shaky as this prayer, will answer there. He believed in the need of a sound divinity in the medical profession, and a healthy hygiene in the Church. He denounced the practice of religious periodicals advertising quackery as an outrage on God and man. But what use to denounce when "there's millions in it." Theologically he believed in the germ-theory.

SECOND DAY—THURSDAY, JUNE 5TH—MORNING SESSION.

The Secretary reported $100 contributed to the Sims Memorial Fund. He had received $200 dues; leaving $75.05 in the treasury.

A number of new members were received, among them

TWO LADY PHYSICIANS,

the first of their sex to become members of this Society.

DR. J. M. MATTHEWS, of Louisville, made the report on

GENERAL SURGERY.

He commenced with a tribute to the memory of Samuel D. Gross, who had been at one time president of the Society. He touched mostly on results of new methods in surgery. The scope of the subject being so great, he confined his remarks to those operations of recent attempt. Listerism, if it had but caused greater attention to cleanliness, has done well. Attention to minor details was urged, also climate, sanitation, hygiene, and general surroundings of the patient. Since our last meeting there has been given us a surgical boon second only to ether and chloroform, viz., the hydrochlorate of cocaine. It has a wide range of surgical practice in the eye, ear, nose, mouth, throat, etc. The physiological action seems to be the paralyzation of the sensory nerves, and it may be the posterior columns of the spinal cord. Knapp says that it abolishes reflex irritation, and that it has no cumulative effect and exerts no bad effect on the nutrition of the parts subjected to its action. A question of moment is, Does the application prevent or lessen repair? In some operations done by myself I have imagined that it did. When large amounts of skin are to be cut through I have found that rhigolene applied locally by spray is equal, if not superior, to cocaine. In rectal diseases cocaine is not a success. He then considered general etherization and spoke of the comparative value of different anæsthetics. Rectal etherization has not met with the success that was once hoped for. It now has but few advocates, who can say but little in its favor. He considered antiseptic surgery, speaking of bichloride of mercury, iodoform, hydrate of chloral, bismuth, turf-dressing, boracic acid, eucalyptus oil, aseptol, naphthaline, Listerine, etc.

A question, to the surgeon one of great moment, is, Can he while attending operations of pyæmia, erysipelas, etc., prevent the contagion that is said to be communicable? Here he quoted the views of Professor Volkmann, as written to Dr. George F. French, of Minneapolis, and quoted in a paper by the latter read before the Obstetric Section of the American Medical Association at New Orleans. Volkmann says: "A surgeon who disinfects himself well can, immediately after making a *post-mortem*, undertake any operation known to surgery." This is a strong saying of an eminent man, very hard to believe. He considered abdominal surgery, and deplored the fact that it was not followed with more success under American hands. Lawson Tait says this is due to the fact that too many men are engaged in the work. He queried, Is it not justifiable to make abdominal section for gunshot injury? He considered surgery of the kidneys, nephrotomy, nephro-lithotomy, and nephrectomy; then the surgery with relation to empyema, the thoracoplastic operation of Estlander.

DR. T. A. REAMY, of Cincinnati, in discussing the paper, said: I can conceive that it is perfectly safe to pass from the dead-house to the operating-table. The germs of the dead-house are not those of disease. It is a question of greater importance to determine can one pass from the house of the living to the lying-in chamber? He believed it could be done, and gave minutely his formula for a disinfecting bath.

The paper was further discussed by Drs. E. Williams, of Cincinnati; A. M. Vance, W. O. Roberts, T. B. Scott, and William Cheatham, of Louisville.

DR. ARCHIBALD DIXON, of Henderson, reported on

LAPAROTOMY.

He reported a case of abdominal tumor, believed to be uterine fibroid, and producing ascites.

OFFICERS ELECT.

The Committee on Nominations made the following report, which was adopted, and the gentlemen elected:

President—Dr. J. P. Thomas, Pembroke.

Second Vice-President—Dr. O. D. Sharley, Winchester.

Junior Vice-President—Dr. R. C. McChurn, Lebanon.

Permanent Secretary—Dr. J. Steel Bailey, Stamford.

Assistant Secretary—Dr. F. Dunlap, Danville.

Treasurer—Dr. Edward Alcorn, Stamford.

Librarian—Dr. J. L. Taylor, Warren County.

Chairman of Committee of Arrangements—Dr. S. W. Willis, Winchester.

Winchester was chosen as the next place of meeting; time, the last Wednesday in June.

SECOND DAY—THURSDAY, JUNE 5TH,—AFTERNOON SESSION.

DR. DUDLEY S. REYNOLDS, of Louisville, made the

REPORT ON OPHTHALMOLOGY.

He considered it of great importance to know well the cause of squint and important to correct it as soon as possible. Errors of refraction should be looked after.

The paper was discussed by Drs. E. Williams, Cincinnati; William Cheatham and J. Morrison Ray, Louisville.

DR. WILLIAM CHEATHAM, of Louisville, made the

REPORT ON OTOLOGY.

His paper dealt mostly of earache, its importance and manner of treatment; he warned every one against the use of poultices; and advocated early treatment in all cases.

Discussed by Drs. Webb and Howard, of Shelbyville; Preston B. Scott and William Bailey, of Louisville; E. Williams, of Cincinnati; Pinckney Thompson, of Henderson; J. Jaeger, of Shelbyville; and H. W. Alexander, of Clintonville.

DR. W. O. ROBERTS, of Louisville, read a paper on "Herniotomy," reporting a number of cases.

DR. J. MORRISON RAY, of Louisville, read a paper on "Wounds of the Anterior Segment of the Eyeball."

DR. WILLIAM CHEATHAM, of Louisville, treated of "Neuro-Retinitis Albuminurica," and reported a number of cases and showed microscopical and photographic specimens with the magic-lantern.

DR. J. B. MARVIN, of Louisville, read on "Primary Lateral Sclerosis of the Spinal Cord." Illustrated by the magic-lantern and microscopic and photographic views.

DR. J. P. THOMAS, of Pembroke, made the report on

PHARMACY.

He considered kairin and other antipyretics, pinus canadensis, and hydrastis. He thought there were too many "ines," "ites," and "phytes" creeping into pharmacy.

DR. J. A. LARRABEE, of Louisville, made the

REPORT ON DISEASES OF CHILDREN.

He referred to the necessity of care for the children for the good of the nation, the harm done in schools, factories, mills, etc. In pædiatrics we must learn the language of disease. This, like other languages, must be learned while young. Other specialties are drifted into,

pædiatrics is not. He considered cholera infantum, syphilis, scrofula, measles, and scarlet fever, whooping-cough, and chicken-pox; advocated hypodermic injection of morphia and atropia in children.

Dr. T. B. Greenberg, of West Point, read a paper on "Cholera; its Etiology and Mode of Propagation."

Dr. L. S. McMurtry, of Danville, made the report on "Gynecology."

Dr. T. D. Finck read a paper on "Strychnine and Mercuric Bichloride in the Treatment of Phthisis."

In the evening an elegant banquet was given by the Crab Orchard Springs Company.

Third Day—Friday, June 6th.

The Committee on a State Board of Examiners reported that the bill prepared by it could not be passed, and recommended one requiring registration of diplomas.

Delegates to American Medical Association were appointed.

Dr. J. B. Harwood, of Shelbyville, reported on "Vital Statistics;" Drs. John G. Cecil, of Louisville, read a paper on "Mastitis;" P. S. Connor, of Cincinnati, on "Fracture of the Neck of the Femur;" F. C. Wilson, Louisville, "Instruments Devised to Facilitate Tracheotomy;" R. M. Ferguson, Louisville, "Treatment of Cross Eyes;" J. G. Carpenter, Stanford, "Exsection of Tibia and Right Fibula;" A. W. Johnson, Danville, "Surgery of the Genito-Urinary Organs."

Adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 22, 1885.

John A. Wyeth, M.D., President, in the Chair.

Report of the Committee on Microscopy.

Dr. L. Waldstein reported that the ulcers of the larynx presented by Dr. Boldt at the last stated meeting were tuberculous in character, and showed the presence of tubercle bacilli. Concerning the clinical question whether or not it was primary tuberculosis, the lungs also being tuberculous, the Committee was unable to answer from the anatomical examination.

Scleroderma.

Dr. H. J. Boldt presented a patient, a girl, twenty-two years of age, who from early childhood noticed a swelling of the left lower extremity, first extending up the thigh, and some years afterward the same kind of swelling appeared in the right lower extremity. At the present time the enlargement of both extremities was permanent, and extended nearly to the body. While walking the limbs increased in size considerably, and gave the patient a good deal of pain, caused great lassitude and general debility, so much so that she was unable to pursue her ordinary occupation, that of a domestic. She had presented herself at a number of clinics in Europe, had been examined by Billroth and others in Vienna, and, as far as he could learn, no positive diagnosis had been made. There was but little pitting on pressure, although there seemed to be an infiltration of the subcellular tissue, and, as Dr. Boldt thought, a probable increase of the fibrous tissue due to recurrences of subacute inflammation. From palpation the diagnosis seemed to be between scleroderma and myxœdema; but, as there was no other sign of myxœdema present, and the feel of the limbs was not well marked according to the descriptions given of that disease, he was inclined to the diagnosis of scleroderma.

Dr. Wesley M. Carpenter thought the case belonged to the class which had already been described under the head of congenital hypertrophy, in which one extremity, either an upper or a lower, first became involved and might remain the only extremity affected, or other extremities were affected and the enlargement became persistent. He referred to a case which came under his own observation in the country; the patient was the daughter of a farmer, and was at the time he saw her about twelve years of age. One of the upper extremities was enlarged, especially the hand and the forearm, and the arm to a less extent. The hand and the forearm were nearly equal in size, and presented the appearance of a limb of an ordinary adult man, rather than the delicate extremity of a girl of that age. As he recollected, the descriptions which had been given of this class of cases, of which he had seen three or four illustrations, the affection had been regarded as a neurosis.

Primary Carcinoma of the Liver.

Dr. L. Waldstein presented two specimens of primary cancer of the liver, with the following histories:

The first case was that of a man, F. K——, fifty-one years of age, who came to the German Hospital on the fourteenth of April last, complaining chiefly of pain in the back, between the shoulders, in the lumbar regions, radiating toward the front. There was jaundice. Physical examination revealed mitral regurgitation with stenosis at the aortic orifice. Besides, there were signs indicating cirrhosis of the liver. The patient gradually grew worse, and died on May 10th.

At the autopsy the liver was found of medium size, appeared granular, and the granulations were very large, but at once it showed differences from the ordinary granular atrophy of the liver in the fact that the granulations were prominent, were arranged in groups, connected by fine bands of the same grayish-white color, and they were encephaloid in consistence. The border of the liver was sharp, and the organ was somewhat enlarged. The hepatic tissue between these granulations was depressed below the level of the section. There was no cancerous primary tumor in any part of the body. The mucous membrane of the stomach was smooth, and was covered with a thick layer of viscid mucus. The kidneys were hyperæmic. The parietal peritoneum contained several small nodules, the largest being about the size of a pea and resembling, on section, the granulations seen on the cut surface of the liver. There was considerable retroperitoneal and bronchial enlargement, and these glands were infiltrated and presented the same general appearance of the granulations mentioned. There was also found a tumor adherent to the posterior surface of the sternum, reaching into the anterior mediastinum.

Microscopical examination of the liver proved the disease to be one of two kinds of primary carcinoma of that organ, the origin of which could be traced distinctly to the small bile-ducts.

Only a month later Dr. Waldstein had an opportunity to make a post-mortem examination in a second case, that of a man, C. J. K——, fifty-three years of age, who was admitted to the German Hospital in a comatose state. No clinical history was obtained. The skin was deeply jaundiced. The man died without a diagnosis. There was œdema of the lungs, ascites, and enlargement of the liver.

At the autopsy the appearance of the blood was tar-like. The liver was very much enlarged, extending below the free border of the ribs 8 ctm. The right lobe was especially increased in size, the omentum was drawn down and attached to the sigmoid flexure. The stomach was dislocated, and lying almost perpendicular, with its fundus pressed against the diaphragm, the pylorus pointing downward and a little to the right. The lungs presented evidence of old catarrhal pneumonia, and there were old pleuritic adhesions. The spleen was enlarged and its capsule shrivelled.

On cutting through the enlarged liver a tumor, double the size of an English walnut, was found situated in the part of the liver tissue directly corresponding to the porta hepatis. The gall-bladder was distended by grayish viscid fluid, without evidence of bile coloring matter. The common bile-duct and the cystic duct were found

patent, and it was demonstrated that the jaundice was caused by pressure of the intrahepatic tumor.

On examining the tumor microscopically it was also found to be primary carcinoma of the liver, but of another form. In the first case, the disease was what is known as diffuse primary carcinoma of the liver, while in the second case the disease was circumscribed primary carcinoma of the liver. But in both instances the cancer originated, not in the liver-cells, not from endothelium, but commenced in the bile-ducts.

Dr. Carpenter remarked that primary carcinoma of the liver was so exceedingly rare that a special interest was attached to Dr. Waldstein's two specimens obtained within such a short period of time.

The President said that he had seen one specimen of primary carcinoma of the liver.

Dr. G. A. Dixon presented a specimen of

ANEURISM OF THE ARCH OF THE AORTA,

with the following history:

C. T——, male, native of Finland, longshoreman, was admitted to Charity Hospital March 2, 1885, and died March 29, 1885. Family history negative. The patient stated that he had always been perfectly well up to the winter of 1884, when while walking in the street he suddenly became unconscious, was taken to Bellevue Hospital, where he very soon regained consciousness and found that his left arm and leg were paralyzed. At the end of five days this paralysis began to diminish, and on the ninth day he was able to walk from the hospital, the paralysis having entirely disappeared. There has never been any return of this trouble.

Present attack.—Patient noticed in July, 1884, that he had a slight dry cough and that he began to lose strength. This continued up to January, 1885, when he suddenly became very hoarse, which has continued to grow worse. Throat never has been and is not sore.

Two weeks before admission he noticed that his sputa was streaked with blood. On the day before admission to hospital patient had a very severe hemorrhage, "filling a large washbasin with bright red blood."

On admission to hospital patient was a stout, well-nourished man. Had slight dyspnœa. Voice was reduced to a whisper. The laryngoscope showed paralysis of the left vocal cord.

Physical examination.—Inspection showed veins over left side of chest very prominent. There was a heaving impulse over quite a large area below the left clavicle. Apex-beat of heart in normal position. On percussion the area of cardiac dulness was slightly increased. On the left side, from the clavicle to upper margin of third intercostal space, there was flatness, and to the right of sternum, from the lower border of the clavicle above to the third intercostal space below, extending an inch and a quarter to the right, there was dulness.

Auscultation.—At the apex there are no murmurs. At the base there was heard a loud double murmur, and to the right of sternum, at about the second costal cartilage, there was heard a very loud double bruit, which was heard with maximum intensity on introducing stethoscope into patient's mouth. Liver and spleen were normal in size. Urine contained a trace of albumen. Patient denied any venereal disease; had never been a drinker; and no history of fall or injury could be obtained. Was ordered iodide of potassium, ten grains, three times a day, to be increased, recumbent posture, and a minimum of fluids. Patient remained in about the same condition. On the morning of March 29th he handed his sputa-cup to an orderly, uttered a groan, and died inside of five minutes.

Autopsy.—Brain could not be examined. Lungs were everywhere closely adherent to pleuræ. They were congested. At the base of the left lung a space of about two inches in circumference was filled with clotted blood, and a very minute opening was found into aorta. Heart was enlarged and hypertrophied. Mitral valves slightly thickened. Aortic valves very much thickened. The entire arch of aorta was enormously increased in size and presented all stages of atheroma. Liver and spleen normal. Kidneys showed slight interstitial nephritis.

The President said that when he was connected with Bellevue Hospital he made an autopsy on a man who died under circumstances not unlike those related by Dr. Dixon, and there was found an aneurism of the descending aorta into which a small opening had been made by pressure against the vertebral column. The patient died gradually. The left pleural cavity was found filled with blood which had escaped through the small opening.

Dr. Thayer referred to a case which occurred in the New York Hospital last summer, which resembled the one reported by Dr. Dixon, first, in the obscurity of the diagnosis. The patient was a painter, who gave a syphilitic history. There was almost no tumor of the chest, but finally a slight bulging of the intercostal spaces developed, which rapidly increased until it made a large tumor, 15 ctm. in diameter, of a general spheroidal shape, over which marked pulsation could be felt, with œdema of the tissues, ecchymotic spots, and double friction-sound. The man died suddenly. At the autopsy there was found a small aneurism of a sinus of Valsalva, and upon this a large aneurismal sac had been formed which had eroded the third, fourth, and fifth ribs with their intercostal cartilages, and would apparently have burst within a few hours, as the sac was exceedingly thin. There had not, however, been any rupture of the aneurism. The original aneurism was intrapericardial; the secondary aneurism was entirely outside of the pericardial sac.

Another point of interest in the case was the result of electrolysis, which was tried two or three times. Around the points where the needles had been inserted there was a distinct increase in the thickness of the clot and an evident decrease in the size of the cavity of the tumor, but there were also marked ulcerations which perhaps would have been fatal had the patient survived a little longer.

PURULENT PERICARDITIS—EMPYEMA.

Dr. Thayer also presented the heart and pericardium of a man about forty years of age, who entered New York Hospital with obscure pulmonary signs early in December last. He was thought to have pneumonia, and many of the symptoms characteristic of pneumonia were present, such as bloody sputa, high temperature, etc., but notwithstanding this the patient appeared to be doing very well. Within a few days, however, the case took an unfavorable turn, the pulse grew weak, emaciation occurred, there was afternoon elevation of the temperature, respirations from twenty-five to thirty in the minute, and the pulse above 100 constantly. The change from bad to worse was rapid, and the patient died without special symptoms. Repeated physical examinations of the chest had been made, and the area of cardiac dulness had been carefully noted many times during the patient's illness up to twelve days before his death. He complained of a feeling of compression of the chest which had led to the suspicion of pericarditis, but nothing, however, was found to indicate its existence.

At the autopsy the right pleural cavity was found half filled with thick creamy pus, and the lung showed evidence of recent pneumonic process which had nearly disappeared. The pericardium was distended, and contained a large quantity of pus. All over the visceral surface of the pericardium was a thick layer of pyogenic membrane, continuous with a similar layer over the parietal pericardium. The chief interest in the case centred in the fact that, although careful examination was repeatedly made, pericarditis was not diagnosticated.

Dr. L. Emmet Holt presented

THE PETROUS PORTION OF A TEMPORAL BONE,

accompanied by the following history:

T. M——, aged five years, was seen Friday, April 17th, at the Northwestern Dispensary. He was carried in the

arms of his grandmother, who gave the following history: He had had a chronic otorrhea of the left side since infancy; measles two years ago, never scarlatina; discharge had been tolerably free until two days ago, when it was reported to have ceased. On Wednesday and Thursday he was able to go down in the yard to play, though complaining of severe pain in his left ear. All day Friday he had been quite drowsy, vomiting frequently, bowels being constipated until an injection was given, then moving freely. His rectal temperature was 101° F., his pulse 120. The head was slightly drawn backward. There was slight swelling below the left ear, no redness, no fluctuation. He was pale and disposed to be quiet, but easily roused; pupils normal, tongue coated. He appeared to be quite sick. About six o'clock he was reported to have had a sort of chill; passed a quiet night, taking his milk, but vomiting it in curds. Early Saturday morning asked to be taken up to pass water; said he felt weak and wanted to be put back to bed; called for water to drink, gasped, and died. No convulsions at any time and no paralysis; no loss of consciousness.

Autopsy.—Fifty hours after death. Head: on removing the skull vessels of pia showed marked engorgement; brain showed punctate congestion, but was othewise normal. No fluid in lateral ventricles, nothing found on careful examination of medulla or fourth ventricle; no evidence of inflammation over pia or inner surface of dura. On opening the petrous portion of the temporal bone the middle ear was found filled with very fetid pus, about a drachm in amount, the bony walls carious and so disintegrated as not to be recognizable. This seemed to communicate with the external swelling, probably following the seventh nerve. There was pachymeningitis externa over an area the size of half a dollar, covering the diseased part of bone, and a small accumulation of pus here. Unfortunately the sinuses were not carefully examined. Chest: lungs were somewhat congested and markedly œdematous, but showed neither abscesses nor tubercle; no pleurisy. Pericardium contained about an ounce of clear serum, no signs of inflammation being present. The heart was relaxed, its tissue a little paler than normal, the right side contained a soft clot; velus, normal. Nothing of pathological interest was found in the *abdominal organs*, except in the spleen, which was very large, measuring about five by three inches. It was firmer than normal, yielded a grumous material on section, was free from abscesses. None were found elsewhere. It was not the spleen of septicæmia.

In reviewing the case, the explanation of the symptoms and the cause of death did not seem altogether clear. While the immediate cause seemed to be, without much doubt, heart-failure and pulmonary œdema, the remote cause was not so evident. Was it septicæmia, or was it simply pachymeningitis? Dr. Holt was inclined to accept the latter hypothesis as the more probable one.

Dr. W. M. Carpenter thought that death in Dr. Holt's case could be satisfactorily explained by the sudden development of pulmonary œdema. While the exact explanation of the sudden development of pulmonary œdema had perhaps not been satisfactorily given, the clinical fact remained that it occurred not infrequently, and especially in that class of cases in which the patient had been brought into a low condition from some preceding disease. Not infrequently, patients who had suffered, for example, from pneumonia, and in whom convalescence seemed to be well established, on rising to empty the bladder, as in Dr. Holt's case, were soon taken with pulmonary œdema and died within a very short time.

Dr. Garrish referred to the fact that death from meningitis, secondary to middle-ear disease, was not infrequent.

Dr. Boldt recalled two cases, one of which Dr. Janeway saw, and in both of which it was impossible to make a diagnosis. In both instances the patients died suddenly, and with pulmonary œdema. The autopsies were made by Dr. Janeway, and pachymeningitis was found only after very diligent search. That pulmonary œdema might develop suddenly with pachymeningitis and kill the patient was not so infrequent as might perhaps be supposed, for here were two cases in which the two conditions existed as verified at autopsy. What the exac connection was between the two it was difficult to say.

The Society then went into executive session.

Correspondence.

DR. FERRÁN'S EXPERIMENTS.

To the Editor of The Medical Record.

Sir: It is but natural that the public should take a deep interest in the result of the experiments of Dr. Ferrán, in vaccinating with attenuated cholera virus. Any prophylactic against a disease so dreaded and feared as cholera will be hailed as a boon to mankind.

The progress of Dr. F.'s experiments is noted most flatteringly by the public press, and even medical journals echo the favorable reports in a half-hopeful manner. I fear, however, that these longing expectations are only born of hope. It is true that we vaccinate as a preventive of variola, but we have this fundamental principle to start with—that one attack of variola gives, as a rule, exemption against any subsequent attack. If one attack of cholera conferred exemption against a subsequent attack, we could look to protective vaccination with much more confidence. From what I have seen of the disease, and from those who have observed all the epidemics of the disease that have occurred in this country, I find no warrant for belief that one attack of cholera may not be followed by another in the same person. Most authors make no reference to this point. Goodeve, in "Reynolds' System of Medicine," vol. i., p. 392, states that there are numerous cases on record of persons who have had cholera more than once.

Roberts, part i., p. 219, says: "One attack does not afford protection against another." So far as I am aware, this is the uniform testimony of all who have expressed their views on this feature of cholera.

Now, if an unmitigated attack of Asiatic cholera in its worst form confers no exemption from a subsequent attack, I see no reason to hope that vaccination with attenuated virus will confer any possible degree of exemption or protection. Benjamin Edson, M.D.

DUODENO-CHOLECYSTOSTOMY.

To the Editor of The Medical Record.

Sir: I have intentionally postponed my reply to your note of February 14th, offering me a hearing on the subject of my operation, until some notice of it might appear from abroad. Now that we have a domestic and foreign estimate of this proposed "abnormal cysto-intestinal communication," claiming that whatever merit attaches to it belongs to the so-styled "originals of this proceeding," and not to my improvement upon the process, it seems proper to define exactly my position. The comments upon my mode of uniting the gall-bladder and the duodenum, for the relief of obstruction in the gall-duct, have manifested a want of due appreciation of the main object, in restoring the bile to the alimentary canal near to its normal entrance. If it be conceded that the bile subserves an important end in chymification, and in the preparation of the chyle for the nutrition of the body, with promotion of the peristaltic intestinal action, and correction of fecal decomposition, there can exist no doubt in regard to the importance of introducing it into the duodenum by a fistulous opening from the gall-bladder. It only remains then to determine upon the practicability of effecting this end with safety, and so as not to incur subsequent trouble in the proceeding. This must rest upon a rational inference from my experiments

on dogs, illustrating the union by adhesive inflammation of the outer surfaces of the intestine and gall-bladder, and the maintenance of an opening between them, by ligation of their walls together. In my last experiment, eight days after the primary operation, for simple ligation of the gall-bladder to the duodenum with a silk thread, "the exploration revealed union of the gall-bladder and duodenum, with adhesions of the latter to the lower surface of the liver, over the line traversed by the *cystic gall-duct*, so that it was not practicable to ligate it, as was intended. Neither could the *ductus choledochus* be reached; and yet no doubt existed of the exit by an opening between the gall-bladder and duodenum, as the small size of the gall-bladder indicates that it is kept drained." The *Birmingham Medical Review* "cannot help wondering," after reading the above passage afresh, on the last page of that "extraordinary little brochure," that I had discovered the difference of the cystic gall-duct and the ductus choledochus at least in the dog.

The animal above referred to continued well and quite sprightly for five months; when, on the eve of another experiment, it succumbed from an excessive inhalation of sulphuric ether. But the examination revealed that the most thorough agglutination of the walls effected a compact septum between the gall-bladder and duodenum; while the orifice formed by the ligature had been obliterated, from the fact, no doubt, that the natural channel of the bile was unembarrassed, as was proven by passing the probe through the ducts.[1]

It is an important feature in the history of this experiment, that no undue inflammatory action was set up in the peritoneal cavity, nor did the bile-ducts become involved in the inflammatory action propagated from the ligature to the neighboring serous investments of the gall-bladder and duodenum. The fatal results in the other experiments were owing to the lack of proper precautions in the subsequent treatment; and due likewise, in some of the animals, to the circular row of stitches around the ligature, which is found to be quite unnecessary as well as injurious.

The idea that there may be regurgitation of the chyme into the gall-bladder through a fistulous opening is set aside by the *vis-a-tergo* urging the bile out into the duodenum.

Very respectfully yours,
I. McF. Gaston, M.D.

"A MEDICAL VIEW OF ARMY MORALS."

To the Editor of The Medical Record.

Sir: Under the above caption, The Record of June 13th makes an extract from *Col. Med. Journ.* This article is a gross injustice to the "soldiers of America."

While freely admitting that army life tends to the lowering of the standard of morals, and the removal of many restraining influences, yet the opportunities for the gratification of immoral instincts were less during the war of the rebellion among soldiers in the field than among private citizens either then or now. The abovementioned extract is pleasant reading for the young medical student "*whose father had been in the army.*" American soldiers, both Blue and Gray, deserved better treatment at the hands of physicians. Aside from that, it is untrue. Lack of proper food and prison life, diarrhœa, scurvy, and other chronic diseases were sufficient causes for scrofulous offspring.

In three hundred and eighty careful and prolonged examinations of soldiers, made during the last year, and which examinations are carefully recorded, in only one was positive evidence of syphilis found, and in five only was there presumptive evidence.

These examinations were many of them made for the very purpose of determining whether or not a "specific" disease existed. Take the young men to-day between twenty and thirty-five years of age, and you will find a much larger proportion with evidences of *acquired* syphilis. Take any calling or profession in America and the proportion will be equal, not excepting the clergy, college professors, and editors.

If the statement is true medical examiners for life insurance have been very neglectful in the past, and should rigidly exclude soldiers from the list in the future.

We think the Editor of the *Col. Med. Journ.* possibly mistaken, and if he is correct, a careful examination of soldiers now living will show that Professor Gross was mistaken.

Geo. T. McCoy, M.D.

Columbus, Ind., June 20, 1885.

[1] Further details may be found in the March number of Southern Medical Record.

New Instruments.

THE POCKET POLARISCOPE.

By C. A. Bucklin, M.D.

New York.

This is the first instrument manufactured in America for the purpose of testing pebble lenses, the tourmaline tongs being almost exclusively manufactured in France or England.

It consists of a small nickel cylinder, with a slot at right angles to its axis, into which any lens to be tested is placed. Each end of this cylinder is closed by a perforated head, the opening in each head is closed by a plate of tourmaline, the axes of which are at right angles to each other. Tourmaline having the peculiar optical property of allowing light to pass through it in only one plane, the light which comes through the first plate is entirely absorbed when it falls upon the second piece of tourmaline, consequently, it is impossible to see any light through the opening. When a pebble lens is placed in the slot the light comes through the instrument beautifully; but when a glass lens is placed in the slot it is impossible to see any light. The quartz, of which the pebble lens is made, possesses a circular polarization, thus the light which passes through the first plate is so twisted by the pebble that it falls on the proper axis to pass through the second plate of tourmaline.

The question is frequently asked physicians as well as oculists, "Doctor, do you know whether these glasses are pebble or not?" The moment one of them is placed in the slot of this instrument, and you attempt to look at the light, the question is decided beyond criticism. If they are pebble, you see light; if they are glass, you see nothing.

It is an amusing fact that the simplicity and perfection of this little instrument has caused the further importation of all foreign appliances for similar purposes to be abandoned.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 28, 1885, to July 3, 1885.

Ainsworth, F. C., Captain and Assistant Surgeon. Relieved from duty at Headquarters, Department of Missouri. S. O. 93, Department of Missouri, June 26, 1885.

Taylor, B. D., Captain and Assistant Surgeon. Assigned to duty at Little Rock Barracks, Ark. S. O. 139, Department of the East, July 1, 1885.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 27, 1885 :

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
June 27, 1885.....	0	12	46	1	109	70	0	0
July 4, 1885.....	0	11	31	4	69	50	3	0
Deaths.								
June 27, 1885.....	0	3	9	1	21	34	0	0
July 4, 1885.....	0	3	3	4	18	18	0	0

A Case of Poisoning by Cannabis Indica—Recovery.—Dr. Thomas W. Lauterborn, of Newark, N. J., writes : "Hemp of India has been largely employed in my practice for cephalalgia at the menopause, and with very uniformly positive benefits. Hence, when I was called in to see a case of this description, several months ago, I ordered the following :

℞. Tinct. cannabis indicæ..... ♏ lxxx.
Pulv. acaciæ..... ʒ ijss.
Syr. aurantii cort..... ʒ iv.
Aq. camphoræ.....q. s. ad ʒ iv.

M. Sig.—Tablespoonful every three hours until headache relieved.

"This prescription was used with decided benefit, the headache being most effectually kept under control by only a few doses as occasion required. Several weeks ago, having been out of the medicine for some time, the pain began to assert itself again, and the bottle was sent to the druggist for replenishing. The pharmacist, whom I know to be not only well educated, but a man of more than ordinary care and neatness, in some unaccountable way took the *fluid extract* of hemp of India, instead of the *tincture*, and filled the prescription. Consequently every tablespoonful of the mixture represented ten (10) minims of the fluid extract, equal to ten (10) grains of the solid extract. About an hour after taking the first dose she began to complain of a boiling sensation at the top of the head, and whenever she raised her eyes toward the ceiling a sensation as if the top of her head was being pulled off by someone standing behind her, and it was all she could do to keep from falling over backward. She lay down on a lounge in consequence, but the boiling, forcible beating, and lifting up of the vertex increasing, she resorted to another tablespoonful of the medicine. Her son, who was engaged in reading to her, was astonished soon afterward by being implored to hold her down, and not let her be pulled up into the air, and to speak louder and more distinctly. Her complainings growing more serious, he laid his book aside, and thinking to cheer her by conversation, he mentioned several little incidents which had occurred in the house that morning. To each and every one his mother exclaimed in a dreamy tone, 'Oh, tell me something new, that took place one hundred years ago.' Suddenly she struck her hand violently against the wall, sprang up with a wild and terrified cry, clutching her vertex with one hand and the precordia with the other, gasping for breath, and loosening her dress about the heart. 'I am dying, oh, I am dying,' she piteously gasped ; then her face lightened up with a rapturous smile, she sprang to the unfortunate medicine bottle, exclaiming, 'Oh, what a perfectly lovely bottle,' and removing the cork, placed the bottle to her lips and took two swallows. 'Oh, how terribly hungry I am,' she exclaimed, as she set down the bottle, and coming to the table upon which stood the dessert for dinner, she began indiscriminately and rapidly to eat everything. Two medium-sized oranges were disposed of in a moment, rind and seeds ; a large plate of cake followed ; then a large dish of peanuts claimed her attention, putting three and four in her mouth at one time, munching as rapidly as possible, and swallowing shells and all. I was immediately sent for, as was her husband. When I arrived I found her hopping around the room in a perfect ecstasy of wild delight. She would suddenly elevate both arms above her head, beat the air like a pair of wings, give a spring upward and forward on one leg, kicking the other in the air, her face beaming with delight, eyes glowing and sparkling. Then, as if conscious where she was and who was about her, she would stop an instant, snap both thumbs, give us a contemptuous look, and resume her previous antics. Once she ran to her husband, fell upon his neck and, with a torrent of tears and hysterical sobs, besought him not to send her to an insane asylum. I spoke to her several times, asking her how she felt, and each time she acted as if her mind was confused, putting her hand to her head and saying, 'Oh let me think,' corrugating her brows and apparently struggling hard to recall something, but failing every time. While she was cogitating I noticed that her eyes were suffused, face flushed, her pupils evenly contracted and unresponsive to light. The pulse was beating 100 per minute, generally each wave of short duration, its volume small, very compressible, irregular both in length and force, besides being intermittent. The thermometer could not be retained in her mouth longer than one and a half minute, but in four or five trials always remained at 98⅘°. Sensation in hands and skin of forearms was markedly impaired. A prick of a needle that drew blood was not felt. Hands were cold to the touch. I had at first not the slightest idea what ailed my patient, but her husband called my attention to the fact that the second bottle of medicine was entirely different from the first, both as regards color and taste. Filled with the most serious apprehensions now, I directed her husband to take her out in the yard and walk her briskly up and down, while I took the bottle and hastened to the pharmacist. He was positive that he had made no error, and to prove it proposed immediately to compound the prescription and compare the two bottles ; this was done, and on placing them side by side a startling difference was at once apparent. The poisonous bottle was of a dark-green color, whereas the one just compounded was very pale-green. The error then was discovered. What to do was now the question. Emetics first, to remove not only whatever poison might still be remaining in the stomach, but the mass of indigestible material which she had eaten, and free stimulation afterward ; for if ever there was a pulse in which all the indications for stimulants were complete, then it was this one. So, armed with a solution of sulphate of zinc (ʒ ss. to ʒ iij. of water), and fortified with a big bottle of brandy, I hastened back to the house. I had been gone three quarters of an hour, during which time the patient had been walked up and down in the yard in a rain-storm. Most of the time she talked incessantly and incoherently, laughed idiotically, cried hysterically, screamed with terror, hopped with delight. Some of the neighbors were looking on ; she recognized them, called them by name, and attempted to speak, but her utterance was thick, and ideas all confused, so that her sentences were not connected and bore no relation to each other. She was brought into the house upon my return. The stage of excitement had passed, and exhaustion or depression began to appear. I administered the emetic, and gave a half-pint of warm water with a heaped-up teaspoonful of strong mustard in it to drink ; within five minutes she began to complain of intense burning at the pit of the stomach and copious vomiting ensued. Two teaspoonfuls of brandy were administered every half hour. She complained of a severe and continual pricking and tingling over the entire body, most marked in the hands and feet. Her tongue, mouth, and throat were

dry. She could not collect her thoughts sufficiently for any conversation, and seemed wild and distressed. She started up from the chair every few minutes, walked around the room beating and briskly rubbing her hands and stamping her feet. Her hands were cold, numb, slightly blue, and full of 'pins and needles.' Her feet were in the same condition. She was inclined to go to sleep each time upon returning to her chair. She mentioned that she could not feel her feet touching the floor distinctly as she walked. Pulse, 100, feeble, compressible, irregular, intermittent. Temperature, 98⅗°. Cutaneous sensibility on back of hands and forearms nearly normal. Late at night she was sufficiently strengthened and collected to give the following description of her sensations: 'About an hour after taking the medicine I began to experience a creeping sensation in the top of my head, as if a piece of thread was being drawn over the surface of the brain. This increasing in intensity, I felt as if the surface of the brain was working up and down against my skull. A faint tingling then became manifest in my fingers. Feeling that my head was growing worse, I took another dose of the medicine. My little boy was reading to me, and presently his voice began to sound afar off; I felt that I was rapidly getting farther and farther away from him, drifting I knew not whither, and that years had elapsed since last he had spoken to me. Presently he began to talk about some little things which had occurred that morning in the house, and I wondered how old they were, seemingly having occurred one hundred years ago. My brain now began to feel as if it were boiling, and frequently a sensation occurred as if the top of my head was lifted off, and the contents had boiled over. With each boiling over I felt as if a thousand needles were pricking me all over, more especially in the hands and feet, so that I was mortally afraid to move either for fear of running them further into me. Then my mouth and throat became parched, my tongue seemed to cleave to the roof of my mouth, the stinging in hands and feet became unendurable. Whenever I opened my eyes the whole top of my head fell off over backward, inclining me to fall over also, and a deathly sinking, fainting sensation ran through me. Then I lost all control over myself, a ravenous appetite took possession of me, and something within me whispered to take more of the medicine. I was fascinated immediately by its sweetish taste, and was drawn toward it by a force which I felt powerless to resist. I seemed to be conscious what I was doing, recognized everything about me, but could not control myself. I seemed to be myself and somebody else. After tasting the medicine and then taking two good swallows, I began to eat everything I could lay hands on. Then I was lifted up into the air, and thought I was in heaven. The whole earth was beneath me, I spurned it with my foot as dirt, and floated about in space, cognizant of all that was going on about me, but utterly indifferent and blissfully content. A feeling of great ecstasy ran over me at times, and I had to hop, dance, and cry out, for the joy was too great of being away from the earth. I seemed to possess two spirits, and to dwell in two different estates; dreamily conscious of those around me, yet dwelling amid visions of the sublime. I felt like speaking to those around, to come up to where I was and view with me the grand and gorgeous scenes, but the hopelessness of speaking through the immense space which separated us soon impressed itself upon me and I became silent. The most glowing landscapes were continually passing before my view like a panorama, each more gorgeous, grand, and sublime than the preceding. Gradually, however, they began to fade, I was approaching the earth, and once more felt myself among you.' The action of cannabis indica on the various structures and organs of the body may be summarily stated. 1. On brain and nervous system: In small doses it gently exhilarates the brain. In sufficient quantity the imaginative and emotional faculties are stimulated, then deranged—finally disordered. The conceit of the individual is markedly developed. The ideas pass through the mind in an overwhelming, continuous, rapid succession, but without any connection, and lead to no result beneficial to individual or community. The higher intellectual faculties, *i.e.*, memory, judgment, volition, are disordered. The special senses of sight and sound are disordered. The sensory nerves are rendered incapable of receiving or transmitting impressions. The brain is actively congested. No action on the reflex function of the spinal cord. The sympathetic system of nerves is stimulated. 2. On vascular system: The heart beats more rapidly, but it is due to weakness, *not* to increased force. The pulse becomes frequent, quick, small, compressible, irregular, and intermittent. 3. On respiration: None. 4. On temperature: None. 5. On digestive organs: No nausea excited; on the contrary, a great desire for food. No constipation follows its use. 6. On secretions: The salivary juices were diminished, producing dryness of mouth, tongue, and throat. No apparent effect upon gastric, biliary, or intestinal secretions. 7. On excretions: Urine increased in quantity, and had an odor of the drug. No diaphoretic action. Fæces natural in amount, color, and consistency."

The Cause of the Excessive Mydriatic Action of some Specimens of Cocaine.—At a meeting of the Paris Academy of Medicine Dr. Panas gave an account of some investigations undertaken at his suggestion to determine the cause of the excessive mydriatic action sometimes seen in cocaine. It was found that some manufacturers submitted the leaves to a second treatment, in a desire to obtain every particle of the alkaloid, and that during this process a new substance was produced. This second alkaloid was hygrine, a substance possessing marked mydriatic properties. In experimenting with two samples of cocaine, one of undoubted purity and the other presumably containing hygrine, Dr. Panas found a great difference in their mydriatic action. The first sample caused only a moderate dilatation of the pupil, while the second dilated the pupil widely, and its effects continued for forty-eight hours. The mydriasis of impure cocaine differs from that of atropine in that it yields quickly and entirely to the action of eserine, while the alkaloid of belladonna is only momentarily antagonized by this substance.

The British Pharmacopœia.—The new British Pharmacopœia will shortly be issued, and will contain, it is said, over one thousand preparations. A number of new drugs will be introduced for the first time, among which are apomorphia, pilocarpine, kairine, menthol, iodoform, the oleates, vaseline, thymol, salicylic acid, and the salicylates. Not very many of the present officinal drugs will be rejected, and it is expected that the Pharmacopœia will still contain a good deal of what some therapeutists call "rubbish." There is some talk of introducing the metric system.

The Overcrowded Profession.—Those who are disposed to find fault with the overcrowded condition of the medical profession in our country, may find some slight solace in the fact that matters are not much better in some other parts of the world. In Vienna this would seem to be especially noticeable. According to the *Progrès Medical*, physicians are more numerous in the Austrian capital than in any other city in Europe; there are ten times as many in proportion to the population as in London. This implies a dismal prospect for the younger men, who must be content with very modest fees. One practitioner (whose name is not mentioned) is credited with forty thousand dollars a year, but the rest "*ont tout lieu de désespérer*." There is a great deal of complaint against the vast system of medical charities, which are extended indiscriminately and are taken advantage of by patients who are amply able to pay a physician.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 3 — New York, July 18, 1885 — Whole No. 767

Original Articles.

THE ACRO-NEUROSES.[1]

Functional Nervous Affections of the Extremities.

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Some elaborate works have been written upon the subjects of the anatomy, physiology, and pathology of the hands and feet. So far as the last is concerned, however, systematic writers have discussed chiefly the surgery and the deformities of these members. It has occurred to me that it might be instructive to collect the numerous and wide-scattered contributions to the medical pathology of these parts. I have felt a particular interest in doing so from having met in practice types of many of these affections, and from having observed some forms which are apparently unique.

The hands and feet being highly specialized organs, are naturally subject to frequent and considerable changes in their blood-supply and nervous conditions. Besides their natural high sensibility and delicate mechanism they have certain anatomical relations, being remotely removed from the heart and nerve-centres, which put them at a disadvantage. Changes in circulation, secretion, temperature, sensation, as well as in motor power are therefore not rarely observed. All these changes, when of nervous origin and not due to any known organic disease, may be spoken of as neuroses of the extremities, or as acro-neuroses, a term which is convenient and quite as justifiable, it seems to me, as that of neuroses of the stomach, bladder, or any other complex organ.

Many peculiar neuroses of the extremities have been noted by physicians. Some of them may appear trivial, but in all cases they at times cause distress, and often such agony and misery as to interfere with the last two at least of the Jeffersonian functions, "liberty and the pursuit of happiness."

The different affections of the extremities which we may provisionally call neuroses can be with approximate accuracy classified as follows:

I. Vaso-motor and Trophic Disturbances.—Erythromelalgia; Digiti mortui, or dead fingers; local asphyxia; local syncope; symmetrical gangrene. All these constitute simply different types of Raynaud's Disease.

II. Sensory Disturbances.—*Paræsthesiæ:* Burning hands and feet (ignipedites); ordinary forms of paræsthesia.

Hyperæsthesia.

Neuralgias: Acrodynia; Ignipedites—a special constitutional disease; Reflex neuralgias; Morton's "luxation" neuralgia.

Tarsalgia; Pododynia, Talalgia, Policeman's disease; Spastic neuralgia of Mitchell—different names for same trouble.

III. Secretory Disturbances.—Palmar and plantar hyperidrosis.

IV. Motor Disturbances.—Hysterical, choreic, and epileptic movements.

I shall have very little to say, except about the vaso-motor and sensory troubles, since it is with perplexing types of these that I have personally had to deal, and it is concerning these that much confusion has existed.

I. *The vaso-motor and trophic Acro-neuroses, Digiti mortui, Erythromelalgia, Raynaud's Disease.*

Case I.—A young man, about twenty-four years of age, whom I had been treating for spinal irritation of a depressive type, complained that on slight exposure to cold the ring-finger of one hand became white, waxy, and bloodless. It felt cold, and as though it were separate from the hand. After a time, the circulation becoming restored, there was a burning, tingling feeling experienced. Later the middle-finger became affected in the same way, and the trouble was progressively invading the whole hand when arrested by tonic treatment.

Case II.—I was consulted by Dr. Richards, of Trenton, N. Y., about a young woman of a hysterical temperament. Her history was that after exposure of the hands to cold one of the fingers of the hand became for a time cold, waxy, and as if dead. Gradually the trouble extended until all the fingers of both hands became subject to these paroxysms of local syncope. There was no burning or pain, and no blueness or mottling of the skin. After a time, under the use of strychnine, quinine, iron, and phosphoric acid, she improved, but still suffers in a measure from the attacks.

Case III.—A young woman, single, aged twenty-two, suffered three years ago from fugitive urticaria with intense pruritus, cured by jaborandi. She now complains of frequent attacks of headache. She also suffers from cold hands and feet. The fingers at times get white and waxy, feel dead, then they get blotchy and purple, and the hand swells. No sensory troubles in the intervals of the attacks.

These are cases representing different degrees of a morbid condition, known as *digiti mortui* or dead fingers.

It is not very uncommon in its mildest form, occurring chiefly in women, and in persons of a neurotic temperament. The severe type, in which the fingers and hands get blotchy, purplish, with trophic changes, is much rarer. It is then generally accompanied with burning pain, is more chronic in course and more intractable to treatment.

It then also is recognized under the name suggested by Dr. S. Weir Mitchell, of erythromelalgia, *i.e.*, the red neuralgia,[1] or under that of local asphyxia and local syncope, a name given by Dr. M. Renaud.

A bibliographical history of these morbid conditions is given later on. It appears to me from a careful reading of all of Mitchell's cases, and of many of Reynaud's, that these two observers have independently described closely allied, if not identical diseases.

I venture, however, to give a brief description of erythromelalgia, as observed by Mitchell, and also of local asphyxia, local syncope, and symmetrical gangrene, the periphrastical name given by M. Raynaud to what is better called simply "Raynaud's disease."

Erythromelagia is a painful affection of the extremities, generally of the feet, accompanied by a flushing and

[1] The word acro-neurosis is derived from the Greek word ἄκρον, extremity, and neurosis. The word ἄκρεα was frequently used by Greek physicians to denote extremities. Acrodynia from ἄκρος and ὀδύνη, pain, is a word first suggested by Chardon, and has become a part of medical nomenclature. So that I cannot be accused of coining a new word, but rather of employing a root already in accepted use.;

[1] From ἐρυθρος, red; μελος, a member; ἀλγος, pain. The condition was first described by Dr. S. Weir Mitchell, in the American Journal of Medical Sciences, July, 1878. Dr. Mitchell refers to somewhat similar cases reported by M. Grener, Le Bordeaux Médical, September, 1873; by Vulpian, Le Appareil Vaso-motor, t. ii., p. 623; and by Graves, Clinical Lectures, 1864, p. 826. Since his article other similar cases have been reported or referred to by Ross, T. B. Curtis, Charles K. Mills, and Woodnut. (See Bibliogr., History of Reynaud's Disease.)

mottling of the parts upon slight exertion. It may attack the toes symmetrically and progressively. The patient suffers from an intense *burning* pain in the toes, ball, dorsum, or heel of the foot, extending even up the leg. This pain is relieved by rest and the horizontal position. Trophic changes may finally set in, and evidences of organic spinal disease have been observed in some cases. The hands are sometimes involved, or are even the only seat of the disease. It occurs oftenest in males at the ages of twenty to forty, and comes on after prostrating fevers, severe exercise, or exposure. Dr. Mitchell found the disease very chronic and progressive, and not amenable to treatment.

Erythromelalgia is believed by Ross to be simply a form of sciatica affecting the plantar branches of the posterior tibial nerve. In a case under Dr. Ross' care, as in some of Mitchell's cases, the area of redness and burning corresponded with the distribution of these nerves.

The progressive and symmetrical character of the disease, the remarkable vaso-motor disturbances, the fact that the hands sometimes become involved, show that it is more than a form of sciatic neuralgia.[1]

Raynaud's disease.—Digiti mortui, local asphyxia, and symmetrical gangrene, or Raynaud's disease, belongs, as we have said, to the same category with erythromelalgia. The symptoms of a mild case have been given; those of a well-marked case are very striking. The patient suffers from paroxysms, in which the fingers, toes, and sometimes the ears, tip of the nose, and even tongue become white, bloodless, and feel cold and dead; or, in other cases there is a venous stasis, and the extremities become blue and mottled. As the attack subsides there is pain of a burning character, and often of a frightful intensity. Here we have, therefore, an erythromelalgia. In many cases the disease does not go any further than this, but after a few months gradually disappears. In other cases a symmetrical dry gangrene follows, or this may even come on directly. The gangrene is slight in amount, and rarely causes more than a superficial destruction of tissue. Sometimes the disease runs a very chronic course, lasting for years.

It occurs generally (in France at least) in women between the ages of eighteen and thirty. It seems to be caused in some cases by malarial poison. In two cases (Raynaud's and Barlow's) the patients had diabetes. It has been observed by Armaingand (*Rev. Sc. Med.*, x., 548) to occur as part of the phenomena of a hysterical attack. It occurs in functional paralyses of the arms. Finally, local asphyxia is one of the most marked features in one of the types of scleroderma. More than half a dozen observers, including Grasset, Hallopeau, and Bernhardt, have published cases showing this relation between local asphyxia and scleroderma, and maintaining that there is an essential unity in the pathology of the two affections.

We have, therefore, on one extreme scleroderma, a serious chronic trophoneurosis, and on the other the mild types of "digiti mortui," of slight significance.

In all these there is a tetanus of the peripheral vessels, due, no doubt, generally to an excess in reflex sensibility of the vascular apparatus, since the affection is symmetrical and paroxysmal. In some of the types sensory and trophic, as well as vascular, nerves may be directly involved.

What the cause of Reynaud's disease is we do not know. So far no organic lesion has been discovered. It does not seem to be of an infective character. It occurs in persons of an extremely mobile nervous system. Malaria or diabetes, exhausting diseases, over-work, and mental strain are concerned with the etiology in most cases. The disease can be easily distinguished from gangrenous ergotism, and from gangrene due to impaired nutrition, or to toxic agents of any kind, by its spontaneous development and its symmetrical and paroxysmal character.

Raynaud has stated that galvanic currents to the back and extremities are very efficient in treatment. These should be supplemented by rest, local stimulation, tonics, good food, etc.[1]

(To be continued.)

[1] A condition resembling erythromelalgia has been observed in arsenic poisoning by Dr. E. C. Seguio, Jour. Nerv. and Ment. Dis., October, 1882.

ON THE CLASSIFICATION OF DEAF PUPILS WITH A VIEW TO IMPROVE THE FACILITIES FOR THEIR EDUCATION, BASED ON THE CAUSES OF THEIR DISABILITY.[2]

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THE existence of deafness is not discovered even by discerning parents during the first few weeks of infancy, and what is frequently a mere suspicion in this regard at the sixth month may not become a painful reality before the child is expected to talk, and then the slowness of intellectual development may not be properly attributed to defective hearing. Partial, but disqualifying, deafness is thus liable to be overlooked until school education is attempted.

The detection of the very existence of hearing defects, it may be premised, is attended with difficulty, even by experts, during the earliest period of infancy, and even at the school age the exact degree of disqualification is not readily determined; it is with the view of affording

[1] HISTORY.—Perhaps the first case of Raynaud's disease was recorded by D. D. Hertius in the year 1684, in a note entitled, "De Ardore manuum ac pedum intolerabile," published in Miscellanea Curiosa, Academiæ Naturæ Curiosorum, Annus Tertius, Nurembergæ, 1685. Obs. civ., p. 203. Dr. Hertius says that he was called to see an unmarried woman, twenty-six years old, who was daily afflicted with a most intolerable burning or heat in the hands and feet, which yielded to no remedies. She finally was made so desperate by her sufferings that she would keep them in the coldest water. Eventually, gangrene of several of the toes and fingers set in. The gangrenous parts were amputated, and the patient finally recovered. Dr. Hertius, in the form of a "Scholium," gives a learned disquisition upon the pathology of this affection, but he throws no light upon it.

The subsequent history of the discovery and description of Raynaud's disease and its allied forms is of some interest.

A case resembling it was described by M. Bocquet in the Journal de Corvisart, 1808, t. xvi., p. 283, and referred to by François in an Essai sur les Gangrenes spontanées, Paris, 1832. A disease resembling local asphyxia was also described by Brodie in his Lectures on Local Nervous Disorders, 1837; also by Huston in 1836.

A disease more of a vaso-paralytic and neuralgic character, like erythromelalgia was described by Graves in the Dublin Journal of Medical Science, 1840, p. 257, 259, and in the Edinburgh Medical and Surgical Journal, 1849, lxxi., p. 238. In 1862 M. Raynaud (Thès. de Paris, 1862) gave a very complete description of the trouble, which he described as a local asphyxia of the extremities, of nervous origin, ending sometimes in gangrene or in slighter trophic disturbances. In 1872 (Nouveau Dict. Méd. et Chir. prat.) and in 1874 (Arch. Gen. de Méd.) he wrote of the disease again. Meanwhile many other observers have contributed facts and observations regarding it, viz.:

Nothnagel, in 1866, and Esslander, in 1870 (vid. Nouveau Dict. Méd. et Chir.).
Rey, 1869 (Arch. de Méd. Naval, 1869, p. 211).
J. R. Pigg (Lancet, 1870, vol. ii., p. 397).
Mourson, 1873 (Ibid., p. 364).
Allan McL. Hamilton (N. Y. Medical Journal, 1874, October).
Fischer (Arch. f. klin. Med., xviii., 2, 1875, p. 335).
Calmettes (Gaz. Méd., 1876, 44, p. 520).
Armaingand (Rev. Sc. Méd., x., 548), occurring in hysteria.
Lereboullet (Soc Méd. Hop., March 22, 1878), occurring in brachial paralysis (Gaz. Hebd., 1878, 13).
Grasset and Apolinard (Grasset's Mal. de Ner. Syst., vol. ii., p. 244); occurring in brachial paralysis and scleroderma (Montpel. Méd., 1878).
Dr. T. A. McBride (MEDICAL RECORD, May 11, 1878), cases of digiti mortui.
Dr. S. Weir Mitchell (Amer. Jour. Med. Sci., July, 1878), describes erythromelalgia.
Dr. Chas. K. Mills (Amer. Jour. Med. Sci., October, 1878).
Bernhardt and Schwabach (Rev. Sc. Med., viii., 274).
Rapin (Ibid., viii., 275).
Wynn Foot (Ibid., ix., 225).
Dr. R. Southey (Tr. Clin. Soc. of London, vol. xvi., p. 167; St. Barthol. Hosp. Repts., vol. xvi.)
Barlow (Tr. Clinical Soc., vol. xv., p. 167, 1879).
Mr. Thos. Smith (Ibid., 1880).
M. Mourson, 1880 (quoted in Rev. de Chir., 1883, p. 5), digiti mortui of malarial origin.
Quinquand (La France Médicale, Sept. 6, 1881, p. 325), a form between erythromelalgia and scleroderma.
Weiss, of Prague (Zeitsch f. Heilk, 1882, vol. iii., p. 233).
Hastreiter (Wien. Med. Presse, 1882), twenty-two cases.
Mommsen, July, 1882 (Boston Medical and Surgical Journal, cix., p. 250), twenty-one cases.
Hélye (De la Malad. en. Algerie, p. 51), digiti mortui of malarial origin.
Petit and Verneuil (Rev. de Chirur., 1883) collect a number of cases illustrating the paludal origin of Raynaud's disease in its mild and gangrenous forms.
Dr. Lauer (Thès., Strasburg, 1884), two cases of Raynaud's disease.
Dr. Woodnut (Medical News, December 27, 1884, p. 717), case of erythromelalgia.
Dr. Colcott Fox (Lancet, May 30, 1885, p. 990), Raynaud's disease, with gangrene.
Dr. W. W. Johnston, in the American Journal of Obstetrics, April, 1885, p. 393, under the head of a Rare Form of Vaso-motor Neurosis, records a case of Raynaud's disease.

The cases reported are, for the most part, cases of local asphyxia or digiti mortui; others are illustrations of local asphyxia with symmetrical gangrene. Barlow and Petit and Verneuil, as well as Raynaud, give good cases of this kind. In still fewer instances the symptoms are more like those of erythromelalgia.

[2] Presented to the International Congress of Educators, New Orleans, 1885.

some aid to parents and teachers in this regard that this paper is written. In order to enhance the practical value of the views advanced, I have availed myself of notes that have been taken during an extended experience in the examination and treatment of the aurally defective.

The 450 cases of children's deafness selected as illustrative, are from among children seen in private and infirmary practice, and they represent almost every variety of disqualifying deafness. The defective pupils among this number were brought to me from both hearing and deaf-mute schools. A considerable number of these constitutes a class not properly provided for in either, being too deaf for hearing schools and yet not deaf enough to be taught as deaf-mutes; they were, therefore, found to be oscillating, shuttlecock-like, between the two, liable to be cast forth into life with much less education than their intelligence entitled them to receive —usually with scarcely intelligible articulate speech.

On account of their instructiveness, I have included in the cases above selected a few not strictly of the school age.

The cases may be divided into two groups based on their school status; thus 371 were attempting to retain their position in hearing schools, whilst 79 were either so deaf as to be excluded or were not of the school age.

The first group of 371 was constituted as follows: 74 were between five and seven years of age; 200 were between eight and twelve years of age; 97 were thirteen years of age and upward. As to sex, 199 were females and 172 were males. The causation in these cases could be traced to either purulent or non-purulent inflammation of the ear-drum (tympanum). In 219 cases it was the former, and in 124 cases the latter.

Usually both ears were similarly affected in each case, but where a purulent affection existed on one side and non-purulent on the other, the case was classed with the former. In the non-purulent cases both ears were almost without exception similarly affected, although the left ear was usually the worse of the two.

Belonging to either one or the other of the above varieties were 10 cases where the ear had been severely boxed or pulled, causing rupture or strain of the drum-head, and consequent deafness; 33 cases where cold sea-water had passed from the mouth up into the drum through the Eustachian tube, while the child was bathing in the ocean; 3 where water was introduced into the drum while sniffing it up into the nose, or in using the nasal douche. In 31 cases the cause was attributed to scarlet fever, in 17 to measles, in 5 to diphtheria, in 4 to whooping-cough, in 1 to mumps, and in 1 to syphilis.

The external auditory canal was obstructed in a number of instances, thus interfering with the entrance of sound; in 52 cases it was by wax, in 7 by foreign bodies, in 25 by narrowing of its walls by inflammation. Among the last named were 8 cases where the canal was ulcerated.

The drum-head gave evidence, on examination being made by reflected light, of defectiveness of the transmitting mechanism in a considerable number of cases. Thus, in 30 there was deformity of the membrana tympani from perverted development; in 27 cases there was greater or less destruction of the mechanism from suppurative inflammation; a polypoid growth sprung from the morbid tissues within the drum in 14 cases, and the inflammation extended from the drum to the pneumatic cells of the mastoid in 8 cases.

It is noteworthy that defective teeth were present in nearly every case, and 189 of them were specially bad. Head-catarrh and enlarged tonsils were present in the greater number, and in 13 cases either the nasal passages were so much obstructed, or the teeth so malformed, that mouth-breathing was habitual.

The affections thus far mentioned are those which interfere with the passage of sound to the middle ear and its transmission to the inner ear, but the deeper parts containing the distribution of the auditory nerve may, in the more severe cases of ear-disease occurring from scarlet fever, diphtheria, etc., be attacked at the same time. In 28 of these cases, it may be incidentally stated, either tumors, or abscesses, or wounds of the auricle from piercing for rings, were observed. Distress from the autophonia of ear-disease, the autophonous perception of voice and sounds arising from the performance of physiological functions of the circulation, respiration, and swallowing, were present in 41 cases, and dysacousma was present in 1. Pains in the ear (otalgia) were experienced by 28, pains in the aural region (neuralgia) by 36, ear-cough by 10, epilepsy by 1, vertiginous symptoms by 18, chorea by 2, and various other reflex phenomena by 17.

In respect to the degrees of deafness, 113 were almost totally deaf, while the remaining 258 were all of them incapacitated in some degree from receiving instruction at school along with good-hearing scholars.

The second group of 79 cases was composed mostly of so-called deaf-mutes; 38 were under five years of age, 21 between five and seven, 11 between 8 and 12, and 9 thirteen and upward. There were 41 females, and 38 males. Of this group, 18 were recorded as congenital deaf-mutes, but the diagnosis was in some of them considered doubtful; in 25 cases the trouble was traced to cerebral meningitis, in 19 to purulent inflammation of the drum, and in 17 to non-purulent inflammation of the drum.

In regard to their aural defectiveness, 26 of them were found to hear well enough to be taught *aurally* by the aid of a conversation-tube, or by using the voice close to the child's ear in teaching; 2 of them, although totally deaf, attended school along with hearing pupils; 4 of them retained speech after losing their hearing, and this without the aid of a teacher, and one of this number continued to use the English cockney accent which he had acquired before becoming deaf; in 17 cases the children were losing the speech they had acquired before becoming deaf, or were very defective in this regard from neglect to teach them. The younger children composing this last-mentioned class were nearly all of them backward in learning to talk; one of them did not acquire speech until his good-hearing brother became old enough to converse with him, and another did not talk until five years of age. Seventeen patients had never learned to talk, and a considerable number of these were considered mentally defective, solely on account of this defect, by their parents or teachers. In one case it was noted that the impact of sounds was painful (dysacousma).

It will be observed that in the greater number of all of the cases above presented, the cause of aural defectiveness was attributable to some inflammatory affection of the hearing organ. Thus *cerebral meningitis*, occurring in connection with children's diseases, contributed largely to this list; its invasion is always sudden, and it generally causes bilateral deafness. It does not give rise to running from the ears. Meningeal inflammation is usually meant when pachymeningitis, cerebro-spinal meningitis, brain fever, cerebral meningitis, convulsions, fits, and the like, are mentioned in this connection. Sometimes the symptoms of irritation of the stomach are so marked in meningitis that the case has been erroneously regarded as "gastric fever." Inflammation of the ear-drums, whether purulent or non-purulent, acute or chronic, leaves characteristic appearances which are easily recognizable. Among the smaller number there were some where the precise nature of the origin of the difficulty was obscure; following the usual custom, the writer, tentatively, relegated these to the somewhat vague realm of the congenitally deaf. Subsequent experience, and a more particular study of the subject, seem to show that in some of the instances of supposed deaf-born children, the disability should be assigned to extra-uterine causation.

Thus cerebral meningitis affecting the nerve of hearing, and suppurative inflammation of the drum of the ear af-

fecting the transmitting mechanism, consecutive to children's diseases, as scarlet fever, measles, and diphtheria, are frequently met with at the period in life when children are learning to talk, and the more carefully these patients are examined in this regard, the more frequently will it be found that deafness was first discovered to exist subsequently to some attack of this kind. In eliciting from parents the history of these cases, one should not place too much value on alleged injury to the ears from falls and blows on the head, which are often advanced as causes.

Acquired deafness.—Conditions favoring early deafness are not wanting—indeed causation may antedate or be encountered at birth, since at this period the drum in a normal state contains no air, but is filled with loose œdematous connective tissue, which slowly disappears when aëration of the cavity takes place with the establishment of the respiratory act, the cries, and the performance of deglutition by the infant. When action of the upper respiratory tract is defective, as it may thus be at birth, or, soon after, by head catarrh or by aural catarrh, the necessary aërial equilibrium is not established, and oscillations of the transmitting apparatus cannot take place. Under these circumstances the perceptive function lies dormant because it cannot be aroused to normal action.

Congenital deafness.—A tendency to propagate constitutional dyscrasias doubtlessly exists in some persons, and when predisponents to catarrh are active in such a case, hereditary catarrh may give rise to disease of the ear at the earliest period of life. This hypothesis is borne out by clinical experience. I have at the present time under treatment for aural catarrh a bright little lad three years of age, who cannot yet talk on account of this defectiveness. His mother informed me that she was exceedingly susceptible to head catarrhs, and the grandmother is so deaf that she has to carry about a conversation-tube. I was much impressed by these cases, and was even surprised when informed that my patient's great-grandmother was very deaf.

The possible effect of influences on the maternal progenitor are worthy of consideration. The following case in this connection is suggestive: The first-born child of a healthy, well-developed, and intelligent woman was, when six months of age, thought to be deaf, since she could only hear jarring of the floor and the like, and the sound of a high-pitched whistle which her father carried, and which seemed to become quite familiar to her ears. The mother had, however, during the first month of pregnancy an attack of rubeola, or German measles, and was, furthermore, much worried during the entire period of gestation about her husband, who was very nervous and becoming deaf from aural catarrh. When I examined this child at the age of sixteen months, it was found to have catarrh of the head and ears, the origin of which may have been embryonic. No anatomical malformation of the ears was discovered in the infant, nor was there any apparent transmissible organic defect in the parents.

Deafness due to congenital anomalies of the auditory apparatus.—These are supposed to be traceable to some perversion of development during the morphological state. The hearing organ in man has both an intracranial and extracranial origin, one centric and the other peripheric. From the auditory vesicle which constitutes the centric is evolved the nervous, or perceptive tract of the ear, while the first visceral cleft evolves the peripheric, or outer structures comprising the transmitting apparatus, namely, the Eustachian tube, the drum, and the external auditory canal and auricle. Now during the embryonic or fetal states, any interference with the development in either of these regions would produce defects in the hearing organ. Evidence of developmental defects is not always obtainable, and where the trouble is centric a diagnosis cannot be made in the very young, for obvious reasons. Evidences of peripheric defects, however, are by no means rare; these consist, for the most part, in either defective or excessive development in the closure of the first branchial cleft, the most common form of which is *fistula auris congenita*. The presence of these anomalies is very likely to be overlooked. In the following typical example they were not observed until several examinations of the ear had been made, their existence not being suspected at first: The case was that of a child of eight years of age. She was thought to be defective in intelligence until she was two years of age, since she did not learn to talk; but she grew more intelligent in appearance, and it was then found that she was deaf. When four years old some person undertook the task of instructing her during a long sea voyage, and she learned to spell and pronounce a few words. When five years old she was sent to the public schools in New York, and had made considerable progress up to the time when she was brought to me Examination of the hearing showed that she could not understand conversation in any tone at the distance of a few feet; but when her name was spoken in a smart tone she would promptly look at the speaker. She can hear the voice quite distinctly when the speaker is only a few inches distant. The teacher, for some reason, requires her to sit in the farthest seat from her desk. A minute fistulous opening is to be seen on the front part of both auricles, from which a small quantity of offensive fluid issues spontaneously at times, and usually on the right side, when the parts are pressed by the fingers. The external auditory canals are of the normal size, but the drum-heads are somewhat defective in appearance, the membrane being puckered at its anterior superior quadrant.

I have seen a very considerable number of these cases in adults, always where hearing was defective, and although generally unilateral, it is probable that in nearly all cases some degree of defectiveness exists on both sides. It seems probable that, where centric malformation exists, co-existent mental defects are liable to obtain, and we should, therefore, expect to find imbecility as well as deafness.

In the treatment or education of deaf children it is well to keep in mind the fact that defectiveness is not always absolute, and may, therefore, be amenable to treatment on the one hand, while not constituting an insuperable barrier to aural instruction on the other.

It would seem that the neglect of deaf-born children, in the lower order of social life, much more frequently results in dumbness than would occur if more pains were taken in their education; indeed, where the offspring of deaf-mutes are constantly surrounded by deaf-mutes holding converse with each other by signs only, it would be strange if they should learn to talk unless possessed of good hearing and allowed to associate with speaking persons. If children with defective hearing organs have but little, if any, opportunity to employ them, it is probable that continuous disuse of the sensory tract would finally lead to its deterioration. A child brought up under unfavorable conditions in this respect would acquire the use of the voice with difficulty, if at all, since even where normal hearing exists and favorable opportunities are afforded for learning, it is only after long and patient practice that intelligible speech is acquired.

The difficulties that beset partially deaf children where the defectiveness interferes with school instruction, admit of much easier interpretation than those of very young children. As regards the latter, inquiries as to causation are liable to be met by vague, unreliable, and even misleading statements, and the truth can only be reached by painstaking, eliminative analysis. Parents thus offer some entirely irrelevant accident, as an injury from a fall or blow, or an inconsequent trouble, as vaccination, or illness not affecting the ears, as causal, where examination often shows, after all obscurities have been put aside, that aural catarrh is the sole cause of the trouble, or that the case is congenital. It seems to offer

the ignorant much more satisfaction, in many instances at least, to regard deafness as a calamitous visitation, to account for which a striking catastrophe is required, rather than any natural, though much more simple, cause.

The dumbness of deaf children by no means always bears a constant relation to their aural defectiveness; a child intellectually bright, with favorable opportunities for learning, will make much more rapid advances than a child mentally dull and neglected. The writer has met with numerous examples where totally deaf persons obtained an excellent education in private hearing schools; they have been, of course, attentive and quick to learn, and special attention had been given them by teachers. This courageous achievement has been limited to the gentler sex, so far as my own observations have gone.

Dysacousma.—The painfulness of sounds to the perception of some deaf people is extreme. This is probably due to the sudden and unusual transmission of sounds which are felt at the perceptive centre as a shock. The low rumble of thunder, or the deep tones of an organ, are unbearable to some deaf persons, while others cannot endure a whispered sound when made directly into the ear.

If a medical writer might venture to offer a suggestion in pedagogics, I would urge early attention to home instruction for deaf children. Hearing children naturally pick up their earlier education without effort from parents or by themselves, but deaf children must be unremittingly taught at close range; words must be uttered directly into the ear, not loudly, but distinctly. Tubes are of value in conducting sound to the child's ear where close contact of the mouth is inconvenient, and the child should be encouraged to repeat its own words through the tube to its ears so as to compare its own voice with the instructor's. If this course be pursued early enough, I am convinced that but few children would be found without *any* hearing sense, and many who have considerable hearing likely to be lost from disuse would gradually be improved.

The greatest difficulty encountered at first is in overcoming inattention on the part of deaf children, who are disposed to rely on the sense of vision, since it offers so much easier a method of conversing. Much time is lost, I am convinced, from neglect to insist on this matter.

Where it is possible to avoid doing so, a deaf child should not be taught alone, but placed in company with hearing children. Instruction at school could with advantage be commenced much earlier than is done at present; some children are as capable of attending school when only three or four years old, as are others at a much more advanced age. Deaf children might, indeed, be made an exception of in regard to school age, since their training should begin so much earlier than hearing pupils. Where deafness has occurred after the pupil has learned to talk, unsparing efforts should be made to aid him in retaining this faculty, otherwise dumbness may result.

Olive-oil as a Menstruum for Dissolving Cocaine for Application to the Eye.—Dr. Joseph A. Andrews, of New York, writes: "In addition to the occasional benefit derived from the use of oil dropped into the eye in recent abrasions from burns, and in other painful affections of the cornea in which atropia is indicated and cocaine may likewise be serviceable, the plan of dissolving the cocaine in oil seems to insure a longer contact of the remedy, and a smaller quantity is required to effect anæsthesia. Neither the salt of cocaine nor that of atropine is soluble in olive-oil, but the alkaloid dissolves readily in this menstruum without the addition of alcohol, it being only necessary to expose the solution for a few minutes to a gentle heat in a water-bath. Castor-oil is not a desirable menstruum on account of its irritating qualities; and the oleate of cocaine, for the same reason, is still more objectionable as an application to the eye."

CHOLERA.

By MANKAN G. DADIRAIAN, M.D.,

NEW YORK, FORMERLY OF CONSTANTINOPLE, TURKEY.

The cholera has been a great terror in this century, both among civilized and uncivilized nations. My intention in this article is to glance at the three following points:

First—How to escape it?

We see a prevailing belief in the minds both of the profession and the laity that the disease will surely visit New York this year. It may come, but it is hardly probable. Cholera may travel in three different ways: by human intercourse, by baggage—furniture, etc.—and by the air. Strict quarantine may prevent the spread of the disease by the two first-named agencies. The air is to be regarded as dangerous only for short distances.

The great benefits of quarantine can be explained by relating the circumstances concerning Constantinople:

Whenever cholera has appeared in Egypt or in Europe, it has always later appeared in Constantinople. Unfortunately, there has always prevailed in Turkey the belief that all plagues are scourges sent from God to punish human creatures and correct them. Therefore, it is not wise (say the people) to use any measures to ameliorate or prevent this punishment. "It is provoking the Almighty." Hence, though a show of quarantine has been kept up to distract the attention of the other European powers, passengers have been allowed to land without any precaution being taken; and, in its practical bearing, the whole thing has been a farce.

When the cholera was raging in Egypt, in 1883, the population of Constantinople was in great terror lest the disease should break out in their midst. All persons having diarrhœa were alarmed, and, contrary to their usual custom, at once sought medical treatment, thinking that the dreaded malady was upon them, and, in fact, many of the cases had a decided choleraic appearance. At this time the sanitary condition of the city was as bad as could well be imagined, but neither in that year nor the year following did cholera appear, though it was travelling along the Mediterranean shore, in Spain, France, and Italy. Why did it not visit the city in these years? For the following reason:

The present Sultan, Abdul Hamid, is an entirely different sort of a person from his predecessors. He believes that not only plagues, storms, earthquakes, etc., come from God, but that all insects, etc., come from Him: hence, he reasons, if we kill and drive away the latter, why should we not do all in our power to ward off the former. So he established a strict quarantine, and kept his palace in telegraphic communication with the quarantine stations, and in every way contributed to the efficiency of the service, rewarding faithful and punishing unfaithful subordinates. He even arrested some rich merchants who had evaded the watchfulness of the quarantine officers and violated the health laws. If the watchfulness of the Sultan has done all this, will it not be possible for the United States to be as careful as Turkey has been?

Second—What are the proper prophylactic measures during an epidemic?

They are simple, and can easily be followed out by all classes of people.

1. All rooms should be thoroughly aired and ventilated; also whitewashed. The utmost cleanliness should be maintained, particularly in halls and on stairways.

2. As few people as possible should sleep in the same room.

3. Bathing should be practised regularly.

4. Great regularity in eating should be followed. All salt and fat meat, salt fish, sausages, and raw fruit should be avoided. The Turkish Government exercises a rigid supervision over the sale of fruit, and all that is condemned is thrown overboard. Imprudence in the

use of fruit is one of the most prolific causes of the disease.

5. Great moderation in beverages is necessary. If possible, all stimulants should be avoided. A little wine with water is occasionally allowable. Ice-water and much ice itself are injurious. All water for drinking purposes should be boiled from ten to thirty minutes, and then passed through a filter containing several pieces of charcoal. Fermented milk is a valuable food, and stimulant as well. The writer presented a specimen of that used in Turkey at a recent meeting of the Academy of Medicine. Its acidity has a direct prophylactic effect, even after exposure to choleraic influences.

6. Both the mind and body should be kept in a healthy condition. Particular caution is necessary against excessive exertion, followed by sweating and subsequent exposure to cold in any form. No one should lie down or sleep before an open window.

Those who follow these directions rarely experience the disease. It is true that the percentage of mortality among those attacked is large, but the aggregate population should be reckoned in. The epidemic of pneumonia here in New York last winter carried off many, but they were those who exposed themselves to cold and severe weather. Some were too poor to properly protect themselves; others were careless for the sake of interest or pleasure. So with cholera. If you once contract it, the situation is alarming; but with proper precautions the chance of contracting it is not one in one hundred. And even after the disease has set in, it can generally be checked if prompt treatment be at hand.

To illustrate this point, the case may be cited of two hundred Armenians who went last year from Constantinople to Marseilles, where the cholera was then raging. These people were all well-to-do. Most of them had already seen several epidemics in the former city, and knew how to protect themselves and their children. Not one contracted the disease in their new residence. That most estimable gentleman, Dr. Cyrus Hamlin, who spent forty years in Constantinople, and who had a wide and interesting experience in different epidemics, says in his book: "If you prepare for it (cholera), it will not come. I think there is no disease which may be avoided with so much certainty. But providential circumstances, or the thoughtless indiscretions of some member of a household, may invite the attack, and the challenge will never be refused." The greatest danger lies in the contact with choleraic discharges. This danger is greater than that of contact with the patient himself. To avoid this danger the stools should be thoroughly disinfected, and the closets where they are emptied should receive a thorough charge of the disinfecting agent. The disinfectants that are always kept in the houses of Europeans residing in Alexandria are as follows: First, two parts of carbolic acid and one hundred parts of water; second, twenty parts of ferrous sulphate and one hundred parts of water; third, one part of chloride of lime and eight parts of water. Either one of these may be mixed with the dejecta in the proportion of one to ten, and greatly diluted with water for urinals and closets.

Third—The treatment of cholera. Without entering into the pathology and symptomatology of the disease, herewith is given the most simple and practical method of treatment which has yielded good results in Constantinople and Asia Minor. There are four stages of cholera, requiring each a more or less different treatment: (*a*) Choleraic diarrhœa; (*b*) true cholera, with rice-water discharges; (*c*) collapse; (*d*) reaction.

(*a*) Choleraic diarrhœa. This is the most important stage to be taken into consideration. At the first appearance of this symptom, treatment should be begun. Many are careless about the matter, and forfeit their lives in consequence, for this is the time when treatment is most efficacious. Sometimes this stage lasts one or two days; again only two or three hours, and then the succeeding stages follow with fearful rapidity. The patient must remain at home, stop his regular eating and drinking, and take as follows:

℞. Chloroform,
Laudanum.....āā ʒ ij.
Brandy..... ʒ iijss.

M. Sig.—One tablespoonful every two to three hours in water.

One dose will often stop the diarrhœa, but it is safer to continue the remedy in half doses until the next day. This is the method mostly used in the English Army in India. In Turkey, however, another mixture is generally used—known as "Dr. Hamlin's," as this gentleman introduced it in 1848 with great success. It consists of equal parts of laudanum, spirits of camphor, and tincture of rhubarb. Thirty drops of this mixture may be given in a little water, or on a lump of sugar. The diarrhœa is generally checked, and great relief is also given to the vomiting and colicky pains which are often present. The dosage may be doubled if necessary. This remedy also should be continued for a day or two in gradually diminishing dosage. The diet should be rice, soup, toasted bread, and fermented milk (matzoon).

(*b*) True cholera. Here we find cramps, colicky pains, vomiting, and diarrhœa. The stools may succeed each other at intervals of from ten minutes to several hours. In India calomel is used in this stage, in hourly doses of ten grains, till the stools present their normal color and odor. This remedy is not much used in Constantinople, where "Dr. Hamlin's No. 2 Mixture," as it is called, has worked charmingly. It consists of equal parts of laudanum, tincture of capsicum, tincture of ginger, and tincture of cardamom seeds. Dose thirty to forty drops in a little water, given after each movement. After the third dose both the diarrhœa and vomiting are usually stopped. In this stage sinapisms must be applied to the stomach, abdomen, calves, and feet. Diet: rice-water, crust wafers, chamomile tea.

(*c*) Collapse. Here spirits are our only sheet-anchor. Brandy or whiskey may be given every half hour in tablespoonful doses. Sinapisms, hot bottles, etc., are useful. The condition is one of the greatest gravity, but by no means hopeless. Many are pulled through.

(*d*) Reaction. As soon as the patient rallies, the treatment must be carried on entirely on general principles. After reaction has fairly set in, great care must be taken to prevent a relapse or a typhoid condition, which may prove fatal.

334 East Seventeenth Street.

Hot-water Applications in Hemorrhoids.—Dr. W. H. Bryant, of Savannah, Mo., writes: "In The Medical Record of May 9, 1885, Dr. Bennett gives a short article on the use—or rather abuse—of hot water in hemorrhoids. He makes no reference, however, to its local use, but refers to the popular custom of drinking hot water before breakfast. Many years ago it was the custom with all physicians to direct their patients suffering from piles to use ice or ice-cold water as a local application. Of late years I have been constantly using hot water as a local remedy, and find the relief is not only prompt, but a speedy cure is the result in every case in which I have used it. My attention was first directed to the use of hot water in the treatment of local inflammation by observing the benefit derived from vaginal irrigation as practised by Dr. Bennett in pelvic inflammations. The method of using the bath for either external or internal hemorrhages, is to direct the patient to sit over a bowl containing the water, as hot as the hand will bear, and with a soft cloth alternately dipped in the water and applied firmly to the anus. This should be continued for ten minutes, and repeated as often as every four hours. The first application gives prompt relief to the smarting and burning pain; twenty-four to thirty-six hours is sufficient to complete the cure."

WIRING OF FRACTURED PATELLA.

By FRASER C. FULLER, M.D.,

NEW YORK.

THE infrequency with which this operation is performed in this country, as compared with its performance on the other side, and in Great Britain especially, is sufficient excuse for the report of an individual case. Patellæ have been wired by several prominent surgeons in this city within the past year, and with excellent results, but as far as I know have not been reported in the journals as yet.

The case about to be described forms the fourth operated upon by the writer (for notes of first three cases see THE MEDICAL RECORD, December 22, 1883), and all have been eminently satisfactory, both in immediate and in later results, *i.e.*, no especial constitutional disturbance from the operation, primary healing of the soft parts, bony union of the patella, and complete retainment of function of the joint. The patient, G. S——, twenty-two years of age, was one in the practice of Dr. Moir, of Union Hill, N. J. He was a professional athlete. On March 15th last, while exercising on a horizontal bar, on jumping to the floor, he miscalculated the location of the padded mat beneath the bar, jumped upon its edge, his heels resting upon the mat, his toes upon the floor. It will be seen that the fracture occurred from muscular action. I saw him the next day, twenty-six hours after the accident, and proceeded to operate.

A transverse incision was made, the joint cavity cleared of fluid blood and blood-clots, and the thick, leather-like clots scraped from the bone-surfaces. Two sutures of silver wire were used for the patella, one seam of catgut for the joint capsule, another for the integument; one rubber drainage-tube was employed. It was not found necessary to ligature any blood-vessels. An ordinary dressing of iodoformized gauze and antiseptic cotton was employed, and a splint of wire netting. The limb was suspended and the foot elevated. The dressing was changed on the thirteenth day, and the tube removed; dressed again on the twenty-eighth day, and the soft parts found healed. Patient allowed to walk at the end of seven weeks, and he has now complete use of his limb, with almost entire return of function in the joint.

259 WEST FIFTY-FOURTH STREET,
June 15, 1885.

VACCINATION AND INOCULATION.—At a recent meeting of the London Society of Arts, Dr. Robert Pringle, surgeon-major in the Bengal army, read an interesting paper on the "Ancient and Modern Methods of Treating Epidemics of Small-pox in India." The ancient method was the practice of inoculation, the modern that of vaccination. Dr. Pringle's observations have extended over twenty years. He said inoculation had been practised in India from time immemorial. The virus had, however, become attenuated by passing through many transmissions until the cultivated product resembled in its action cow-pox lymph, and caused only local symptoms at the part inoculated, and a small-pox eruption only exceptionally. The speaker said vaccination in India differed considerably from that in England. It could be practised only during the five cooler months of the year. Comparing inoculation with vaccination, he said that while the former kept up small-pox, it was nevertheless a boon to the population. It could be practised throughout the year, and need not be repeated as vaccination is. Dr. Pringle did not advocate revaccination—at least, he did not practise it. In his sanitary circle, with a population of ten millions, with two hundred operators working solely at vaccination for five months, it was impossible to reach a number equal to more than half the birth-rate. He therefore discouraged revaccination, and made quality and not quantity the basis of his work.

THE REPORTS OF THREE CASES OF WIRED PATELLAS.

By ROBERT T. MORRIS, M.D.,

NEW YORK.

THE three cases here described were operated upon by me in the winter of 1883–84.

CASE I.—P. C——, a strong and active fellow, twenty-seven years of age, fractured his left patella by muscular violence in 1872. He fractured his right patella by muscular violence in July, 1883. In December of the latter year he again, by muscular violence, separated the fragments of his right patella, tearing the fibrous band of connection. The patient walked two and a quarter miles after receiving this last injury.

All of the breaks referred to above happened as the patient struck on his feet after jumping from his carriage.

On examination, I found that the fragments of the left patella were two in number, of about equal size, and that the fracture was a transverse one. The fragments were separated by a distance of four inches when the knee was flexed, and a thin, strong, fibrous band extended between them. The patient believes that this leg, in this condition, is just as useful as it was before the injury.

On examination of the right knee-joint I found the ordinary results of such an injury as the knee had received. The two fragments were of nearly equal size, and were three-fourths of an inch apart. The fracture had been a transverse one.

In another similar case I should not wait for the swelling and inflammation to subside before operating, but here it was thought advisable to apply ice-bags and a posterior splint for a few days.

Eight days after the injury, the symptoms of inflammation having left the joint, operative procedures were resorted to. Working with scientific antiseptic precautions, I made a five-inch incision transversely across the knee, and opened up the joint widely. The ragged ends of a thin, torn ligament showed the character of the injury which had succeeded insufficient repair. The face of the lower fragment looked forward. The fibrous tissue which had united the two fragments was cut away, and a thin, dense layer of new bone removed from the faces of the two fragments. I then drilled two holes in each fragment, entering the drill at the upper margin of the upper one and at the lower margin of the lower one, and made the drill emerge at the junction of the bone with the cartilage on the fractured surfaces. Stout silver wire was passed through the drilled holes, and the fragments approximated as well as possible.

The cartilaginous surfaces touched each other, but the bony surfaces would do nothing of the sort; so I contented myself with twisting the wires together and then uniting with catgut the margins of fibrous tissues which hung over the edges of the little chasm.

A counter-opening into the joint was made at a point situated just above and in front of the point of attachment of the biceps tendons. A catgut drain was inserted into this lower opening, and at each angle of the upper opening a medium-sized rubber drainage-tube was employed.

Three lines of catgut sutures closed the wound. All blood and synovial fluid was washed out of the joint with 1–2000 bichloride of mercury solution.

Iodoform, Lister protective, bichlorided gauze, and an anterior plaster-of-Paris splint were employed in their respective order.

The limb was then suspended and elevated.

No inflammatory reaction followed the operation.

The patient's temperature went to 101¼ F. on the day after the operation, but after a purgative had been given the temperature fell to normal, and stayed there until the wound had healed.

Twelve days after the operation, the dressing was changed for the first time and the two rubber drainage-tubes removed.

Primary union had united everything, except at one part of the skin-wound where the suture had slipped.

The dressing was changed with scientific antiseptic precautions, and the same material used for the second as for the first dressing.

Eighteen days after the first dressing the second dressing was removed and the fragments of the patella found to be firmly united. A splint was applied, and the joint kept at rest for about six weeks longer, passive motion having been made three or four times within this period.

No pus was found in either the first or the second dressing, and the few drachms of thick gelatinous discharge showed no sign of decomposition.

The patient began gradually to use his knee, and walked with a cane for several weeks.

More than a year has now elapsed since I last saw the man, and my efforts at finding him have been unsuccessful. To an acquaintance of mine, however, who recently met him, he said that the knee was perfectly well, and that he considered it to be as good as it was before the patella was broken.

The silver wires remain in place.

The union is probably fibrous, because the bony surfaces of the fragments could not be closely approximated.

At the time of operation it was hard to decide whether to cut through the quadriceps muscle, in order to allow the upper fragment to be carried downward, or to cut the patellar ligament, and allow the lower fragment to be pulled upward, or to unite the fibrous tissues about the patella, and trust to the getting of fibrous union—the bony surfaces at the point of widest separation being less than one-fourth of an inch apart.

The latter course was followed, and evidently with good results, but a case which I have since seen would bend me toward cutting the patellar ligament for the purpose of allowing the lower fragment to ascend in case it were impossible to get the fragments into close relation with each other without so doing.

The case in question is briefly as follows: Several months ago, a Mr. L——, of Connecticut, a Yale student, accidentally cut into his knee-joint with an axe, the cut severing the ligamentum patellæ at its point of attachment with the patella, and allowing that bone to be drawn up above the condyles of the femur. The wound healed, and the ligamenture structures which extend from the sides of the patella to the head of the tibia assumed the function of the destroyed ligament, so that the movements of extension are perfectly good, and the patient complains of the deformity from a cosmetic stand-point only.

Another interesting feature of the case which I may mention here is the fact that the skin which formed the lower margin of the wound is firmly attached by cicatricial tissue to the patella, and when the quadriceps group contracts this skin becomes extremely tense, and aids in flexing the leg by virtue of its close attachment about the tuberosity of the tibia.

The point at once suggested itself to me that in any case in which it is necessary to excise the patella a strip of skin could be turned up from the anterior portion of the leg just below the knee and sutured to the tendinous portion of the quadriceps which had previously been attached to the patella.

This operation, I think, has never been done because the tissues to be sutured together are so unlike that operators have not supposed that a usefully strong union would follow.

The case above-cited seems to open up, therefore, two good points for surgeons.

Case II.—George K——, fifty-two years of age, slipped while walking and struck his right knee against the curb-stone. I saw him a few hours later, and found that he had fractured his right patella transversely. The fracture separated the bone through its middle, and a hazel-nut-sized piece was broken from the lower fragment. The knee was swollen and contused, and extremely painful to the touch. A posterior splint and ice-cap were employed for two or three days, and then the limb was immobilized for a week with a plaster-of-Paris splint. At the end of that time the swelling and tenderness had disappeared to a great extent. The splint was removed and the case operated upon.

My first incision was a vertical one, extending over the front of the knee. This incision not giving sufficient room for working, I made a five-inch-long transverse incision which passed across the knee between the two larger fragments of the patella. A large and firm blood-clot was found between the fragments, and the joint capsule was turned over upon and united to the fractured surface of the lower fragment in such a way that almost no fresh surface was left for the helping out of reparative processes. There then were found two mechanical obstacles to repair. Another obstacle depended on the position of the lower fragment, the fractured surface of which looked forward. A counter-opening was made at the most dependent part of the joint, and the whole joint cavity thoroughly washed out with carbolic acid solution (1 to 40). At the termination of the operation a final flushing of the joint was made with 1 to 20 carbolic acid solution. This last step was a mistake. Don't do it.

The drill was passed through the fragments in the same way as described in Case I., and the silver wires when inserted held the fragments in close apposition. Three lines of catgut suture were used. One layer for the cut and torn capsule, another for subcutaneous tissues, and another for the skin. Drainage was provided for with absorbable bone-drains, and with a small bunch of catgut. The wound was dressed with iodoform, Lister protective, carbolized gauze, and borated cotton. An anterior splint of plaster of Paris and wire gauze was applied, and the limb suspended and elevated.

A few hours after the operation, the patient's temperature arose to 99½° F., but on the following day it was normal, and remained below 99½° F. until the wound had healed.

Two weeks after the operation the dressings were changed for the first time. Everything had united by primary union, but a narrow line of granulations marked the course of the vertical incision. The drains and sutures had been completely absorbed. No pus was found in the dressings. The dressing and splint were reapplied and allowed to stay for three weeks, after which time passive motion was begun. The fragments of the patella had grown firmly together, and the patella as a whole was movable to a moderate degree. The movement of flexion at the knee was, however, very limited, and subsequent treatment by massage, hot and cold douching, tincture of iodine, and passive movement failed to get good motion. The patient at the end of a year is not able to place the right foot on a stair above the left foot.

Why this knee should be so stiff I cannot imagine, as no inflammation followed the operation. Perhaps the strong carbolic acid solution was a factor, and perhaps earlier passive motion would have helped matters. The patient is satisfied with the result, and complains little of his unbendable legability. The wires which remain in the patella have made no demonstration of their presence.

Case III.—S. T——, twenty-six years of age, had strumous arthritis of the left knee-joint. The disease was in its first stage. I felt a couple of cartilaginous prominences in the joint, and behind them to be attached morbid growths of cartilage. I did not know that the disease was strumous arthritis, and opened the joint in the expectation of removing the cartilaginous knobs in question. The latter, however, proved to be normal, and stood out prominently, because the cartilage about them had been absorbed. Finding that the whole surface of the synovial membrane was a mass of vascular fringes, I made a long transverse incision across the knee, sawed through the patella transversely, and then opening

the joint widely, trimmed away the synovial membrane with curved scissors. The lower fragment of the patella seemed to be forward after division of the bone. The patella was wired as the other two had been, and the fragments evidently united by primary union, as at the end of a month after the operation the line of separation could not be found.

Professor Volkmann, of Halle, who has frequently performed the operation just described, tells me that he has never seen a case in which the fragments of the patella failed to unite with complete bony union.

As to the advisability of wiring simple fracture of the patella, I do not wish to express an opinion as yet. There is very little danger connected with the operation, provided that the operator understands some scientific antiseptic method of working. Surgeons who do not work antiseptically will, of course, leave the knee-joint severely alone.

Clinical Department.

ACUTE INFLAMMATION OF THE THYROID GLAND.

A CORRESPONDENT, Dr. C. L. Lang, of this city, sends the following account of a case of this rare affection. A Bohemian woman, thirty-seven years of age, in the eighth month of pregnancy, was attacked with pneumonia. She was delivered of a living child on the second day of the disease, but the course of the pneumonia was favorable, and at the end of two weeks the patient was able to walk about her rooms. The temperature, however, remained from 1° to 2° above the normal, and there was some hectic, but careful examination failed to reveal any mischievous process in the lungs. After a few days she began to complain of pain in an old goitre, which had existed eleven years, and had never before given her any trouble. The inflammatory process went on to suppuration, an abscess formed and opened, and from that time convalescence was rapid and satisfactory. The chronic enlargement of the thyroid gland dated from the birth of the patient's first child, but had not been influenced by any subsequent pregnancies, of which there had been five. It was situated chiefly in the right side of the neck, extending but little beyond the median line. During the period of acute inflammation prior to the opening of the abscess the patient complained of dysphagia and dyspnœa when in the recumbent posture. About four ounces of pus were discharged when the abscess opened.

AN ANTISEPTIC OINTMENT.

DR. M. B. WARD, of Topeka, Kan., sends the formula of an antiseptic ointment which he found very useful while in charge of the hospital department of the Mexican Central Railway. It consists of iodoform, ʒ j.; subnitrate of bismuth, ʒ vij.; vaseline, ℥ ij. This formula was not strictly adhered to in all cases, but was varied according to individual indications. Another formula, suggested by Dr. J. W. Thayer, was iodoform, ʒ j.; boracic acid, ʒ ij.; subnitrate of bismuth, ʒ iv.; vaseline, ℥ ij. The ointment was spread upon a sheet of absorbent cotton sufficiently large to cover the wound and a considerable extent of surface around it. "The dressing seemed to be the best suited to the after-treatment of amputation wounds. It could be removed when necessary with the greatest facility, as it never adhered to the wounded surface. I usually allowed the first dressing to remain undisturbed for from four to six days. There never was present, even in the warm climate of Mexico, the least disagreeable odor, so common when carbolic dressings are used." This dressing was used in over four hundred cases of injuries of various kinds, including ten gunshot wounds and numerous amputations and other capital operations, and of this number there were but two deaths. The writer adds that Dr. J. W. Thayer, of Chihuahua, Mexico, will be pleased to give a detailed account of the results obtained by this method of dressing to anyone wishing the same, as he is in possession of the clinical records.

COCAINE IN THE MORPHINE HABIT.

DR. J. T. WHITTAKER, at the Cincinnati Academy of Medicine, June 29th ult., reported on the use of cocaine in the morphia habit. He used it in a patient who was a confirmed morphia-eater, and had suffered one relapse. He gave ten drops of a ten per cent. solution, equal to one grain. The patient immediately arose to a degree of exhilaration. In one or two hours the uncomfortable sensations returned with as much force as ever. He repeated the injection three times in the next twenty-four hours. In two hours at the outside the desire would return. The patient has now had no desire for the morphia for two weeks. She is loud in her praises of the relief from cocaine. The cocaine gives only temporary relief, yet the Doctor thought it one of the best remedies we have.

Progress of Medical Science.

COCAINE IN VENEREAL AND SYPHILITIC DISORDERS.—The experience of Bono with cocaine in affections of the genital system can be conveniently epitomized as follows (*The Therapeutic Gazette*, June 15, 1885): 1. An injection of a few drops of a two per cent. solution of cocaine removes promptly the pains felt in acute gonorrhœa during micturition and erection. The injection has to remain in the urethra for at least five minutes, and to be repeated four to five times daily. 2. This cocaine injection is unrivalled in rendering caustic injections or the introduction of the catheter painless. 3. The burning pains of blennorrhœa in women yield invariably to small cotton tampons saturated with a two per cent. solution of cocaine, or to the application of a five per cent. cocaine ointment. 4. Cocaine facilitates the examination of urethra and bladder with the bougie and the endoscope. 5. It allows of a painless cauterization in balanoprostatitis. 6. Pointed condylomatæ can be painlessly cauterized, excised, or scraped out with its aid. 7. In cauterization and excision of primary syphilitic affections, cocaine evinced very desirable analgesic virtues of a sufficiently long duration. 8. Taken internally during an antisyphilitic treatment, cocaine did not present any appreciable effects. 9. Its local effects are highly beneficent in syphilitic tonsillitis and in stomatitis mercurialis, and difficulties of deglutition.

FERRÁN'S INOCULATIONS NOT HARMLESS.—A correspondent of the *British Medical Journal* (June 6, 1885), writes from Valencia as follows: "I now come to the most painfully interesting part of my letter, referring to the inoculation by Ferrán and others, and its results. The landlord of the hotel at which I stayed brought to me a lady friend of his, aged thirty-four, very stout and robust, who had been re-inoculated, the last time on May 14th. Her right arm presented a deep erysipelatous circle at least four inches in diameter, in the centre of which a huge phlegmon had formed and burst, and had completely tunnelled through the triceps to the bone, discharging copiously a sanious purulent fluid; the bore of the tunnel was nearly half an inch in diameter; she had violent fever. This case I saw twice, and the last time she was in a sorry plight, her whole arm to the shoulder being in great pain and utterly useless. The second case I saw was the sister of Dr. Serra, chief medical officer of the hospital, brought to me by himself. She had been re-inoculated four days previously, and unbinding the bandage from her painful and useless right arm, I saw, at the bend of the arm, a huge phlegmon, with its large fiery erysipelatous blush, similar to the first case; as yet the phlegmon had not burst. The

third case was a strong healthy woman, who had been re-inoculated, three days previously, in both arms. She was in bed, utterly helpless, with violent fever, both arms enormously swollen, and progressing to suppuration, precisely in the same form and extent as Case I. I was told of many cases which had been similarly affected, and that several had died. I have heard of great numbers being more or less affected in Valencia, in the same way, after the inoculation."

The Value of Cascara Sagrada in Constipation.—At a recent meeting of the Staffordshire Branch of the British Medical Association, Dr. Reid read a paper upon the value of this drug, based on an analysis of thirty-three cases, of which he had taken careful notes. He found: 1, that the result was all that could be desired in twenty seven cases of obstinate and habitual constipation, complicated in many cases by various forms of dyspepsia, and in many people usually of sedentary habits, more especially females; 2, that the effect was most beneficial in three cases of hemorrhoids; 3, that the drug was of no service, even in very large doses, in one case of obstinate constipation, although it did not cause pain; 4, that it had to be discontinued in two cases on account of its causing pain and sickness. The form of drug used was the fluid extract. The conclusions arrived at were as follows: 1. Cascara sagrada was a most useful remedy, both regarding its immediate effects and after-results in obstinate and chronic cases of constipation. 2. It was better to prescribe it in continuous small doses rather than in occasional large ones. 3. Cases were met with in which, even in large doses—at any rate, in the form of the fluid extract—the drug had not been of service. 4. No rule could be laid down by which one could ascertain previously whether the drug would suit or not; but, when pain was produced, in all probability it was owing to too large a dose being given. 5. It was of great service in cases of hemorrhoids when other aperients had failed.—*British Medical Journal*, April 11, 1885.

The Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri.—At a recent meeting of the Medical Society of London (*The Lancet*, May 9, 1885), Dr. Herbert Snow read a paper on the free use of caustic potash in the treatment of cancer of the cervix uteri. He reviewed the statistics of extirpation of the uterus, and showed the severe mortality which followed the abdominal or the vaginal operation. In many cases the écraseur was unable to remove the whole of the disease of the cervix uteri. The actual cautery had too superficial an action to be of any great service. Chloride of zinc caused much pain and distress, which lasted a long period. These objections did not hold with regard to potassa fusa. Half an hour or an hour was recommended to be spent in the employment of successive sticks of potassa fusa, for the treatment must be thoroughly carried out. None of the cases suffered from peritonitis; and unless the patient get up too soon after the operation, nothing distressing need be feared. All the cases were greatly benefited, and no alarming symptoms were encountered. Fixation of the uterus and infiltration of the vaginal wall were regarded as prohibiting the employment of this method of treatment. It was only by degrees that he had ventured to apply the caustic so freely as he now advocated. He illustrated the paper by narrating several cases in which the treatment had been adopted. The object of the paper was to show that potassa fusa could do all that the vaginal cutting operation could perform without running the risk of the severe operation.

Recent Experiments on the Severed Heads of Criminals.—The Paris correspondent of the London *Lancet* (May 9, 1885) writes as follows concerning the above: The question has again been mooted as to whether those who have been decapitated suffer; and after additional experiments on the head of Gamahut, who was guillotined on the 24th ult. for the murder of a widowed lady in Paris, coupled with those related by Claude Bernard, the presumption is that they do, for under the influence of transfused blood the blanched features recovered almost their normal expression, the eyelids were slightly open, and the lips quivered for a few seconds, as if to express some perception communicated from the brain. The conclusion, then, is that, so long as the brain contains any blood, the head of the decapitated person, which falls into a receptacle prepared for the purpose, is capable of seeing, of hearing, and of knowing that it is separated from the body. This view, however, was repudiated by Professor Vulpian at the last meeting of the Academy of Medicine on the following grounds: A strong blow applied to the head, or a less severe one to the stomach, would cause instantaneous syncope; that is to say, consciousness would for the moment be entirely abolished. So it would be in the case of the severed head, but of course without any possibility of recovery; the weight of the guillotine falling upon the neck would produce the same result. Moreover, syncope would be occasioned by the sudden division of the carotid arteries, and the consequent emptying of the arterial system of the brain. Therefore, at the very moment that the brain ceases to receive the vivifying fluid from the heart, it loses all power of excito-motility, as well as all power of sensation; all this transpires as quickly as thought, and its duration may be compared to a flash of lightning. It happened opportunely that a dog that was undergoing some experiments in Professor Vulpian's laboratory was suddenly seized with hemorrhage. Advantage was taken of this circumstance to immediately expose the brain and submit the latter to faradization. Scarcely half a minute had elapsed between the arrest of the circulation and the galvanic irritation. It was impossible to obtain any movements in the legs. The effects of the electricity produced in the muscles of the head and nose were not, according to Professor Vulpian, due to the physiological transmission effected by the brain, but to the neighborhood of the source of irritation; the brain, having lost all power of excito-motility, would in this case act as a mere sponge; and if such a condition was found to exist for only half a minute after the arrest of the circulation, the interpretation put on the effects said to be produced on severed heads by other experimenters must certainly be considered erroneous.

Atrophy of Muscles in Pleurisy.—When synovitis attacks a joint, the muscles which effect the movements of the articulation are prone to waste in a rather rapid manner. The muscular atrophy cannot reasonably be explained on the ground that the muscles are not used, for the atrophy is one which recalls the wasting of muscle seen in cases of infantile palsy, not only in the rapidity with which it occurs, but also in the behavior of the affected muscles to electrical examination. The wasting of muscles of the shoulder and thorax on that side which has been the seat of pleurisy seems to us to belong to the same category of phenomena as the wasting of muscle from joint disease; and although the comparison is a trite one, yet we may remember that serous and synovial membranes are regarded as analogous structures. The subject of muscular atrophy resulting from inflammation of tissues in the neighborhood of the muscles is one deserving of much attention. The most probable explanation is that the abnormal excitations proceeding from the inflamed tissues along the sensory nerves have a direct influence on the motor nerve-cells controlling the nutrition of the muscles concerned: the bones may waste as the result of a similar "reflex" influence. A valuable paper on the atrophy of muscles of the thorax and shoulder in pleurisy was recently contributed to the Société Médicale des Hôpitaux. The author of the paper, M. Desplats of Lille, contends that the muscular atrophy is rapid and frequent in the subjects of pleurisy, that the atrophy plays an important part in the deformities of the skeleton resulting from pleurisy,

and that the atrophy is the indirect cause of tuberculosis of the lungs. He recommends that the atrophy should be prevented from coming on by early surgical treatment of any pleuritic effusion, and that measures should be adopted for arresting or combating the atrophy by the use of general and local stimulants, and more especially by faradization, respiratory gymnastics, compressed air, and so forth.—*The Lancet*, May 7, 1885.

Spontaneous Disappearance of Diabetic Cataract.—At a recent meeting of the London Ophthalmological Society, Mr Nettleship read a note on the "Spontaneous Disappearance of Diabetic Cataract." So far as his literary researches went he had found that cases of the kind were very rare. Two cases were detailed in Dr. J. Seegen's work on diabetes mellitus. Seegen's first case was that of a man aged thirty-nine, who in July, 1863, about six months after the appearance of diabetes, noticed that his sight began to fail; the lenses were cataractous and hazy. Under treatment at Carlsbad the lenses cleared; the quantity of urine was reduced to one-half, but the percentage of sugar remained the same. In the spring of 1865 the lens again became opaque. The second case was that of a woman aged fifty-five, who was first seen in the autumn of 1867, soon after which the sight began to fail and became misty; she was treated for diabetes in February, 1868, and whilst under treatment the lenses became clear again. Dr. Tannahill's case was that of a coal-miner, who was seen while in prison. He had suffered from diabetes for eleven months; both lenses were opaque throughout, the left more than the right. He was put on the ordinary diabetic diet, and had two grains of opium daily. Whilst under treatment his sight began to improve, the opaque lenses gradually cleared, and on inspection when he was discharged from prison no trace of cataract remained. No satisfactory explanation had yet been offered as to the cause of diabetic cataract. The view that the lens contained sugar was a possible explanation, but the idea of a permanent degeneration was not borne out by the facts just narrated; moreover, there was a reappearance of the cataract in one case. The abstraction of water from the lens owing to an increased density of the blood or fluids surrounding the lens was a likely explanation.

Fracture of the Larynx.—An instance of this rare accident is described by Dr. Berry (*The Lancet*, May 23, 1885). During the afternoon of February 6th, the doctor was called to see G. L.——, aged twenty-one. He was reclining on a sofa, looking very pale. Extending from the tip of the chin to just above the hyoid bone was a superficial wound. The voice was like that of laryngitis. The prominence of the thyroid cartilage was gone. Placing his hand over the throat and requesting the patient to swallow, the Doctor detected unmistakable crepitus of the moving larynx. A more careful examination revealed what felt like a separation of the wings of the thyroid cartilage. The history of the accident was briefly this: About twenty minutes before Dr. Berry saw him he was working a circular-saw, and was suddenly struck in the throat with great force by a large piece of wood coming from below upward. For a few moments he had a hard struggle for breath, but managed to keep from falling by leaning against a bench. Water was brought to him, but he declined it, as he feared it would choke him. With the help of two men he walked home, a distance of about five hundred yards from his work. Having applied a warm-water dressing to the throat, the patient was put to bed, his head and shoulders being raised. An hour later the Doctor saw the patient again in conjunction with Mr. Chaffers, whose help he sought when he saw the case was of such gravity. His diagnosis was confirmed, and seeing the patient was free from urgent symptoms, the breathing being quiet and full and the condition of shock gradually passing off, the physicians considered it best to continue the warm-water dressings and forbid anything being taken by the mouth except ice, leaving word that any change in the breathing should be immediately reported to them. About 1.30 next morning Dr. Berry was called up, as the patient was reported to be choking. After sleeping for about an hour and a half, during which time he breathed rather noisily, he woke up somewhat suddenly and at once began to struggle for breath. When the doctor arrived he was unconscious, the eyes were open and fixed, the pupils dilated, the face pale, and the deep spasmodic efforts to breathe were failing. Having sent for Mr. Chaffers, Dr. Berry at once performed laryngotomy. Still no air seemed to enter, and no mucus escaped from the tube. Having satisfied himself the tube was clear and that no blood was obstructing the air-passages near the wound, he enlarged the opening and replaced the tube, with no better result, death taking place after a few more respiratory efforts had been made. Half an hour after death Mr. Chaffers and himself examined the larynx and trachea as well as they could through the operation wound. Besides the separation of the wings of the thyroid, oblique lines of fracture were made out on each side, through the wings themselves. Within easy reach of the finger, hanging down the trachea by a mere shred of fibrous tissue was a part of the left wing of the thyroid cartilage itself, the size of a finger-nail, apparently the lower front angle; this was easily removed. No autopsy was allowed. During life, there was no spitting of blood, and after death perfectly white frothy mucus welled up from the throat.

Position of the Fetal Head at Term.—As an inaugural thesis in the University of Dorpat, L. Brühl has published some observations on the position of the fetal head and the extent of its entrance into the pelvic cavity at term. In primiparæ the greatest circumference of the head was found to have passed the brim at the end of pregnancy in half the cases. In multiparæ it only reached the pelvic cavity in a fourth of the cases. The reason of the difference is to be found in the greater elasticity of the abdominal wall and of the uterine ligament in primiparæ. In contracted pelves, where the conjugata vera measured less than ten centimetres in primiparæ, the head entered the cavity in only a third of the cases, the greatest circumference in scarcely any passing the brim, and in subsequent pregnancies the position of the head became higher more rapidly than was the case in normal pelves. The prognosis of labor depending upon the relation which exists between the fetal head and the maternal passages, it is the practice in Berne, where these observations were made under the supervision of Professor P. Müller, to grasp the fœtus through the abdominal wall and force the head as far as possible into the pelvic canal at the completion of pregnancy. Generally, when the head has more than half entered the pelvic cavity, one can predict that birth will take place naturally. On the other hand, it is by no means necessary to infer that instrumental interference will be required in all cases where the head has entered the canal to only a slight extent.—*London Lancet*, May 30, 1885.

The Elimination of Arsenic.—The Paris correspondent of the *Lancet* writes that at the last meeting of the Paris Society of Medical Jurisprudence, Professor Brouardel reported a case illustrating the possibility of an infant at the breast being poisoned through its mother's milk. In his capacity of medical jurist he was consulted about a case which was lately brought before the tribunal, in which a man was accused of having attempted to poison his wife with arsenic, which he gave her in her food, she having at the same time a sucking baby. The infant was seized with symptoms of cholerine a few days after the mother had been affected in a similar way—diarrhœa, vomiting, etc., from which it died. These symptoms having occurred during the hot season, no importance was attached to them; but in the month of November following, the wife and mother-in-law of the accused having been again similarly affected, suspicions

were aroused, and Professor Brouardel caused the body of the infant, which had been buried six months, to be exhumed. According to the Professor's report, the body was completely transformed into cadaverous fat, and it was impossible to isolate the viscera from the other parts, so that the body had to be analyzed *en masse*. It weighed about two and a half kilogrammes, and contained five milligrammes of arsenic. Means had been taken to make sure that the arsenic did not come from the linen enveloping the corpse, nor from the earth which surrounded the coffin. The question then suggested itself as to whether the arsenic found in the body of the infant might not have been eliminated by the milk of the mother. To ascertain the possibility of such a circumstance, M. Gabriel Pouchet performed some experiments which were very conclusive. He administered to a certain number of wet-nurses, who were in the St. Louis Hospital affected with skin diseases, from two to twelve drops of Fowler's solution, and he ascertained that in these conditions the milk of the nurses always contained a relatively large quantity of arsenic; thus, the milk of one nurse, who had taken eight milligrammes of arsenic in six days, contained one milligramme of the metalloid to one hundred grammes. M. Pouchet observed that these doses did not affect the nurses or their nurslings in the least. But upon the supposition that the result might be otherwise if a large dose of the arsenic were administered at once, and in order to clear up this point, M. Pouchet tried experiments on some females among the lower animals. This series of experiments did not furnish conclusive results, as animals present a variable degree of susceptibility to arsenic, and it was therefore impossible to draw any comparative conclusions. It may, however, be deduced from these researches that the elimination of arsenic takes place principally through the milk, and it is therefore prudent never to administer arsenic to mothers suckling infants.

Rheumatic Epilepsy.—At a recent meeting of the Société de Médecine de Lyon, M. Teissier called attention to gout and rheumatism as possible factors in the etiology of epilepsy. He related several cases in which persons suffering from these affections had one or more epileptic seizures, and other cases in which epilepsy existed in young persons, members of a rheumatic family. In all these instances the attacks were promptly arrested by bromide of potassium. The author referred to reported instances of epilepsy occurring at the menopause, and suggested that they might also be regarded as of rheumatic origin.—*Journal de Médecine et de Chirurgie Pratiques*, April, 1885.

Terpine and Terpinol.—Terpine is a substance obtained by distillation from turpentine. It exists under the form of clear prismatic crystals, sometimes of large size, soluble in two hundred parts of cold, and in twenty-two of boiling water, and in seven parts of alcohol. Professor Lépine, of Lyons, was the first to use this substance in medicine, and found it to be possessed of expectorant and diuretic properties when given in doses of three to nine grains. In the dose of fifteen grains he found it of value in neuralgia and hystero-epilepsy. Dr. G. Guelpa has, however, made a number of experiments with the drug (*Bulletin Général de Thérapeutique*, April 30, 1885), the results of which were at variance with those obtained by Lépine. He states that terpine exerts no action upon the respiratory tract, nor, in doses under fifteen or thirty grains, has it any effect upon the genito-urinary apparatus. It never caused albuminuria and hæmaturia, as Lépine had asserted, nor was there any appreciable action upon the nervous system. In the stomach it causes a sensation as of a foreign body and gives rise to dyspeptic symptoms. But while these experiments with terpine gave such negative results, a number of trials of another derivative of turpentine, terpinol, were more promising. Terpinol is an oily, colorless liquid, with an odor like that of hyacinths. When taken internally it is eliminated by the lungs, imparting a very strong and persistent odor of hyacinths to the breath, and occasioning a sensation of heat in the larynx and fauces. Dr. Guelpa administered it in doses of about six minims every four hours, in capsules, and found that it exerted a very favorable action in quieting the cough and modifying the secretion in bronchial catarrh. It was well borne even in large doses, the experimenter himself having taken over thirty-five minims in twelve hours without inconvenience. It exerted little or no action upon the genito-urinary tract.

Chloroform as an Hemostatic Agent.—Dr. Spaak recommends chloroform as a styptic in operations, especially about the mouth and throat. He uses it mixed with water in the proportion of one part to one hundred. A case is cited in which a sequestrum, the size of a large nut, was removed from the lower jaw with the loss of hardly a drop of blood. He employs the chloroformed water as a simple lotion or in the form of spray directed to the part, and he much prefers it to the ordinary styptics in common use.—*Journal de Médecine et de Chirurgie Pratiques*, April, 1885.

The Plaster-of-Paris Jacket.—The visit of Professor Sayre to Copenhagen last summer has had the effect of awakening anew, among the Continental surgeons, an interest in the method of treatment of Pott's disease of the spine by suspension and the plaster jacket. In a long paper continued through several numbers of the *Deutsche Medicinische Wochenschrift*, and recently published as a reprint, Dr. H. Nebel treats of the subject very thoroughly. He states that the method had fallen into discredit among German surgeons, and was but seldom employed until after the Congress at Copenhagen. And he attributes its revival in great measure to the exertions of Dr. Phelps, of New York State, who remained for a time in Germany and made a number of applications of the jacket. In Italy, also, the subject has received more attention of late, and in a recent number of the *Archivio di Ortopedia* is published a graduation thesis by Dr. Motta Mario upon "Kyphosis and its Orthopædic Treatment, especially by Sayre's Plaster Bandage." Dr. Mario was a student at the Ospedale Maggiore in Turin, and had the opportunity to observe a number of cases treated in this way. He was well pleased with the results in most of the cases, and hopes to see the method more generally adopted.

Intravenous Injections of Iodine in Infectious Diseases.—Dr. Van der Heyden recommends the treatment of infectious diseases by means of the intravenous injection of iodine. His formula is as follows: Iodine, one part; iodide of sodium, two parts; water, seven parts. The dose of this solution is two and a half drachms for each injection. In a case of typhoid fever an injection was followed by a rapid fall of the temperature, which did not again rise. In cholera he claimed to have obtained good results when the injections were practised early in the disease, but in the algid stage they were barren of results.—*Journal de Médecine de Paris*, May 3, 1885.

Treatment of Otorrhœa.—Dr. Bürkner recommends an ointment of one part of red precipitate to fifteen parts of vaseline in the treatment of furuncles and granulations in the external auditory canal. In the case of profuse and fetid suppuration of the middle ear he employs irrigation with a one per cent. solution of corrosive sublimate, and later an instillation of a one to five hundred solution of sublimate in alcohol. In a number of cases of chronic suppuration of the middle ear treated in this way, a cure was obtained in about one-half. The author insists upon the necessity of caution in the use of this substance in order to prevent its passage through the Eustachian tube into the pharynx.—*Journal de Médecine et de Chirurgie Pratiques*, April, 1885.

The Influence of Intestinal Gases upon Peristalsis.—Professor Arpád Bóckai has been conducting a number of experiments to determine the influence of various gaseous substances upon the intestinal movements. He found that the introduction of hydrogen or nitrogen into the intestine had no effect, while that of oxygen arrested peristalsis previously excited by other means. Carbonic acid, marsh gas (CH_4), and sulphuretted hydrogen caused violent peristaltic movements. These three gases are present in fermentation and decomposition of the intestinal contents, and the author concludes that there is a causal relation between their presence and the diarrhœa which accompanies this condition. — *Deutsche Medicinal Zeitung*, April 30, 1885.

Ischæmic Muscular Paralysis and Contractures.—After a limb has been tightly bandaged for a long time, it is not unusual to find paralysis or contractures of these muscles. This paralysis was stated by Volkmann some years ago to be purely muscular, and to be due to the deficiency in blood-supply caused by the pressure of the bandage. Volkmann's observations, however, passed almost unnoticed. Recently Dr. E. Leser has published a brochure embodying the results of a number of experiments undertaken with a view to test the truth of this theory. He employed rabbits chiefly, and either wrapped the limb in a firm roller or made temporary pressure with an elastic bandage. He found paralysis of the muscles even after the bandage had been on but a few hours. The reactions to the constant and induced currents were weakened or destroyed, although slight contractions could be obtained by applying the current to the nerve-trunks. Normal sensibility was retained. Usually on the following or the second day there was an attack of acute myositis, which gradually subsided, leaving no permanent changes except where movements of the limb were restricted by means of splints. He sees in this the cause of the persistence of the paralysis in men, and he advises strongly against rest and in favor of passive movements in the treatment of such cases. Examination of the affected muscles in two cases showed inflammation with the destruction of a certain number of the muscular fibres.—*Centralblatt für Klinische Medicin*, April 25, 1885.

Removal of a Calculus from the Vermiform Appendix for the Relief of Recurrent Typhlitis.—At a recent meeting of the Clinical Society of London (*Medical Press*, May 13, 1885), Dr. Symonds read the history of a case in which, at the suggestion of the late Dr. Mahomed, he had removed a calculus from the vermiform appendix for the relief of recurrent typhlitis. A basket-maker, aged twenty-three, was admitted to Guy's Hospital July 16, 1883. Six months previously he was seized during the night with pain in the right iliac region; this increased in severity and he became ill generally, and at the end of a week was unconscious, remaining in this state four days. The illness lasted seven weeks. During the first week he vomited everything, and his bowels were not opened for ten days. During the whole time there was great tenderness in the right iliac fossa. During the first part of his illness he was under the care of the parish, and for the last two weeks was in the Camberwell Infirmary, where he was told he had typhlitis. Soon after this, on getting about, he noticed a hard lump in the right groin about the size of a walnut; sometimes this swelling was painless, at other times it was very tender. Since this illness he has had repeated attacks of pain in the right iliac fossa, which come on suddenly, and last one or two days. The pain is relieved by poultices. At first these attacks recurred about once a month, but during the last five weeks he has had six attacks, and they have been increasing in severity. One of the attacks having been observed in the hospital, it was proposed that the cæcal region should be approached by an incision in the right iliac region. Dr. Mahomed was of the opinion that there existed an abscess cavity containing probably a calculus or concretion, and that the periodical occlusion of a communication with the cæcum determined the recurrence of pain. It was finally decided to cut down upon the small hard lump which was to be felt in the right groin on deep palpation. On August 24th chloroform was administered, and under the carbolic spray an incision was made, commencing two inches above and one inch internal to the anterior superior iliac spine, and curving downward and forward for about four inches, being much the same as that used in ligature of the external iliac, and so arranged that its centre corresponded with the position of the lump. The various structures were divided, but the transverse fascia was not distinctly recognized, owing possibly to the incision being rather near the iliac spine. The structures in front were now raised out of the iliac fossa, when the lump could be plainly felt from behind, and as yet the peritoneal cavity had not been opened. A hand pressed duly from the front steadied the swelling, and brought it more into the wound. A vertical incision was now made over the hard lump, and a small calculus exposed. Before removing it a fine silk suture was passed through the tissues just above, so that the orifice might not be lost. The opening was then enlarged, and the calculus removed. The soft and purple mucous membrane of the appendix was seen, and its tortuous course from the aperture could be traced upward toward the cæcum, so that there seemed no doubt of the canal having opened. Exploration of the cavity with a probe failed to detect a channel leading toward the cæcum. No pus or other fluid was found round the calculus, nor was there any fecal or unpleasant odor. The opening into the appendix was closed by Lembert's and the wound by deep silk sutures. The peritoneum was not opened, so far as could be determined, and this was attributed to the adhesions that had probably taken place at the time of the first attack, and to the method adopted in reaching the appendix. The usual gauze dressings were used. The calculus was oval in shape, smooth on the surface, and measured three-fourths of an inch long, and rather more than one-half of an inch wide. On section it showed a laminated calcareous capsule enclosing hardened fecal matter. The patient made a somewhat protracted but complete recovery, and in April, 1885, although an inmate of a lunatic asylum, it was learned that he had never had any bowel trouble since November, 1883. In his remarks on this case, Dr. Symonds points out that this is the first case in which a concretion or calculus has been removed from the appendix vermiformis without, at the same time, the opening of an abscess. He says also that the credit of the procedure must be given to Dr. Mahomed, at whose suggestion the operation was undertaken.

Œdema of the New-born.—In a paper on this subject Dr. Letourneau asserts his belief that the condition is not one related to sclerema. The disease attacks usually premature infants or weakly twins. The little patients are drowsy, refuse to nurse, and cry incessantly. The extremities and face are blue, the pulse is weak or imperceptible. Respiration is scarcely audible, and there is often dulness over the lower portions of the lungs. The temperature is subnormal, falling in one case observed by the author as low as 67.5° F. before death. There is at the same time a rather hard and resisting œdema of the body and extremities. On post-mortem examination the tissues and organs are found filled with venous blood, and a greater or less part of the lungs, usually of the lower lobes, is hepatized. The author concludes that this condition is not an actual disease, but is rather a chronic asphyxia due to incomplete expansion of the lungs. The only treatment which he recommends is the artificial filling of the lungs with air.—*Allgemeine Medicinische Central-Zeitung*, April 25, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, July 18, 1885.

THE INTERNATIONAL MEDICAL CONGRESS.

THE past week has brought no news calculated to reassure those who are anxious for the success of the International Medical Congress and the credit of American medicine. Nearly all the gentlemen appointed on the organization from Boston, Philadelphia, Baltimore, and Washington have withdrawn, while many prominent men in New York (aside from those forced off) and from the West will, we learn, either formally withdraw or informally decline to take any part in the work.

The comments of the medical press are almost uniformly condemnatory of the folly and short-sightedness of the American Medical Association. The *New York Medical Journal*, which was at first a little non-committal, not to say strabismic, in its views, has come out in a forcible denunciation of the American Association, and shows that it is a useless and mischief-making body. The *Louisville Medical News* edits the withdrawal announcements under the head "Destruction." The *Philadelphia Medical Times* suggests that there be a national gathering for the purpose of forming a new organization of the Congress.

The *Journal of the American Medical Association* leads off with a reference to the proverb that things done in haste may be repented of at leisure. The application is meant for Philadelphia, and the writer shows a *naïve* unconsciousness of its immense retro-active pertinence.

At present the best hopes for the future of the Congress lie in the fact that we have two years yet before its meeting. This is time enough for a good deal of hot feeling to subside and for concessions and compromises to be made. There has never yet been a Congress, we believe, without considerable heart-burning. Any hopes in the emollient effect of time, however, need not be cherished unless with them there is seen a prospect of some very radical changes in the personnel of the Executive Committee and the removal entirely of any medico-political issue from the organization and membership of the Congress. A meeting of the American Medical Association, entirely revoking its New Orleans work and restoring the old committee with its liberal policy, might, perhaps, save the Congress. We see at present no other way.

SEXUAL CRIMES AND THE LEISURE-CLASSES.

So far as we have been able to learn, the disclosures made in London by the *Pall Mall Gazette* relate largely to indulgences in sexual crime, and to distinct sexual perversions rather than to ordinary sexual immorality. And it would appear that the most common sexual perversion among British aristocrats is a desire for young and, as they are technically called, "fresh" girls who have reached the legal age of thirteen.

There is one conclusion regarding this matter which medical men are best able to make, and it is one which certainly is often practically brought to their attention. It is that while the sexual passions are most unrestrained among the young, they are most perverted and unrestrained also among those who lead idle and luxurious lives. There never can be a large and wealthy leisure-class without a considerable proportion indulging in great sexual excesses, often of the grossest character. With high living and nothing seriously to occupy the mind, the sexual organs are bound to occupy an excessively large part of the man's thoughts and feelings. The existence of a wealthy and, by virtue of social law, unemployed class, is always a source of social danger, as history shows. The comments of the public press indicate that the exposures of the *Gazette* will give an impulse toward the lessening of the social authority of the British leisure-class. If political economists would devise a way to set them all at work, the traffic in young girls would receive its most serious blow. As it is, we fear that but little of permanent benefit can come from the *Gazette's* revolting disclosures.

THE INTERNATIONAL SANITARY CONFERENCE.

THE International Sanitary Conference, whose sessions at Rome closed last month, is the fifth meeting of the kind that has so far been held. The first Conference was in Paris in 1851, the second in Constantinople in 1866, the third in Vienna in 1874, the fourth in Washington in 1881. None of these meetings has been attended with any very apparent practical results, and for this reason: The membership is composed of diplomatists and scientific men. The latter do all the work and the former go home and recommend that the work be not approved. Such at least has been the general working of the meetings. Commercial and political interests are as yet too strong to allow of the application of rigid sanitary rules to international commerce. One end perhaps has been in a measure gained, and that is the general adoption by sanitarians and by governments of the view that land quarantines and sanitary cordons are useless. And yet even now, if an epidemic breaks out, one or other of these measures is liable to be enforced.

The International Conference at Rome was composed of diplomatic and technical delegates from Germany, Belgium, Spain, France, Russia, Servia, Sweden and Norway, England, Switzerland, Denmark, Turkey, Greece, Austria, India, Italy, Japan, Mexico, Brazil, and several South American States. Among the prominent men of science present were Koch, Moleschott, Brouardel, Proust, Thorne, Fayrer, Semmola, and Sternberg. The discussions were confined to the subject of cholera. So far as we can learn the main results accomplished were the dogmatic reiteration of the opinion that "land quarantines and sanitary cordons are useless;" also the recommendation that ships which have no surgeon be officially inspected by a physician supplied by the consul of the

country to which the vessel is destined. Finally an excellent report was made on disinfectants, a report very similar to that made by the Committee of the American Public Health Association. The United States may credit itself, through its efficient delegate, Dr. Sternberg, with having been largely instrumental in accomplishing what little of practical work was done by the Fifth International Sanitary Conference.

CICATRIZATION IN BLOOD-VESSELS AFTER LIGATURE.

An instructive paper, or rather monograph, was read by Dr. Senn, of Milwaukee, before the last session of the American Surgical Association on the subject of cicatrization in blood-vessels after ligature. A reprint of the paper is now before us. After giving the history of ligature as employed in surgery, and examining the older and most recent views regarding the histology of the blood-vessels, as well as the effects of permanent ligature, the author presents a detailed account of his own investigations and observations. He invariably performed his experiments with strict antiseptic precautions. Fifty-four ligatures were applied in a large number of healthy animals. In twenty-three cases double permanent ligation of arteries was performed, and, in nine, double temporary ligatures were applied. Similar experiments were also made on the veins. Among other things, the deleterious influence of suppuration on the healing process was well shown by the author's experimental inquiries. He found that "in all cases where the wound healed by primary union, the isolated portion of the vessel became adherent, as early as the second day, to the adjacent tissues, and, after a few days more, the interrupted vascular connections were restored."

When temporary ligatures were employed, suppuration, of course, was more frequently seen, on account of the unavoidable interference with reparative processes in the wound. In all cases where suppuration followed operative interference, the vitality of the intervening portion of the vessel suffered. Indeed, if sufficient time was given, this portion of the vessel was, as a rule, found to be completely separated and lying within the abscess cavity. Nevertheless, secondary hemorrhage was never seen as a result of suppuration, nor was sloughing of the intervening portion observed. The author explains this by the presence of a narrow intravascular cicatrix in both ends of the vessel, which "was usually supported by a strong paravascular ring of connective tissue, which formed a part of the thick wall of the abscess." Dr. Senn formulates the following conclusions as to the result of this part of his inquiries :

1. All surgical operations on blood-vessels should be performed under strict antiseptic precautions for the purpose of preventing suppuration.

2. In aseptic wounds the complete isolation of a vessel from its sheath for a distance of one inch is not followed by any serious disturbance of nutrition in the vessel-walls.

3. Suppuration invariably produces a loss of continuity of the vessel at the seat of ligature.

4. Inflammation beyond the limits of the reparative process interferes with the typical formation of the intravascular cicatrix.

Senn's experiments further led him to prefer catgut to silk, horse-hair, or silk-worm gut as suitable for aseptic ligatures. He demonstrated anew the circumstance that properly prepared catgut does not act as a foreign body, and although finally completely absorbed, resists long enough for the occurrence of vascular obliteration. He states that he has never observed a single case in hospital or private practice where the catgut ligature failed to fulfil its purpose of provisional hæmostasis. It never gave way before the definitive cicatrix had become sufficiently firm to resist intra-arterial pressure.

Dr. Senn is also in favor of freely opening the vascular sheath in order to fully expose the vessel to be ligated. He has never seen any harm result from this procedure. Is is to be borne in mind, however, that this teaching is opposed to that of a majority of surgeons, who hold that the vascular sheath should be spared as much as possible.

As regards the time required for permanent obliteration to become established, it was ascertained that it required from four to seven days in arteries, and from three to four days in veins.

There is no doubt that Dr. Senn has conscientiously labored to elucidate a subject, the importance of which requires no emphasis. If his conclusions are in some respects at variance with accepted doctrines, they will all the more stimulate further research. Meantime we may feel quite certain that the double aseptic catgut ligature should be more frequently made use of in our country than is at present done.

AN ENGLISHMAN'S PLEA FOR SPECIALISM.

Dr. Morrell Mackenzie has recently written an article on "Specialism in Medicine" in the *Fortnightly Review*. Himself an admirable type of the new genus medicus, he has naturally used the occasion to put in the best light the justifications and advantages of the modern tendency to a subdivision of the medical art.

Dr. Mackenzie begins by describing, with a candor not entirely devoid of acridity, the feeling against specialists which has existed among English medical men. We infer from his description that this feeling has developed to a far greater extent across the water than here. It has amounted almost to a social ostracism of the class in question. Some of the medical corporations have, we are told, "endeavored to exclude specialists from positions of distinction within their own bodies." The latent feeling has revealed itself "in suggestive shrugs of the shoulders or elevation of the eyebrows at the mention of certain names ; sometimes even in sly innuendo or in mild detraction, which is all the more effective because it is couched in a tone rather of sorrow than of anger. Again, there is the almost indecent eagerness with which any error or oversight on the part of a specialist is proclaimed, and the too obvious intent with which it is made the text of a discourse on the uselessness of specialists. At the dinner-table, at the medical societies, in the gossip that relieves the aridity of scientific discussion, at all places where doctors do most congregate, specialism and its professors were denounced with a wealth of epithet that the refined controversialists of Billingsgate might have envied."

Many of the medical journals catered to this feeling.

Its exponents have even, says our author, intimated that it was not "respectable," and Dr. Mackenzie shows in an amusing way how dearly the average middle-class John Bull hugs to himself this word. In the heart of the medical body corporate the desire to be "respectable" is intensified almost into a passion. Contrasting this condition of things with that in America, he makes the following observation:

"In America, where there is no 'leisured class' to look down upon those who labor, the medical faculty is recruited from the best families in the land, and its members accordingly act with an independence quite unknown in this country. Under these circumstances, specialism, instead of meeting with opposition, was received with open arms. I may say that when I was travelling in the United States three years ago nothing astonished me more than the universal diffusion of specialism. It would be almost impossible to find a city with ten thousand inhabitants in which there were not at least three or four specialists; while in one city, with a population of only one hundred and thirty thousand, I found thirteen specialists exclusively engaged in treating throat diseases.[!] Indeed the practical genius of the American people was never more clearly evinced than in the manner in which it embraced specialism."

Perhaps Dr. Mackenzie exaggerates a little the warmth of the American embrace. Specialism has been taken up enthusiastically by thousands of our young men. It has been received rather frigidly by the elders of the profession, but without any overt opposition. We recognize the necessity for it in our widely scattered population, where there are so many who cannot afford to travel a thousand miles to get the best technical skill.

Dr. Mackenzie calls attention to the fact that the opposition to specialism exists only in the medical profession. There is no obloquy attached to the lawyer who makes probate law, or patent law, or railroad law his specialty; in art, Verboeckhoven is respected though he paints only sheep; Landseer was not thought less of because he painted animals. So with the other arts and sciences, from engineering to philosophy.

But, after all, what is the use of trying to defend or attack specialism when everyone can see that it is an established fact, that it is demanded by the public and is imposed upon the doctor by the extent of medical science and the difficulties of mastering the technicalities of the medical art. No one can deny the utility of the microscope, stethoscope, laryngoscope, ophthalmoscope, and all the other innumerable instruments used in diagnosis and treatment. Yet no one can claim ever to be master of them all. There will come a time, no doubt, when the general consultant, the pure physician, will be eliminated from the face of the earth. Indeed the time is not far away already. The general consultants in this city are after all mainly consulted for their special knowledge of the heart and lungs or abdominal diseases. We are to have, by and by, says Dr. Mackenzie, only the general practitioner, who can never be displaced, and the specialist.

Whether this prospective state of things is to be the best thing for the profession is open to some discussion; but that it will be best for the public must be conceded, for the public demands it.

SELLING LOCATIONS.

As compared with England there is very little selling of practices or locations in this country. For one thing, it is probable that such transfers cannot be made so readily here. A physician's patients believe in him and have a measure of confidence in gentlemen whom he recommends, but they cannot be handed over without question. There is too much competition, and a new man, however recommended, has generally to fight the battle all over again.

It would contribute to the material interests of the doctor, however, if his practice were more of a merchantable article, for it would give him a surer feeling that he had acquired a certain available capital by long years of work. Judging from advertisements in our London medical exchanges, the value of a practice ranges in England all the way from $500 to $6,000.

A correspondent, Dr. G. W. Eddingfield, of Mace, Ind., has written us, urging the need of a more extensive bartering and sale of locations. Dr. Eddingfield argues, on business grounds, that the best thing for a doctor to do, when he finds that some man is crowding him out and drawing off his patients, is to dispose of his practice and seek his fortune elsewhere. We fear that this plan would hardly answer as a rule, for if a physician fails in one place he will probably not succeed in another. The selling of practices must be generally confined to those who find that they are tired of the harness or are in bad health, or infirm from age.

A WISE SOCIETY.

In the midst of the turmoil and strife over the petty issues of political and professional life, it is pleasant to see a medical society grapple firmly and courageously with a momentous question and carry it to a safe and glorious termination. This is what the Vermont State Medical Society did at its last semi-annual meeting in Bellows Falls. Aside from some brief moments devoted to dallying with such trifles as hygiene, purpura hemorrhagica, and antipyretics, the energies of the members were devoted to the elucidation of the following questions: "Shall the Society visit the paper-mill, the machine manufactory, and the brewery?" The first two points were settled immediately in the affirmative. But the question, Shall we visit the brewery? elicited a debate which, for sustained eloquence, logical force, and absence of personal feeling, will ever be memorable in the popular annual volume of Transactions.

The debate was begun by Dr. X, who proved in an easy manner the natural and inherent antagonism which exists between medical men and all forms of alcoholic liquors, and he argued that *a priori* it would be impossible for a doctor to enjoy himself in connection with a decomposing fluid containing at least five per cent. of alcohol. He therefore moved that the invitation be declined. Upon this, however, up rose Dr. Y, and showed that the assumption of the first gentleman was not well grounded. He also instanced, to the intense interest of the Society, the case of a doctor whom he had seen several years before and whom he had known to have drank several glasses of beer with apparent enjoyment.

Then began the storm of rhetorical, technical sesqui

pedalianism to which we have referred, and which, we are credibly informed, made the green hills of Vermont erect themselves several inches higher in pride. Amid this fermentation, the President, having moistened his lips with cold water, and thus preserved his presence of mind, moved to refer the whole matter to the Executive Committee; whereupon this was done and a recess was taken.

The Committee, after having taken copious draughts of milk, consulted the Code, and having found therein nothing bearing upon the subject, finally discovered that a local branch of the Woman's Christian Temperance Union opposed the visit and threatened to "boycott" the Society if it went to what they figuratively called the Sheol of Malted Sin. The ladies offered a compromise, however, viz., that each doctor should take a W. C. T. U. lady in his visit. The Committee made their report, and, having wisely or otherwise exhibited certain photographs of the temperance ladies, after another stormy discussion it was unanimously voted to accept the invitation, but to go alone.

The good ship of medical state thus safely weathered the breakers of disaster, and went through the brewery without touching a drop of its poisonous product, except sufficient to destroy the effects of a change of water.

THE MORBILITY AND MORTALITY OF MEASLES.

A NUMBER of statistical investigations which have been recently made appear to show that measles[1] is increasing in some parts of the world, while in many places it does not decline in the same ratio with other zymotic diseases. Thus in Paris the mortality from 1869 to 1874 was 3.03 per 10,000 inhabitants; from 1875 to 1879 it was 3.73; and in 1880, 1883, and 1884, it gradually rose to 8.55 per 10,000. In New York City the mortality from measles was, in 1874, 319 among 30,709 deaths; in 1883 the number was 716 to 34,011 deaths; and in 1884, 762 in 35,044 deaths.

Whether increasing or not, it is evident that measles is a source of mortality which is by no means insignificant. According to the last census the total number of deaths from measles in 1880, in this country, was 8,772 in a total mortality of 756,893. This makes the mortality at about the rate of 1.7 per 10,000 inhabitants. In certain parts of France, including Paris and many large rural districts, the mortality is much higher than this, and in some of the smaller cities it has reached 24 per 10,000 (Sainte-Menehould), and even 40 per 10,000 (Epernay).

In the United States a curious disproportion exists between the South and North as regards the mortality from measles. In nearly every Northern and Western State the deaths from scarlatina are twice as numerous as those from measles, while in most Southern States the reverse is the case. Thus, in ten Southern States and one Territory the total annual mortality from measles was 2,113, that from scarlatina 1,838. This gives a ratio of 2.6 deaths per 10,000 inhabitants from the latter disease, while the ratio in New York State was 1.6 per 10,000.

There seems to be a greater proportional amount of fatal measles, therefore, in the South, and the disease in that section is more serious to life than scarlet fever. It is just possible that this excessive mortality is an accidental one, due to causes prevailing during the census year. Also that an indirect mortality from the sequelæ of measles occurs in the North sufficient to equalize the ratios. We regard such an explanation, however, as improbable.

It is known that there are certain countries where measles is always a serious disease. It does not appear to be the climate which produces this mortality, since it is in such regions as Finland and the Baltic coast, Brazil and the borders of the La Platte, that it is excessive.

It is generally stated that measles is more fatal in adults. However this may be, and we consider the fact not well proved, it is certain that, among infants and children, the mortality-rate is in inverse ratio to the age. In New York City the measles is most fatal in the second year of life, during which time one-third of all the deaths occur ("Annual Report New York City Board of Health," 1874, pp. 346, 347); next comes the first year of life, then the third and fourth. After the fourth year the mortality from measles is very small, while from the tenth to the seventieth year the total mortality amounts to only about three per cent. of the total. The statistics of Eloy, for Paris and Rheims (*L'Union Médicale*, 1885, p. 767), and those of Hecquet, for Abbeville ("Mém. de l'Acad. de Méd.," 1867, t. xxi., p. 529), show that the mortality also rapidly falls after the eighth year.

The records of the Health Office in this city, the statistics of Fox, and those of Eloy for Paris, show that a very large measles mortality occurs in the first year of life. In Paris it has even exceeded that for the second year.

The practical conclusions, from a study of measles mortality and morbility are that it is a disease which kills, if at all, in the first five years of life, before the school age, and that the efforts of preventive medicine should be directed toward keeping it from attacking this period of life. Elaborate regulations connected with schools are all very well, but they do not strike at the root of the matter. Not half a dozen school-children in New York City died of the measles in 1874.

[1] The learned authors of Diseases of Children, Drs. Meigs and Pepper, write an excellent chapter on measles, in which they use the word as a plural. This use of the word is seen too frequently. Though based on dictionary authority, it is palpably incorrect. "Spots" may be a plural noun, but "the spots" is a noun in the singular number.

SOME COMPARATIVE STATISTICS OF THE TREATMENT OF DIPHTHERIA.

CONTRIBUTIONS to the therapeutics of diphtheria are very numerous and for the most part very valueless. What the medical profession want just now is to know what measures will not help diphtheria rather than what will. Some such contribution as this has been made by Dr. N. Lunin, of St. Petersburg, who has presented (*St. Petersburg. Med. Wochensch.*, Nos. 6 u. 7, 1885) the results of a study of 296 cases of diphtheria treated in the Children's Hospital of the Princess of Oldenburg.

Dr. Lunin classifies his cases with reference to treatment into the fibrinous and the phlegmonous-septic forms. He also divides his cases into the naso-pharyngeal and the laryngeal and tracheal varieties. The first two classes, which included the larger number, were submitted

to treatment by corrosive sublimate, tincture of iron, chinolin, resorcin, bromine, and oil of turpentine.

Fifty-seven cases were treated with corrosive sublimate. The throat was pencilled every two hours with a one per cent. solution, and was washed with a solution of 1 to 5,000. Wine and musk were also given.

Ninety-four cases were treated with tincture of chloride of iron, of which from one to eight cubic centimetres were given daily—an insufficient amount no doubt in many cases. The throat was gargled every two hours with a solution of boracic acid and stimulants administered.

Chinolinum purum, recommended by O. Seifert, was tried in twenty-eight cases. The throat was frequently pencilled with a five per cent. solution and was gargled or irrigated with a 1 per 1,000 solution.

Resorcin was given in 27 cases, upon the recommendation of Andeer. The throat here was pencilled with a ten per cent. solution and irrigated with a one per cent. solution.

Bromine was used in 33 cases, according to the method recommended by Hiller. The bromine in one-fourth to one-half per cent. solution, with bromide of potassium, was pencilled on the throat every three or four hours, while the bromine in solution (.6 to 1.00 per 300) was inhaled from every half hour to every two hours.

Oil of turpentine was given in 23 cases, according to the methods of Bosse and Satlow. The oil was given internally in doses which were gradually increased up to ten drops hourly or two hundred and forty drops per day. This large amount caused no disturbance of the stomach. The throat was gargled with a boracic-acid solution, and wine and musk administered as in all the cases.

The results of these various treatments are best shown in the following table:

Method of Treatment.	Fibrinous form.			Phlegmonous septic form.			Total.		
	No. treated.	No. of deaths.	Per cent.	No. treated.	No. of deaths.	Per cent.	No. treated.	No. of deaths.	Per cent.
Sublimate	43	13	30.2	14	13	92.9	57	26	45.6
Iron	43	14	32.6	51	39	76.5	94	53	56.3
Chinolin	19	6	31.6	9	9	100.0	28	15	53.0
Resorcin	10	2	20.0	19	17	89.5	29	19	65.5
Bromine	15	7	46.7	18	16	88.9	33	23	69.7
Turpentine	12	1	8.3	11	9	81.8	32	10	43.4
Total	142	43	30.3	122	103	84.4	264	146	55.3

It will at once strike the reader that the results of treatment by any of the above methods are not very encouraging. Neither can we lay the blame on the constitution and condition of the child; for Dr. Lunin asserts that of 296 patients, only 25 were badly nourished, while 225 were well developed and well nourished.

According to the table we must infer that in the phlegmonous-septic form iron is the best remedy, as the mortality-rate under it was 76.5 per cent. On the other hand, in the fibrinous form oil of turpentine stands at the head. Bromine does not take a high rank in either form. Chinolin and resorcin were also disappointing.

THE QUESTION OF THE FAILURE OF MEDICAL CIVIL SERVICE REGULATIONS.

We took occasion just after the first civil service examination for medical positions under the city government to offer some mild criticisms as to the manner of conducting such a test, particularly with reference to the selection of the fittest man for office. In this editorial, while commending the scheme of medical civil service examination as admirable, we expressed the fear that such examinations might be so conducted as to enable merely "crammed" men to have an undue advantage over more practical men who had not recently enjoyed the advantage of that mental gorging known as a "cram quiz." We also offered some suggestions as to the future management of examinations, by while more practical tests might be applied. Finally, after expressing our hope and confidence that a perfectly fair system of selection would eventually be elaborated, we pointed out that the weak point of the present system was that the best men, according to the tests employed, were not necessarily chosen for office, but could be passed over to make place for men standing lower in the scale having political influence.

It seems the logic of events has confirmed these fears, and accordingly in our last issue we expressed ourselves as again disappointed with the present practical working of our municipal civil service system, inasmuch as the men standing the lowest in two medical examinations were appointed to office as quickly as those standing high on the list, while many of the latter, who were without political influence, have been completely ignored. In the first of these examinations, a man standing among the lowest in grade was one of the first to receive a position in the Health Department; and, as stated in our editorial of last week, in the second list, the man ranking first was passed over, while the man holding the seventy-sixth place was chosen, simply because he had a stronger political backing.

In view of these *facts*, it is with a mixture of surprise and amusement that we notice two editorials in the *Evening Post*, calling The Medical Record to task for some "loose writing" about the working of the municipal civil service rules. We would hasten to call the attention of our contemporary to the fact that when we stated in our first editorial that it was "possible for anyone standing quite low on the list, but having strong political influence, to obtain an office," we were *not* guilty of a "gross blunder," and we most excusably repeated the statement.

The *Post* states that the appointing officer is obliged by the rules to fill a vacancy from the first three names on the list, if any of the owners will take the place. We can fancy the smile that comes over the countenance of not a few who passed high in the late examinations, but who have not been anxiously pressed to take any place—in fact, have heard nothing more from the appointing powers, while the offices have been quickly filled by men taking a much lower percentage in the examinations. It is with some diffidence that we assure our learned, but mistaken contemporary that the best that can be said at present of our municipal civil service system is that it is purely negative, inasmuch as a man must pass some test before being considered eligible to office, but after that the lowest as well as the highest go into office usually in direct ratio to the influence employed.

Hospital Stewards.—A general order has been recently published limiting hereafter to the enlisted men of the army all appointments as hospital stewards.

News of the Week.

Virginia State Board of Medical Examiners.—Some practitioners in Virginia, says the *Virginia Medical Monthly*, are rebelling against the State law which requires that they shall first secure certificates from the State Board of Medical Examiners before undertaking practice in Virginia. One or two court clerks, indeed, have even refused to recognize the law. All such parties are forewarned "that they are violating the law, and that after a due amount of tolerance has been exhausted, they will be arrested and made to test the constitutionality of the Act of the General Assembly." Twenty-eight States and Territories now have State or Territorial Examining Boards, and it will not be long before all the other States will have like protections against impostors and incompetent pretenders.

Philadelphia Medico-chirurgical College.—Dr. Le Sieur Weir has resigned the Chair of Dermatology.

The New York Post-graduate School and Hospital has received a donation of $1,000 for a children's ward, and $1,000 for the general hospital fund.

St. Luke's Hospital has recently received a bequest of $7,000.

The Missouri State Board of Health held a stated meeting in St. Louis, on July 3d, perfected its organization, and transacted official business. The Board consists of three physicians, one eclectic, one homœopath, and two farmers and stockmen. Although the Legislature at the last session failed to provide for the continued financial support of this body, the Governor and other State officials say they are earnestly desirous of its continuance, and have pledged themselves to use their influence with the next Assembly to provide for the deficiencies created by the failure of appropriation by the last one.

Professor Leube, of Erlangen, succeeds Gerhardt in the Chair of Medicine at Wurzburg.

Professor Billroth has received from the King of Portugal a very much prized and rarely bestowed decoration, viz., the gold collar and star of the Order of St. Jacob. This is bestowed for surgical services rendered at his Majesty's court.

An Æsthetic Surgeon.—Mr. Lawson Tait will not have homely women as nurses.

Further Withdrawals from the Organization of the International Medical Congress.—All the members of the organization of the International Medical Congress, appointed from Boston, twenty in number, have, as we intimated in our last issue, withdrawn. The Baltimore members, twelve in number, have also withdrawn. The same action has been taken by the Washington members. We hear also of resignations coming in from St. Louis and other Western cities.

The Fate of Successful Patent Medicine Men is not always happy. Ayre and Helmbold became insane, and now we hear that Perry Davis, of "Pain-Killer" fame, is a lunatic in a Philadelphia almshouse.

Fighting the Patent Medicine Trade.—A mixed commission of twenty-four persons, made up of physicians and pharmacists, has been constituted at Berlin, with the object of taking steps to prevent the further extension of the patent medicine trade in that city. At the first meeting a resolution was moved to petition the chief board of police in Berlin (Konigliches Polizei Præsiduum) to follow the example set by corresponding boards in Frankfort-on-the-Main and Carlsruhe, in publishing from time to time in the daily papers popular instructive articles on the subject of patent medicines.

M. Ferrán's Opinion of Christ and Pasteur.—M. Ferran's intellectual balance is pretty well shown by the following, which is credited to him by the *Journal de Médecine*: "The two greatest men that humanity has possessed are Christ, who has given us moral redemption, and Pasteur, who has given us the laws which can lead us to our physical redemption."

The Death of Dr. Rufus H. Gilbert, of this city, occurred last week. Dr. Gilbert achieved fame as an engineer and railroad man rather than as a physician. He was the originator of the elevated railroad system of this city, and for a long time the Sixth Avenue Road went by his name. Dr. Gilbert was born about fifty-five years ago in Guilford, Chenango County, this State. He studied medicine with Dr. Willard Parker in this city, and was graduated from the College of Physicians and Surgeons. He returned to Corning and built up a large practice there. At the breaking out of the war he joined the Duryee Zouaves as a surgeon, and went through the rebellion, performing at the battle of Big Bethel the first surgical operation under fire made during the war. He rose in the service, and was finally made Medical Director and Superintendent of the United States Army Hospitals, having under him many of the most distinguished surgeons in the service. Upon the close of the war his health prevented his pursuing his profession, and he entered the railroad business.

The Wife of Dr. Frank H. Hamilton, who died on the 4th inst., was of such an unobtrusive disposition that few, even of her most intimate associates, have ever known to what an extent she has aided her husband in his literary and scientific labors. Without special technical training, she yet kept herself familiar not only with her husband's famous cases, but with the literature of the profession, and was his constant adviser and confidant in the preparation of his volumes, as well as his most valuable aid in the work of proof-reading and revising. Not a page of any one of the seven revised editions of his work on "Fractures and Dislocations" (a book of one thousand octavo pages), but had the benefit of her suggestions in the manuscript and her trained eye in the correction of technical, as well as typographical errors; and the same may be said of his "Treatise on Surgery," and "Military Surgery and Hygiene."

Disinfection of Rags.—We learn that the Committee on Disinfectants of the International Sanitary Conference unanimously recommended that rags should not be treated as ordinary merchandise, and that as a matter of prudence, and in consideration of the great interest at stake, disinfection of rags was to be recommended.

Consulting with Homœopaths.—The wife of Mr. Bayard, Secretary of State, has been lying ill at Wilmington, Del., under the care of a homœopathic physician, Dr. Negendank. The daily papers assert that regular physicians, among them Dr. Gardner (Garnett?), of Washington, have been in consultation with the physician in attendance.

The Cholera.—There does not seem to be any material difference in the progress of cholera in Spain. It is slowly extending, and, if we may credit reports, it is attacking over a thousand persons daily. The number of victims has, therefore, already far exceeded thirty thousand. The reports about Ferrán's inoculations continue to be indefinite; but, on the whole, confidence in his methods is waning. Cholera is said to have reappeared in the South of France, but information on this point is hard to get.

Men as Trained Nurses.—An association has been formed in London for the purpose of training men as nurses. The promoters believe that many men would rather be attended in illness by their own sex than by women. Bachelors, and widowers residing in chambers, and some men in families would, it is thought, employ properly trained men.

An Honor to Dr. Brown-Séquard.—The great biennial prize of twenty thousand francs has been awarded by the Academy of Sciences to Professor Brown-Séquard. His principal competitor was the celebrated African traveller, M. Savorgnan de Brazza. The biennial prize is awarded in turn by each of the five Academies which form the Institute; it is, therefore, in reality a decennial prize so far as each Academy is concerned. While the reward, which thus crowns the life and labors of a most eminent man, is hailed with universal applause, it is a matter of regret, says the *Medical Times and Gazette*, that Professor Brown-Séquard should not be a member of the Academy of Sciences or of the Academy of Medicine. In other countries these scientific distinctions would have been conferred upon him long ago by acclamation. In France the system of "close boroughs," which prevails throughout the scientific organizations, seems to result in the exclusion of many an eminent man, who has excited the jealousy or dissatisfaction of certain members of the scientific aristocracy. Many a man of second-rate capacities enters the hallowed precincts, because his very moderate capacities have never given offence, while candidates of the highest rank are neglected.

How to Remove a Plaster Bandage.—Dr. G. Krosz writes that the removal of a plaster-of-Paris dressing is greatly facilitated by first scraping a groove with a knife, and then dropping along it a solution of caustic soda. In a few minutes the plaster becomes pulpy along this line, and the bandage can then easily be cut through. If two lateral grooves be made, instead of one, a lid can be cut out of the bandage, the leg can be lifted up for the necessary inspection and returned, the lid being reapplied and retained with a roller bandage. In this way the plaster dressing is not cracked, and the limb is not jolted in the efforts to remove the bandage. By this method, also, it is a very easy matter to cut any fenestra that may be needed.—*Deutsche Medicinal-Zeitung.*

Reviews and Notices.

A Treatise on Practical Chemistry and Qualitative Organic Analysis. By Frank Clowes, D.Sc., London, Professor of Chemistry at the University College, Nottingham, etc. 12mo, pp. 376. Philadelphia: Lea Brothers & Co. 1885.

This work is especially adapted for use in the laboratories of schools and colleges, and the present volume is the third American from the fourth English edition. The author is to be congratulated on the valuable treatise he has prepared. The style is clear, the language terse and vigorous. Beginning with a list of apparatus necessary for chemical work, he gradually unfolds the subject from its simpler to its more complex divisions. The analytical methods, he states, have been thoroughly proved by himself and by his students. It is the most readable book of its kind we have yet seen. There is a certain fascination about it which must certainly communicate its spirit to the labors of the student. It is, without doubt, "a systematic, intelligible, and fully equipped laboratory guide and text-book."

The Ten Laws of Health; or, How Diseases are Produced and Prevented. By J. R. Black, M.D. 12mo, pp. 413. Philadelphia: J. B. Lippincott & Co. 1885.

We cannot too highly commend this household guide to right living, with all its attendant blessings. It might well be styled The Modern Decalogue, so pregnant are its suggestions with good to physical humanity. The ten laws here presented are in turn those relating to pure air, proper food and drink, exercise, suitable clothing, sexual hygiene, climate, occupation, personal cleanliness, rest and sleep with proper mental tranquillity, and intermarriage of near blood-relations. These topics are discussed in order, in relation to their full bearing on the health of the family and the preservation of the home from the inroads of disease. The penalties for violating these laws are forcibly dwelt upon, not in the words of a mere alarmist, but from the standpoint of one whose facts are drawn from personal experience, and who most thoroughly believes in "preventive medicine."

Part II. discusses the germ theory of disease and is put into popular language. The key-note of its teachings lies in these words: "The *only time* and the *only place* for effectually stamping out a pestilential infection in any city, town, or hamlet, is at the *bedside of the very first cases* of the disease." Surely no doctrine could be sounder. The methods of contagion from the common infectious diseases—diphtheria, scarlatina, typhoid, etc.—are plainly given and followed by minute directions for disinfection. That the book has found a place in the minds of the public is attested by the fact that the present is the third edition.

On Some Common Injuries to Limbs: Their Treatment and After-treatment, including Bone-setting (so-called). By Edward Cotterel, M.R.C.S., Eng., L.R.C.P., Lond., late House Surgeon University College Hospital; Atkinson Morley Surgical Scholar, University College, London, etc. With illustrations. Imp. 16mo, pp. 108. London: H. K. Lewis. 1885.

The aim of the little work is to call attention to the necessity of paying due attention to slight surgical affections, especially sprains and injuries to the joints. The importance of rightly managing these surgical "slight ailments" can hardly be over-estimated. It is success or failure in these cases that makes or mars the young practitioner, and the knowledge imparted in this handy little volume is precisely that which may save him from disaster on the threshhold of his career. Even older surgeons will find the hour spent in reading these pages by no means wasted.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 13, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. E. G. JANEWAY presented, in behalf of a candidate, a specimen of *dissecting aneurism of the aorta.*

DR. A. G. GERSTER presented four specimens of

ADENOID CANCER OF THE RECTUM,

all removed by operation. Clinically and pathologically surgeons distinguished between epithelioma and adenoid carcinoma of the rectal mucous membrane. The former was less malignant, of slow growth, and of not a very marked tendency to local and systemic dissemination. It rarely penetrated the perirectal tissues, hence a complete removal was more easily accomplished than in cases of succulent adenoid carcinoma. These have a pronounced tendency to rapid growth, with infiltration, early ulceration, and frequent hemorrhages.

It is to be regretted that a great proportion of these formidable growths remain undetected until their extent precludes a safe and complete removal.

As to their causation, it is of some interest to note that all of the four patients had been suffering from hemorrhoids for many years and were accustomed to the regular use of enemata. The seat of the disease in these four cases was the left side of the rectum; that is a place where the point of the syringe, introduced by the right hand, would naturally and did impinge upon the mucous membrane. Aside from these, Dr. Gerster had taken pains in other cases of rectal trouble to ascertain similar data, and had found that the habitual use of enemata is a very probable source of many forms of rectal disease.

As regards the therapy, doubts as to the propriety of the exsection of the rectum still prevail. But in cases where the possibility of a complete removal offers fair chances, the indication to remove the deadly growth stands paramount. Among palliative measures scraping out of the cancerous masses deserves the first place. If the growth be somewhat distant from the anal margin, a posterior incision through all the soft tissues will prepare a way to the growth, and will afford natural means of drainage.

Colotomy is a very extreme measure of doubtful value, and should be reserved for the most hopeless cases, that are bedridden, or where the tumor is entirely inaccessible. The patient's condition after colotomy is truly pitiable, and it is not a wonder that most of them rather choose the more dangerous operation of exsection.

With the improved technique of operative procedures, this operation also has become safer. The principle of securing each and every mass of tissue by double ligature, and dividing between these, will diminish hemorrhage, the most formidable danger in exsection of the rectum, to a minimum of a few ounces. By occluding the distal end of the gut by clamp or ligature, the escape of rectal contents and injection of the wound will be guarded against during the course of the operation. The first part of the dissection, until the pelvic fascia is exposed and severed, is not laborious, especially in male subjects or in women with a narrow pelvis. After the division of the fascia the organ readily yields to traction and can be well exposed, but the possibility of opening the peritoneum is imminent, or frequently unavoidable. Yet, if injection from without can be excluded, this would nowise increase the dangers. The chief danger is injection from without, and all endeavors have to be concentrated on escaping it. One of the four patients lost his life through retroperitoneal phlegmon due to a fault in the technique employed, which well deserves some mention. If after ablation of the gut the stump is left too short—that is, for fear of injuring the peritoneum, not enough of the intestine is dissected out—the stitches fixing it to the cutaneous margin will prematurely cut through, and will permit its retraction into the bottom of the cavity. And as it is a well-known fact that even the most careful preparative treatment does not always succeed in clearing the thick gut of elderly patients of all fæces, it will happen that intestinal contents will escape through the retracted stump, will soil the fresh wound, causing a septic form of suppuration, which will rapidly extend up the front of the sacrum. If an infection take place during the first three or four days after the operation, especially when the peritoneal cavity had been invaded, the patient will generally succumb.

CASE I.—E. T——, porter, aged twenty-seven, had rectal trouble since his eighth year; general condition good. Adeno-carcinoma of left and posterior side of rectum, situated about one inch and a half above sphincter ani. Tip of index-finger can just touch healthy mucous membrane above the tumor. Exsection of rectum at Mount Sinai Hospital, November 18, 1885, preceding exsection of coccyx under ether. Peritoneum exposed, not injured. Long intestinal stump attached to skin by four stitches. Large wound packed loosely with iodoformed gauze. During operation frequent irrigation of the wound with corrosive sublimate one to five thousand. Loss of blood very small. No shock, although the operation lasted two and a half hours. Exsected piece of gut five inches long, the elliptic growth two by three inches in diameter. Temperatures slightly elevated; general condition good under small doses of morphine up to November 21st, when temperature rose to 103° F., but in a few weeks fell to the normal figure. This elevation was due to indigestion. Bowels moved by castor-oil on November 24th. From this date on daily sitz-bath and uninterrupted cure.

In this case the sphincter ani had been preserved, and to restore its function a plastic operation was performed February 28, 1884. The patient was presented at the New York Polyclinic May 12th, exhibiting good retentive power.

CASE II.—H. M——, tailor, aged fifty-three; small thickset man. Adeno-cancer of rectum, occupying almost its entire circumference, with its centre on the left side, ulcerated, firmly attached to prostate. Its upper edge can be barely reached by the tip of the index-finger. General condition good.

Operation under ether January 14, 1885, at Mount Sinai Hospital. Very difficult and tedious dissection on account of the narrow and deep pelvis, and the close adhesion to the prostate. A rather short stump was stitched to the skin. Dressed as Case I. Length of gut removed five and a half inches. Up to January 19th everything went well; then fever set in, and the dressings being removed it was found that the stitches had cut through, the stump was retracted, and the wound extensively soiled by fæces. Thorough disinfection could not be attained, and patient died of septicæmia January 23d. Post-mortem examination revealed a number of retroperitoneal abscesses. In one corner of the wound a brittle fragment of sponge was found imbedded in the granulations.

CASE III.—Mrs. E. H——, aged fifty-three, flabby, fat woman, with large frame and a poor circulation. Semi-spherical soft adeno-carcinoma occupying posterior and left side of rectum. Healthy mucous membrane beyond the tumor easily palpable. Exsection of coccyx and removal of four inches of gut, together with the sphincter, on February 6, 1885, at the German Hospital. Easy operation, slight hemorrhage. February 11th, temperature rises to 102° F. Dressings were removed, and a portion of the wound was found coated. Diarrhœa attributed to the use of corrosive sublimate had set in, wherefor hourly irrigations with vin. camphoratum were ordered, together with opium internally. By February 16th her appetite had become quite keen; the wound was clean and granulating. By February 21st it had much diminished in size. March 5th set in with dyspnœa,

cough, and slight icterus, with somnolency. Next day the temperature rose to 103° F., and rusty sputa appeared. Repeated careful examination of the wound, and especially of the retroperitoneal region, by inserting a long aspirating needle revealed no local disturbance. Patient died March 14th. Autopsy confirmed the diagnosis of hypostatic pneumonia. Abdominal organs were found normal. Long-continued recumbent posture of the flabby patient, with a weak heart's action, was the cause of the fatal pneumonia.

Case IV.—C. F——, drayman, aged sixty-eight. Extensive ulcerated adeno-carcinoma of terminal three inches of rectum, a portion of it on the left side projecting externally in the shape of a sessile tumor. Koprostasis, pain, and hemorrhages have undermined the patient's health to such an extent that an exsection is out of the question. On May 7th, ether being administered, such portions of the growth as would yield to a sharp spoon were thoroughly curetted out, and the external growth was removed at the same time. To prevent secondary hemorrhage and yet to permit the escape of gases a tampon canula was inserted into the lower portion of the gut. It consisted of a short piece of stout rubber gas tubing, wound about with iodoformed gauze. No reaction followed, and the patient felt quite comfortable, especially after a thorough evacuation of the thick gut had been attained by administering a purge. The tampon tube will cause tenesmus, unless the sphincter ani was first put out of action by the disease or by section or stretching.

The President said that the text-books spoke of the disease as occurring more frequently in women than in men, but according to his experience it occurred most frequently among males.

Dr. Gerster said he had observed twenty-one cases, and in those the sexes were nearly equally divided.

Dr. Boldt referred to the use of peptonized-milk for two or three weeks prior to operations similar to those performed by Dr. Gerster, and for the purpose of avoiding the formation of scybalous masses.

Dr. Gerster said the method adopted in his cases was for a week or ten days to restrict the patient to a strictly liquid diet, to administer once or twice an active purgative, and at the same time give twice a day a large injection; but despite this method, in the cases reported, large masses of fecal matter came away in a comparatively short time after the operation.

Dr. L. H. Sayre presented a specimen with the following history:

POTT'S DISEASE: SPONDYLITIS COMPLICATED WITH MYELITIS.

February 10, 1882, M. L. E——, thirty-one years of age, was brought to me by Dr. Janeway, for the purpose of applying a plaster jacket.

History.—On February 27, 1881, while driving in a very dark night, he was thrown from his wagon over the dash-board, turning almost a complete somersault and wrenching his back very badly. He was exposed in a cold rain for nearly five hours before he reached home, having to drive six miles; was in his wet clothes for some time after arriving home. Commenced complaining of severe pain in his back from that time; applied various liniments and plasters for three months without any benefit. Then consulted Dr. C. F. Gaylor, who advised him to take exercise. This increased his pain to such a degree that he was compelled to keep quiet, resting most of the time on a sofa or lying down on the bed. He then applied to Dr. Janeway, who applied hot irons to his back in five places. After some weeks, Dr. Janeway observed a slight knuckle or projection in his spine, and advised him to come to me.

Present condition.—Has numbness in both feet; right one the worst, feeling as if it was asleep; cannot walk down stairs or step over the gutter without assistance; cannot stoop to pick anything from the floor without squatting; the least movement of the spine hurts him; jarring on his heels hurts him very badly; pressure on his head or shoulders greatly aggravates his pain. Partial suspension by the armpits and head gives him great relief. There is very slight prominence of the eleventh and twelfth dorsal spines, which become less prominent when suspended, and, when he became properly suspended, the pain was entirely relieved.

Diagnosis.—Spondylitis of the eleventh and twelfth dorsal vertebræ and probably the first lumbar, with myelitis.

Treatment.—Rest in the horizontal posture, with ice to the spine; cups, first dry and then wet; afterward, suspension and the application of a plaster-of-Paris jacket.

On March 9, 1882, a plaster jacket was applied without the jury-mast; but this failed to entirely relieve the pain, and on March 18th the jury-mast was added, which gave him perfect relief from pain.

On April 10th the jury-mast was removed, as he said it was so conspicuous; a modification of the jury-mast was then applied.

On May 28th a new jacket was applied, the same head-support being adjusted, although he admitted it was not so effective as the original jury-mast; and in the following August it was taken out entirely, as it did him no good. Two months later a new jacket was applied and the jury-mast left out entirely.

One month after this, however, he requested that a new jacket be applied with the original jury-mast as in the first, as the modified jury-mast caused him great pain whenever he was subjected to any jar. This was not the case with the jury-mast; he was then perfectly free from all pain.

By November 11, 1883, he was so much improved that the plaster jacket was applied as a corset without the jury-mast, although he at that time was unable to move his legs naturally; with the new jacket on, however, he was free from pain in the spine. This jacket was applied at his own house in South Yonkers.

On April 22, 1884, he was able to come to the office and have a new corset applied; but he looked badly, and stated that he had been examined for some throat troubles, and I was afterward informed he had tubercular laryngitis, and from another source I heard he had malignant disease of the throat. A sister of his had died previously of tubercular laryngitis.

During this time he had been able to come down and attend partially to business in New York as long as his jacket remained good.

He had sued the city for damages, carrying it from one court to another and attending the trials, and had been greatly bothered by his creditors; so that this mental anxiety and worry, combined with the disease of the spine and throat difficulty, tended to run down the man, whose strength was already almost overtaxed by his bodily ailments.

During this trial several of our eminent men testified for the defence their belief that the disease was not that of spondylitis or true disease of the vertebræ, but rather that the cord alone was affected. My father, Dr. L. A. Sayre, appeared on the witness stand and endeavored to demonstrate to the Court the effects of the plaster jacket and jury-mast in this case, and in all diseases of the spine, and the painful effects of its removal while disease of the spine was so existing.

The result of the trial finally was a verdict for the plaintiff.

In March, 1885, the wife of the patient came to me and requested me to put a new jacket on the man at the house, as he was unable to come down. I had only seen him once or twice during the past year, and thought he was doing well or I should have heard from him. Being unable to take charge of the case at his own house, I referred him to Dr. Robert Taylor, who had frequently attended him with me. This she accordingly did, and I

heard nothing more until a few weeks ago, when I heard he was very ill indeed, but was under the care of Dr. Moffatt, of Yonkers, from whom I secured the following information.

For some two weeks prior to his death he had complained very much of his back and legs, gradually becoming weaker, with sharp pains in the head, passing from the base of the brain up to the forehead. Two days before his death paralysis of the right side occurred, extending from the toes to the head, the facial muscles being also involved; a slight improvement occurred in this respect during the following twenty-four hours; he then passed into a comatose condition, remaining so up to a short time before death, when he seemed to regain consciousness for a few moments, and his wife states moved the arm and leg of the previously paralyzed side. He, however, again relapsed into unconsciousness, in which condition he remained until death.

During this last sickness the patient was under the care of Dr. H. Moffatt, of Yonkers, who diagnosticated the case as one of tubercular meningitis, and treated him accordingly.

Autopsy on Martin L. E——, by Drs. E. Develin, H. Moffatt, and Biggs, May 6, 1885, thirty-eight hours after death. Rigor mortis well marked; body emaciated. Enlargement and partial consolidation of spinous processes of twelfth dorsal, first, second, and third lumbar vertebræ. Spinal canal opened and cord removed. In the body of the second lumbar vertebræ was an abscess cavity of the size of a large hickory nut; the intervertebral disk between the first and second lumbar vertebræ was absorbed, and the cavity of the latter communicated with that in the body of the vertebræ. The cartilage between the third and fourth lumbar vertebræ is also absorbed. From this cavity and the abscess cavity of the second lumbar vertebræ communications existed into a large psoas abscess which passed down to a point just below Poupart's ligament on the right side, but had not pointed externally; this contained about a pint of fairly healthy-looking pus with clots of broken down tissue. There was also an opening from the fourth and fifth lumbar vertebræ where the cartilage was absorbed, extending into the spinal canal itself, from which pus was seen flowing. The cord was removed for microscopical examination. Brain: Tubercles were found along the fissure of Sylvius, crura, and medulla; no effusion into the ventricles; very distinct evidences of basilar tubercular meningitis. Heart: Normal; death occurring in strong systole. Lungs: Adhesions at both apices, and abundant deposit of tubercle in both lungs; old inflammation at right apex. Kidneys: Small; capsule not adherent; tubercles also found, but not excessive; also evidence of catarrhal inflammation. Larynx: Marked thickening and induration of epiglottis, aryteno-epiglottidean folds and cartilages; tuberculous ulceration at base of fold on left side. Testicles: Enlarged and presenting evidence of tubercular infiltration.

The specimen secured consists of the first, second, third, and fourth lumbar vertebræ, the spine being sawn in two with the spinous processes to the right. The corresponding half the family would not allow to be taken.

Dr. Janeway said the specimen had interested him a good deal, because he saw the patient early after the receipt of the injury and gave him a very careful examination. At first the question arose whether the symptoms were due to the irritation accompanying spinal meningitis, or to disease of the cord, or to disease of the vertebræ. At the patient's third visit Dr. Janeway found the phenomena of spinal caries so well marked, that is, pain on pressure on the top of the head, rigidity of the muscles of the leg, etc., that he recommended fixation of the spine, and sent the patient to Dr. Sayre. The point of interest in the case was the diversity of opinion concerning the nature of the affection which obtained at the trial, and the fact that three neurologists and surgeons had absolutely denied that there was any organic disease of the spine.

The President referred to a case which came under his observation, that of a man who was caught under an elevator and received a fracture of one or two vertebræ. In that case there were symptoms of myelitis, paralysis of the muscles of the leg, bladder, and rectum, which lasted for a long time. It was now nearly two years since the occurrence of the accident, and the patient was almost completely recovered, after having been treated by mechanical appliance, giving support from the hips and under the axilla, and extension made by screw and ratchet.

EXPERIMENTAL RESEARCH IN ETHER NARCOSIS.

Dr. R. W. Amidon presented the viscera of a cat which had died in a condition of narcosis from inhalation of ether. Five hours after the animal's death the right auricle contracted under the influence of mechanical irritation, as was demonstrated to the Society by quickly snapping the right side of the heart with the end of the finger. According to Dr. Amidon's observations ether kills a cat in about ten minutes, with shallow respiration and a continuation of the cardiac pulsation one or two minutes after respirations have ceased. The heart ceases to beat in diastole on the right side and in systole on the left side. The abdominal viscera are very much congested, especially the liver. The kidneys are almost of stony hardness, especially in the pyramidal portion. The spleen is congested. The lungs are usually normal; they are neither excessively congested nor œdematous. The abdominal, thoracic, and cervical veins are excessively distended with blood. The brain and spinal cord are apparently normal.

Dr. Amidon remarked that his experiments were made for the following purpose: It had been laid down in many text-books in surgery that ether-death was not always caused by asphyxia, but by heart-failure. In no case which he had studied had heart-failure been a primary factor. The anatomical appearances had been those of asphyxia, and he submitted the results of his experiments to the Society.

The indication in ether narcosis was, according to the result of his experiments, to start respiration and unload the right side of the heart, and the best method of accomplishing this was by artificial respiration accompanied by the administration of atropine, as he had set forth in a recently published paper.

Dr. Janeway remarked that he had heretofore directed attention to the indication for drawing off blood from the right heart with the hypodermic needle in certain cases, and in a few instances he had resorted to that procedure, but he had not yet been prepared to publish the result of his observations. He supposed it quite probable that in the great majority of cases of death from ether the fatal result was due to aspiration of food into the larynx and trachea.

The President referred to a case in which the woman was practically dead for fifteen minutes, and in which the suspension of animation was produced by a blood-clot in the larynx.

Dr. Gerster referred to one case in which death was caused immediately by the ether. It was that of a woman thirty-five years of age, with a large and simple hypertrophy of the thyroid body which pressed upon the trachea, causing dyspnœa by stenosis, and she also suffered from chronic catarrhal pneumonia of both sides, which greatly increased the dyspnœa. He decided, in spite of the large goitre, to perform tracheotomy to relieve the dyspnœa. The patient was anæsthetized with ether, and did not receive more than four or five whiffs before she became unconscious. The pulse and respiration going on, the incision was made with the knife and thermal cautery, but during the operation the pulse and respiration ceased and the face of the patient presented the appearance of one in collapse. Tracheotomy was

rapidly completed, and one or two shallow respirations took place, but the patient was dead. At the autopsy there was found extensive involvement of both lungs, and fatty heart with insufficiency of the tricuspid valves.

Dr. Amidon remarked with reference to aspiration of the right side of the heart, that he had seen animals apparently dead from ether narcosis, and the heart had begun to beat again after free incision in a large vein or in the liver, and allow it to be partially evacuated. He had suggested in his paper that free venesection might be a powerful adjuvant in the treatment of these cases. He would ask the surgeons present if they had noticed any difference in the effect produced by ether when Esmarch's bandage had been used; that is, whether the patient came under its influence more or less rapidly, and whether there was more or less liability to accidents.

Dr. Gerster said he had not observed any case with special reference to these points. With reference, however, to the propriety of artificial respiration, which he indorsed thoroughly, he might relate a case in which the heart had ceased entirely to beat, as the result of entrance of air into the pleural cavity. The case was one in which the pleural cavity was opened by an operation for the removal of a morbid growth, and as soon as the lung was subjected to the influence of atmospheric air the heart's action and respiration ceased, but were immediately restored by closure of the opening.

The Society then went into executive session.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

MR. LUND'S LECTURES AT THE COLLEGE OF SURGEONS—CASES OF RETENTION OF URINE—DR. MATHEWS DUNCAN ON RETENTION OF FÆCES—PUNCTURE OF THE BLADDER—VESICAL CALCULI—THE INTERNATIONAL SANITARY CONFERENCE AND QUARANTINE—THE DUST-BIN NUISANCE—THE NEW NOMENCLATURE OF DISEASES, AND SOME OF THE CHANGES FOUND IN IT.

London, June 23, 1885.

Mr. Lund, Professor of Surgery in the Victoria University, is nothing if not practical, and has set a useful precedent in his lectures just delivered at the College of Surgeons. Doubtless many of those who attend the College lectures have become tired of long set orations. Mr. Lund has adopted a different method, and, instead of confining himself to one subject, has given a number of interesting and practical remarks on various surgical subjects.

In his second lecture he spoke of some genito-urinary troubles. Referring to a topic which cannot be too often brought before practitioners, viz., retention of urine, Mr. Lund mentioned three striking cases. One was that of a young lady in whose case he was called in consultation to perform paracentesis: retention of urine was found. Another was that of an elderly man, with what was supposed to be a pelvic tumor pressing on the rectum, and causing tenesmus and difficulty in defecation. A quart of urine was drawn off, and the urgent symptoms soon disappeared. Another case was that of an elderly gentleman, who was suddenly seized with giddiness and rigors while at work in his office. Profuse perspiration came on. He went to bed and vomited. The abdomen was distended, and hernia was suspected. Mr. Lund catheterized and removed five pints of urine. Mr. Lund's second case reminded me of one recorded in Dr. Mathews Duncan's "Clinical Lectures." Dr. Duncan was sent for to pay a "satisfaction" visit to a patient said to be dying with malignant disease of the rectum. He was told that the growth could be felt in the iliac region, so far had it advanced. On examination the case was found to be one of enormous fecal accumulation in the bowel. On "digging" this out, the symptoms disappeared.

When puncture of the bladder is required, Mr. Lund prefers the suprapubic method. "It is," he says, "cleaner, and an instrument can more easily be retained."

In infants, circumcision should always be performed, he thinks, when the prepuce "balloons out" during micturition. Otherwise the straining tends to cause inguinal hernia. When a hernia has been produced Mr. Lund prefers the "worsted truss."

A case of vesical calculus was described in which the symptoms of stone were marked by enlargement of the prostate. The stone was kept from pressure on the collapse of the bladder, and perhaps kept in one place by its shape, it having become moulded to the neck of the bladder above the base of the prostate. Another case was mentioned in which the converse occurred, viz., a stricture far back in the membranous urethra caused such dilatation of the prostatic portion as to set up symptoms of calculus, which subsided on division of the stricture. An interesting case was referred to by the lecturer, in which a "click" was heard on introducing a metallic catheter into a woman's bladder, after a sound had failed in producing any. It was afterward found that this only occurred when the stream of urine was stopped by placing the finger on the mouth of the catheter. The bladder possessed great expulsive power, and while the urine flowed freely there was no sound.

The decision in favor of quarantine lately pronounced by the International Sanitary Conference, sitting in Rome, has caused great dissatisfaction here. The British members of the Conference were strongly against quarantine, believing it to be useless. It is thought that, in the event of five days' quarantine being imposed on vessels passing through the Suez Canal, many British shipowners will send their vessels by the old route round the Cape of Good Hope, so as to avoid the delay in the canal and also the canal dues.

A few years ago sanitarians were very indignant to learn that a large dust-sifting yard immediately adjoined the filter-beds of one of the London water companies. To this yard quantities of dust were daily brought and sifted, etc., with effects which may be imagined, especially when a strong wind blew in the direction of the filter-beds. The contents of our dust-bins, too, rarely consist of dust and ashes alone. Few householders trouble their heads about the state of the dust-bin, and the consequence is that all manner of rubbish and garbage is placed therein by servants. The wealthier the district the more the nuisance generally, because the servants are left more "to work their own sweet will." Add to this that it is a chronic complaint among householders that the dustman will not call except at infrequent intervals, and some idea may be formed of the decomposing mass which is daily shot down in the dust-yard mentioned. After letting the nuisance go on for years the Water Company have (in a bill now before Parliament) sought powers to purchase the yard from the Brighton Railway Company, who own it. The Select Committee of the House of Lords have, however, thrown out this clause on the opposition of the Railway Company. So all is to go on as before. Our boasted sanitary laws seem somehow often to fail us just when they are most wanted.

London, June 29, 1885.

The first revision, or second edition, of the official "Nomenclature of Diseases" has just been issued, and is in process of distribution to the profession. I have been able to obtain an early copy and look through it with some care. I subjoin some notes of the changes found. They are more numerous and extensive than might, perhaps, have been expected. Sixteen years have, however, elapsed since the first appearance of the work, and during this period the advance in all branches of the medical sciences has not been small. The actual revision has occupied nearly five years.

A very useful "Enumeration of Morbid States and

Processes" is now prefixed to the whole work. This is a modification of the list prefixed in the first edition to the sections on "Local Diseases," but now precedes the section on "General Diseases," "on the ground that its constituents are in various associations the elements of all the diseases subsequently tabulated." It is suggested in the preface that this table may form, in conjunction with the other sections, the basis of a cross-tabulation "in which the horizontal lines of this alphabet may cut the vertical lines of an anatomical alphabet."

The section formerly entitled "General Diseases" is now named "Diseases of the Whole Body," and diseases which may be distributed in several parts at one time, "General Diseases."

This section is divided into four groups—*A*, *B*, *C*, *D*.

Group *A* includes the specific febrile diseases, which are arranged in five subgroups. The first point noticeable under individual diseases is that all definitions are now omitted, which is indeed the case throughout the work. No varieties of small-pox or scarlatina are now given. German measles is introduced under the name "Epidemic Rose-rash." Under "Enteric Fever," there is a note that when occurring in children it should not be returned as "infantile remittent fever." Typho-malarial fever is introduced as a variety of enteric fever. "Choleraic Diarrhœa" is replaced by "Epidemic Diarrhœa." The terms "ague" and "remittent fever" are removed, and in their place is given "Malarial Fever: *a*, Intermittent; *b*, Remittent; *c*, Malarial Cachexia." Diphtheritic paralysis is now placed among nervous affections. Equiniamitis has disappeared, but horse-pox has been introduced. Malignant pustule gives place to splenic fever. Anthrax is no longer given as an equivalent for splenic fever, but is reserved as a synonyme for carbuncle. Sloughing phagedæna and hospital gangrene do not now appear as distinct affections, but simply as varieties of phagedæna. Puerperal fever is no longer to be used to describe puerperal pyæmia, septicæmia, or erysipelas, but the latter terms are to be employed. The only varieties of syphilis now enumerated under the heading "Syphilis" are, "*a*, Primary, Hard-chancre, or Infecting Sore; *b*, Secondary, or Constitutional." [In the first edition syphilis included soft-chancre, suppurating bubo, phagedænic sore, sloughing sore.] Lupus and ergotism vanish from the list of general affections, the former finding a place among skin diseases, the latter among poisons. Only two forms of rheumatism are now mentioned, viz., rheumatic fever and rheumatism. The latter term includes the subacute and chronic varieties. Gonorrhœal rheumatism finds a place amongst joint-affections. Gout is no longer divided into acute and chronic. Osteo-arthritis loses its former prefix of "chronic." Hydrophobia is now classed as a general disease instead of a nervous affection. Scurvy and alcoholism form, along with surfeit and starvation, Subgroup 4 of "General Diseases," viz., "Diseases Produced by Errors of Diet." Delirium tremens has been removed from the list of nervous diseases and placed as a variety of alcoholism. Myxædema, glycosuria, hæmophilia, and pernicious anæmia, may all be noted as additions. Leucocythæmia is also new to this section, though not to the whole work, it having formerly been classed as a splenic disorder. Tubercle now stands alone, instead of as a variety of scrofula.

Diabetes is now named diabetes mellitus (under renal affections we now find diabetes insipidus). True leprosy now figures simply as leprosy, and two varieties of it are now mentioned, viz., the tubercular and anæsthetic forms.

Considerable changes are made among the local diseases. Of these some of the most important are among the nervous diseases. The term sclerosis is now for the first time introduced, and three varieties are recognized, viz.: 1, Insular or disseminated; 2, diffuse; 3, miliary. Its varying distributions are thus given: *a*, Of the anterior cornua of the gray matter of the spinal cord (progressive muscular atrophy); *b*, of the lateral columns (spastic spinal paralysis); *c*, of the posterior columns (locomotor ataxy). The following are additions to this section: Opthalmoplegia externa (interna is not referred to), glosso-labio-pharyngeal paralysis, acute ascending paralysis, paralysis after acute disease (diphtheritic paralysis being given as a variety of this), pseudo-hypertrophic paralysis, toxic paralysis (lead palsy is given under this with drop-wrist as a variety of it), aphasia, dumbness (included in last edition, but placed under "Diseases Manifested at or soon after Birth"), somnambulism, megrim, and hystero-epilepsy (as a variety of hysteria); Ménière's disease (as a variety of vertigo), and hemichorea (as a variety of chorea), the division of chorea into acute and chronic being at the same time abandoned. Epileptic vertigo, or *petit mal*, is no longer recognized as a variety of epilepsy. Paralysis agitans displaces the term shaking palsy, and convulsions gives way to eclampsia, and in a note it is stated that when the cause is known the return should be made under the head of that cause.

Hypochondriasis, which formerly appeared as the last among functional nervous disorders, now leads the way among disorders of the intellect. The term insanity comes next, and now appears for the first time. A note states that this term should be employed only when the case does not manifestly come under the heads of one of the affections afterward enumerated. Imbecility no longer finds a place as a heading. Congenital imbecility is given as a synonyme for idiocy, and acquired imbecility is included under dementia. The latter is no longer divided into acute and chronic. The following headings are all new to this section: Puerperal Insanity, Epileptic i., Insanity of Puberty, Climacteric i., Senile i., Toxic i. (from alcohol, gout, lead, etc.), Traumatic i., insanity associated with obvious morbid change or changes in the brain, and finally consecutive insanity, from fevers, visceral inflammations, etc.

The classification of ocular affections is much more full and complete. Serous, gouty, and sympathetic forms of iritis are now added, and tubercular takes the place of scrofulous iritis. Keratitis is now more clearly divided into varieties, vascular keratitis being now recognized, and two forms of this, viz.: 1, Pannus; 2, deep vascular keratitis. Retinitis and glaucoma are each now divided into varieties. Cataract is more scientifically subdivided. Various forms of squint are now given. Protrusion of the eye-ball is now named proptosis. Among additions may be noted the following: myosis, mydriasis, synechiæ, iridoplegia, nystagmus, epiphora, and diseases of the optic nerve.

Under heart-diseases, hæmo-, hydro-, and pneumo-pericardium now gain admittance to the volume. The diseases of the peri- and endo-cardium are now given together as "diseases of the membranes." Suppurative pericarditis is now given as a variety of pericarditis, and pyæmic pericarditis is also added in the same place. Tubercular peritonitis is omitted, but tubercle is given as a separate heading. Periarteritis and endarteritis are now given as varieties of arteritis, but we look in vain for endarteritis obliterans. Syphilitic disease and parasites are added to the list of cardiac affections. The arterial degenerations are now given together as varieties under the heading "Degeneration." Fatty degeneration distinct from atheroma is not recognized. Under aneurisms we now get dissecting and miliary as varieties in addition to the three previously given, viz., fusiform, saccular, and diffused.

Turning to respiratory diseases, croup still retains its place, although many British pathologists and physcians strongly maintain its identity with diphtheria. Three forms of laryngitis are now given, viz., acute, chronic, and catarrhal, the latter being now introduced. Perichondritis is placed as a variety of inflammation of the larnyx. Bronchitis was formerly divided simply into acute and chronic; two new varieties now appear as well, viz., catarrhal and plastic.

Hæmoptysis formerly appeared as a variety of three affections, viz., passive congestion, pulmonary extravasation (p. apoplexy), and also among the general diseases under Phthisis, the latter disease being given under "Scrofula" as a local scrofulous affection. Passive congestion now stands alone. Hæmorrhage appears as a new heading, and hæmoptysis and pulmonary apoplexy are given as varieties of it. The terms acute pneumonic phthisis and chronic pneumonic phthisis remain as in the former edition, but the terms phthisis and acute miliary tuberculosis are now removed. They formerly appeared in the section on General Diseases, with a cross-reference to them in this section. There is now a cross-reference to the new heading, "Tubercle," in the section on General Diseases, and a note that the return is to be made according to a table on a subsequent page (under Tumors), which has been drawn up by Dr. Bristowe. In this table tubercles are divided into gray and white. Four varieties of each are given, viz., simple, inflammatory, ulcerative and destructive, retrograde and cicatricial. Pneumonia is divided into lobar and lobular, and croupous and catarrhal are added as synonymes. Syphilis (of the lung) is now inserted in place of the old term syphilitic deposit.

The inflammatory affections of the intestines are now given under a new heading—Inflammation—three varieties being enumerated, viz., catarrhal, diphtheritic, and ulcerative (enteritis, typhlitis, and colitis given as three subvarieties of this). Post-peritoneal and omental are added to the varieties of hernia. Among hepatic disorders, cirrhosis and hepatitis no longer retain their positions as distinct headings. In their stead Inflammation is placed as a heading, and three forms are described, viz., hepatitis, perihepatitis, and cirrhosis, the latter again being divided into hobnail liver and hypertrophic cirrhosis. "Adhesions" now form a separate heading under peritoneal diseases, instead of being placed under Peritonitis. Perityphlitis is not mentioned anywhere.

Hypertrophy, atrophy, and passive congestion (in diseases of heart and lungs) are added to the list of kidney affections. The nomenclature of renal disorders has undergone a great alteration. In the first edition "Bright's Disease" was given as a general heading and "Albuminuria" as a synonyme. Acute and chronic forms of Bright's disease were recognized, and three varieties of the latter were made to exist according as the kidney was granular, fatty, or lardaceous. Acute nephritis is now separated from Bright's disease, and forms a heading by itself, "glomerular nephritis" being named as a variety of it. Lardaceous kidney is also placed apart, and the only two forms of Bright's disease now acknowledged are: 1, chronic nephritis (chronic parenchymatous nephritis), and 2, granular kidney (chronic interstitial nephritis). Many will regret the separation of the lardaceous form. A new heading is now given, viz., Urinary Disorders. Suppression of urine is now placed under this heading instead of under kidney diseases. Here also are arranged the following new terms: Hæmaturia (in place of hæmaturia renalis), intermittent hæmaturia, chyluria, albuminuria, lithuria, oxaluria, and phosphuria. Diabetes insipidus also here finds a place, and a cross-reference to diabetes mellitus and glycosuria is prefixed to the list of urinary disorders.

The classification of vesical calculi remains virtually unaltered. Inflammatory stricture is now omitted as a variety.

Six varieties of ovarian cyst are now recognized. Inflammation and distention with blood are now added to the list of affections of the Fallopian tubes. The terms salpingitis and hæmatosalpinx are introduced as synonymes for the two preceding affections, and also hydrosalpinx as a synonyme for dropsy of the tube, but pyosalpinx has not been admitted. Instead of "Diseases of the Broad Ligaments," the heading now is "Diseases of the Uterine Ligaments, and of the Adjacent Peritonæum and Cellular Tissue." Under this heading are: hæmatocele, inflammation, abscess, cyst, varix, thrombosis, and a cross-reference to non-malignant new growth. It is now recognized that hæmatocele may be either intra- or extra-peritoneal, and it is divided accordingly. Inflammation is divided into—*a*, Pelvic peritonitis (Perimetritis); *b*, Pelvic cellulitis (Parametritis); *c*, Lymphangitis. Subinvolution and hyperplasia are now given for the first time as varieties of hypertrophy of the uterus in addition to elongation of the cervix, which was the only variety previously given. Atrophy is now divided into two varieties, viz., superinvolution and senile atrophy. Inflammation of the uterus (including the cervix) is divided into catarrhal and granular. Metritis is given as a general synonyme for uterine inflammation, and endometritis as an equivalent for catarrhal inflammation. Distention of the uterus is now deemed worthy of recognition as a distinct affection, and is divided into three varieties, according as the distending agent is blood (hæmatometra), secretion (hydrometra), or pus (pyometra). Leucorrhœa no longer appears as merely a synonyme for uterine or vaginal catarrh, but as a distinct affection. Inflammation of the vagina is divided into catarrhal and gonorrhœal, an arrangement which is certainly open to objection on clinical grounds. Sterility, vaginismus, and dyspareunia are additions, the latter two affections being distinguished from each other. Vicarious menstruation is replaced by the term ectopic menstruation; two varieties are allowed of this, viz., vicarious and supplementary. The displacements of the gravid uterus are now (omitting inversion) made to correspond with those of the unimpregnated organ. Rheumatism of the uterus has been expunged. The section devoted to affections connected with pregnancy has been retained, although the preface states that it has been omitted. Ectopic gestation now occurs in place of extra-gestation, and is divided into six varieties. Cerebral hæmorrhage has been added to the causes of sudden death after delivery.

Hypertrophy of the bones is now divided into concentric and eccentric, osteoporosis being given as a synonyme of the latter. Osteo-myelitis is now classified as a variety of osteitis, and osteitis deformans and perichondritis are also now added as varieties. Necrosis is divided into central and intra-osseous. Fatty degeneration of bone appears as a new affection. Three forms of ankylosis are now enumerated. Charcot's disease is set down among joint affections, with a direction to return cases of it under locomotor ataxy.

HOW TO REMEDY THE GROWING ABUSE OF MEDICAL CHARITY.

To the Editor of The Medical Record.

Sir: The recent exposure made by the Charity Aid Association, of the high percentage of unworthy patients treated in one of the largest and most carefully managed medical charities of this city, should lead the managers of all like charities to the work of looking into the facts of how this munificence is being expended. It has been, and is now, the practice in every institution in this city, open for the relief of the sick poor, to treat all who may apply without question, so that none may suffer; but this has been abused shamefully and to the extent that it is honorable now to ask and accept medical alms by anyone, whatsoever his or her station in life may be. Now all will agree unless the few who wish to take advantage of the humanely disposed for selfish ends that this is not right, and tends to cultivate a spirit in society which should be suppressed, and if necessary by vigorous means. And now comes the question, How can it be done?

To make it effective, the means employed certainly should be applied uniformly to every institution dispensing such aid. If it were otherwise; the unworthy applicants would go from the one refusing to another which would ask no questions. The plan of posting in the institutions the notice in full view, "*Only for sick poor*," has had no effect, for in another like institution it will be

confronted by a notice, "*Medicine and medical aid furnished for one dollar a month*" to all applicants, and depends on the personal pride and honor of the patients to forbid frauds. This plan we all know has not succeeded, but has rather cultivated this alms-receiving tendency to the extent that it is now expected as a right, by the unworthy as well as the worthy. The most feasible method for preventing this growing evil which occurs to me is to arrest it at the institution—to make it by law a misdemeanor for any institution to so indiscriminately dispense alms. Surely this is reasonable. The city which has been so munificent in its gifts to all such societies would favor, I am certain, this step and hail it as one in the right direction. Private parties who give of their means, whether it be in either large or small amounts, do so always with the impression that the sum will be used by the trustees wisely, and where it is needed, and only there; if in any other manner, they will consider that the funds intrusted have been misused and turned from their legitimate channel.

I therefore suggest that every charity institution should be prohibited by law, under penalty, from giving this aid to these applicants, unless they are known to be worthy or recommended as such by responsible parties.

ALEXANDER HADDEN, M.D.

[Dr. Hadden has had such a long experience in hospital and dispensary practice that his suggestions merit more than ordinary consideration. It is to be hoped that the managers of charitable institutions will give that attention to the subject that its importance demands. If they will not move in the matter the profession will. The rank and file of practitioners in this city are in earnest in their endeavors to check an evil which now has grown to monstrous proportions, and which threatens the bread and butter of everyone who is willing to work honestly and legitimately.—ED.]

RUPTURE OF THE PERINEUM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In your issue of the 20th inst., Dr. Frank H. Hamilton, in an article entitled "A Few Practical Remarks on Rupture of the Perineum," maintains, if I understand him, that any manual interference with the natural process of labor, looking toward the preservation of the perineum from rupture, is, as a rule, not only useless, but may be hazardous.

I cannot agree with him.

Leaving out for the present the consideration of cases in which rupture results from malformations, cicatrices, unusual size of child's head, etc., I think it safe to say that tearing of the parts in question is almost always not only avoidable, but its occurrence is frequently a serious reflection on the medical attendant.

In the lying-in wards of Professors Spaeth and Carl Braun, at the General Hospital, Vienna, the writer has seen many perineums preserved, has saved many himself, and is, therefore, able, from observation and personal experience, to bear witness to the usefulness of this practice. The more simple measures failing, recourse should be had to episiotomy—that is, incising the margin of the vulva on one or both sides, thus enlarging the outlet. Such incisions heal quickly, and, as compared with perineal rupture, are altogether insignificant. And this episiotomy is a very necessary measure when, after the outlet is distended to its full capacity and rupture is imminent, there remains no alternative but laceration. Of two evils the less should be chosen. Dr. Hamilton's cases, in which he has seen the perineum stretch to the thinness of paper and then suddenly give way, possibly might have been saved had an episiotomy been performed. The statistics of the Vienna Hospital[1] show that, by proper care, ruptures may be reduced to a small fraction of one per cent., whereas writers on obstetrics have claimed ten or fifteen per cent. unavoidable.

[1] American Journal of Obstetrics, vol. xviii., No. 3, p. 233.

What, then, are the appropriate means for preserving the perineum? Certainly not simple pressure against that structure, for such practice would not only be indeed useless, but absurd. Other means must be resorted to, the objective point being to gradually stretch the outlet so that the head may be safely expelled, which is accomplished by allowing the head to descend again and again hard against the perineum; in this way that structure is not taken by surprise, and the head is prevented from a too early and sudden tearing through of undilated parts. This is very practicable, though it sometimes requires all the available muscular strength of the accoucheur. Then, at last, after full dilatation of the outlet, if it be found impossible to deliver the head without a laceration, an episiotomy should be made, and for that purpose a bistoury should be at hand in anticipation of such a contingency.

The theory is easily understood, but practice alone can perfect the art. For ease and convenience the woman should be delivered on the left side. As she lies obliquely across the bed with the hips on the right edge, the nurse supporting the raised right knee, the physician sits behind, his left hand between the thighs and covering the vulva; the right, with a towel intervening, over the perineum, though never hiding it from view. As the head is pushed down by the uterine contractions and the voluntary efforts of the woman, it is held from advancing too far, if necessary, by clasping the hands firmly against it. When the head has advanced far enough and the parts are sufficiently dilated, it is slowly and carefully shelled out between the pains, the woman assisting, if necessary, by voluntary expulsive efforts, as directed by the physician. Care should then be taken that the shoulders do not cause the injury the head has been prevented from producing. The writer is convinced that he has in this manner prevented a considerable number of otherwise unavoidable ruptures, and he confidently recommends such practice.

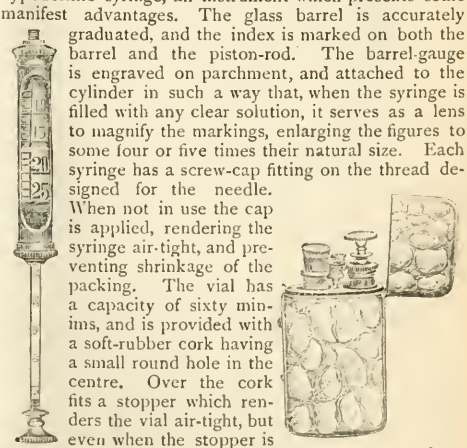
S. A. RUSSELL, M.D.

135 NORTH PEARL STREET, ALBANY, N. Y.,
June 24, 1885.

New Instruments.

A MODIFIED HYPODERMIC SYRINGE.

THE accompanying illustration represents the "Farny" hypodermic syringe, an instrument which presents some manifest advantages. The glass barrel is accurately graduated, and the index is marked on both the barrel and the piston-rod. The barrel-gauge is engraved on parchment, and attached to the cylinder in such a way that, when the syringe is filled with any clear solution, it serves as a lens to magnify the markings, enlarging the figures to some four or five times their natural size. Each syringe has a screw-cap fitting on the thread designed for the needle. When not in use the cap is applied, rendering the syringe air-tight, and preventing shrinkage of the packing. The vial has a capacity of sixty minims, and is provided with a soft-rubber cork having a small round hole in the centre. Over the cork fits a stopper which renders the vial air-tight, but even when the stopper is off the bottle may be laid down on the table, and no fluid will escape through the centre hole. To fill the syringe from the bottle, the needle should be inserted through the rubber cork, and the shoulder held firmly,

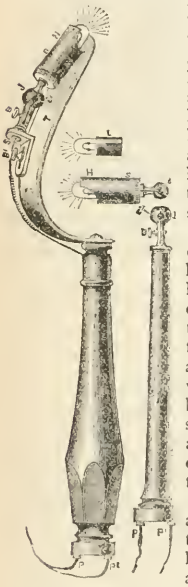


stopping up the opening. Then the piston, which had previously been drawn out, should be pushed home, thus forming a layer of compressed air above the fluid. Then, when the piston is again withdrawn, the pressure within the vial and the vacuum within the cylinder will cause the fluid to enter the syringe at once, without wasting a drop. The case, as represented in the figure, is made of plated metal, and contains the syringe, vial, two needles, and a bunch of wire. All of these are held in position by springs, so as to prevent spilling when the case is opened. It is manufactured by F. A. Reichardt, of this city.

ELECTRIC ILLUMINATORS FOR EXAMINING VARIOUS CAVITIES OF THE HUMAN BODY.

INVENTED AND MANUFACTURED BY CURT W. MEYER, NEW YORK.

THE electric illuminator for the mouth and throat consists of a combination as shown in the illustration below, viz.: A novel form of tongue-depressor *T*, with an insulating handle attached, through which the conducting wires are passed to connect with the battery cords at *P P'*; an electric incandescent lamp *L*, mounted and set into a shield-tube *H* (a non-conductor of heat), with a double conducting ball-joint movement *J*, and an adjustable slide *S* which holds the lamp, and which is held firm to the tongue-depressor by a set-screw *B'*.



It will be seen at once that every desired movement of the lamp has been provided for. The lamp may be set firm by pressure of the binding screw *B'*; further, the position of the lamp on the tongue-depressor can be changed, as it will slide back and forward. The lamp can be instantly brought in broken circuit at *i'* by slightly turning the lamp-tube *H*, and the latter with its ball-joint can be at once detached from the tongue-depressor.

The lamp now can be set into another insulating handle (forming the universal illuminator) at *J*, if the light is to be used for further examinations. The mounted lamp can be removed from the shield-tube *H*, if necessary, by pushing it out of the tube through slot *S*. A duplicate mounted lamp, also a mouth-mirror with handle, are added to complete this set of instruments, which are fitted in a finely finished pocket-case lined with velvet.

These instruments in their present form will be found to be an invaluable assistant to physicians and dentists, and their substantial workmanship will make them a lasting apparatus.

PROFESSOR ZWEIFEL ON RULES OF MEDICAL BEHAVIOR.—Dr. Albert S. Adler, of Solomonville, A. T., sends us some criticisms on the astute and popular author of "The Physician Himself," concluding with the following: "I remember but too well the words of the eminent Professor Zweifel in Erlangen, 'that rules in regard to medical toil and human delicacy are the acquisitions of a general education, and for this very reason words would be superfluous to the one, to the other useless. He who does not possess the intelligence to learn quickly from the example set by his preceptor, can never gain it by the medium of words.'"

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 4, 1885, to July 11, 1885.

HAVARD, VALERY, Captain and Assistant Surgeon. Assigned to duty at Fort Wadsworth, New York Harbor. S. O. 140, Department of the East, July 2, 1885.

WYETH, M. C., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Wayne, Mich. S. O. 140, Department of the East, July 2, 1885.

POWELL, JUNIUS L., Captain and Assistant Surgeon. Ordered from Department of the East to Department of the Missouri. S. O. 155, A. G. O., July 9, 1885.

BIRMINGHAM, HENRY P., First Lieutenant and Assistant Surgeon. Ordered from Department of the Missouri to the Department of the East. S. O. 155, A. G. O., July 9, 1885.

Official List of Changes in the Medical Corps of the Navy for the week ending July 11, 1885.

BYRNES, J. C., Passed Assistant Surgeon. Detached from the Powhatan for duty at Navy Yard, Norfolk, Va.

CORDEIRO, F. J. B., Assistant Surgeon. To the Powhatan as relief of Passed Assistant Surgeon Byrnes.

CURTIS, L. W., Assistant Surgeon. To Philadelphia for examination preliminary to promotion.

DRENNAN, M. C., Surgeon. Placed on waiting orders.

FITZSIMMONS, P., Surgeon. Duty on Receiving Ship Franklin, Norfolk Navy Yard, continued until July 1, 1886.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, for the two weeks ending July 11, 1885.

FESSENDEN, C. S. D., Surgeon. Leave of absence extended sixteen days, on account of sickness, July 1 and 9, 1885.

BENNETT, P. H., Assistant Surgeon. Granted leave of absence for twenty-two days, July 9, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 27, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
July 4, 1885	0	12	46	1	109	70	0	0
July 11, 1885	0	11	31	4	69	50	3	0
Deaths.								
July 4, 1885	0	3	9	1	21	34	0	0
July 11, 1885	0	3	3	4	18	18	0	0

AN ENGLISH SURGEON ON VIVISECTION.—Is it simply an impenetrable dulness which causes a man of surgical education like Mr. Lawson Tait to make such a statement as the following, at a recent meeting of the English Anti-vivisection Society: "I am quite sure," he said, "that many even of the vivisectors themselves will come to the conclusion which the lessons of surgery and pathology have taught me, that vivisection is not only useless in solving riddles such as we have to deal with, but that it is absolutely misleading."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 4 NEW YORK, JULY 25, 1885 Whole No. 768

Original Articles.

THE ACRO-NEUROSES.

FUNCTIONAL NERVOUS AFFECTIONS OF THE EXTREMITIES.

BY C. L. DANA, M.D.,

PROFESSOR OF NERVOUS AND MENTAL DISEASES, NEW YORK POST-GRADUATE MEDICAL SCHOOL; PROFESSOR OF PHYSIOLOGY, WOMAN'S MEDICAL COLLEGE OF NEW YORK.

(Concluded from page 58.)

SENSORY DISTURBANCES.—These are known under the names of paræsthesia, ignipedites, acrodynia, neuralgia, hyperæsthesia, pododynia, tarsalgia, hyperæsthesia.

Paræsthesia.—Under the head of paræsthesia are included the sensations of prickling, numbness, burning, etc., which are familiar to every physician. Some have given a special name to that variety of paræsthesia in which there is an intense burning sensation. Mitchell calls it causalgia, and finds it to be the result of nerve injury. In the multiple neuritis of alcoholism, beri-beri, acrodynia, and ignipedites, this symptom is a very prominent one. Hence it is safe to say that an intense persistent burning sensation indicates some organic peripheral nerve trouble. We can hardly say this of the milder "burning sensations," which are simply to be classed with ordinary rheumatic or neurasthenic "paræsthesia." This ordinary type of functional paræsthesia has been well observed and described by Drs. Ormerod, Wharton Sinkler, Weir Mitchell, and J. J. Putnam. It occurs oftenest in women, and at about the time of the climacteric. The patients experience annoying sensations of numbness, prickling, or burning in the hands, arms, or, perhaps, feet. The symptoms are worse at night, but generally continue through the daytime. There may be a slight loss of power in the arms.

I have notes of thirty-one cases of this trouble. Of these the burning sensation was the most complained of in eight.

CASE IV.—Mrs. Mary A——, aged thirty-nine, came to me complaining bitterly of burning sensations in her hands and feet. These were worse at night, and sometimes kept her from sleep. She has always been "nervous," lately very much so, but has no hysterical history. She is slightly anæmic, dyspeptic, and constipated. The extremities present no objective changes. She improved under local and general treatment.

Among the other cases the "burning" seems to have occurred in young and hysterical or in older neurasthenic and rheumatic women. In one case of ignipedites the cause was a change from wooden clogs to leather shoes.

A very severe type of the ordinary form of paræsthesia was the following:

CASE V.—Mary G——, a hard-working German woman, fifty-four years old, came to me complaining of prickling and numbness in the two hands and in one heel. The symptoms were much worse at night, and were so intense that she had to wrap her hands up in flannels, and could not sleep on account of the intolerable sensations. No anæsthesia, no objective changes in hands, urine normal, bowels regular, no rheumatism. Patient had been healthy, not nervous, had thirteen children. Under tr. nuc. vomic. she soon got well.

Of twenty-eight of my cases of paræsthesia available for analysis nine were among men, nineteen among women. The age in women ranged from nineteen years to sixty-six, most cases occurring between thirty-five and fifty-five. In men the average age was older.

In five cases there was a history of rheumatism, in eight of overwork and worry, alcoholism and sexual excess each brought on the symptom in one case. In the younger cases there was hysteria and anæmia. In eight cases it was unilateral. We may say in general that the purely neurotic type of paræsthesia is comparatively rare. I have met two examples of it.

CASE VI.—A gentleman about forty years old, a cotton-broker, was sent to me by my friend Dr. S. Baruch, suffering from paræsthesia of the left arm and hand. He felt an almost constant sensation of numbness, prickling, etc., extending up to the elbow. The symptom annoyed him to the last degree, the annoyance depending partly on the fact that he was afraid he was going to be paralyzed. There was no anæsthesia and no objective change in the hand and the patient was in good general health. He had been a great smoker. He left off smoking, but was no better. He was treated in various ways with but little improvement. He went to a well-known general practitioner, who gave him Warburg's tincture and said he would be well in eight days. He was not, but after several months, the cotton market getting easier, the affection gradually left him.

Paræsthesiæ of course occur in organic diseases of the nerve-centres or nerves. Sometimes, also, these symptoms are brought on by lead-poisoning (Putnam), or by arsenic (Seguin), or by alcohol or tobacco. These facts must be borne in mind in making a diagnosis. When the symptoms are very severe and persistent we should always suspect a toxic or infective neuritis. Many ordinary cases of ignipedites are caused mechanically by badly-fitting, or thin-soled shoes, or by long standing or walking.

The treatment for neurotic cases is in the use of strychnia, bromides, alkalies, and electricity, galvanism being, I think, far the most efficient form. For the rheumatic types, oil of gaultheria, potassium iodide, and electricity may be given. Hot and cold douches to the parts are often excellent. Of course, attention must be paid to general hygiene.[1]

Ignipedites, or "burning feet," technically speaking, is the name given to a disease observed among soldiers in India in the early part of this century, and first described by Dr. Grierson. The disease is a depressive, constitutional one, resembling in some respects, scurvy. Later investigations have shown its close relation with acrodynia, and beri-beri. In all three of these diseases

[1] *Causalgia* is a name suggested by Dr. Weir Mitchell for the burning sensations that occur as the result of nerve injury. The symptom is the result of peripheral nerve-lesions and cannot be spoken of as a neurosis.

an intense and agonizing burning in the soles of the feet and sometimes in the hands is observed. Beri-beri is known to be an infective multiple neuritis. Ignipedites is doubtless also caused by a neuritis.

Acrodynia (cheiropodalgia) is a term employed to designate a peculiar disease, generally epidemic and characterized by severe pains in the extremities. It was first observed as an epidemic in Paris in 1828. Later it occurred among the workmen in a fuchsin factory at Lyons in 1864, in the French Army of the East in 1854, and again among French soldiers in 1874. It broke out also in a convent of St. Bernard in 1846, and a disease very similar to it has been described in Italy and Spain.[1] It has occasionally occurred sporadically. Some have claimed it to be only the Italian disease pellagra; others, trichinosis. It seems, however, as I have stated, to be most allied to the ignipedites of the Indian soldiers and to beri-beri. It is characterized by severe pains and erythema of the extremities. This is accompanied with painful muscular contractions, and followed by paresis and anæsthesia. There are also marked digestive disturbances. The disease runs its course and the patients generally recover in a few weeks. It is probably an infectious multiple neuritis—a view suggested by Broussais.

Acrodynia is a disease which has not been observed in this country to my knowledge, although the term has been wrongly used to indicate a painful neuralgia of the finger (Pancoast, *Philadelphia Medical Times*, 1872).

Hyperæsthesiæ and neuralgiæ of the extremities.—Both feet and hands are subject to hyperæsthesia and to neuralgic pains. A hyperæsthetic condition may exist entirely apart from any paræsthesia and neuralgia, although these latter are generally associated with it.

Hyperæsthesia in a most marked form has been observed in chronic alcoholic poisoning. Plantar hyperæsthesia not rarely occurs as the result of mechanical causes, from wearing thin-soled or ill-fitting shoes.

Some cases of plantar hyperæsthesia in which the trouble appears to be a pure neurosis are reported. M. L. Barbillou has recently described cases of this kind (*Progrès Médicale*, 1885, p. 375). His cases, four in number, were observed in the service of M. Debove and Dr. Rueff. The patients were all men, without any neuropathic history, and gave no signs of organic disease, local or central. They had no pains in the feet, but simply an exquisite sensitiveness which made walking almost impossible. One patient had gonorrhœal rheumatism; in another, and I fear in all, alcoholism could not be positively excluded. All the patients were cured by blistering the feet or by congelations with Debove's chloride of methyl.

Neuralgias of the feet and hands.—These seem to be of two classes: Reflex neuralgias, and neuralgias due to some mechanical fault in the foot. Under this latter head come Morton's luxation neuralgia, and the so-called Tarsalgia, or Policeman's disease. It is a question whether there is such a disease as the pododynia or tailor's neuralgia, described by Gross in his "System of Surgery." I know no one who has ever seen it or reported a case. A form of neuralgia accompanied with spasmodic contracture of certain leg-muscles, described by Weir Mitchell, belongs apparently with the tarsalgia of the French writers. Besides these types, I have observed some curious forms of acro-neuralgia which it is difficult to classify.

Reflex neuralgias of the extremities are not rare.

One of the most distressing forms which I have seen was the following, occurring in a patient sent me by my friend, Dr. J. R. Nilsen:

Case VII.—*Reflex neuralgia of hands in a pregnant woman.*—Margaret M——, aged thirty-five, English. Has always been healthy, though of a nervous temperament. Has never had neuralgia before. Is now pregnant for the first time. Since about the third month she has suffered from pains in the fingers of both hands. The trouble began in the left hand, with a diffused pain affecting the fingers and thumb; the right hand then became involved. Pains ran up to the elbow at times; they were continual, day and night, so that she could not sleep; worse in warm weather. There was no local swelling, tenderness, vaso-motor disturbance, or sweating. Dynamometer, right hand, 28; left, 20. Sensation and muscular sense normal; no twitchings or cramps. Under anti-rheumatics no relief was obtained. Strychnine did no good, but under local galvanization and bromides she improved. This was undoubtedly a reflex uterine trouble, which will disappear after the birth of the child.

Dr. Nilsen tells me of a patient of his who suffered from ovarian irritation and prolapse. She had intense neuralgic pains in the wrist.

I am treating now a hysterical woman with paraparesis and painful spasms of the bladder. Every time she has the painful expulsions of urine an intense pain is felt in the palms of the hands.

Reflex pains in the feet are not so very uncommon. Dr. T. B. Curtis (*Boston Medical and Surgical Journal*, 1881, No. 14) has taken the trouble to collect all the causes of reflex pedal pain. They, almost all of them, consist in some form of irritation of the genito-urinary tract, *e.g.*, gonorrhœa, stricture of the urethra, vesical calculus, cysto-prostatitis, cystalgia, renal calculus.[1]

Neuralgic and other painful affections of the extremities due to mechanical cause.—One of the most interesting forms of pedal neuralgia is that described first by Dr. Morton, of Philadelphia, and called by him a "luxation neuralgia." It is a neuralgia affecting the metatarso-phalangeal joint of the third and fourth toes, and is due, it is thought, to a slight luxation, with consequent pressure on a digital branch of the external plantar nerve. Dr. Morton collected fifteen cases (*American Journal of the Medical Sciences*, 1876, n. s., lxxi., p. 37). A case has subsequently been reported by Dr. M. C. Kemper (*Virginia Medical Monthly*, 1881–82, vol. viii., p. 522). It occurs generally in women, and the cause is external injury or shoe-pressure. Treatment is not very satisfactory. It should be directed to giving rest to the foot, and the avoidance of lateral pressure on the joints by wearing a broad-soled shoe. Support may be given by a broad flannel bandage. Amputation of the toe has cured one case.

The following case seems to belong to this category:

Case VIII.—*Luxation podalgia (of Morton) in a woman fifty-five years of age.*—The patient has always been healthy, has had several children. Is thin, of nervous temperament, energetic, and hard-working. Has not had rheumatism or gout. Has acted as a nurse for several years past, and been on her feet a great deal. This, at times, caused plantar hyperæsthesia and neuralgia, relieved by rest. In past years has, at times, suffered from pains in third and fourth toes and metatarso-phalangeal joints of right foot. Cannot attribute it to injury or any cause except excessive standing and overwork.

In the last few months she has had most intolerable pain in the toes mentioned. They feel as though a rod of fire had been thrust into them. These pains come on her in the daytime when she is out walking. She is in such agony that she jambs her umbrella or parasol upon them. After getting home, taking off her shoes and stockings, and applying cold cloths, the pain is relieved.

Examination discovers no tenderness, swelling, or redness; no anæsthesia or hyperæsthesia, or any objective symptoms whatever.

The patient has normal urine and gives no gouty history. Nor is she relieved by anti-gout drugs, such as colchicum, iodides, and alkalies. Anodyne applications and rest helped her most.

Tarsalgia (*podalgia, policeman's disease*) is a neuralgic affection, due probably in most cases to an incipient flattening of the foot, and stretching of the plantar ligaments

[1] Described by San Marino in 1762 and called cheiropodynia; also observed by Nicoletti in 1806.

[1] Pedal pains occur in gout, rheumatism, syphilis, tabes, chronic alcoholism, and diabetes. The pains of latent gout, according to Anstie, are generally located in the dorsum of the foot. Those of chronic alcoholism have been observed to occur in the wrists and ankles. In syphilis a node can generally be discovered. A differential diagnosis is, therefore, quite possible.

Some have ascribed it to a deep-seated contusion of the adipose cushion covering the os calcis. Probably the condition varies somewhat in different cases. It is observed in persons who have been in the habit of going barefoot, and have then gone into the army or taken civil positions obliging them to stand or walk a great deal.

It occurs also in the policemen of Paris. Velpeau first observed it there in 1833, and gave it the name of the Policeman's disease. It has subsequently been described by other French writers, *e.g.*, Fabre, Desprès, and Gillette. The name tarsalgia was, I believe, given by Duchenne. Subsequently Gasselin, Lannelongue, and Le Fort have written about it. Only one case, so far as I know, has been described as Policeman's disease in this country, and that by Dr. T. B. Curtis, of Boston (vide *loc. cit.*). Dr. Curtis states that the policemen of Boston are not subject to it, and Dr. Morris N. Henry, of this city, kindly informs me that it has not been observed among New York policemen. This is due to the difference in the shoes and in the gait of American and Parisian guardians of the peace.

It appears to me that Dr. S. Weir Mitchell has described what is essentially this disease in the *Philadelphia Medical Times*, 1872, 1873, vol. iii., pp. 81, 113. At any rate, in tarsalgia, as in Mitchell's cases, there is not only pain in the heel and whole foot, but often contracture of the perineus longus, gastrocnemius, and plantar muscles.

If there is such a disease as the pododynia of Gross, Dr. Mitchell gives evidence to show that it is not confined to tailors, and that in some cases, at least, there is a low grade of arthritis of the small bones of the feet. Treatment, medical or surgical, seems to do little for the disorder, which is very chronic. Patients are better in cold weather, and when resting the feet.

Peculiar Neuralgic Affections.—A very peculiar vaso-motor and neuralgic affection of the hand was brought to my notice recently.

Case IX.—Charles C——, married, aged fifty-five. Has been a strong healthy man ; used tobacco but not alcohol ; no specific disease. Is a stamper, and has to use the right hand and forefinger a good deal. In past three or four months has had a constant dull pain in the right forefinger extending to the wrist. Worse at night and in damp weather. Is steadily getting worse, and he begins to feel pain now in the thumb. This is so bad that he has had to give up work. There is no burning sensation. The finger is objectively cold, pale, flabby, and evidently has an impaired circulation. There is no anæsthesia or analgesia, and no hyperæsthesia. No motor trouble or weakness. One application of faradism relieved the pain instantly. He was then lost sight of.

The following is a case of a chronic neuralgia of the hand apparently hysterical in character.

Case X.—Rebecca S——, aged thirty-four, New York. Parents healthy and had seventeen children. The patient is married and was well until she had her sixth and last child, a year and a half ago. She had been subjected to trouble and had worried a good deal. Is of a nervous temperament. After the last confinement she had puerperal mania for several months. She is now very nervous. Comes to complain of a painful finger which she has had for two years. The pain is in the outer side of the left middle finger, and runs up to the palm. There are no objective symptoms, no sensory or vaso-motor disturbances. The pain was intense, often preventing sleep.

Secretory Acro-neuroses.—*Moist or dripping hands* are frequently observed in persons of nervous temperament, whether men or women. Sometimes the palmar hyperidrosis is so great as to be very annoying, and patients apply simply for relief of this symptom. I recall two cases of this kind. The patients were both women, and at about the menopause. They had no organic disease, but complained of various vaso-motor disturbances, such as disagreeable flushings of the face, "rush of blood to the head," sensations of fever, etc. The hands were continually moist and almost dripping with perspiration. A moist, dripping hand is often observed after nerve injury. Many persons suffer all their lives with a disagreeable palmar and plantar hyperidrosis. The latter is often combined with bad odor, due to decomposition of sweat. In some persons who suffer from this latter complaint the condition is congenital. If the trouble comes on in youth or adult life it is because of some causes that have produced a depressive nervous state. The remedies here are, therefore, general tonic measures and careful local treatment, with the use of antiseptics and astringents as described in dermatological text-books. Unless the trouble is excessive I do not find that patients will carry out a treatment very long. Hydrobromic acid comes as near a specific as anything. Strychnine, quinine, and atropine, with regular mercurial purges, should also be tried.

TWO CASES OF BRANCHIAL CYST.

By HENRY DWIGHT CHAPIN, A.M., M.D.,

LECTURER ON DISEASES OF CHILDREN AT THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL ; ATTENDING PHYSICIAN TO THE OUT-DOOR DEPARTMENT, BELLEVUE HOSPITAL (CHILDREN'S CLASS).

The infrequency with which this variety of congenital tumor of the neck is seen, and the desirability of recognizing its nature, both as regards prognosis and treatment, have led me to write an account of the following two cases. In the early part of March there was brought to my clinic at the Out-door Department of Bellevue Hospital, a baby, five days old, having a tumor as large as an orange on the right side of the neck, the sterno-cleido-mastoid muscle crossing it at about its centre. The tumor was somewhat fluctuating and without pain, as the baby gave no signs of discomfort while it was being freely handled. The skin over the swelling had a natural appearance, and there was an entire absence of any inflammatory conditions. Having in mind the possibility of a congenital hernia of the lung, I first applied a stethoscope to the swelling, but could only hear the tracheal sounds transmitted rather indistinctly. An aneurism was likewise excluded by this examination, as there was an absence of pulsation and no bruit heard ; it was likewise noted that pressure did not modify in any way the size of the tumor. At this age an aneurism would probably have been traumatic. An aspirating needle being introduced, some pale, straw-colored serous fluid was withdrawn, and the diagnosis made of congenital cyst.

Fig. 1.

When the baby cried the cyst would grow tense, and the sterno-cleido-mastoid muscle, by contracting, divided it into two parts, which, however, had free communication, as pressure was readily transmitted from one to the other. The cyst was apparently unilocular. At birth the tumor was about the size of a walnut, but it had

since grown rapidly to attain the present size, and bade fair to do harm by pressure upon the food- and air-passages, as it was continuing to increase in bulk. As the parents could not give the baby the requisite attention at home, I placed it under the charge of Professor Stephen Smith in his wards at Bellevue Hospital. The object of treatment in these cases is, of course, to radically destroy the membrane that secretes the serous contents of the tumor. In structure the cyst consists of a thin capsule of connective tissue, lined on its inner surface by a matrix of epithelial cells, which must be destroyed by an inflammation set up in the sac, or removed by the knife, before recovery can take place. As these cysts are frequently connected with the sheath of the deep cervical vessels, complete removal by operation may be attended by alarming, if not fatal, hemorrhage. It is thus best to try the former method first. When the infant entered the hospital a silk seton was introduced into the cyst. Very little discomfort or disturbance followed, although the temperature rose temporarily to 101°. As there was a very scanty discharge and scarcely any inflammation induced by this seton, two more were introduced in a week's time. The temperature rose to 102° for a few hours, but soon subsided. The three setons now gradually caused a thickening of the sac by a low grade of inflammation, although there was no external redness and apparently not much pain following their use. They were left in place for about three weeks, when it was determined to evacuate the cyst, as, although growth had ceased, it was not diminishing in size. The setons were accordingly removed, an opening made into the cyst, and a large quantity of straw-colored fluid evacuated. The cyst was then distended with a solution of carbolic acid (1 in 100), and antiseptic dressings applied. When the dressings were removed in a few days, it was found that the sac was well contracted, and that there had been a very slight serous discharge. Other dressings were applied and changed from time to time during the next few weeks. The sac showed no tendency to refill, but continued to shrink up, until there is now nothing present but a lump of connective tissue, that will probably be still further absorbed.

FIG. 2.

It is often the experience of physicians that when a rare case of any kind is met, another of like nature is soon encountered. This, at least, has been my good fortune in the matter of branchial cysts. A boy, eight years of age, was recently brought to me by his mother, to discover the nature of a peculiar swelling about the size of a hen's egg, situated under the right side of the lower jaw, and extending to the upper part of the neck. The boy was healthy-looking, and had never had any serious illness. Two months ago his mother noticed a small swelling in the situation just noted, which appeared rather suddenly—at least, she observed it first one morning after the night's rest. She says it seemed about the size of the end of an egg, but I think there must have been a mistake in reference to its sudden inception, as a small and rather soft tumor could readily be overlooked in the soft tissues of the neck. At any rate, it grew rapidly, but without pain. There was no history of a blow, but as the boy was a restless, active little fellow, his mother thinks he could sustain a slight contusion or knock without particularly noticing it. When I examined him, a very free manipulation of the tumor caused no discomfort. It was evidently cystic, which was proven by removing some bloody-looking serum through a hypodermic needle.

FIG. 3.

In the case of this boy the fetal epiblastic tissue remaining from the imperfect closure of one of the branchial clefts had evidently continued in an embryonal condition until his eighth year, when, possibly from some irritation, proliferation took place, and a sac was formed lined with epithelial tissue. These cysts may thus appear in after life, if the epithelial elements resulting from defective development are present, as the latter do not necessarily become active before or immediately after birth. I placed a silk seton in the middle of the cyst, which raised such an active inflammation as to necessitate its removal in three days. The irritation involved in this procedure proved sufficient, as the cyst grew smaller, and finally completely disappeared. There is now nothing left to mark its site but a small, hard lump that can be better felt than seen.

A glance at some of the facts of embryology, as developed by Cusset and others, will assist in a correct understanding of these branchial cysts.

Early in the fetal life of the vertebrata there appears under the projecting frontal process a series of four plates, bounding the cavity of the pharynx on the side. These plates unite to form four parallel arches separated by transverse clefts. The branchial clefts unite, and by a process of morphological change form various structures of the neck. If this regular process of development is interfered with from any cause, various abnormalities may result, as a condition intended to be merely temporary remains more or less permanent. Hence, according to the various grades of arrested development we may have marked deformities, branchial cysts, or the remains of fetal epithelial tissue, destined to proliferate at a later day and form a cyst. There likewise may result fistulous tracts from non-union of the branchial clefts, particularly from the lowest one. These have been divided into (*a*)

complete branchial fistulæ, open the whole length of the tract; (*b*) fistulæ having only an external orifice and ending in a cul-de-sac, which is the commonest form; (*c*) fistulæ with only an internal orifice.

More frequently the branchial tract is closed at both the pharyngeal and cutaneous ends, and a cyst is formed between. Branchial cysts, although rare, are hence more frequently met than fistulæ. In an excellent and exhaustive paper on "Branchial Cysts of the Neck," read before the American Medical Association at its meeting in 1884, by Dr. N. Senn, of Milwaukee, the following classification is made according to the cystic contents:

"1. Mucous branchial cysts, due to imperfect closure of the upper portion of the branchial tract with retention of its physiological secretion. 2. Atheromatous branchial cysts, usually located in the second and third branchial tracts in the region of the hyoid bone. 3. Serous branchial cysts, having a thin-walled capsule lined with pavement epithelium, and following the defective obliteration of any of the branchial clefts. 4. Hæmato-cysts of branchial clefts, in which the serous fluid of the cyst has been discolored by hemorrhages into the sac."

The second case mentioned in this paper is of the latter variety. While the contents of these cysts vary according to the branchial tract from which they are developed, yet they are always such as may be produced by some kind of epithelium, as only this variety of tissue is present at the time of closure of the branchial clefts. In this they differ from true dermoid cysts, that contain the secretion of the various glands and appendages of the skin. A simple serous cyst, developed in the connective tissue of the neck, independently of a branchial origin, will not have the lining of epithelial tissue. It was after a microscopical examination that I became satisfied of the branchial source of the boy's cyst. The photographs of the baby were made by Mr. Mason, of Bellevue Hospital.

29 West Forty-second Street

ABSCESS OF THE TONGUE; WITH REPORT OF A CASE.[1]

By CHARLES H. KNIGHT, M.D.,

Assistant Surgeon Manhattan Eye and Ear Hospital.

The tongue is essentially a muscular organ with a rich vascular supply. Its medullary portion is made up of fibres of the palato-glossus, stylo-glossus, and genio-glossus muscles. Its arteries are derived from the lingual branch of the external carotid. The hypoglossal is the motor nerve of the whole tongue. The anterior portion of the tongue, lying in front of the circumvallate papillæ, has its sensory supply from the lingual branch of the inferior maxillary nerve, accompanied by filaments of the chorda tympani; its posterior third receives the glosso-pharyngeal nerve. The latter region is furnished with numerous glands and is much more lax in structure. Its remarkable immunity from phlegmonous inflammation is, no doubt, explained by the scarcity of cellular tissue in the composition of the tongue.

That abscess of the tongue is a rare affection is in a measure indicated by the absence of reported cases from surgical literature. Fairlie Clarke, whose work on diseases of the tongue is perhaps the leading authority, mentioned but three cases reported by various observers. Gross and Agnew agree in the opinion that the structure of the organ is unfavorable to suppuration, even when an extreme degree of inflammation exists. In Holmes' "System of Surgery," Coote gives the history of a single case, and mentions having seen several others. Erichsen states that the disease, though rare, occasionally occurs, and that he has seen several cases. In Cohen's valuable article on "Diseases of the Mouth and Tongue," in Pepper's "System of Medicine," the observation is made that parenchymatous glossitis is a comparatively infrequent disease at the present time, but numerous ancient writers are referred to as having described it. Bryant details six cases of inflammation and suppuration of the tongue in a paper entitled "The Surgical Affections of the Tongue" ("Guy's Hosp. Rep.," vol. xi., 1883, p. 110), and remarks that, excluding cases resulting from mercurial salivation, the disease is uncommon.

The affection is interesting from a diagnostic standpoint, and important from the fact that it may actually involve danger to life. The nature of a case of lingual abscess may be sufficiently clear, when the symptoms comprise febrile reaction, accompanied by rigors, localized swellings, throbbing pain and fluctuation. In the absence of several of these symptoms, as in the case to be related at the conclusion of this paper, the diagnosis is by no means certain. The presence of an abscess in the parenchyma of the tongue may easily be overlooked, or, acute symptoms being absent, it may be regarded as a lingual tumor of a more serious character. The difficulty of diagnosis is well illustrated in a case referred to by Vogel in "Ziemssen's Encyclopædia" (vol. vi., p. 750). He says that Wutzer mistook an abscess of several weeks' duration for scirrhus, and recommended extirpation. The first incision exposed the error. In a contribution to the London *Practitioner* (1881, xxvii., p. 266), Stephen Mackenzie includes among the conditions liable to be mistaken for glossitis, salivary calculus, of which the notes of two cases are given, acute ranula, of which also two cases are narrated, and herpes of the tongue. Of the last-mentioned rare disease he reports only one case, which was at first regarded as an idiopathic glossitis. A simple cyst of the tongue has on two occasions been opened under the supposition that it was an abscess ("Nouv. Dict. de Méd. et Chir. Prat.," vol. xx., p. 144). The latter condition may even be mistaken for a gummy tumor, especially in the case of an abscess developing slowly and without systemic disturbance. It must be admitted, therefore, that a positive diagnosis is difficult and may be impossible. In some cases an exploratory puncture may be required in order to determine the condition.

An inflamed tongue may become so swollen as to cause alarming and even serious dyspnœa, either by pushing up the velum palati, or, less probably, by pressing down the epiglottis. Glossitis is included by Cohen ("Diseases of the Throat and Nasal Passages") in a list of diseases possibly indicating tracheotomy, and in at least one case on record, death may be referred to abstention from surgical interference. In the London *Lancet* (January 6, 1885, p. 10), J. Z. Laurence reports a case resulting fatally through the obstinacy of the patient's friends in opposing scarification and, later, tracheotomy. The disease occurred in a female in the course of an attack of acute rheumatism. At the autopsy the tongue was found swollen, soft, and infiltrated with sero-pus. An interesting point in the case was "the successive and separate invasion of the two halves of the tongue by the inflammatory action." The left side was first involved, relief being obtained by incision and the evacuation of about half a pint of blood. On the following morning the right half was affected, and further operative interference was denied. It is interesting to notice that the possible necessity of opening the trachea has long been appreciated, although modern views of the risks of the operation itself have undergone decided modification. In the article on glossitis in the "Dict. des Sci. Méd." (1817, p. 494), deep incisions, leeching, and other antiphlogistic measures are recommended, and if the tumefaction of the tongue reaches a degree to cause serious dyspnœa, laryngotomy, "no doubt perilous," is suggested as a last resort.

Dysphagia, as well as dyspnœa, is apt to be an important symptom. Even before the swelling has reached an extreme degree, impediment to the movements of the tongue and pain on attempts at deglutition are decided obstacles to the ingestion of food, and the nutrition of

[1] Presented to the American Laryngological Association and accepted as a candidate's thesis.

the patient is likely to suffer. In a fatal case reported by Ranking and cited by Clarke, the patient died in collapse and "a gangrenous abscess, the size of a turkey's egg, was found occupying the situation of the genio-hyoglossi muscles and the substance of the tongue as far back as the epiglottis," its cavity containing a barley beard, which the patient had placed in his mouth a week previous.

The etiology of lingual abscess is obscure. It is possible that prolonged exposure to wet and cold (Bamberger), in a person of debilitated health, may be sufficient to excite inflammation of the tongue. At least, in non-suppurative glossitis, called by Salter *erectile*, no other cause may be discoverable. On the other hand, a few of the recorded cases of abscess of the tongue are distinctly referrible to traumatism. The idea that simple exposure may be a direct cause of glossitis is opposed by Th. Sidlo, who reports seven cases in the *Allg. Wiener Med. Zeitung* (1879, 8, 9, and 10). He admits that inflammation in the soft parts of the sublingual and submaxillary regions may be excited by chilling of the surface of the body, the process thence extending to the tongue itself. In six of the cases recorded by this observer the whole tongue was affected; in one, only the right margin. In six cases the attack occurred during cold weather, and in four after exposure. The patients were all males and their ages ranged from twenty to forty-four years. An ingenious theory of the etiology of inflammation limited to one-half of the tongue has been suggested by Gueneau de Mussy (*Arch. Gén. de Méd.*, 1879, cxiii., 385), who reports two cases of hemiglossitis. He considers it to be of nervous origin and consecutive to irritation of the chorda tympani. His view is based on the experiments of Vulpian (*Rev. des Sci. Méd.*, 1873, 476; also *Gaz. Méd.*, 1873, 4 to 8), who demonstrated that congestion and swelling of the tongue may be produced by galvanization of the lingual nerve, whereas these phenomena are absent in case of preliminary section of the chorda tympani before its union with the lingual. Gueneau de Mussy prefaces the announcement of his theory by remarking that the nervous supplies to the two halves of the tongue are entirely distinct, while numerous anastomoses occur between the arterial branches of either half, and even the muscular fibres interlace between the two sides. He also claims to find a confirmation of his theory in the occurrence of pain in the ear and side of the head corresponding with the side of the tongue affected. Moreover, the nocturnal exacerbation of pain, with lingual hyperæsthesia persisting through the painless interval, the occurrence of herpetic eruption upon the lips and face, circumscribed erosions of the mucous membrane of the tongue at various points, and, finally, stimulation of the salivary glands, all of which symptoms were noted in the two cases reported by this observer, are thought to support his view of the pathogeny of hemiglossitis. It appears, however, that the structural independence of the two sides of the tongue relates to the blood-vessels almost as definitely as to the nervous distribution. A dense fibrous septum divides the tongue through its middle, and the only points of communication between the arteries are diminutive in size and two in number—one near the tip of the organ and the other in the region of the circumvallate papillæ (Hyrtl). A striking demonstration of this fact has recently occurred in a case of excision of a large part of the right half of the tongue for epithelioma, in which I did a preliminary ligation of the right lingual artery. Hemorrhage from the tongue was comparatively slight and ceased spontaneously, with the exception of a single point near the tip, which was tied, although the ligature did not seem to me to be positively required.

In Allen's "Anatomy" (sect. vi., 626) the statement is found that unilateral glossitis may occur owing to this arrangement of the arteries. So far as anatomical structure affects this theory it may, therefore, be assumed that hemiglossitis is not necessarily neuropathic. Thibierge, who reports a case of right hemiglossitis (*France Méd.* 1882, p. 14), believes the theory untenable. His case occurred in a female, twenty-three years of age, without known cause. The constitutional reaction was exceptionally violent, and several exacerbations or relapses of inflammation occurred before final recovery. Relief was given and suppuration possibly averted by vigorous leeching of the submaxillary region. The result of this method of treatment is looked upon as an argument against the theory of Gueneau de Mussy, on the ground that abstraction of blood from so remote a point would hardly be likely to influence a neurosis of the chorda tympani. It is also noted that in affections of the tongue recognized as primary, especially cancer, aural pain is very pronounced, and is manifestly due to compression caused by the neoplasm or infiltration. In an interesting article on hemiglossitis in the *Liverpool Med.-Chir. Journal* (July, 1883, p. 195), Dyce Duckworth expresses the opinion that this lesion is a "catarrhal neurosis," reflex in character, and not the direct result of exposure, which is merely an exciting cause. In reviewing the nervous physiology of the tongue he calls attention to the fact that both the glosso-pharyngeal and the lingual nerves contain vaso-dilator filaments, those of the latter being derived from the chorda tympani. Vaso-constrictor filaments are found in the lingual nerve itself and in the hypo-glossal nerve. Division of the lingual nerve, before its junction with the chorda, and irritation of its peripheral extremity are followed by contraction, whereas vascular dilatation follows division and irritation of the lingual nerve after it has been joined by the chorda. This author considers the evidence as to the limitation of the morbid process to one nerve not conclusive, but he inclines to a belief in the "involvement of the fifth and chorda tympani branches, or of the glosso-pharyngeal, rather than to that of the hypoglossal." As to exposure as an exciting cause of hemiglossitis, he refers to Hutchinson's idea of the distinction between erysipelatous and catarrhal inflammations in general—in the former the influence of cold may be direct, while in the latter, as in the case of the tongue, it is indirect, and the consequent inflammation is reflex, "the part inflamed not being the part actually chilled, but one in relation with it" (*Med. Times and Gaz.*, January 6, 1883, p. 4). However plausible this theory may seem it needs to be substantiated by fuller and more exact clinical observations.

The treatment of abscess of the tongue, when the condition is well defined, must be perfectly clear. In the formative period, leeching and the use of ice and emollient gargles seem to be capable of aborting the disease. In the event of excessive tumefaction or of suppuration, free incisions on the dorsum of the tongue are demanded. With regard to the danger of this last resource, nearly all the evidence is in the negative. Notwithstanding the extreme vascularity of the tongue, especially in its inflamed state, dangerous hemorrhage seems never to have occurred.

A single case, reported by William Pratt (London *Lancet*, March 11, 1882, p. 389), is of interest in this connection. His patient was a man, fifty-eight years of age. Free scarification was practised for relief of the swelling, and on the following day an abscess opened spontaneously on the under surface of the tongue over the track of the ranine artery. The next day free venous hemorrhage took place into the cavity of the abscess and continued for several hours. It was at length controlled by means of a pledget of lint soaked in perchloride of iron. At the expiration of a fortnight no trace of the abscess remained, except slight induration at its site.

Deep incisions of the tongue not only seem to be devoid of risk, but they undergo repair very quickly, and leave little or no deformity. Still, the use of the knife may be regarded as a last resort, only justified in the presence of a positive diagnosis or of urgent dyspnœa.

In a large proportion of published cases recovery has followed spontaneous rupture, as in those reported by J. H. Pooley (*American Journal of the Medical Sciences*, April, 1872, p. 385) and by Robert Annan (*Medical*

Times and Gazette, October 16, 1852, p. 387). In the former case, a tumor the size of a pigeon's egg was situated at about the middle of the left side of the tongue. It was distinctly circumscribed, denuded of epithelium, slightly sensitive, and gave an obscure feeling of fluctuation. Puncture was proposed but was declined, and the abscess ruptured on the fourth day. In the case reported by Annan, rupture occurred on the fourth day, nine or ten hours after scarification had been resorted to in order to prevent suffocation. The rapidity with which pus formed in this case is rather remarkable, although it may have been present at the time of the incision, the point of the knife, perhaps, not penetrating to sufficient depth. Annan also mentions four other cases of glossitis in his experience, in two of which suppuration occurred. Usually the tongue quickly resumes its normal dimensions after evacuation of the abscess. That this is not always so is shown by the case of Williamson (London *Lancet*, January 22, 1881, p. 136), in which spontaneous opening of the abscess occurred after symptoms had lasted for one week. The tongue remained very much enlarged and protruded from the mouth. The condition seems to have been aggravated by impact of the organ upon the teeth of the lower jaw, and was only relieved by the use of a shield and support made of gutta-percha.

The following case of abscess of the tongue is the only one that has come under my own observation during several years of service at the New York Eye and Ear Infirmary and at the Manhattan Eye and Ear Hospital. Its special interest lay in the marked disproportion between the general and local symptoms, and in the speedy and favorable termination. The patient was a man twenty-two years of age, engaged in a large establishment for making ice-cream. He was somewhat irregular in his habits, but of good constitution, and gave no history of struma or syphilis. He had never had rheumatism, a skin eruption, or other disease. His history was given with difficulty on account of pain caused by attempts to articulate. One week previous he began to have "sore throat," and in the course of two or three days his tongue became so stiff and swollen that he was unable to swallow even liquid food. There were no chills nor fever. On the fourth day swelling and pain on pressure were noticed externally beneath the jaw on the right side, also frequent twinges of acute pain darting toward the right ear. Flaxseed poultices and alum-water gargles were used without benefit. At the end of a week, when first seen by me, there were swelling and sensitiveness in both submaxillary regions, more especially the right. The tongue, except its very tip, was excessively swollen, and its dorsum was covered by a thick yellowish-white fur resembling wet chamois skin. The papillæ were invisible, the surface of the tongue being perfectly smooth. The tip and what could be seen of the under surface were unnaturally red. The leathery fur was quite soft and moist, and there seemed to be an excessive secretion of saliva—at least the patient was unable to dispose of it by swallowing, and it rapidly accumulated in the mouth. Speech was painful and the voice was thick; protrusion of the tongue was impossible. A partial view of the pharynx and left tonsil showed them to be normal. The faucial space was nearly filled by a diffuse swelling of the right side of the tongue, the left side being apparently unaffected. The finger introduced into the mouth discovered the most sensitive region at the base, on the right side and just within reach, but no circumscribed tumor could be defined. Fluctuation was not recognized by palpation internally or externally. The pulse was somewhat accelerated; temperature was normal. The patient was pale and weak from lack of food, not having been able to eat anything for several days. Scarification was suggested, but was objected to, and, accordingly, a calomel purge, warm gargles of borax and chlorate of potash, and warm fomentations externally were ordered. On the following morning a very decided change was apparent. The tongue had nearly returned to its normal size and appearance. The patient stated that improvement began the previous evening with the discharge of a small quantity of matter from the mouth. For the first time in eight days he was able to eat soon after this occurrence. Pain ceased almost immediately and there was much less difficulty in speaking. With a laryngeal mirror a small opening, barely admitting the point of a probe, could be seen at the base of the tongue on the right side. The probe being bent, its curved extremity could be passed into this opening to the depth of nearly half an inch. The margins of the aperture were thick and everted, somewhat resembling an enlarged circumvallate papilla, in the region of which it was situated. On withdrawal of the probe a minute drop of pus exuded. The patient was not again seen after this examination, in which Dr. Asch joined me, and it is natural to suppose that he had no further trouble.

In looking for the cause of the inflammation in this case both traumatism and exposure were found to be concerned. In the course of his occupation the patient was subject to considerable variations of temperature, but he was not conscious of having "caught cold," or of having been ill in any respect for many years. About ten days before the first symptoms developed he was "on a spree" for several days, and may at that time have laid the foundation of his trouble. He also recalled the fact that, at about the same time, while drinking water from a cup, he swallowed a small piece of straw. A fragment not more than three-fourths of an inch long caught in his throat, and he was obliged to dislodge it by using his finger. There was no soreness, pain, nor bleeding, and nothing to indicate that the tongue had been wounded. Still, it is quite possible that a small bit of straw buried itself in the tongue to become the focus of inflammation. As regards this case, it is safe to exclude the neurotic theory of etiology. Many of the symptoms characteristic of a neurosis were absent, and the pain in the ear and side of the head did not present itself until several days after the establishment of inflammatory symptoms.

121 West Thirty-fourth Street.

A NEW OXYTOCIC.

By W. B. ARBERY, M.D.,

WOTASULGA, ALA.

Without any lengthy exordium I will commence my subject by saying that I have discovered an oxytocic which to me is a new and original idea—not having read or heard lectures about it even. It consists simply of heat applied externally. I will briefly narrate a few cases to describe its potency.

I was called to a case of labor, a multipara, five miles in the country, just as daylight had faded. I found the patient walking around in the room, having irregular, short, teasing pains. I had her lie down, and I made the usual digital examination, finding the os quite patulous, with a vertex presentation and a dilatation about the size of a silver half dollar. I folded my arms and waited for several hours, the patient continuing to have the same teasing, irregular pains. I again made an examination to find the smallest possible progress, but there was almost a complete inertia. Getting impatient, and having delivered her twice before, I knew the adaptability of the parts for the required task, and being satisfied there was no *vis a fronte* to antagonize a dose of ergot, I gave it, using a reliable tincture. After a proper interval I repeated the dose, and kept repeating until I had given one ounce, when finding the uterus did not respond, I had the patient walk around the room. Then I kneaded the womb well, and still getting no result I gave ten grains of quinine with a better result from that than anything I had done or given; it roused the uterus to a pretty energetic action for about thirty minutes, then ceased. I then gave a stimulating toddy, but

all to no purpose, and daylight having arrived I hastened home.

In a few hours a messenger came for me in haste to see my patient again. I returned hurriedly only to find the patient plodding along at the same old pace without progressing one jot. Having increased my supply of ergot, I gave another ounce at two doses, but to no purpose. Finally I resolved to go again, but before going I thought of hot mush poultices, and decided to try them awhile to fill up time. I had them prepared nice and stiff, and had them applied over the fundus of the womb as hot as they could be borne, replacing them as soon as one became a little cool. To my great satisfaction, before the third poultice had been applied the pains began to come in full force and regularly, and in two hours after the pains started up, the labor had ended with a fine ten-pound boy. I kept the poultices up until the expulsion of the child.

Second case—a primipara with convulsions ; had four before I saw her. Three miles from town ; found labor just started with a vertex presentation. I gave chloral abundantly, bled her tolerably freely, gave twenty drops of veratrum at intervals, used chloroform inhalations, and still the convulsions would come with the labor progressing only at the minimum rate. It was impossible to use the forceps, and everything being so rigid, close, and compact I could not introduce my hand to turn, so I resolved to hurry nature with my hot poultices, and with my chloroform I stood at the patient's head and had the poultices applied fast and hot. In less that three hours after commencing the poultices, labor was over, with a long-headed, living, fine boy, and no laceration to the mother. She continued to have convulsions for ten hours afterward ; then they ceased and she made a rapid recovery.

Third case—a multipara. I was called out before daylight, found labor barely commenced, but the patient reported as having been worried all night with short, teasing, irregular pains. I waited a few hours with no progress and the same character of pains. About four hours after my arrival the patient inquired what was the matter with her eyes ; said she could not see me nor anyone else in the room. I told her I would remedy that, and gave her a large dose of chloral hydrate. In less than five minutes after taking it she had a light convulsion. I waited half an hour for the effects of the chloral, and then commenced with hot poultices. In four hours I started for home, leaving the mother and child doing well.

Fourth case—a primipara with convulsions. I was called to see her with another physician and requested to bring my forceps and plenty of chloroform. I found a case of puerperal convulsions, having been in labor some five hours, convulsions having commenced in the latter two. The physician had bled her profusely, but it did not have the desired effect of checking the convulsions. The labor had progressed smartly, but after the convulsions set in there was almost a complete inertia—entirely so, so far as the progress was concerned, although she would have short, irregular pains. I advised my hot poultices for awhile rather than any instrumental interference, which advice was acquiesced in and the poultices were applied. They were given without any obvious effect for some time, and I had began to get a little dubious about my hot poultices "at all times and under all circumstances," until I discovered that they were placed near the pubes instead of over the fundus of the womb, and also that they were not hot enough. After correcting the error by putting the poultice higher and having them hotter, good steady pains commenced, and the labor was ended in less than two hours with a still-born babe.

As the cases are somewhat scarce for assistance as detailed above, and my obstetrical practice not being extensive, and being anxious to test the certain utility of my "new idea," I write this to ask the profession to give it a trial and report, since, if it is what I think it is, it is certainly pre-eminently above all the oxytocics for safety and simplicity, as the case can be hastened or slowed at option by simply putting on or withholding the hot applications. I do not mean warm, but hot as can be borne.

THE ETIOLOGY OF THE PLYMOUTH EPIDEMIC.

By WILLIAM STONE TORREY, M.D.,
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SINCE the appearance of my former article upon this subject, which was contained in the issue of the New York MEDICAL RECORD of June 6th, the press has been filled with communications attacking the position which I assumed and contradicting the statements which I made. It is proper to state that this opposition has been exclusively from the *authors* and *instigators* of the "mountain-stream theory." The facts contained in the previous article were obtained mainly (although not entirely) from the investigations of Dr. Taylor and others, which were embodied in a report made at the instigation of the Plymouth Water Company, and read before a meeting of the Luzerne County Medical Society. That article was intended simply as the expression of my dissent from Dr. Taylor's deductions from admitted facts. The bitterness of the opposition to my theory has compelled me, in self-defence, to make further investigation on my own account, in order that I might avoid the danger of arguing upon erroneous data. This investigation has been carefully prosecuted at the best original sources, and at every step it has tended to confirm the conviction that the "mountain-stream theory" is both inadequate and misleading.

My endeavor will now be to show *conclusively* that the epidemic in question was *not* the result *solely* of the contamination of the reservoir-water through the typhoid dejecta of the single patient who was confined in a house situated upon the bank of the mountain stream between the third and fourth reservoir, but was due to several concurrent causes, prime among which was the drinking of contaminated river-water.

So much has already been written upon the topography of Plymouth and its vicinity as to make the subject appear almost trite, but I shall be obliged to beg the reader to bear with me while I review as briefly as possible the locality and the existing sanitary condition.

The town of Plymouth is situated upon the right bank of the Susquehanna River, three miles below Wilkesbarre, and two miles below Pittston. The points of interest bearing directly upon this epidemic are, namely, the water-supply and the sanitary condition of the town. The water-supply, as obtained through the medium of the Plymouth Water Company, is from two sources. First, from four successive reservoirs, which are situated upon the mountain-side and fed by a mountain stream. The water thus obtained is distributed to the street mains from the lower of the four reservoirs, and delivered to the inhabitants by means of hydrants. Second, from the Susquehanna River. This source is only resorted to when water is not obtainable from the mountain.

In this case it is pumped directly into the street mains from a pumping station belonging to the Plymouth Water Company, situated upon the bank of the river at a point very closely corresponding to the centre of the town. There is still another system of waterworks located in the upper end of Plymouth, which are controlled by the Delaware and Hudson Canal Company, and serve the purpose of supplying their coal-breakers.

This system has two sources of supply. First, from a reservoir upon the mountain-side, which is filled by a mountain stream and springs. Second, by a reservoir filled by means of water pumped from the Susquehanna River ; main and branch pipes carrying the water from each reservoir to the "breakers." The latter source is

only resorted to when the former is insufficient to meet the demand. It is to be noticed that No. 1 reservoir, supplied by mountain, and No. 2 reservoir, supplied by water pumped from the river, communicate by means of the various pipe-lines. The pipes leading from No. 2 reservoir are supplied with valves, so that the supply can be effectually shut off from any "breaker" by simply closing the valve. River-water was pumped for the purpose of supplying these breakers during the entire winter, and the pumps were not abandoned until April 4th or 5th last. At the northern end of Plymouth is situated a hollow, called Whitewash Hollow, within which are located No. 2 and No. 3 "breakers." The drainage of this little valley is received by a creek, termed the Whitewash Hollow Creek, which, receiving the mine-wash from the above-named breakers, empties into the Susquehanna at the extreme north end of Plymouth.

A little below, and running in a northwesterly direction, is another hollow, termed "Polk Hollow." This contains No. 4 and No. 5 "breaker," and a creek, called Polk Hollow Creek, which receives the overflow from No. 1. reservoir of the Delaware and Hudson Canal Company. This creek receives the mine-wash from the latter breakers, and empties into the Susquehanna at a point some distance below the pumping station of the Plymouth Water Company.

I have given these details because they have an important bearing upon the subject we are about to discuss. The sanitary condition of the town is deplorable. It is filthy beyond description. There is indeed a system of drainage there, but the receptacle to a great extent is the town itself. It is a frequent sight to see a three or four inch drain-pipe emptying its contents into the street directly in front of a house which it is supposed to drain. This drain-water forms pools in the streets, and in some localities emits a stench which is next to unbearable. The locality is beyond dispute a malarial district, and the results of malarial infection are constantly present.

Before proceeding to the discussion of the various factors present in the production and continuance of this epidemic, it seems to me admissible to introduce a few aphorisms relating to the etiology of typhoid fever.

1. That there *is* a specific element necessary for the production of typhoid fever.

2. That the character of this specific poison is at present *unknown*.

3. That the specific element in the production of the disease can arise spontaneously has never been satisfactorily demonstrated.

4. That the specific element is contained in the excreta of an individual affected with the disease.

5. That the poison is not capable of reproducing the disease immediately upon its elimination.

6. That a period of decomposition is required outside the body before the specific poison assumes an *active* state.[1]

7. That the specific poison is not capable of reproducing the disease immediately upon its reception by the individual; but must pass through a period of incubation before the specific results are attained.

8. That there are (at least) two ways in which the poison may gain access to the system, viz., through the water that we drink and through the air[2] which we breathe.

The weight of authority is agreed upon these points, and I believe that my readers, with few exceptions, will concur with them.

After re-stating that the facts bearing upon the Plymouth epidemic, and the concomitant facts relating to the pollution of the water of the Susquehanna River at points above Plymouth, show *conclusively* that the drinking of this contaminated water was the causative agent productive of the first cases of the disease, it will be my endeavor to present these *facts* and make the deductions which they allow.

As has been many times stated, water was pumped from the Susquehanna River directly into the street mains, and used for drinking purposes by the inhabitants, from March 20th to March 26th inclusive. The first case of the disease appeared upon April 19th; new cases were constantly appearing until April 15th to April 18th, after which time there was a very large increase.

That the river-water was polluted with the sewage from the towns situated upon the banks of the river above Plymouth is a fact conceded by all; and that this water contained the specific element of the disease, is a fact denied by many, but conclusively demonstrated by the following statements: The physicians of Pittston, in answer to a circular, send me reports of 256 cases of typhoid fever which occurred between August 1, 1884, and April 1, 1885. We stated in our previous article that disinfection was improperly carried out at Pittston, the disinfectant used being the sulphate of iron, which has recently been shown by the New York Board of Health to be inefficient, and that typhoid stools treated by it are not rendered inocuous.

As previously stated, the sewage of Pittston empties directly into the Susquehanna River. The poison contained in the excrements from these patients, upon being thrown into the sewers, passed through its period of decomposition, and was continually discharged into the Susquehanna River in its *active* state until that river became frozen.

The physicians of Pittston, in reply to my question as to whether there had ever been an epidemic of the disease there, state that this condition existed last fall. This certainly accounts for the peculiar virulency of the river-water at the time when it was used for drinking purposes by the inhabitants of Plymouth.

There were a number of cases of typhoid fever in Wilkesbarre between the dates above mentioned, but, according to the statements of the physicians of the town, only a few of them were so situated that the excreta of the persons affected with the disease could gain direct access to the Susquehanna River.

Typhoid fever has been endemic in Plymouth for the past four or five years, and every time the river-water has been resorted to for drinking purposes there has been an increased prevalency of the disease. To demonstrate this, I will cite the following facts, for which I am indebted to my friend Dr. G. W. McKee, of that place. In 1882 river-water was pumped into the mains from October until January 1st, and it is a noteworthy fact that cases of the same type of fever which is now prevailing increased in number, and continued until some time after the pumping ceased. In 1883 river-water was pumped from the last of September to the 1st of February. During this time the same results were noticeable—the fever cases increased in number and virulency of type, followed by many deaths.

Again in 1884 the river-water was pumped from the latter part of July to the 24th of November. The same results were again noticeable. Finally, in the present year, from March 20th to March 26th inclusive, river-water was again resorted to, and following this pumping appeared the epidemic which is the subject of our discussion.

The people of Plymouth have an antipathy toward the using of river water for drinking purposes. This has been brought about by the results following the using of water obtained from that source in preceding years.

A short time since the citizens of Plymouth arose *en masse* and stated to the water company that under *no* circumstances would they hereafter accept of water obtained from the Susquehanna River, and that a non-compliance with this injunction would occasion such action as would result in the forfeiture of their charter.

I have now established four important facts.

[1] Loomis: Lectures on Fevers, p. 23.

[2] Murchison, p. 443; Liebermeister: Ziemssen's Cyclopædia, p. 56. Ibid. Quotes V. Giette Ziemssen's Cyclopædia, p. 56). Loomis: Lectures on Fevers, p. 24.

First.—That the river-water was contaminated by the specific element of typhoid fever in its *active* state.

Second.—That this contaminated water was supplied to the inhabitants of Plymouth at a time preceding the appearance of the epidemic.

Third.—That the use of river-water at other times has been followed by similar results.

Fourth.—That the common sentiment of the community condemns the water obtained from this source.

To assert in the face of these facts that the river-water was not even a factor in the production of the epidemic seems the height of presumption, to be accounted for only by the prejudice or self-interest of the investigators.

Such an assertion could not be made or maintained for a moment without the suppression or misstatement of important facts, or the deduction of wrong conclusions from facts correctly stated.

I now proceed to show in what particulars all this has been done by the "mountain-stream theorists."

I quote the following from the report upon the Plymouth epidemic by Drs. Shakespeare and French, of Philadelphia:

"March 20th of this year, at 5 o'clock, P.M., water from the Susquehanna was pumped directly into the main of the lower street, and this was continued without interruption until March 26th, at 5 P.M. During this period the river-water was unusually befouled by the sewage of Wilkesbarre, the water in the river being lower than for years, and its surface frozen tight.

"It was believed that none of the Susquehanna water reached the main which supplies Back Street on the hillside, for all connections between it and the main on the lower or Main Street had been cut off, except at the point, already mentioned, high up in the town, where the large pipe, descending from the reservoir, divides into the upper and lower mains. This belief was based upon the fact that when all the coal companies are drawing water the force of the engines of the water company is not sufficient to raise the water to the level of that branch. The water distributed from the Back Street or upper main was believed to be at that time exclusively mountain water. But we found, however, that water from the Susquehanna had not only reached the level above-named, but had actually been forced back into the reservoir, the level of its water having been raised three feet during two days of the pumping. This information is from the superintendent of the water company. He says that the small amount coming into the reservoir at this time from the mountain could not possibly account for the increase."

It will be seen from this that the distributing reservoir of the Plymouth Water Company was also contaminated with river-water below, as well as by the typhoid dejecta of the patient upon the bank of the mountain stream above.

The advocates of the "mountain-stream theory" further claim that there were several communities supplied exclusively with river-water, which communities obtained immunity from the disease.

Again quoting from the report of Drs. Shakespeare and French, they state:

"The population of Welsh Hill, be it noted, are not furnished with water by the water company of Plymouth, and therefore do not drink the 'mountain water' when they are at home. Their constant water supply, the year round, is principally Susquehanna water. There are, however, a great number of wells. The river-water is forced up by the powerful pumps of the Delaware and Hudson Coal Company, around whose 'breaker' this village or suburb is built.

"We found, first, that during the period of pumping, some of the Susquehanna water had reached the lower reservoir, as already stated, and had consequently not only reached all portions of the town supplied by the water company's pipes, but had also reached those people in the little fever-stricken dwelling located on the bank of the stream below the lower reservoir, who drew their water exclusively and directly from the brook. This fact of course complicated the question of the source of pollution of the drinking-water, although it still seemed probable that it was located along the mountain stream, for it was found that most of the sick had used water which was least contaminated by the Susquehanna. We found, second, that the people on Welsh Hill did not use any of the mountain water, but on the contrary got their hydrant-water directly from the Susquehanna at a point in the river *a half-mile nearer the sewers* of Wilkesbarre. In that part of Plymouth there is a population of eight hundred. Dr. Thomas Biddle, of this city, sends us the following facts: 'There is a total of nine ill of the fever. Five of these used water, while at work or at school, from the pipes of the water company in other parts of the town. Two of the remaining cases used well-water, and are recent cases, in all probability infected from those first ill.'

"This freedom from sickness at Welsh Hill clears up the doubt caused by the entrance of Susquehanna water into the reservoir."

Drs. Shakespeare and French have been misinformed regarding this matter, for the *facts* are simply these, that the community upon Welsh Hill are not, neither have they been, supplied with river-water at any time. There is not a hydrant upon Welsh Hill, and the only supply which these people receive from *any* system of waterworks whatever is through the medium of a pipe constantly furnishing a small stream of water, which runs into an old cask situated at some distance up Polk Hollow, from Polk Hollow Creek, which receives the overflow from No. 1. reservoir of the Delaware and Hudson Canal Company. This reservoir, as previously stated, is supplied by a mountain stream and springs.

Furthermore, the people in this community, according to their own statements, drink well-water exclusively. The erroneous statement of Drs. Shakespeare and French forms the corner-stone upon which they base their conclusions, and eliminates the possibility of infection from river-water.

The two other communities which it is claimed had immunity from the disease are, namely, Ridge Row and Broadway.

I quote from an article by Dr. L. H. Taylor, of Wilkesbarre, which was contained in the *Philadelphia Medical News* of June 20th:

"Is there anything further needed to convince the most sceptical that the Plymouth epidemic was not caused by using river-water? If so, here it is. In pursuing our investigation, we found at Ridge Row a community of twenty families living in ten double houses, and at Broadway a community of forty families in twenty double houses. These two places are in the upper end of Plymouth, and are entirely free from the fever. But all through the fall and winter, and even through the fatal month of March, they were supplied with water by the Delaware and Hudson Company, pumped directly from the deadly (?) Susquehanna, sixty feet from shore, and half a mile nearer to the Wilkesbarre sewers than the point at which the pipes of the Plymouth Water Company enter the river. It is proper to state that at Broadway there are two wells, and at Ridge Row one spring and one well, and no doubt many, especially at Ridge Row, used spring-water; but the majority of these sixty families used river-water exclusively, and continued to do so until April, and, as above stated, no case of the fever has appeared among them."

Dr. Taylor has also been misinformed, as the following statements will prove.

Ridge Row did *not* receive any river-water during the entire winter, as claimed by Dr. Taylor, nor has it received water from that source up to the present time. The hydrants at Ridge Row are supplied in the following manner: A pipe crosses over from No. 2 reservoir of the Delaware and Hudson Canal Company to supply

No. 5 breaker, situated in Polk Hollow. This pipe is tapped at Ridge Row, and the hydrants are attached to it; but during the entire winter, and up to the present time, the valve situated in the pipe leading from No. 2 reservoir to No. 5 breaker has been closed, thus effectually preventing any water entering that channel. The inhabitants of Ridge Row depended *solely* upon the well and spring water for their supply. Mr. O. M. Lance, superintendent of the Plymouth Water Company, stated to me that he was under the impression at one time that Ridge Row had received river-water, but that after discovering his mistake he had telegraphed to Drs. Shakespeare and French to the effect that they were not to use this information, as the statements which he had made to them relative to the matter were erroneous. I am also indebted to the foreman of the pumping station of the Delaware and Hudson Canal Company for the statement of these facts. Broadway, it is true, is supplied with river-water by means of three hydrants, but there are also two wells and two springs situated there, and the community, according to their own statements, use the well and spring water for drinking purposes. They are afraid of the river-water, past experience having taught them that it is contaminated. Only one case of typhoid fever has occurred in this community, this being a case of Dr. F. L. McKee's, the origin being *clearly* traceable to the drinking of contaminated *river-water*. Dr. Taylor further states that several persons came to Plymouth after the pumping of the river-water ceased, and consequently they could drink nothing but reservoir-water. Dr. Taylor loses sight of the *fact* that river-water was pumped into the lower or distributing reservoir as conceded by Drs. Shakespeare and French, in consequence of which fact persons arriving after the pumping ceased drank a mixture of river and mountain water.

Again quoting from Dr. Taylor, Dr. C. W. Spayd, a medical friend, in answer to certain inquiries, gives me the following:

"In the summer of 1884, typhoid fever broke out in Whitewash Hollow, a small valley that runs from No. 2 to No. 4 breaker and up to the Boston slope just below Larksville. In nearly every house from No. 2 to No. 4 breaker one or more members were down with it up to March of this year. The snow melted in that locality during the latter week of March very rapidly, filled the creek with running water, and, as the people were indifferent as to what was done with the excreta, it was carried down said stream into the river below Boston Hill, just above Plymouth, and in my opinion the fever sprung from the germs that were carried down into the river from Whitewash Hollow."

Now, at first blush, this might seem a point for consideration; but that it could have had no effect whatever in causing this epidemic may be shown from the following statements:

First. This stream joins the Susquehanna at the upper end of Plymouth, and anyone taking the trouble to examine it will find that it remains a distinct stream, flowing close to the right bank of the river for a long distance, and does not readily mingle with the general current. The Plymouth Water Company, however, took their supply two hundred and fifty feet from shore.

Second.—There is but very little sewage carried by this stream at any time, as but few houses are situated directly upon its banks.

Third.—Whatever this stream might contain, it did not, by any possible chance, empty any surface-water into the Susquehanna in March previous to the 26th, much less previous to the 20th, for the temperature during the greater part of March was far below the freezing-point, thus preventing any thaw of any consequence at this time. As is well known, March was the coldest month of the past winter. On March 20th, the maximum temperature was 20° F.; March 21st, 20.1° F.; March 22d, 20.1° F.; March 23d, 23.2° F.; March 24th, 35.6° F.; March 25th, 34.8° F.; March 26th, 46.5° F. So it will be seen that there was no day previous to March 26th that it would be possible for any considerable thaw to take place.

I grant to Dr. Taylor that the pollution at this point occurred too late to enter as a factor into the production of this epidemic, but suppose that we apply the same test to the mass of typhoid dejecta situated upon the bank of the mountain stream. The excreta from the patienta ffected with the disease at this point were thrown upon the frozen ground from January until some time in March.

The mean temperature for the month of January was 24.8° F.; February, 17.8° F.; March, 25.6° F. The daily mean temperature from March 20th to March 26th inclusive was respectively 9.7° F., 11.2° F., 12.9° F., 16.4° F., 27.5° F., 27° F., 38° F. It will be seen, as stated by Dr. Taylor, that any considerable thaw was impossible previous to March 26th. He nevertheless asks us to believe that the typhoid dejecta situated upon the mountain-top (where the temperature remained considerably lower than at Wilkesbarre, at which place this record was taken) passed through the period of decomposition necessary before the assumption of its active state, was discharged into the mountain stream, flowed on through three successive reservoirs, and was received by the inhabitants of Plymouth, they passing through the period of incubation necessary before the appearance of the epidemic upon April 9th.

This is almost *too* much to accept in the face of the facts cited above.

The average period of incubation, as ascertained by Lothholz, Gerhardt, Haegler, and Liebermeister, is twenty-one days. In accordance with this period the specific results following the pollution of the river-water by the typhoid dejecta situated upon the bank of the mountain stream could not have been attained (allowing some time for the period of decomposition) before April 15th to April 18th. Now, what occurred at this time? A large increase in the number of cases, pointing, we think, to a double contamination.

Dr. Taylor furthermore states that some persons who came to Plymouth upon April 1st, and drank the water for the first time upon that date, were taken sick as early as April 15th, showing a period of incubation of about two weeks. I quote from Liebermeister (in Ziemssen's Cyclopædia), to the effect that patients coming from a distance into a locality infested by typhoid fever succumb earlier to the disease and pass through a shorter period of incubation than those residing in the infected district. It must also be remembered that these patients drank of the reservoir-water at the time when it was doubly contaminated, thus receiving the poison in a more concentrated form. The natural assumption is that the period of incubation would be somewhat shorter in these cases.

We conclude,

First.—That the production of the epidemic of typhoid fever at Plymouth, Penn., was not *solely* dependent upon the contamination of the reservoir-water by the dejecta of the one patient affected with the disease, but *was* the result of several concurrent causes, *prime* among which was the drinking of contaminated river-water; and that this was followed by contamination of the pipes by the river-water which they had previously contained, contamination of the distributing reservoir by the river-water that had been forced into it below, and subsequently, pollution above by the typhoid dejecta of the patient situated upon the bank of the mountain stream.

Second.—That the continuance of the epidemic was influenced by the existing sanitary condition of the town and the establishment of independent foci of infection, resulting from the careless disposition of the evacuations of those affected with the disease, and the negligence exhibited in the carrying out of the measures for disinfection, as prescribed by the physicians.

Third.—That as a result of this careless disposition

and non-disinfection of the typhoid excreta, the air became contaminated, thus adding another mode of infection.

If these conclusions are correct, it would be a serious wrong to permit the people of Plymouth to rest in the conviction that all medical authority favors their free use of the water obtained from the Susquehanna River, however much such conviction might benefit the officers and stockholders of the Plymouth Water Company.

It affords me pleasure to acknowledge the courtesy which I have received at the hands of the physicians and citizens of Plymouth, and my indebtedness to all those who have so kindly answered my inquiries and aided me in the gathering of the facts contained in the above article. I also desire especially to express my thanks to Rev. Dr. Hodge, of Wilkesbarre, who furnished me with such a reliable record of the thermometric range.

Clinical Department.

RHUS TOXICODENDRON IN THE TREATMENT OF ENURESIS.

Dr. George W. Willeford, of Glendale, Ind., writes: "On reading the excellent article upon enuresis in The Record of June 27th, by Alexander W. Stein, M.D., I was very much surprised to find that in enumerating the drugs employed in the treatment, he failed to mention the most efficient remedy which I have yet employed. In the limited experience had in the treatment of enuresis in the past two or three years, as it has occurred in a country practice, I have found the fluid extract of rhus aromatica to give permanent relief in seventy-five per cent. of the cases treated, and to greatly benefit the remaining twenty-five per cent. As the article is comparatively a 'new remedy,' I have no doubt that there are many excellent practitioners who have never given it a trial. To those who are sorely puzzled to know what remedy to 'try next' in obstinate cases of enuresis, I will say, try a good preparation of the fluid extract of rhus aromatica, and you will find in it a pleasant and generally an efficient remedy."

HEMIPLEGIA AND ABORTIONS.

Dr. W. F. Lynch, of Volcano, Cal., writes: "Mrs. L——, aged twenty-nine, a lady of what may be termed a nervous temperament, with good family history, as far as learned, mother of four children, the youngest being at the time of which I write, four years of age, was stricken on July 11, 1884, with hemiplegia involving the right side. She was found at 6 A.M. on the floor unable to rise. Assistance was called and patient put into bed. I saw her an hour later. She was utterly unable to move arm or leg; the right facial muscles were also involved to a considerable extent, the tongue protruded to the right, could not close upper eyelid firmly and the face on this side was devoid of expression; there also existed some difficulty in deglutition. The sense to touch was considerably diminished. She could speak with difficulty and not very intelligently. Two days later she could raise herself somewhat in bed and could move her arm and leg some, but she had no power to move her fingers and toes. For a few days there was a little tendency to retention of urine, but this passed soon. She improved rapidly in strength and power to move her limbs, with, at the same time, an improvement in mind, though an aphasic condition still continued, until at the end of two weeks she could walk about the house by pushing a chair in front of her for support, and with the use of the battery, combined with the administration of tonic remedies and good diet, was in a fair way toward great improvement. About ten days after the attack of hemiplegia came on, the patient informed me she had been flowing for a week or ten days slightly, but this had increased considerably and I was shown an embryo which had been discharged a day or two before. Ergot in moderate doses was ordered, but this seemingly was not of much utility, and gallic acid was then ordered and the hemorrhage was controlled a day or two later.

"Up to August 9th patient continued gradually to improve and was able to walk out to some extent, though the leg dragged a good deal and she had not regained the use of the arm. The mind seemed brighter, yet her speech remained considerably impaired, thick and heavy, and the memory was not very clear.

"On September 3d the patient had another miscarriage from which nothing serious resulted. She continued after this to gain little from time to time, in strength and in the use of the lower limb—her arm did not improve.

"On November 14th at 4 A.M., I was summoned in haste, and found that the patient had been flooding profusely, the bed-clothing about her being thoroughly saturated with blood and the woman in a fainting condition; extreme pallor of face, and pulse very small and soft. The hemorrhage had ceased to a great extent before my arrival. Ten days before this, she had walked quite a distance to consult a female abortionist. The exertion of walking, or the abortionist, either one or both, had proved too much for her, for the next morning hemorrhage commenced, and a week later a fœtus of about two months' development was expelled, but not the placenta. After fœtus came away, hemorrhage ceased for two or three days, but returned with a rush on the date mentioned. A slight flowing continued for four or five days, at which time I removed, without much difficulty, the placental remains. After this the patient became better and was up and able to walk about as before, and I did not see her again until December 16th, when I was again called in. She had been taken about the 5th, during my absence from town, with an attack of fainting, followed by great nervousness, suffering from pain in the cardiac region, cardiac palpitations, and since had been confined to her bed. I found her in a very despondent condition, unable to control her emotions, subject to excessive fits of weeping and inordinate laughter, memory seemed failing, and there was pain felt in the left parietal region, quite severe at times. On several occasions passed urine in bed involuntarily, and on the next day, the 17th, passed fæces in bed without her knowledge. On this date Dr. T. H. Mayon, of Amador City, saw the case in consultation, and noted a tender spot in the spine about the fourth or fifth dorsal vertebra. The result of the consultation was, that the case was pronounced hopeless as to cure, and an early and fatal result anticipated.

"A few days before the consultation, uterine hemorrhage again commenced slightly, but no thought was given to it as the period for menstruation was due. The hemorrhage, however, continued up to January 28, 1885, and at times was a little foul. I determined to introduce a sponge tent and learn by digital exploration, if possible, the cause of the continued flowing. I did so, and the following day, the tent having been within the cervix uteri about twenty hours, thoroughly curetted the uterine walls and brought away quite a quantity of small granular masses. The hemorrhage ceased in a day or two, and from that time there was no more involuntary micturition.

"The patient has not been able to walk, nor has she been as well since the fainting fits occurring in December, which were probably further hemiplegic attacks. At times since January she seemed to grow a little stronger and felt better, yet during the last two or three months she has failed very greatly. She cannot stand without strong support. The flexors of the arm are in a state of constant contracture, and at times she suffers very severely from painful tonic spasms of muscles of the arm. The muscles of the leg are also affected in like manner, though not so marked. Both limbs have wasted away a

great deal. The right facial muscles are still affected, though she has much greater power over these than formerly. Her mind is very weak, and her speech very heavy and almost unintelligible. At times she has manifested suicidal tendency, and she is greatly troubled from insomnia. The treatment has been essentially of a tonic nature, good nourishing diet, and as remedies. iron, quinia, strychnia, and nux vomica mainly, the occasional use of the battery until the last two months, and regular use of friction to the affected side.

"One point not mentioned which perhaps should have been referred to at the commencement of this article is this: the patient has been a victim to twelve miscarriages in three years, three occurring from the time of the first hemiplegic stroke, from July 11th to November 14th! Is there any wonder that nature, so greatly imposed upon, should at last enter a protest against such maltreatment, for all these abortions were induced either by the patient herself or by a female abortionist?

"Another interesting point, was the relief of the involuntary micturition, following the curetting of the uterus for hemorrhage; this symptom continuing from about December 5th, the time the hemorrhage commenced, up to January 29th, almost to the very hour of the operation of curetting the uterus."

Progress of Medical Science.

A Case of Cholecystotomy.—Dr. Parkes, of Chicago, in the July number of *The American Journal of the Medical Sciences*, reports an interesting case of cholecystotomy, which operation appears to be becoming a rather common one in these days of fearless abdominal surgery. Of the cases submitted to operations, by far the larger portion has been of cholecystotomy, by means of which a distended gall-bladder has been positively relieved, and in most of them the cause of obstruction, retained gall-stones, removed. In a few no gall-stones were found, while in others the cause of the obstruction could not be remedied. In Dr. Parkes' case the gall-stones were not lodged in the gall-bladder, and it is highly probable that they were retained in some of the dilated hepatic ducts, and were washed into the cyst by the flow of biliary fluid which came on immediately after the formation of the fistula. He is inclined to believe that they had but little to do with preventing the flow of bile into the intestine, at least the patulency of the passages was not restored by their removal. The remarkable and profuse flow of muco-biliary fluid, coming through the sinus established, argues very strongly in favor of the operation which contemplates the formation of a fistula in the gall-bladder in distention thereof by confined secretions. Certainly no tube of the dimensions of the ductus communis choledochus could have given a free exit to the secretions; at least the accompanying back pressure on the walls of the cyst would have greatly endangered, if not certainly destroyed, the adhesions in any recent wound thereof, even when protected by the continued suture. Most of the cases of reported cholecystotomy tell of the presence of a freer flow through the fistula, so that it is a condition to be expected, and makes immediate closure of the bladder-wound without drainage a dangerous proceeding to adopt, even if we can be positively sure of a clear common duct. Dr. Parkes, in conclusion, advises, from his experience in this case, the general practice of sounding the common duct through the external opening. He is quite sure that such procedure can be safely carried out, and equally certain that its adoption in his case resulted in relief that did not follow the removal of the calculi alone.

The Pneumonia-coccus of Friedlander.—Dr. Sternberg calls attention to the so-called pneumonia-coccus of Friedlander, which he claims is, in fact, identical, specifically, with a micrococcus which he previously described, and which is found in normal human saliva, and with that found by Pasteur in the blood of rabbits which had been injected with the saliva of a child which died of hydrophobia in one of the Paris hospitals. This micrococcus he names *Micrococcus-Pasteuri*. The capsule, or mucous envelope, which sometimes surrounds this micrococcus, described by Friedlander in 1883, and photographed by Sternberg two years previously, cannot be accepted as a distinguishing character of this species, inasmuch as it is not constantly present, and the circumstances upon which its development depends have not been accurately determined. It is established that this is a pathogenic organism, as far as certain lower animals are concerned, and that its pathogenic power varies under different circumstances. It seems extremely probable that this micrococcus is concerned in the etiology of croupous pneumonia, and that the infectious nature of this disease is due to its presence in the fibrinous exudate into the pulmonary alveoli. But this cannot be considered as definitely established by the experiments which have thus far been made upon lower animals. The constant presence of this micrococcus in the buccal secretions of healthy persons indicates that some other factor is required for the development of an attack of pneumonia; and it seems probable that this other factor acts by reducing the vital resisting power of the pulmonary tissues, and thus making them vulnerable to the attacks of the microbe. This supposition enables us to account for the development of the numerous cases of pneumonia which cannot be traced to infection from without. The germ being always present, auto-infection is liable to occur whenever from alcoholism, sewer-gas poisoning, crowd-poisoning, or any other depressing agency, the vitality of the tissues is reduced below the resisting-point. We may suppose also that a reflex vaso-motor paralysis, affecting a single lobe of the lung, for example, and induced by exposure to cold, may so reduce the resisting power of the pulmonary tissue as to permit this micrococcus to produce its characteristic effects. Again, we may suppose that a person whose vital power is reduced by any of the causes mentioned may be attacked by pneumonia from external infection with material containing a pathogenic variety of this micrococcus having a potency, permanent or acquired, greater than that possessed by the same organism in normal buccal secretions.—*The American Journal of the Medical Sciences*, July, 1885.

The Treatment of Hemorrhoids by Injection.—In the July number of *The American Journal of the Medical Sciences*, Dr. Kelsey, of New York, again urges the treatment of hemorrhoids by injection of carbolic acid. After an ample experience this has become his routine practice, and in all his cases he has never known a patient to abandon the treatment after it was begun, and he has never failed to effect a perfectly satisfactory cure by it, and he has never had an accident of serious nature with it. He uses three solutions, one of fifteen per cent., one of thirty-three per cent., one of fifty per cent., and sometimes he uses the pure acid. In a severe case he begins with the stronger ones, in a mild case, with the weaker.

A New Remedy in Gouty Obesity and Dyspepsia.—In the *Lancet*, April, 1885, Dr. Mortimer Granville writes that he has been obtaining good results of late, in cases of gouty obesity and dyspepsia, from the use of the salts extracted from ox-bile. They are given to persons with a predisposition to gout, in whom there is a tendency to the deposition of fat in the omentum and elsewhere, coupled with a deficiency of production and maintenance of heat. The bile-salts are given in the form of a pill, each containing about four grains of the taurocholate and glycocholate of soda, and are to be taken with food at each meal.

Chloral in Large Doses in Traumatic Tetanus.—Professor Verneuil records a case of tetanus which occurred in a youth, who was admitted into hospital, ten days after his finger had been crushed, suffering from a moderate amount of trismus. The patient was of robust frame, and in good condition of health when admitted; and was placed in Bonnet's apparatus in order to secure absolute immobility of his body, which was kept at a constant and elevated temperature by being completely encased in wadding. Good diet was given, and constipation guarded against. Large doses of chloral were administered, in sufficient quantities to plunge the patient into a profound sleep. It is necessary to continue giving chloral in doses which shall keep the patient in a kind of continuous coma for from fifteen to eighteen days. The author states that the great benefit derived from chloral in these cases is to give the drug freely for at least fifteen days, and then to gradually reduce the amount each day. The amount usually necessary is from twelve to fifteen grammes daily. The danger in tetanus is due to the extent that the muscles of the larynx or pharynx, together with those of the heart and lungs, are involved. In cases where suffocation, dysphagia, or spasm of the glottis supervene, two methods of treatment are available: 1, the continuous current; 2, tracheotomy. The author concludes by saying that in the next case which presents itself to him, with symptoms of dysphagia, he intends to practice gastrostomy in order to feed the patient.—*Gazette des Hôpitaux.*

Hard Chancre of the Tongue.—Dr. A. Newskji relates the case of a young woman, a virgo intacta, who had a primary sore on the under surface of the tongue. She was a servant in a cheap Russian hotel where wooden spoons were used, and the author believed the infection was caused through that medium.—*Centralblatt für Chirurgie*, April 25, 1885.

The Success of Hypodermic Injections of Quinine in Malarial Fever.—The high price of quinine induced Dr. A. Smirnoff (*London Medical Record*, June 15, 1885) to give an extensive trial to a long list of various substitutes for the classical antimalarial drug. Carbolic acid, salicylic acid, burnt alum, tincture of iodine, tincture of eucalyptus, oil of eucalyptus, oil of turpentine, lemons, and faradization of the spleen, all were resorted to successively, and all of them gave uniformly negative results. With deep regret in regard to waste of time, the author returned to the exclusive use of quinine, striving at the same time to find out a most economical method of freeing the soldier from severe Bessarabian fever in that way. Dr. Smirnoff thinks that he succeeded in finding something like the desideratum in the shape of hypodermic injection of hydrochlorate of quinine, the method which is at present practised by the author to the exclusion of all other means. He injects six grains of the hydrochlorate (dissolved in half a drachm of distilled water) at a time, by means of Lewin's syringe, into the subcutaneous cellular tissue below the scapular region. In the course of 1884 he successfully treated in that way 470 malarial soldiers, the whole number of injections being 1,179; that is, a case required, in average, 2.5 injections; the greatest number of the latter in an individual case was 9. Relapse after the subcutaneous treatment occurred decidedly more rarely than after the internal administration of quinine. That the hypodermic method is much cheaper than the internal one may be gathered from the following comparison. To cure 178 patients treated by the internal use of the alkaloid, the author has used 7,019 grains of sulphate of quinine, or 39.5 grains per head. To cure 470 patients treated hypodermically, he used 7,074 grains of muriate of quinine Taking an eight-grain dose of the hydrochlorate as equivalent to a ten-grain dose of the sulphate, we have an average dose of nineteen grains of quinine in the case of the hypodermic treatment against that of 39.5 grains in the case of the internal administration. The author never saw the appearance of any unpleasant phenomena at the spot of the injection (such as abscesses, sloughing, intense irritation). Pain was always trifling and of short duration. In some of the patients with very sensitive skin there occurred bright redness, about three or four centimetres in diameter, but it quickly disappeared spontaneously. As to the essential advantages of the hypodermic method (besides cheapness), the author points to its applicability at any stage of the disease, and to the sure and safe assimilation by the patient's system of every particle of the drug used.

Suppurative Hepatitis.—Ughetti gives the history of eight cases of suppurative hepatitis. In three, the hepatic abscess was opened externally by incision through the abdominal wall: these cases recovered. In one, recovery followed repeated aspiration. Two died, notwithstanding aspiration and incision. In two, the abscess opened spontaneously by the bronchi, recovery resulting. Among the causes of suppurative hepatitis, wounds are most rare. Dysentery is a much more frequent cause. The hepatitis may be developed contemporaneously or consecutively, therefore possibly there is a common origin to both. The disease, as is well known, is most common in hot climates. It is said that non-acclimatization is a predisposing cause, but in the cases observed by Ughetti this did not appear. All his cases occurred in men, twenty-six being the age of the youngest, forty-three of the oldest. The fever of suppurative hepatitis is variable in intensity and duration. When present it is generally intermittent; often it only appears when the collection of pus is too great for the cavity containing it. In a case published by Ciaramelli (Naples, 1880), there had never been any fever, yet a vast abscess of the liver was found, encapsuled by a thick layer of connective tissue, which prevented the reabsorption of the pus. Discussing the symptoms, Ughetti remarks on the influence of palpation, hepatic pain, pain in the shoulder, jaundice, deeply pigmented urine, etc. As to the diagnosis, he mentions specially the difficulty in certain cases of distinguishing suppurative hepatitis from Naples fever, in which the course of the fever is very irregular. He advises exploratory punctures for diagnosis and treatment. Entire hepatic cells are not ordinarily found in the pus, but may sometimes be obtained on scraping the bottom of the abscess. The prognosis is not as hopeless as most authors assert. In forty-eight cases not operated on, the mortality was seventy-six per cent. In forty-five cases in which incision was practised, the mortality was only forty-two per cent. In thirty-eight cases opening spontaneously by the bronchi, the mortality was only 14.6 per cent. All cases should be operated on as early as possible; peritoneal adhesions are not indispensable. Aspiration is often sufficient to effect a cure.—*London Medical Record*, June 15, 1885.

Lipomatous Polypus of the Gullet.—Dr. J. J. Minkewicz, of Tiflis, details the case of an Armenian, aged fifty-two, who for two years experienced steadily increasing difficulty in swallowing solid food, and of late could sleep only in the prone position, all other postures causing attacks of suffocation. Examination detected a soft, elastic, pyriform tumor, of the size of a large hen's egg, which was attached, by means of a broad pedicle, to the anterior wall of the gullet at the level of the cricoid cartilage. The tumor became visible in the pharynx (just behind the soft palate and tongue) only when the patient performed several successive eructative movements. The author tightened an elastic loop round the pedicle and put two ligatures higher up. On the next day he divided the pedicle between the ligatures, the removal of the new growth being absolutely bloodless. Four days later the patient was discharged well and comfortable.—*London Medical Record*, June 15, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, July 25, 1885.

AT LAST.

SINCE our last bulletin was written the final change has come to General Grant. He passed peacefully away at eight o'clock Thursday morning. On the morning of the day previous Dr. Douglass summoned Drs. Sands and Shrady to meet him in consultation at Mount McGregor, as General Grant was sinking and death seemed imminent. On their arrival the patient was found in a very prostrated condition, with feeble and frequent pulse, rapid respiration, and inability to swallow. He was suffering no pain, but by his listless manner was apparently conscious that death was approaching. It was decided to sustain his vital powers to the utmost, and make his approaching end as comfortable as possible. The disposition to cough had ceased, and the respiration, although much accelerated, was not mechanically impeded by accumulated mucous secretions. At the time of the consultation he was in his easy-chair, occupied so constantly by him day and night for the past five months.

Toward evening, by his own request, he was transferred to his bed, where he rested quietly until his death. As was anticipated by the medical gentlemen in attendance, he continued to sink despite the stimulants locally applied and hypodermically administered. His fear of a painful and agonizing death was, happily for him and his family, not realized. He simply passed away by a gradual and easy cessation of the heart's action. Thus he was spared much of the suffering which would have been inevitable had his general strength allowed the throat disease to progress in its usual way. For so much, at least, there is reason for thankfulness. At a future time a scientific review of the case will be presented to our readers, giving such data as may be necessary to explain the diagnosis arrived at, and the method of treatment pursued.

TUBERCLE BACILLI IN THE BLOOD AND SPLENIC JUICE IN ACUTE MILIARY TUBERCULOSIS.

IT is a noteworthy fact that some time before Koch's discovery of the bacillus tuberculosis, Weigert had asserted that acute miliary tuberculosis was due to the breaking through of tubercular material into the general current of the circulation. According to the author named, the blood in this way became infected with the specific virus, and disseminated miliary nodules soon made their appearance.

Weichselbaum (*Wiener Medicinische Wochenschrift*, Nos. 12 and 13, 1884) was the first to detect in the blood of three bodies, dead of acute miliary tuberculosis, the presence of the specific bacilli. Subsequently Meisel recorded similar observations for eight additional cases (*Wiener Medicinische Wochenschrift*, Nos. 39 and 40, 1884). It should be remembered, however, that in no instance were bacilli found in great abundance. Indeed, in some cases many specimens of blood were examined with negative results. Nevertheless, Meisel claimed that the presence of these microbes in the blood must be regarded as a constant and pathognomonic sign of the disease.

Meisel further tried to discover the bacilli *intra vitam* by withdrawing in the usual way a small quantity of blood from the fingers of suspected patients. In the only two cases in which this was done, one gave a positive, the other a negative result.

But the same writer also found that the pulp removed by scraping the cut surface of the spleen was comparatively rich in tubercle bacilli. And he suggested that splenic juice might be readily obtained from the living by means of an ordinary hypodermic syringe.

In this way he believed a positive diagnosis could be easily reached.

Acting upon this rather novel suggestion, Dr. Rütimeyer (*Centralblatt für Klinische Medicin*, May 23, 1885) in two cases obtained a quantity of splenic blood-juice for examination.

In the first case, the spleen having been punctured in four different places and twenty specimens having been prepared, no bacilli were discoverable. The patient died sixteen hours after the above procedure, and an autopsy showed that acute miliary tuberculosis was the cause of death. No tubercle-bacilli had been found in the sputum of this patient. It may be added that the spleen was turgid and large, and showed four small rents in its capsule, that were loosely matted to the abdominal walls by recent blood-colored fibrinous deposits. Splenic hemorrhage had not occurred.

In the second case only two punctures into the spleen were made, the patient being almost moribund at the time, and death happening fifteen minutes later. At the autopsy the clinical diagnosis of acute general miliary tuberculosis was amply verified. From the punctured spleen about one ounce of dark blood had escaped. This organ, in addition to countless miliary nodules, also contained numerous cheesy collections of about the size of a pea. In this case an examination of the splenic juice, removed while the patient was still alive, showed in every specimen examined unmistakable tubercle bacilli. In some specimens they were rather abundant, but in the majority of them they occurred sparingly.

Scrapings from the cut surface of the spleen showed great quantities of bacilli. Singularly enough, blood taken from the heart gave negative results.

In spite of the limited number of these observations, Rütimeyer holds that the method may afford valuable evidence in doubtful cases. It is apparent, however, that the procedure has a scientific rather than practical interest. It would hardly be resorted to at the earliest suspicion of miliary tuberculosis, in spite of its seeming harmlessness. Later on, however, it would appear to be

a superfluous infliction on patients whose doom is sealed, whether we can snatch a few bacilli from their yet living bodies or not. And finally, from the evidence now before us, we have no right to suppose that such a discovery is necessarily pathognomonic of the condition in question. Moreover, the absence of tubercle-bacilli from splenic juice does not apparently negative the existence of acute miliary tuberculosis.

A SURGICAL USE FOR ROASTED COFFEE.

Sugar is known to form a tolerably good wound-dressing. Dr. Oppler, of Strassburg, now comes forward with the statement that pulverized roasted coffee is a superior antiseptic. It, therefore, only remains to show that milk makes a good surgical dressing, and the traumatic process will be supplied with a very neat repast.

Oberstabarzt Oppler, in his preliminary communication (*Deut. Militärärtz. Ztsch.*, Heft 6, 1885), states that the powdered coffee is spread over the wound so as to completely cover it. Soft bandages are then applied, and the wound may be left untouched for three or four days. The wound secretions mingle with the powder, forming a protective cover under which the healing process goes on. The antiseptic properties of burnt coffee depend upon the fact that it is in part a vegetable charcoal, and that it contains an aromatic antiseptic oil.

Dr. Oppler's discovery will not divert coffee from its natural use, but, as he suggests, there may often be occasions in which a surgeon may find it convenient.

CREDÉ'S METHOD OF DELIVERING THE PLACENTA.

It will be conceded by all physicians that the conduct of the third stage of labor is frequently the most important duty of the accoucheur. The great importance of thoroughly emptying the uterus of all the secundines is emphasized by the prevalent ideas of the septicæmic origin of puerperal fever. After the pains and trepidation of the second stage of labor are over, the relief and satisfaction experienced by the patient and friends are frequently in contrast with the annoyance of the physician at the non-appearance of the placenta, coupled with an uncertainty as to the most desirable manipulation to hasten its delivery. That much harm may be done by making excursions into the uterus, particularly with fingers not thoroughly antiseptic and by violent massage of the abdomen, cannot be doubted. The method of expectancy that will patiently wait, perhaps for hours, until unaided nature expels the placenta, finds scant favor in this bustling country. Although certain Germans, having continual fear of puerperal septicæmia, may be willing to wait with folded hands great lengths of time, we fancy the average American physician would find it equally difficult to restrain his own as well as the patient's uneasiness at undue delay. Some means or other being employed to hasten the emptying of the uterus, it may be well to notice particularly what constitutes the method of Credé, as many books and writers are rather obscure upon this familiar subject. Simple kneading of the abdomen and more or less severe pressure over the uterus do not, as supposed by some, constitute Credé's method. The object of Credé being only to assist nature, all violent and unnecessary manipulations are to be discountenanced.

As soon as the second stage of labor has been completed, the accoucheur must aim to effect a loosening of the placenta by encouraging the uterus in tonic contractions, and this is best accomplished by "gentle stroking movements over the largest possible surface of the uterus." When *clonic* contractions begin, by which agency the placenta is to be expelled from the uterus, this organ is to be grasped by the outspread fingers and hand, and pressure be made at a time when each contraction reaches its greatest energy. The pressure upon the uterus is to be made in the direction of the hollow of the sacrum. Sometimes in this manner the placenta will be expelled from the uterus with the first contraction, and nearly always by the sixth or seventh pain.

Credé considers that if the placenta has not been delivered within thirty minutes, the case is no longer physiological, but pathological. It is thus seen that this method aims to imitate and aid nature in getting rid of the afterbirth, by exaggerating the contractions with which this is to be accomplished. Indiscriminate kneading and pressure in the interval of the normal clonic contractions is forbidden as unphysiological and wrong. Credé aims to expel the placenta, having the membranes intact, without manual interference within the genital organs. In an article in the *American Journal of Obstetrics*, Dr. Baruch, after reviewing the different plans of managing the third stage of labor, including a thorough description of Credé's method, concludes that the latter should be better understood and practised by American physicians. He would, however, somewhat modify the last stage of the proceeding, by placing two aseptic fingers within the vulva to impede the too rapid descent of the placenta, which is held within the vulva, or partly within the vagina, until the uterus recedes. The mass is then gently removed until the membranes are put upon the stretch, being held in this position while the index-finger gently presses against the membranes, near their placental attachment, until the uterus relaxes its hold upon them, and the whole mass drops. By this plan it is endeavored to insure a complete removal of the membranes.

THE COLLAPSE OF FERRÁN.

Another delusion is gone, and another hope crushed. There is sufficient evidence now at hand to warrant the positive assertion that Ferrán's preventive inoculations for cholera are erroneous in theory and useless in practice. In fine, Ferrán is a gigantic humbug.

Dr. E. Doyen has carefully gone over Ferrán's methods of cultivating the cholera bacillus, and has made a report of his work to the Société Anatomique of Paris. He shows that Ferrán's methods are faulty, and that the life-history which he gives of the comma-bacillus is not correct. He has repeated the inoculation experiments of Ferrán on guinea-pigs with negative results, and he concludes that the Spanish pseudo-Jenner is inoculating his countrymen with a benign form of septicæmia.

We have learned not to place much faith in French cholera commissions, but the report of the last one, which was sent to Spain under the direction of M. Brou-

ardel is worthy of credence. We learn from *L'Union Médicale* that Brouardel has made an official communication to the Académie de Médecine, in which he announces that the performances of Ferrán are not worthy of scientific investigation.

Last of all comes a report from a physician, Dr. La Granjà, who accompanied the Spanish commission to investigate the condition of the cholera epidemic in Valencia. Dr. La Granjà affirms that Ferrán's statistics prove nothing, and that his inoculations do good only in that they allay fear.

The much-talked-of cholera vaccinations, therefore, according to present evidence, are simply inoculations of septicæmia. The physical results, fortunately, have never been dangerous, while the moral effect, it must be admitted, has been good.

THE EVENING POST AND CIVIL SERVICE REFORM.

The practical working of certain phases of civil service reform has apparently made some journals unduly sensitive to even a friendly criticism of this much-lauded system. The *Evening Post* has been much exercised over a statement made by us, on the authority of the principal officer of the municipal civil service commission, that the appointing power is not obliged to select from the three highest names on the examination list, but can choose men standing lower in the scale for appointment to office. While we are concerned more with the working of the system than with the letter of the law, we did not state what was or was not the law on this subject. Our object was only to criticize the practice, and the *Post* retorts by quibbling over the rules.

We do not deny that there is a Seventh Commandment, but if we should attack adultery, and the *Post* should defend the verbal explicitness of the Moral Law (which we greatly fear it would not), the conditions would be very like those in the present controversy.

We stated what we were distinctly informed would be the practical working of the commission, and characterized it as a weak point in the present system. As a matter of fact, the appointing powers have not been compelled to select from the highest names on the list, no matter what the law may state on the subject. In this way it not only has been possible, but actually has happened, that men standing quite low on the list, but having strong political influence, have obtained office. Why does not the *Evening Post*, that is so exercised over civil service reform, look into and criticise the actual working of the system, instead of quibbling over the letter of a law that is not obeyed?

DIET IN HOT WEATHER.

The debilitating effects of prolonged high temperature are nowhere more markedly exhibited than in the gastro-intestinal tract. In infants and young children the great frequency of diarrhœa in summer, is not only due to fermentative changes wrought in their food, but also to the directly depressing effects of the heat upon their susceptible nervous systems. The two elements of improper food and lowered nervous vitality must be considered by physicians in adults as well as in children, although the former do not suffer so seriously, or fatally, as the latter. What is the best kind of nourishment with which to tax the weakened digestive organs during a heated period? The answer is trite, and can frequently be left to the common-sense of the patient. Unfortunately, however, as every physician knows to his sorrow, the possession of common-sense in regard to eating and drinking is entirely lacking in many individuals. To such persons very explicit directions are necessary as to diet. In reference to environment, the prolonged heat of summer affords much the same conditions as obtain in the tropics, where the inhabitants instinctively subsist largely upon vegetables, consisting in a great degree of proximate principles found in the class of carbo-hydrates. Yet many people living in temperate regions continue materially upon the same diet in summer as in winter, and at a time when the atmospheric conditions not only weaken the nervous mechanism of digestion, but curtail physical activity, use the nitrogenous diet that they craved in cool weather, and when taking abundant exercise.

To force albuminous foods in summer is but to surcharge the system with effete products, and overtax the excretory organs in their elimination. Meats, and particularly fats, may then be allowed to occupy a subsidiary place in the dietary, while a large variety of fresh vegetables will be more grateful to the heated body. Different fruits, especially those more or less acid, will likewise prove agreeable as well as healthful. Fresh fish may be relished when meats fail to tempt. In reference to drinks, buttermilk and kumyss may be noted as both refreshing and nourishing, and will frequently agree with a patient when ordinary cow's milk causes indigestion. The small amount of alcohol and slightly acid taste developed in kumyss will often make it acceptable to a stomach that rejects solid food. Indeed, it would be much better for persons overheated to take such drinks as are here mentioned, than to try from a sense of duty to force solids into a stomach that refuses to digest. While ice-water is refreshing and cooling, the enormous quantities indiscriminately consumed cannot fail to do harm. A mouthful slowly swallowed will be found more satisfactory than a gobletful hastily drained. Alcoholic drinks had better be very sparingly indulged in; if they are taken, the light, dry wines will answer best. Plain advice to a patient about simple matters of diet will be just as satisfactory, and much more beneficial, than the dispensing of drugs at this season.

WHAT THE AMERICAN MEDICAL PROFESSION NEEDS.

The profession of this country needs a national association of physicians which shall devote itself to purely scientific work. Membership should be based upon personal character, scientific attainments, and practical experience. It should be for the whole art of medicine what the special national organizations are to their departments. It should devote itself to promoting the medical art and medical science. Questions of medical politics and technical ethics should be left out entirely, for men who are interested in science are rarely interested in these.

An association of this kind, which will bring together

the best men in the country, and which will be, in truth, a representative meeting, would prove of immense benefit. Our leading men could then meet each other, compare experiences, and be subjected to helpful criticism. Methods of practice would become more uniform; progress in knowledge more quickly and widely diffused.

We do not agree with the opinion just now so freely expressed, that the American Medical Association has quite outlived its usefulness and has shown its incapacity. Let that Association devote itself to the object for which it was originally founded, viz., the reform in, and elevation of, medical education; let it deal with the various interesting issues of medical politics. Here is a field in which it may thrive, as is shown by its past. The French Association of Physicians, which deals with these subjects, has been very successful in its line.

News of the Week.

The International Medical Congress.—"The result of this action of the Association has cast a shame and a blot upon the good name of the entire profession in this country, and it has forfeited all the reputation the Association may have had as a fair, liberal, and high-toned scientific body. Under the leadership of a few malcontents the Association has degenerated to the level of a ridiculous and pharisaical institution, utterly unworthy of confidence and respect. So far as the fortunes of the International Medical Congress are concerned it is now evident that the Association is wholly incapable of conducting the Congress under its anspices. The withdrawal of the leading members of the profession from all connection with the present organization tells its own story, and very plainly says, the Congress must be reorganized on some other basis than the one proposed by the American Medical Association if it is to be a success."—*Maryland Medical Journal.*

"The action of the new committee has, as pointed out by the *Medical News*, made of the coming International Medical Congress a meeting of the American Medical Association, with a rather larger number than usual of invited guests. Had the invitation been from the Association alone, there could have been no objection to this, but when, as expressly stated by Dr. J. S. Billings, U. S. A., a member of the original committee, 'the invitation was purposely worded as coming from the medical profession of the United States, and not from the Association only,' the exclusion by the Association from representation in the Congress, of the great bulk of the profession, including a large number of the brightest lights of American medicine, seems, not to put it too harshly, like a piece of unwarrantable assumption."—*Medical Age.*

"When we ask why they take this serious step, we learn that they have, in the first place, a deep distrust of the American Medical Association as an organization which could satisfactorily carry out such an undertaking, and they have a still deeper distrust of the success of any Congress where the best known scientific medical men of the country have been replaced by nominees such as Drs. Cole, Shoemaker, and others. The exclusion of the new-code men is felt to be a serious mistake, as carrying the quarrel of the American Medical Association into the International Medical Congress, and refusing the fellowship of men with whom old-coders in New York are glad enough to consult. All, too, resent the insult offered to such a veteran as Henry I. Bowditch, of Boston, who has devoted half a century to the advancement of the best interests of the profession in the United States. What the result will be it is difficult to predict, but it is hard to see how a Congress can be held without such men as those who have signified their intention of resigning. It would be like a Congress in London without Paget, Lister, Jenner, Gull, Hutchinson, etc."—*Canada Medical Journal.*

"If these men had first taken pains to learn accurately what the present Committee had done, and then assembled for the purpose of considering the more important items with a view of suggesting improvements, and thereby aiding the Committee in rendering their work more complete and acceptable, they would have given evidence that they had more regard for the honor and interests of the profession than for their own personal prejudices and dislikes; in other words, they would have acted like *men*, and not like half-grown school-boys. Although the assembly of twenty-eight in Philadelphia, the nineteen [twenty-four] in Boston, and the twelve [thirteen] in Baltimore [and thirteen in Washington], [add also St. Louis, Louisville, Lowell, Mass.; Newburyport, Mass.; Portland, Me.; and New York City], each solemnly adopt preambles and resolutions, not one of them specifies any particular provisions or rules that had been adopted by the Committee on Organization, the practical working of which would prove 'detrimental to the profession in America,' or in any other country."—*Journal of the American Medical Association.*

A Political Cure for Medical Pauperism.—In England the law says that a man who seeks medical relief of the parish shall not vote. Taking advantage of this, the friends and promoters of provident dispensaries are urging the claims of their institutions. The Metropolitan Provident Medical Association of London has eleven dispensaries, of which four are self-supporting. In them 25,000 persons are treated annually for about $16,000. This is decidedly cheap, but it is better than the average dispensary of this city, which will treat the same number of cases for about one-third the sum. It is perfectly useless, however, to think of applying the stimulus of disfranchisement to medical paupers in this country. But it would be interesting, if such a proposition were seriously made, to see how effectively the pot-house politician could work up the bird of freedom, the Declaration of Independence, and the sacred rights of the people into a medico-political thesis.

The Kleptomania of Pregnancy.—*The Lancet* makes this sensible annotation upon an interesting subject: "A lady, the wife of a merchant, was lately charged before Mr. D'Eyncourt with shoplifting. Her physician deposed that he should not consider her morally responsible for what she had done, as she was near her confinement, and in a peculiar condition. Her brother-in-law deposed that he had lately noticed a change in her. On these grounds, the prosecutors not pressing, the magistrate allowed the case to be withdrawn, remarking that

had not the accused been so near her confinement he should certainly have sent the case for trial. We are not disposed to quarrel with this decision. Moral obliquity is sometimes certainly associated with pregnancy, and the ordinary motives for unlawful annexation were here undoubtedly absent. Distinguished persons, whose sex debars them from this explanation, have been chronically afflicted with this disease, and yet have never found themselves in the durance to which they have felt it their duty to sentence others who merely took things which they required. The subject is a difficult one, but we should be glad to see reports of kleptomania among the poorer classes, who often inherit a strong tendency to thieving, recognized as such and treated accordingly."

The Danger of being an Anti-vivisectionist.—M. Magnan cites a number of cases of madness among anti-vivisectionists. One woman first renounced animal food, then took in all stray dogs, and finally went round to the butchers, begging them not to slaughter any more cattle. She became finally mad, and was received as a patient at Charenton.

The French Association for the Advancement of Science will meet at Grenoble, August 13, 1885, under the presidency of Professor Verneuil.

A Serious Epidemic of Whooping-cough has run through the islands of the Fiji group. The malady has carried off all the very young native children, and left a decrease in the population of 3,000. A few years ago 30,000 persons in Fiji died from an epidemic of measles.

Cremation in Paris.—Current reports give it that cremation in Paris will soon be available for the general public, at the small cost of $2.50 for each operation. An experimental furnace is being constructed at Pére-la-Chaise on the principle of the crematories at Rome and Milan.

The Museum of the Royal College of Surgeons in London has been enriched by the addition of the skeleton of the large St. Bernard dog "Chang," immortalized in *Punch* by his owner, Mr. George du Maurier, by whom he was presented, on his death, in October, 1883.

Death of Dr. Joseph H. Bill, U.S.A.—Lieutenant-Colonel Joseph H. Bill, Medical Department, United States Army, died on July 21st at Yonkers. He was appointed an assistant surgeon in the army in April, 1860. In March, 1865, he was brevetted Major and Lieutenant-Colonel for faithful and meritorious services during the war, and in the following month was given the full rank of Captain. In July, 1866, he was promoted to be Surgeon, with the rank of Major.

New Buildings for the Medical School in Paris.—The opening of the new buildings called the École Pratique de Médecine, and which form part of the School of Medicine of Paris, occurred on July 14th, the national fête day.

Another Cholera Commission.—Dr. Graham Brown, of Edinburgh, has left for Spain in company with Drs. Roy and Sherrington, with the intention of carrying on further investigations upon the etiology of cholera, and the relation to it of Koch's comma bacillus.

Another Mydriatic, Mandragorine.—M. Crouzel has isolated a body having all the properties of an alkaloid from the mandrake (*Mandragora officinalis*). This body forms a sulphate which is crystalline. A solution of this salt was found to have marked mydriatic effects on the eye of a rabbit.—*L'Union Pharm.*, p. 264.

A Monument to Thuillier, a member of the French Cholera Commission in Egypt, who succumbed to the disease while pursuing researches in that country, was formally unveiled recently at the École Normale in Paris, in the presence of the Minister of Public Instruction. M. Pasteur presented the monument in the name of the subscribers, and paid an eloquent tribute to the memory of his former colleague.

John McCullough's Insanity.—It is as clear as the open day that Mr. McCullough is insane, and he probably has general paresis. There is something very cumbersome and expensive in the legal machinery which requires a commission to sit for a week in order to elicit a plain fact, as has been done in Philadelphia lately.

Limiting the Number of Hours for Shop-assistants and Clerks.—A bill has been presented to the British Parliament to regulate the number of hours of work that may be required of shop-assistants and clerks in that country. In 1870 an act was passed by Parliament called the "Factory and Workshops Act," which regulated the work-hours in factories and workshops in which young people are employed. Taking the ground that young persons employed in shops and stores are as much entitled to protection as those others, Sir John Lubbock has introduced the bill referred to above. It has been estimated that the average working week of shop-assistants is from seventy-five to ninety hours.

Is this True?—The *Journal of Commerce*, in its issue of July 9th, says: "With all its weakness and indecision the International Sanitary Conference at Rome had sound ideas upon some questions referred to it for judgment. Its adjournment to November next has postponed the official publication of any of the conclusions of the Conference. But the correspondents of several English and Continental journals, who took notes of the proceedings, agree in the statement of one important opinion at which the Conference had arrived. It was decided that the 'disinfection of merchandise and mails is superfluous.' No exception of rags was made, and the verdict of the Conference was understood by all present to include rags, which are well known and important articles of traffic between countries." If we are correctly informed, the above is, if not a mistake, an extremely misleading statement. We believe that the Technical Committee, whose opinion alone would have any weight, expressly approved of the disinfection of rags.

The Progress of the Cholera in Spain.—The number of deaths from cholera in Spain was estimated to be over 10,000 up to July 11th, and over 18,000 up to July 19th, while to-day it is probably not far from 25,000. This mortality represents over 50,000 cases of the disease. The daily number of new cases, as reported, averages about 1,700, with between 600 and 700 deaths. New provinces are being constantly invaded.

The Death-rate in this City, so far this summer, has been below the average. This is due in part to the cool weather which we have had up to the present week, but also to the vigorous work in sanitation which the cholera scare brought about.

Autotype Reproduction of Harvey's Manuscript Lectures.—We gladly take the opportunity to call attention to the efforts which Dr. Edward H. Sieveking is making to secure the publication of an autotype reproduction of Harvey's manuscript lectures. Regarding them, Dr. Sieveking communicates the following interesting facts: "The manuscript of the original lectures delivered at the Royal College of Physicians by William Harvey, including his earliest observations on the Heart and Circulation, and pronounced by him in and after 1616, were re-discovered in the British Museum in 1877. I gave a description of the little book, and exhibited an autotype copy of one page, in my Harveian Oration at the College, in 1877. I then suggested that it would redound to the honor of the present generation, and be an advantage to the history of medicine, if the whole of the lectures could be published in autotype, accompanied by an intelligible transcript. The handwriting is so crabbed and there are so many abbreviations, that no one but an expert could succeed in understanding the lectures. Without the valuable aid of Mr. Bond, now the Chief Librarian of the British Museum, I should have failed in my attempts to understand much, if anything, of the lectures. By dint of much labor, Mr. Bond succeeded in interpreting one of them, and has now been good enough to make me acquainted with a gentleman who is able and willing to transcribe the whole of the lectures. My inquiries led me to suppose that no publisher could be found to undertake the risk of publication, in the form proposed, unless guaranteed a certain amount of professional support. On the other hand, I calculated that if from two to three hundred gentlemen would engage to take one copy each, at the price of not more than two guineas, the work might be safely proceeded with." Any gentlemen who are willing to support the project are requested to send their names to Dr. Sieveking, No. 17 Manchester Square, W., London.

Death of Dr. John Staige Davis.—Dr. John Staige Davis, Professor of Anatomy and Materia Medica at the University of Virginia, died, on July 18th, of paralysis, at Charlottesville. He was born October 1, 1824, in Albemarle County, Va., and was educated at the University of Virginia, from which he was graduated and received his diploma of M.D. in 1841.

The San Francisco City and County Hospital.—Some weeks ago this hospital was investigated by the Grand Jury with the result of suggesting: *First*, that the time of the visiting physicians will be more profitably spent "in prescribing for the patients," than in lecturing to the students. *Second*, all physical examinations in the presence of students are objectionable. *Third*, the connection between the hospital and the medical schools should be severed. The *Pacific Medical and Surgical Journal* regards these criticisms as eminently narrow and unjust.

The Death of Professor Paul Vogt, of the University of Greifswalde, is announced.

Professor Bamberger has been appointed Rector Magnificus of the University of Vienna.

Mr. Ernest Hart, editor of the *British Medical Journal*, is to run for Parliament as a Radical. We learn that he has consented to oppose the enactment of the Contagious Diseases Acts, and as this position is not that taken by the *Journal*, it may lead him to resign. We wish our editorial confrère success in his new venture.—Professor John Eric Erichsen will also seek parliamentary honors at the next election.

The French Commission and Ferrán's Inoculations.—The French Commission, under Dr. Brouardel, went to Valencia, but returned very soon. It is reported that they found nothing in Ferrán's methods worthy of scientific research.

The International Medical Congress.—Dr. Oliver Wendell Holmes, Dr. William H. Baker, Dr. Cheever, Dr. James C. White, Dr. William F. Whitney, of Boston; Dr. E. P. Hurd, from Newburyport, and members from Concord, N. H.; Portland, Me.; and Lowell, Mass., have resigned from membership in the Congress. The physicians of this city belonging to the State Association have held a meeting and proffered a plan for a compromise to the Executive Committee. This plan is substantially that of allowing only Old Code physicians to become delegates, with power to vote, while New Code physicians will be permitted to become members with power to contribute papers, but not to vote. This is virtually no compromise, since no self-respecting physician would accept membership or do work under such conditions.

Testimony to the Moral Effect of Cholera Vaccination.—A contribution regarding the cholera in Spain, addressed to the American Minister at Paris by Dr. W. E. Johnson, has been received at the office of the National Board of Health through the Department of State. Under date of June 13th, Dr. Johnson writes: "A circumstance which has up to the present moment given a great feeling of security in regard to the disease is the fact that both in Spain and France the mass of the people, the peasants and all the poorer classes, have adopted with a perfect confidence and with great enthusiasm the theory of inoculation proposed by the Spanish surgeon, Ferrán. The very classes of people, fortunately, who are the most exposed by their habits of life to the ravages of the epidemic are those who have seized upon the new idea with the greatest ardor. . . . The idea that a cure, or, more properly speaking, a prophylactic to the disease has been discovered is contributing largely to its non-extension by the greater feeling of security it gives, by the more elevated moral tone it creates, and by the absence of that general and most fatal demoralization which seizes upon the people of infected or threatened localities, and abstracts from them one-half of their vitality before being struck by the dreaded malady. For these reasons there is a more cheerful, and especially a more healthful, indifference in regard to the epidemic than has ever before been observed. But the municipal authorities, fortunately, are none the less zealous on that account in enforcing the necessary sanitary measures for combating the extension of the disease."

Reports of Societies.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, May 1, 1885.

A. Brayton Ball, M.D., President, in the Chair.

HEARING BETTER IN A NOISE.

Dr. Samuel Sexton related the history of a patient whom he expected to show to the members, but the inclemency of the weather had prevented his presence. The case began as a destructive inflammation of both ears from scarlet fever, while the patient was but seven years of age. In his youth he was quite deaf, but hearing began to return as he grew up to manhood. Finally he went as fireman on a railroad locomotive, and advanced to the position of engineer. For many years he ran an engine without there being any complaints made, and without regarding himself as deaf. But when the custom was introduced of examining railroad employés regarding their ability to hear well, he was dismissed. Being thus thrown out of employment, and having nothing to do, he drifted into the Eye and Ear Infirmary. On examination Dr. Sexton found that he could not hear a loud voice at a distance of only a few feet, and was unable to understand anything which was said to him. But he made the statement that when on an engine in motion he could hear everything; could hear better than the fireman, whose hearing was normal. But the moment he got off the train and went to the company's office, he could hear nothing that was said to him.

The point of particular interest in the case was that which raised the question whether these people could be benefited by artificial drum-heads to such an extent as to enable them to continue their vocation. He introduced an artificial drum-head into one ear of this patient, and much to his surprise the man was immediately able to hear ordinary convervation. The next time he returned to the dispensary, the man had obtained a place as stationary engineer. A drum-head was then placed into the other ear, and he was enabled to hear with that ear also.

Of course it was not in every case of deafness that an artificial drum-head would prove of benefit; indeed, the cases were few in which persons would be enabled by this means to continue their occupation, where it was necessary to hear well. It was only in cases in which the drum-head partially remained that such a device was of service.

Dr. Walker asked whether the drum-head was usually lost in cases where a man was able to hear better in a noise.

Dr. Sexton replied, not at all; in the greater number of cases of chronic catarrhal inflammation the drum-head remained. Where a patient heard better in a noise, the drum-head usually was present, but it was very loose; the equilibrium having been lost, there was consequent defect in the transmitting mechanism. In such cases, low vibrations, such as were experienced in a carriage or railroad train, drove the drum-head in, brought the ossicles close together, other sounds were taken up, and the subject was able to hear very well. In the case related, only the upper segment of the drum-head was present, which failed to drive the ossicles in except during the presence of strong vibrations.

A discussion was then opened on

THE COMPLICATIONS AND SEQUELÆ OF SCARLET FEVER.

Dr. Kinnicutt opened the discussion by referring to a

PERSISTENT ELEVATION OF TEMPERATURE IN SCARLET FEVER.

The speaker had mentioned at a previous meeting of the Society that he had frequently observed, in *apparently* uncomplicated cases of scarlet fever, the persistence of a slight degree of pyrexia into and even to the end of the third week. The pyrexia might amount to no more than a degree or a degree and a half in the afternoon, with a normal morning temperature often. The morbific action of the scarlet fever poison evidently was not exhausted, and it behooved us in such cases to make frequent and thorough examinations of our patients. The serous membranes, in his experience, were structures often involved after the more palpable signs of the disease had disappeared, even during apparent convalescence; and of these, the articular synovial membranes and the endocardium most commonly. It was unnecessary before this Society to insist upon the great frequency with which the former were affected; nevertheless it was a pathological condition not sufficiently well recognized by physicians. The explanation was simple; inflammations of the articular synovial membranes in scarlet fever in children, as a rule, were unattended with swelling, redness, or spontaneous pain; the sole symptom often was pain on movement of the joint.

Dr. Kinnicutt believed that the endocardium was involved more frequently than was commonly supposed. In his daily examinations he had frequently detected an impurity of one or another heart-sound, not infrequently a soft, but distinct murmur. Undoubtedly in many cases the murmur should be regarded as hæmic in origin or due to a temporary dilatation, nevertheless such a sign in the course of scarlet fever always should be received with suspicion. It was probable that such an endocarditis might disappear leaving no traces behind it, yet it was important to bear in mind that it might well lay the foundation for future chronic cardiac disease.

Occasionally he had been able to keep under observation such cases as he had described for a number of years, and had seen valvular disease develop. He believed that many cases of heart-disease in children and adult life might thus be explained. Dr. Kinnicutt was not disposed to regard the joint symptoms as *truly rheumatic* in nature, rather as inflammations of serous membranes dependent upon the action of the specific scarlet fever poison. In conclusion, he stated that, where pleuritis and pericarditis with effusion were developed, there was a marked tendency to rapid purulent change.

The President had been very much interested in what Dr. Kinnicutt had said regarding the cardiac symptoms of scarlet fever, and concurred with him in the belief that they should always excite strong suspicion of their being of rheumatic origin, but he did not think that we should necessarily take an unfavorable view of such cases as we were sometimes tempted to do, and to give a very unfavorable prognosis. In the last case of scarlet fever which he had seen there was well-marked joint rheumatism, accompanied by apparent endocarditis; that is, there was a very well-marked mitral systolic murmur, and the pulsations of the heart were somewhat irregular and rapid, beating from 120 to 130 per minute during ten days or two weeks. There was not much elevation of the temperature. Dr. Ball felt uneasy about the case, but was inclined to take the view that the murmur was anæmic, for the reason that it had come on after the boy had been very ill with scarlet fever for two weeks, and was much prostrated from the disease. Percussion showed the heart to be larger than normal, and he thought there was possible dilatation of the left ventricle, allowing reflux through the mitral valves. In the course of a month after recovery, the cardiac murmur disappeared entirely, and the heart returned to its natural size.

LONG CONTINUED RAPIDITY OF HEART ACTION.

Dr. Simon Baruch, by invitation, related the history of a case of scarlet fever with a complication which, so far as as he was informed, was novel. The patient was a merchant, thirty-five years of age, who had always been in perfect health until two or three days before Dr. Baruch saw him, which was on the 5th of April. At that time the temperature was 103° F.; the pulse, 140. At 9 P.M. the pulse was 150. April 6, 12.30 P.M., temperature, 104.5° F.; pulse, 150. Half a drachm of antipyrin

was administered. At 2.15 P.M., temperature, 101° F.; pulse, 150. At 3.30 P.M., temperature, 101° F.; three drops of fluid extract of digitalis administered. 5.40 P.M., temperature, 102° F.; pulse, 150. At 6 P.M. half a drachm of antipyrin given under misapprehension of instructions. 7 P.M., temperature, 101° F.; pulse, 150. Brandy was given, and more digitalis. April 7th, 4 A.M., pulse, 150. Digitalis, four drops, and brandy administered. At 7 A.M., temperature, 102.5° F.; pulse, 150. Antipyrin, thirty grains; at 7.30 A.M., digitalis, five drops. 11.30 A.M., temperature, 102° F.; pulse, 150. There had been no effect evidently from the antipyrin. At 2 P.M. a consultation was held with Dr. A. Jacobi, and on account of the continued high pulse-rate an unfavorable prognosis was made. In the course of the afternoon several large doses of caffein were given hypodermically and in capsule, and brandy freely administered. At 5.30 P.M., the pulse 150; and at 7.30 P.M. the pulse 140; temperature, 102° F. Infusion of digitalis was admnistered in half a tablespoonful doses, and alternated half hourly with camphor, caffein, and brandy. At 9.30 P.M., temperature, 102° F.; pulse, 130. Pulse-rate increased during the evening, until at midnight Dr. Baruch's assistant, who had remained with the patient, found the pulse 180, barely to be counted, and called Dr. Baruch, who at 12.30 A.M., April 8th, found the pulse 140. Caffein and digitalis were discontinued; half an ounce of brandy with milk was given and later a hypodermic injection of morphine. At 12 M., April 9, temperature, 101° F.; pulse, 130. Half an hour later the pulse was 120. He had taken neither caffein nor digitalis, and only small quantities of brandy and camphor. At 9.30 P.M., temperature, 100.8° F.; pulse, 128. April 10, 7 A.M., temperature, 101° F.; pulse, 114; at 11.30 A.M., temperature 100.5° F.; pulse, 108. April 11, 3 A.M., pulse, 98; temperature, 99° F.

Dr. Baruch regarded the pulse-rate in this case as phenomenal because there were no other symptoms indicating the extreme gravity of the case which would be inferred from the condition of the heart. There was a full and free eruption, but no severe angina. The sensorium was clear throughout. The temperature was not especially high. The patient took from three to six quarts of milk every twenty-four hours, besides his brandy. The rapid pulse was not due to heart-failure, because it occurred at the outset of the disease in a man who was in perfect health on the day immediately preceding the invasion. Moreover, both sounds of the heart were clear and distinct even when the pulse was 160; this in itself is a remarkable phenomenon in my experience. Indeed, recovery of a man after exhibiting repeatedly a pulse-rate of 160 has never occurred to me before. The rapidity of the pulse was independent of the height of pyrexia; it was present with a temperature of 101° F. or 104.5° F., whether the temperature was reduced by antipyrin or fell spontaneously, and it continued until the natural decline of the disease, even during the early days of desquamation.

I regard the phenomenon as an effect of the scarlatinal poison expending its intensity upon the vagus and inhibiting its action. This inhibition continued, being but slightly, if at all, influenced by remedies until the exanthema began to decline, and it continued in operation when the temperature was almost normal. When the patient was quite comfortable, taking six quarts of milk daily and demanding more food, when the temperature was 99° F., just after desquamation had begun, the pulse continued at about 100. Yesterday it was 80, after considerable exercise, the patient having visited my office without permission.

Dr. Sexton inquired as to how much brandy the patient had taken.

Dr. Baruch said a moderate amount of brandy had been given before he saw the patient, and thinking that might have had something to do with causing the rapid pulse-rate, it was stopped for awhile, but no effect was noticed upon the pulse.

Dr. Kinnicutt thought it would have been interesting had the effect of hypodermic injections of convallaria been tried in such a case. He had found that convallaria acted better in such cases than any other form of cardiac stimulant which he had used; certainly better than digitalis, although he did not regard it in general nearly as efficient a heart tonic. It seemed to him that in cases in which there was present an inhibitory action of the vagus, convallaria was the most effective means of controlling it. Cases had been reported at this Society in which hypodermic injections of convallaria had controlled rapidity of heart action, 160 per minute, after digitalis and other purely heart tonics had failed. Drs. Peabody and Polk reported cases illustrating the beneficial action of convallaria in increased rapidity of heart action in other cases than acute disease.

Dr. Dana asked whether the man had ever before had any cardiac affection.

Dr. Baruch replied that he had never before been sick.

DIPHTHERIA COMPLICATING SCARLET FEVER.

Dr. Baruch said that formerly he was inclined to regard diphtheria as rather a common complication of scarlet fever, much more so than it really is. The mistake which he formerly made, and which many probably made, was due to lack of thorough study of supposed cases of diphtheritic complication of scarlet fever. Although he did not doubt the occurrence of diphtheria as a complication, he had not seen a case of post-diphtheritic paralysis. It is important to distinguish true diphtheria from the ordinary angina of scarlet fever. The latter is a necrotic process; the former is not. In cases in which he was unable to find false membrane upon the velum and the pillars of the fauces, or albumen in the urine, he was unwilling to make a diagnosis of diphtheritic complication. The muco-purulent deposits of scarlet fever looked very much like the deposits of diphtheria, and were often mistakenly regarded as such, leading us to make a much more serious prognosis. Only three weeks ago a young man of twenty-one years came to his dispensary class with sore throat, which, on examination, was found to be sore throat of scarlet fever. A child of twelve years was brought on the same day, the trouble being found to be scarlet fever, which had not been suspected.

EAR-COMPLICATIONS OF SCARLET FEVER.

Dr. Baruch had of late years made more or less a special study of throat and ear disease, and had come to the conclusion that the throat affection in scarlet fever, because of its liability to extend into the Eustachian tube, should receive much more energetic treatment than was usually given it. He also thought that a good many cases of naso-pharyngeal catarrh and chronic follicular tonsillitis arose from scarlet fever. Dr. Baruch treated the cases by the free use of antiseptics and cleansing methods, by ice-bags to the throat, and by tinctura ferri internally, thus guarding against future throat trouble. He had been a general practitioner for fifteen years before he had studied the ear and throat specially, and during that time had given, as he believed general practitioners usually gave, too little attention to the recognition of the early stages of inflammation of the middle ear in scarlet fever. Such a complication often escaped the physician's notice, because it was apt to occur during the desquamating period, when the physician had ceased regular attendance. Besides, the general public was apt to regard a discharge from the ear after scarlet fever as a favorable sign, and did not consult a physician for that reason. Finally the patient entered an institution, or consulted a specialist for treatment of the chronic affection. It has been ascertained by statistics, that ten per cent. of the cases of deaf-mutism were traceable to scarlet fever. This fact, combined with the long suffering inflicted by chronic suppuration of the ear, should cause us to be

constantly on the alert for complications in scarlet fever. If during the desquamating process (it occurs usually in the early days of this period of scarlet fever) the child complained a little of earache, or if there was a slight rise of temperature, our attention should be directed to the ear, and if, by touching the mastoid process or the helix, it is ascertained that pain is present, the drum should be examined. If acute catarrh is found to exist, it should be treated energetically. He thought applications of warm water into the ear, not by syringe, but by pouring from the spout of a tea-kettle or low irrigator, very useful. The throat should again be looked after, and thoroughly cleansed by antiseptics. Even the application of leeches becomes necessary, for the slight loss of blood would not endanger the patient's condition, while the integrity of the ear is all-important.

With reference to the sequelæ he had found a form of anasarca, not due to implication of the kidneys, not infrequent. There was no albumen in the urine, nor microscopic elements pointing to renal complication; the dropsy was not accompanied by ascites, the abdominal cavity usually being free. He supposed it to be an œdema due to protracted disease, the heart having been working hard, with perhaps some degree of failure. He had seen this form of anasarca often after long protracted malarial fever, even when there was no infarction of the liver to account for it. The treatment indicated was iron and hygienic tonics. It is important to differentiate this form of dropsy from the ordinary post-scarlatinal, on account of the difference in prognosis.

Dr. Baruch further added, regarding the chronic inflammations of the ear following scarlet fever, that they had always proven very rebellious until he had adopted the dry antiseptic method; the canal was syringed with warm water, dried with cotton, and packed with finely powdered boracic acid. The frequent use of the syringe he regarded as harmful, even in cases of six months' standing, or longer, in which there was no organic disease of the bones of the ear. He has seen the condition disappear rapidly under this form of treatment.

ABSENCE OF NERVOUS COMPLICATIONS OF SCARLET FEVER.

Dr. Dana said that his contribution to the subject under discussion would be rather of a negative character. Scarlet fever, so far as his observation went, was a disease characterized by absence of nervous sequelæ. In looking over the notes of about three hundred and forty cases of nervous disease of all kinds, occurring in children, which had appeared at his clinic during the last three or four years, he could find only one case of nervous trouble which seemed to be a sequela of scarlet fever; it was a case of chorea occurring in a boy of only partial mental development, and there was some doubt whether the attack of scarlet fever had had much to do in causing the nervous affection. Perhaps it precipitated the choreic trouble in a child who had originally of a neuropathic tendency. The experience of other neurologists he believed to be about the same. In looking over cases of infantile spinal paralysis, he found that in seventy-five tabulated cases only two were put down as having had scarlet fever. Most authorities said there was no paralysis after scarlet fever, or at least no good evidence was given of paralysis produced by that disease. His observation was like that of Dr. Baruch, namely, that diphtheritic sore throat was very rarely a complication of scarlet fever, for the diphtheritic paralysis very seldom followed scarlet fever. Bonn says he has seen, as have other observers, paralysis of the throat only very rarely after scarlet fever, and he has never seen any of the other forms of paralysis, such as occur after diphtheria. Dr. Dana was inclined to lay down, as a fundamental rule, that the infectious poison of scarlet fever does not cause the neuritis or myelitis which is observed as an effect of the poison of diphtheria.

Some exception might be taken as regarded epilepsy. Gowers found 19 cases (among 1,450) in which recurring epileptic convulsions occurred after scarlet fever. Of these uræmic poisoning could be excluded in 14 cases. The possibility of meningitis, however, is not alluded to. Dr. H. A. Wildermuth has also very recently in *Der Irrenfreund*, reported cases in point. Among one hundred and eighty-seven epileptics, the exciting cause of the disease in twelve cases was scarlet fever, but of these twelve, in six there were evidences of a leptomeningitis, of the convexity, in five there was albuminuria, and in three of these the convulsions were evidently uræmic, for they did not recur after cure of the renal trouble. Dr. Wildermuth, in opposition to Gowers, comes to the conclusion that the specific poison of scarlatina does not itself directly excite epilepsy. This was Dr. Dana's view also.

Dr. Kinnicutt said his experience had been similar to that of Dr. Dana and Dr. Baruch; he had never seen any nervous symptoms except in cases in which there was undoubted diphtheritic complication.

The President asked Dr. Baruch how he distinguished the membrane of diphtheria from the appearance of the scarlatinal sore throat.

Dr. Baruch said he paid less attention to the appearance of the membrane than to the other symptoms present. He thought the membrane in the two conditions had much the same appearance; but in the sore throat of scarlet fever the soreness was much more marked; there was more difficulty in swallowing, and the local symptoms were more intense, because there was destruction of the epithelium going on. Again, in the diphtheritic complication the membrane was not confined alone to the lateral portion of the pharynx and tonsils; it also existed on the posterior pharynx, velum, and pillars. If it occurred upon the velum he should feel quite sure that it was diphtheritic. In addition he should examine the urine.

The President asked if the diphtheritic membrane was not much more adherent than the pultaceous membrane of scarlet fever. Then again, the false membrane was usually in isolated patches.

Dr. Baruch thought the contrast would hold good between the diphtheritic membrane and the peculiar secretion which oozed out of the follicles in scarlet fever. The latter was much more easily removed. But the mucopurulent discharge which occurred upon the ulcerated surface in scarlet fever is pretty hard to remove—quite as difficult to remove as the diphtheritic membrane. He did not think the difficulty of removal of the membrane would be a diagnostic element of itself.

The President regarded diphtheria as a rare complication of scarlet fever, and agreed with Dr. Baruch in not regarding the false membrane described by Dr. Baruch (as belonging to uncomplicated scarlet fever) as diphtheritic at all.

Dr. Beverley Robinson said that the complication which he had personally observed most frequently in scarlet fever was otitis and perforation of the drum-head. But then he had not seen a very large number of serious cases of scarlet fever. He had not often seen diphtheritic complications, not oftener than once or twice. He had seen three or four cases of perforation of the drum-head, and although he had been fully alive to the possibility of the accident, and its importance, yet there were no symptoms which enabled him to recognize the otitis until perforation had occurred. For his part he believed that perforation of the drum-head could not always be prevented, and this statement was true not only of scarlet fever, but also of diphtheria. The only prevention, if it could be called such, was to perforate the drum-head so that the matter could escape, should it accumulate, without spontaneous rupture.

Dr. Kinnicut asked Dr. Sexton if he would approve of the early performance of paracentesis in such cases.

Dr. Sexton replied that he had not practised it, and should regard it as an uncalled for procedure except under very limited circumstances.

Dr. Kinnicutt said that one of his patients had had scar-

let fever and, on complaining of trouble in the ear, a friend advised paracentesis within two hours after the first symptom. Relief was instantaneous after the operation. This occurred at about the end of the first week of the fever.

Dr. Sexton said he could understand that where the drum-head is thickened, as it may be from previous inflammation, immediate relief may follow perforation, but there are many cases in which the inflammation is not confined to the tympanic cavity proper. The membrana tympani and the membrana flaccidi were two quite different things; where there was much bulging in either perforation was sometimes necessary, and might give prompt relief. But the membrana tympani very seldom called for such a procedure.

Dr. Kinnicutt asked Dr. Sexton whether any particular form of treatment was indicated to prevent the ear complication.

Dr. Sexton thought that in nearly all cases of scarlet fever one would find on examining the ear that there was a catarrhal inflammation of the membrane lining the drum-head during the existence of the throat trouble, but it does not always proceed to suppuration. The mucus, if in excess, may escape through the Eustachian tube, which is of large size in children. Unless there are special symptoms, attention is not directed to the ear, but if there is a suppurating tendency he would not hesitate to give very small doses of calcium sulphide to the child. He never failed to get benefit from that.

Dr. Kinnicutt. With local applications?

Dr. Sexton. Without local applications. I think it quite hazardous to make local applications. One cannot be too careful in syringing the ear. The water is liable to increase the irritation. Where there was a simple, non-irritating discharge, Dr. Sexton found but little trouble in cleansing the ear. If the discharge were purulent and irritating, he used cotton-wool. The treatment would vary with the age of the patient. In very young children, in whom the drum-head is difficult to find, very little can be done in the way of making an examination. After puberty the pneumatic cells take to form in the mastoid, and the complications were likely to be different. Dentition was often going on in scarlet fever, and was liable to predispose to ear-trouble by sympathetic hyperæmia. He would like to hear the experience of the members concerning meningitis as a complication of scarlet fever, which he believed was regarded as an extension of disease from the ear.

Dr. Baruch asked Dr. Sexton whether he would use Politzer's method early in this class of cases.

Dr. Sexton replied that ne never used it in the early stage.

Dr. Baruch asked how soon he would employ it after perforation of the drum-head.

Dr. Sexton said one should be very careful in its use. It should not be employed too freely through fear of interfering with the healing of the drum-head. After the membrane had healed and there was possible danger of its becoming adherent to the walls, it might be used, but very carefully, through fear of again producing rupture.

Dr Baruch asked if it was not important to keep the tube clear.

Dr. Sexton said it was desirable to keep the tube clear, but this was not assured by the use of the air douche, and where there was perforation of the drum-head there was usually free drainage.

Dr. Dana asked Dr. Sexton if careful treatment of the throat difficulty would prevent implication of the ear.

Dr. Sexton replied that the throat and ear trouble almost always occurred simultaneously. Dr. Sexton further stated that in many cases of ear trouble, which the patients attributed to scarlet fever, close questioning brought out the fact that it did not occur at the time of the exanthem at all, but was independent of it. Then there were chronic cases of ear disease following an acute otorrhœa which had not been recognized because of the patient's youth. Such cases were liable to be called cases of congenital deaf-mutism.

Dr. R. F. Weir had several years ago made a special study of ear affections, during which time he saw a good many cases of aural disease following the exanthemata, and he could corroborate the statement of Dr. Robinson, that it was very difficult to recognize the ear trouble in these children before perforation took place. Besides, in a child under five years of age, it was very difficult to make an examination of the ear which would enable one to pronounce a positive diagnosis. Another fact which made the examination difficult was the liability to extension of the inflammation to the external ear. He had therefore been unable to carry out his ideas as to the propriety of paracentesis in these cases, oftener than once or twice, and on those occasions there had been considerable distress present. It was very difficult to perforate the drum-head in these cases. It was a haphazard operation. Suppuration of the middle ear in the young suffering from scarlet fever, if properly treated, resulted in the majority of cases in a satisfactory cure.

Dr. Weir, Dr. Baruch, and Dr. Kinnicutt had relieved pain in the ear by the use of a solution of cocaine. Dr. Kinnicutt spoke of a case in which a drop or two was supposed to have come in contact with the external canal and produced inflammation.

Dr. Robinson asked the experience of the Society with regard to the value of cold affusions as a means of lowering excessive temperature accompanied by nervous excitement in scarlet fever.

Dr. Kinnicutt had used cold affusions and found marked benefit therefrom. Dr. Buck had reported a case in which cold affusions failed to lower the temperature, while hot affusions immediately produced the desired effect and also ameliorated other symptoms. Dr. Kinnicutt would at present prefer to use one of the new antipyretics, especially antipyrin, for they produced all the good effects of cold without any of its unpleasant ones. In one case, in which the temperature rose to 107° F., and there was every indication of approaching death, rectal injections of antipyrin produced most marked beneficial results, and the patient finally recovered.

The Society went into executive session.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting May 27, 1885.

John A. Wyeth, M.D., President, in the Chair.

Dr. R. W. Wilcox presented specimens of

MULTILOCULAR CYSTOMA OF THE RIGHT OVARY WITH HYDROSALPINX, ALSO CYSTIC DEGENERATION OF THE LEFT OVARY WITH SIMPLE SALPINGITIS.

The patient was thirty-seven years old, married, never pregnant. For the last fifteen years she had noticed an enlargement of the abdomen; for the last two years her size made locomotion very difficult. Her physician during all this time had considered it to be a case of abdominal dropsy, and of late had been prescribing diuretics. His attention had been called to the fact that an ovarian tumor was present, but he denied its existence, and stated, even if there were one, his medicines would speedily produce absorption. The patient came under observation in February of this year, suffering from two distinct diseases: a peritonitis extending over the epigastric, right and left hypochondriac and right lumbar region, also an acute nephritis, due to the excessive administration of diuretics. As for the tumor, there was no difficulty whatever in diagnosis; it hardly seemed possible that it could have been overlooked by anyone possessing medical knowledge. The diuretics being withdrawn, the nephritis subsided; the peritonitis resulted in adhesions between the tumor and the abdominal wall.

Dr. T. G. Thomas performed ovariotomy and removed

the specimens shown. The larger one consists of the sac, from which the fluid has been removed. The weight of the tumor was 45¾ lbs.; the sac weighs a little over 3 lbs. The fluid was of the ordinary "flax-seed tea" variety, containing considerable diffused blood and a great number of cholesterine crystals. The secondary cysts are mostly small, and contain clear fluid. Over the anterior surface is seen the roughened area marking the site of the adhesions. The Fallopian tube is elongated and hypertrophied, the distal extremity adherent to the tumor; the lumen at the uterine end is occluded. The tube was distended with a clear yellow fluid.

The smaller specimen is the left ovary and tube. The ovary has undergone cystic degeneration, some of the cysts being deep in the substance of the organ, and there seems to be more than the usual amount of fibrous tissue. There are also seen bands of adhesion between the tube and ovary. In the fresh state it showed most beautifully a *corpus luteum* of menstruation, which occurred about ten days before the operation. The tube was very hyperæmic and slightly distended with a clear fluid.

EPITHELIOMA OF THE TONGUE.

Dr. C. W. Knight presented a specimen which he removed at the Manhattan Eye and Ear Hospital after ligation of the lingual artery. It consisted of a portion of the posterior part of the tongue of a patient sixty years of age, who had had symptoms for more than nine months, but did not suspect the nature of the trouble until about two months later. During the last four months the patient had suffered from severe pain, which extended into the ear, but during the last few weeks he had been made comparatively comfortable by the local use of cocaine. The specimen was referred to the Committee on Microscopy.

LIPOMA OF THE BACK.

Dr. L. Waldstein presented a lipoma which was chiefly interesting from the fact that it was removed from the back of a woman eighty-six years of age, and showed the degenerative process which might or might not be attributed to a general atheromatous condition of the arteries. The operation was performed by Dr. Lange because of an ulcer of the skin which would not heal and gave rise to pain and other disagreeable symptoms. The wound healed by first intention. The patient was extremely emaciated, and in this there was illustrated the fact that those in whom emaciation goes to a high degree lipomas develop and do not appreciably diminish in size.

Dr. Waldstein called attention especially to the peculiar degeneration of a part of the tumor, in which there was evidently a formation of new connective tissue, with which could be seen small foci, larger ones in other places, and in some instances they had assumed the character of cysts containing putty-like material which had been proved to be a peculiar form of fat, the melting-point of which was higher than that of ordinary adipose tissue.

Dr. Waldstein also presented a specimen of

ADENO-CARCINOMA OF THE STOMACH.

It was of the form not found very frequently; of the diffuse variety, where the greater part of the new formation was not found in the pylorus, which was patent, but existed as a fungoid mass in the mucous membrane toward the cardia and fundus. The patient was a man forty-six years of age, who had suffered extremely until within the last three or four months. Previous to that time the symptoms were of an indefinite, obscure nature. The carcinomatous tissue had evidently grown very rapidly, as was demonstrated by the great quantity and also by the karyokinetic cell division. There were also found great quantities of small bodies which might have been mistaken for micro-organisms. Dr. Waldstein directed attention to this point for the reason that this granular detritus from division of the nuclei had in some instances been mistaken for micro-organisms. The case was specially interesting because near the edge of the carcinomatous mass could be seen small foci of the disease just beginning to develop. Microscopically it had the distinctive character of adeno-carcinoma, which is extremely malignant.

There was also extreme jaundice, and at the junction of the lower border of the ribs with the right mammary line was a tumor about the size of a pigeon's egg, which was mistaken for carcinoma of the liver, and which on autopsy proved to be an enlarged bladder caused by metastatic tumors of the lomphatic glands in the porta hepatis pressing against the bile-ducts, but not sufficiently to cause complete obstruction, as there was bile coloring-matter present in the duodenum, and also bile coloring-matter was found in the fecal discharges during life.

DIPHTHERIA—LARYNGEAL STENOSIS—CONGESTION OF THE LUNGS.

Dr. Joseph E. Winters, by invitation, presented a specimen consisting of the lungs removed from a child one year and eight months old, in whom the first symptoms of illness appeared on a Sunday, when it had a convulsion. The patient was not seen by a physician, nor did it have treatment of any kind, until the Friday following, when the child was brought to the Demilt Dispensary, where Dr. Winters made an examination and found that it had extensive diphtheria, involving all the faucial surface pillars of the soft palate, the tonsils, and a considerable portion of the posterior wall of the pharynx. The exudate was very thick and very tough. The child was kept in bed and was put upon the usual treatment, and went along very well until the following Wednesday. On Wednesday night there was a wake in the house, and during that night and the following day the child was very much neglected. On Thursday night the child began to have a little croupy cough, and on Friday for the first time the diagnosis of pseudo-membranous laryngitis was made, and was based entirely upon the character of the cough. There was no interference with respiration, the breathing was quiet, and the child was not apparently very ill. On Saturday and Sunday the child was very comfortable. On Sunday night serious interference with respiration developed, and tracheotomy was thought of, but was not performed because the father of the child objected. On Monday again the child was very comfortable; breathing was easy, and there was no obstruction apparently to respiration. On Monday night symptoms of obstruction to respiration again came on and continued from 10.30 P.M. to 2 A.M. Tuesday morning, when the child died from exhaustion and asphyxia.

The condition of the parts was somewhat influenced by treatment probably, as the child took large quantities of ipecac and tartar emetic, and there was a good deal of vomiting.

At the autopsy the lungs filled the thorax well. There was a little exudation upon the tonsils. The upper portion of the larynx was nearly free from disease, and very little of pseudo-membrane was encountered until they reached below the vocal chords, and from there, for a distance of three-fourths of an inch along the trachea, there was a good deal of exudation, and below that point muco-pus and vascularization were distinct, but no recognizable pseudo-membrane. The anterior surface of the lungs was somewhat more distended than usual, and apparently the air-cells were more distinct than they were usually seen. On the posterior surface the bases and the roots of the lungs were congested. On section muco-pus flowed from all, even the smallest, bronchi. At the bases of the lungs there still existed an unusual vascularity. In the anterior portion there was some anæmia with unusual distention. Sections had been made from the lungs, but there had not yet been time for a microscopic examination.

Dr. C. C. Lee asked Dr. Winters concerning his ex-

perience in the use of Dr. Joseph L. Dwyer's laryngeal tube.

Dr. Winters said that he had had no experience in the use of the tube; since it had been discarded so completely by French surgeons he had not endeavored to employ it.

Dr. Lee remarked that that was just as to the tubes used in Paris, but not quite just to the tubes used in this city, where they had arrested the progress of the spasmodic disease to such an extent, after other measures had failed, that lives had been saved which he thought would have been sacrificed had laryngotomy been performed. He could not say that by treating diphtheritic laryngitis life had been saved, but he thought such tubes were useful, and might with very great propriety be employed in such cases as Dr. Winters had mentioned, where objections, such as could not be overcome, had been raised to the performance of tracheotomy.

Dr. Winters said he was not at all familiar with the treatment adopted by Dr. Dwyer, and had not seen Dr. Dwyer's tube; but he had supposed that its use had been limited to laryngeal complication, occurring in measles, and had not heard of its being used in laryngeal diphtheria.

Dr. Northrup said that, in the New York Foundling Asylum, where urgent laryngeal symptoms had been present the tube had relieved them almost immediately, and that after death membrane was found to extend from the epiglottis to the finest bronchi. Of course, it was hopeless to attempt to cure such cases by relieving laryngeal dyspnœa, but the tube had thus far met the indications promptly and completely.

Dr. Lee said he did not raise the question on the supposition that the use of the tube in diphtheritic laryngitis would be curative, although there had been notice in print of its use in two or three cases, which were believed to be croupous laryngitis.

Dr. Northrup asked Dr. Winters if, in his experience during the past season, the pseudo-membrane had manifested a marked tendency to spread downward into the bronchi.

Dr. Winters said it had not been his experience. The cases of croup which he had seen had been mostly in consultation, and, according to his experience in diphtheritic croup, in the cases which were treated early the membrane did not extend very far below the larynx. He thought that by proper care, instituted very early in practice outside of public institutions, the spread of the exudation and formation of pseudo-membrane to very much distance below the larynx could be, as a rule, prevented. He thought that the character of the exudation itself would be modified, and its tendency to spread would be greater in foundling asylums than it would be in outside practice.

Dr. Boldt said that his experience had been the same in private practice as that which Dr. Northrup had seen in hospital practice—namely, that in the majority of cases diphtheria had, during the past season, manifested a tendency to spread into the bronchial tubes. Furthermore, where tracheotomy had been performed this winter the cases had proved invariably fatal, and in autopsies which he had made, in eight cases after tracheotomy, there was seen in each one membrane extending into the bronchi. He did not believe that the extension of the membrane could be prevented in every case, but probably a good deal could be done to restrain its progress somewhat.

Dr. J. C. Peters had seen false membrane upon the top of the larynx without extension downward, and the patient recovered with frequent irrigation of the throat and the use of bichloride of mercury dry upon the tongue, where it comes in contact with the pharynx and top of the larynx.

(To be continued.)

Compressed Tablets of Vaccini Lymph are manufactured and successfully used in Switzerland.

Correspondence.

AN UNPLEASANT ACCOMPLISHMENT.

To the Editor of The Medical Record.

Sir: I have encountered a phenomenon here which seems worth recording. There resides here a young man twenty-eight years old, who represents a large Eastern clothing house, and who does an extensive business for his firm by taking orders for men's suits, for which he makes the necessary measurements. He possesses the singular power of making many of his customers quite sick during the process of measuring. He proceeds very carefully and deliberately, with a painstaking that insures ultimate satisfaction to his patrons.

Quite early in the process it is not uncommon for the customer to become very sick, so that he has to lie down and then evinces the signs of extreme prostration and faintness.

In perhaps twenty-five per cent. of the cases complete syncope occurs. The young man says that he has probably "floored" fully one hundred persons in the last two or three years, some of them being large and wholly robust. The trouble occurs early in the measurement and generally while he is adjusting rule and tape to neck, shoulders, and arms, especially when one arm is extended horizontally, and one of his hands is at the customer's neck, and the other at the wrist. It has commonly occurred to persons who knew nothing about his rather annoying accomplishment, and hence were not in expectant mood, and always long before the subject could have become fatigued.

He also says that these peculiar events come in waves; he may go a month or more without discommoding a single patron, and then have a series of cases in a few days. Recently he "floored" three men in succession within an hour, without their knowing of each other's condition. He says that he is conscious of some unusual state of his nervous system at such times, and feels a tingling much as if an electric current were passing through his arms.

He attributes this unpleasant influence over his customers to electric action, and it may be remarked here that he can at any time develop electricity in the familiar way—but with uncommon facility—by shuffling over the carpet, and administer brisk shocks to his friends. He is in vigorous health and well nourished, of only moderately nervous temperament, a good singer, and very earnest, zealous, and successful in his business.

I may add that he always seems to be standing behind the customer at the stage of measuring when the depressing influence is exerted.

Yours respectfully,

Francis H. Atkins, S.B., M.D.

Las Vegas, New Mexico,
June 12, 1885.

Transplantation of an Eye.—Homer's ox-eyed goddesses are in danger of becoming very commonplace mortals. Dr. Chilbert was recently called upon to enucleate the eye of a young girl, and, with a due regard to her beauty, secured a rabbit's eye, which he inserted into the empty orbit. He reported the case to the Académie de Médecine with the remark that "at the present writing all goes well." But he omitted to state whether the young lady could see with her rabbit's eye, or whether it was simply an improvement on the vitreous organ.

Honors to an American Physician.—Dr. D. B. McCarte, of this city, who has passed many years in China and Japan, was recently decorated by the Mikado of Japan in recognition of services performed by him in the cause of medical education in Tokio.

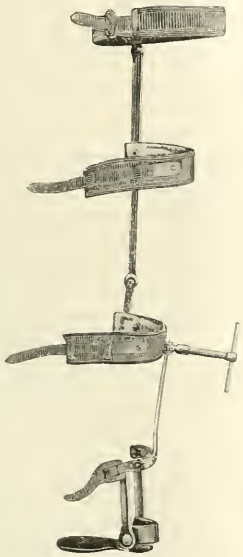
New Instruments.

AN APPLIANCE FOR THE CORRECTION OF INVERSION OF THE FOOT.

By THOMAS L. STEDMAN, M.D.,

ASSISTANT SURGEON TO THE NEW YORK ORTHOPÆDIC DISPENSARY AND HOSPITAL.

In certain cases of club-foot, after the varus deformity has been overcome there remains an inverted position of the member which is often a source of considerable annoyance and perplexity to the surgeon. This deformity is not due to weakness of the rotator muscles of the thigh, for the latter is usually rotated outward beyond the normal, through the patient's efforts to rectify the position of the foot. The inversion is located at the ankle, and the appliances commonly employed are inefficient, since they ignore this fact, and are so constructed as to increase the outward rotation at the hip. By their use the foot may be made to point anteriorly, indeed, but the knee is at the same time turned outward to such an extent that locomotion is rendered awkward, and almost impossible.



In the apparatus here figured I have endeavored to obviate this difficulty by applying the rotatory force so as to act upon the foot alone. The support consists of a simple external upright bar, jointed at the hip and knee, attached to a pelvic band above and provided with other bands encircling the thigh and the leg immediately below the knee. From the posterior portion of the lower band a rod with endless screw attachment passes down to the ankle-band of the scarpa shoe. In applying the brace the foot-plate is to be turned by means of the key until it corresponds exactly with the position of deformity. Then, after the heel is strapped firmly into the cup and a strong, well-fitting shoe applied, the key is turned so as to rotate the foot as far outward as may be desired. The normal position of the knee is not interfered with, although the foot may be slightly everted, and the patients are enabled at once to walk easily and almost gracefully.

107 WEST FIFTY-FOURTH STREET.

THE MICROBE OF ERYSIPELAS.—At a recent meeting of the Académie de Médecine, M. Cornil stated that a microbe is present in all forms of erysipelas. The organisms have been cultivated on gelatine by Fehleisen and Rosenbach. They are round, generally arranged in pairs, or in sinuous bands. The microbe of erysipelas is a streptococcus. Rosenbach asserts that there is a difference between the streptococcus of erysipelas and the pyogenic streptococcus. M. Cornil failed to observe any difference, but believes that, if the identity between the streptococcus of erysipelas and the streptococcus present in phlegmonous inflammation be not fully established, it is nevertheless demonstrated that erysipelas is always provoked by the presence of streptococci in the connective tissue, the plasma of the lymph, and the blood.—*British Medical Journal.*

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from July 12, 1885, to July 18, 1885.

VOLLUM, E. P., Lieutenant-Colonel and Surgeon. To be relieved from duty in Department of the East on the expiration of his present leave of absence, and to report to Commanding General Department of the Platte for assignment to duty as attending surgeon at the headquarters of that department. S. O. 159, A. G. O., July 14, 1885.

MIDDLETON, J. V. D., Major and Surgeon. Leave of absence extended fifteen days. S. O. 159, A. G. O., July 14, 1885.

BROWN, J. M., Major and Surgeon; EWEN, CLARENCE, Captain and Assistant Surgeon; TAYLOR, A. W., Captain and Assistant Surgeon; and BORDEN, W. C., First Lieutenant and Assistant Surgeon. Ordered to prepare for field service. S. O. 64, Department of the Platte, July 9, 1885.

GRAY, W. W., Captain and Assistant Surgeon. Relieved from duty at Fort Barrancas, Fla., and ordered for duty at Fort Columbus, N. Y. Harbor. S. O. 147, Department of the East, July 13, 1885.

EVERTS, EDWARD, First Lieutenant and Assistant Surgeon. Ordered for duty as Post Surgeon, Fort McDermott, Nev. S. O. 68, Department of California, July 11, 1885.

POLHEMUS, A. S., First Lieutenant and Assistant Surgeon. Ordered for duty as Post Surgeon, Benicia Barracks, California. S. O. 68, Department of California, July 11, 1885.

WINNE, C. K., Captain and Assistant Surgeon. Ordered for duty at Benicia Arsenal, California. S. O. 68, Department of California, July 11, 1885.

EDIE, G. L., First Lieutenant and Assistant Surgeon; BLACK, C. S., First Lieutenant and Assistant Surgeon. Ordered for duty with troops *en route* to Department of the Missouri. S. O. 78, Department of Texas, July 10, 1885.

Official List of Changes in the Medical Corps of the Navy for the week ending July 18, 1885.

OWENS, THOMAS, Assistant Surgeon. Granted sick leave for one month. July 14, 1885.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 18, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
July 11, 1885	0	12	46	1	109	70	0	0
July 18, 1885	0	11	31	4	69	50	3	0
Deaths.								
July 11, 1885	0	3	9	1	21	34	0	0
July 18, 1885	0	3	3	4	18	18	0	0

DEGENERATION FROM CITY LIFE.—Mr. James Cantlee, F.R.S., in a lecture before the Parkes Museum of Hygiene of London recently, presented a startling picture of the unfavorable influence of life in that great centre of population upon its inhabitants. *The Maryland*

Medical Journal, April 18, 1885, "cannot help thinking that he has very much overdrawn the picture, and that he has taken what is at best only of frequent occurrence among the lowest class of people as the prevalent condition of things. Yet he speaks very absolutely, and, coming from so high an authority, it is startling to reflect upon the wide range of application which his remarks may have, even reaching our American city population. The degenerating influences of city life—with its crowds, its dust, its vitiated atmosphere, its deprivation of sunshine and light, and want of healthful out-door exercise—cannot certainly be exaggerated, and the most intelligent efforts of sanitarians are needed to deal with the problems connected with these sources of physical degeneration. 'It is well-nigh impossible,' said Mr. Cantlee, 'to find a third, and absolutely impossible to find a fourth generation of pure Londoners—the progeny ceases partly from moral and partly from physical decline and inability of continuance.' The pure Londoner of the third generation, which he has been able, after much search and inquiry, to get hold of, is a picture of physical decline, involving shortness of stature, narrow chest, deformity of jaws, miserable appearance (squint prevailing), scrofulous diseases, and small head. Pure Londoners are seldom to be found in work-houses, because they die young. The only notion a Londoner has of relaxation is a run to the country or the seaside on a bank holiday. He foretold evil to the townsfolk of to-day if measures were not taken to provide means of exercise in fresh air. It is a serious question whether the welfare of this country shall in the next generation be left to a race out of whom all enthusiasm and earnestness has passed."

Epilepsy and Motor Functions of the Cortex.—M. Vulpian has recently shown, after having determined what is the minimum electric stimulus necessary to apply to the gray substance of the brain in order to provoke movements, that the same effects are obtained by a weaker current, if isolated electrodes (entirely covered by guttapercha, except at the extremity) be allowed to penetrate the gray substance until they reach the white matter. He also affirms that epileptic attacks are provoked by stimulating the underlying white bundles by weaker currents of less duration than those used for stimulating the surface of the gray substance. Other experiments by M. Vulpian tend to show that the gray cortical substance is of quite secondary importance in the pathogeny of epilepsy. M. Vulpian has arrived at this conclusion from freezing the cerebral surface of a dog by methyl-chloride, and then applying an electrical stimulus. M. Vulpian's views, if corroborated, will cause an important modification in the cortical theory of epilepsy.

Micro-organisms and Heat.—M. Charles Richet, at a recent meeting of the Société de Biologie, stated that heat helps the action of substances that impede or arrest the development of micro-organisms. In two bottles of urine mixed with a few drops of putrid urine, five milligrammes of mercuric chloride were added; one remained in the laboratory, the other was placed in a stove at 40° C. (104° F.). In the former, micro-organisms were developed; the other, which was subjected to heat, remained clear and limpid.—*British Medical Journal.*

The Latest Form of Hospital Construction.—The newest form of hospital design is the circular, which has attracted a good deal of attention of late, and designs of which were shown recently by Mr. Henry S. Burdett. Mr. Burdett states that the first advocate of the circular type of hospital wards appears to have been Dr. McKenna, a physician in Melbourne, in 1854, owing to his experience of the treatment of the wounded in the churches and chapels (which invariably took a circular form) of Spanish America, during the civil wars there. He noticed that the majority of the patients treated in the rectangular convent rooms died, while the large proportion of those placed in the circular churches adjoining survived. The plans of all the public circular hospitals which have been erected, or which are in course of erection, together with the latest example of a military hospital designed on the same principle, are now exhibited together for the first time. The advantages claimed for this type of hospital are: (*a*) its ready adaptability to the most confined site, (*b*) the more perfect aëration of the ward blocks, (*c*) freedom from stagnant corners internally, (*d*) the free admission of sunlight throughout the day, (*e*) increased superficial, floor, wall, and air space, and (*f*) a central system of heating and ventilation, which has an equal effect upon all points of the ward. Properly constructed, the distinctive advantages of the circular over the rectangular form of ward have been aptly shown by Professor John Marshall, F.R.S., the first advocate of this system in England, by comparing the circular ward to a tent. It has been found by experience that this form of construction is not, however, suitable for wards of less than ten beds, or possessing a smaller diameter than thirty-five feet.

Chloroform and Tape-worms.—Dr. N. O. D. Parks, of Ashton, R. I., after unsuccessfully using filix-mas, prescribed the following to a woman with tape-worm: He ordered her to fast for twenty-four hours, at the end of which she was to take one drachm of chloroform in an ounce of syrup in three doses, at intervals of two hours, to be followed in an hour by ol. ricini, two ounces. The prescription was completely successful.

A Compound Western Medical College—We take an opportunity, somewhat tardily, to give our readers the benefit of whatever justification may be found in the following letter from Irving J. Manatt, presumably Chancellor of the University of Nebraska. We would like to be more than just and say a kind word for the medical college herewith described. It appears, however, from evidence in our possession, that, unofficially at least, it has adopted unworthy methods in the solicitation of students. However, we will at least hope that it in time may shun eclecticism, etc., and become a creditable institution. Our correspondent writes: "My attention has been called to an editorial note in your issue of the 11th inst., of which note I enclose a copy herewith. As to matters of fact therein asserted, it is true that the University of Nebraska includes a College of Medicine; it is not true that this college 'has been taken possession of by eclectics.' From catalogues accompanying this you will observe that the medical faculty here consists of nine regular professors and three lecturers, with three special chairs of homœopathic and two of eclectic medicine. The college is not as yet materially supported by the State, having been organized by the Board of Regents in 1883, on an offer of gratuitous service by the faculty for a period of two years. It is believed that the college has justified its being and will be put upon a substantial basis at the coming session of the Legislature. As regards the *Nebraska Medical Journal*, it is in no sense the organ of the college, and is neither authorized nor patronized by the University. It is, so far as I can learn, purely and simply a private enterprise on the part of its editors, two of whom happen to hold the eclectic chairs in the college. As your note was calculated to give an injurious impression of the University, I trust you will do us the justice to make this correction."

Poliambulanza di Milano.—We have received the first annual report of the Milan Policlinic, for the year ending September 30, 1884. The institution was opened with three classes in May, 1882, but its organization was not completed until January, 1884. There are now eleven classes comprising all the recognized specialties, but not including general medicine and surgery. The number of patients received during the year was 12,179, of which 2,794 were in the orthopædic class, 2,380 in the ophthalmological, 1,010 in the otological, and 2,298 in the class of children's diseases. These figures would seem to indicate that the establishment of a dispensary of this sort was not uncalled for.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 29, No. 5 NEW YORK, AUGUST 1, 1885 Whole No. 769

Original Articles.

INTRODUCTION TO A DISCUSSION ON THE DIAGNOSIS AND TREATMENT OF TUMORS OF THE BLADDER.[1]

BY REGINALD HARRISON, F.R.C.S.,

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AT the request of the Secretaries of this Section, I have undertaken the responsibility of opening a discussion on the diagnosis and treatment of tumors of the bladder.

Only a few years ago, anyone occupying this position would probably have felt bound to offer an apology to his audience for the scantiness of the material upon which he had to dilate; such, however, has been the progress of surgery within our recollection, that I feel myself differently circumstanced, and shall ask your indulgence in my attempt to compress the large amount of material which the experience of many has already supplied.

Time is more than precious on occasions such as these, and I must, therefore, avoid all historical references, deeply interesting and instructive as they are, and deal with my subject from a purely clinical point, feeling assured that this is the direction which will best answer our purpose to-day.

Under the guidance of the distinguished surgeon who presides over our Section, and in the presence of many who have made valuable contributions to this subject, I have the satisfaction of anticipating that the speakers who follow me will fill in the numerous gaps I must necessarily leave, and correct defects in my statement of which I am only too conscious.

I shall confine my remarks to tumors of the bladder proper, adopting where requisite the nomenclature set forth in the report of the Committee appointed by this Association, for the drawing up of which we are largely indebted to Mr. Paul.[2]

It is hardly necessary that I should occupy time with any remarks on the diagnosis of these growths other than those which will incidentally occur. Chief reliance will be placed on the circumstances under which blood appears in the urine, the manner in which the mechanism of micturition is interfered with, the presence or absence of evidences of new growth in the excretion, and the direct and indirect indications which may be afforded by the use of the sound or the catheter.

It will be convenient to arrange tumors of the bladder into two classes or stages: 1, Those which, during their entire existence, or for a portion of it, occasion either slight or no distinct indications of their presence; and 2, those which declare themselves by symptoms either seriously disturbing the function of micturition, or which by their constancy or degree threaten the life of the patient.

From the manner in which I have thus attempted in general terms to make use of a classification, it will be at once understood that individually I should be guided as to treatment, not by the fact alone that a patient has a growth in his bladder, but by the symptoms it produces.

The mere subjective evidence that a patient has a tumor of this kind would not, I submit, warrant the adoption of any operative measures to effect its removal, even if in addition it were possible to demonstrate its existence by other means than digital exploration. Some tumors of the bladder which have been found in the post-mortem room appear to have had no history connected with them, and instances are known in patients of the total disappearance, after varying intervals, of symptoms which were unmistakably those of villous growth or papilloma. Of the latter I believe that I am acquainted with more than one case. These are important facts, as they seem to indicate that what nature can accomplish, art may hope to imitate. How these growths thus disappear, whether it is by an accidental self-strangulation, or by an inflammatory act, it is impossible to say; but that they do so occasionally, without recurrence, I have not the least doubt.

Unfortunately, however, by far the larger proportion of them sooner or later pass out of the condition where operative interference is not to be recommended, and enter upon what I have taken as the second stage of their existence. Whether the transition is slow or rapid, gradual or sudden, much depends on their kind; but whether innocent or malignant, primary or secondary, the great majority of them, sooner or later, make it apparent that life will eventually be destroyed, either by persistent hemorrhage, or by the degree micturition is interfered with.

The question of operative interference will now be entertained; but before anything further can be said as to the hope of success which is likely to follow this, it is necessary that a more accurate knowledge of the connections of the growth should be obtained. This brings me to speak of digital exploration of the bladder.

If you will look at the two drawings which I show, you will see examples of two very opposite conditions; one where everything may be hoped for from operation, where complete recovery modern surgery has proved to be possible; and the other where nothing is to be expected except the relief of those symptoms of urgency which have rendered an opening into the bladder necessary. The first drawing represents a villous growth of three and a half years' duration, with a narrow pedicle, and is taken from Quain's "Clinical Lectures" (Plate xxiv.), which have recently been published; the second is an epithelioma extensively connected with the posterior wall of the bladder, from a specimen of my own in the Liverpool Museum.

Illustrations like these tend to show that though the diagnosis may be correct, the prognosis, so far as operative treatment is concerned, may fall very short of our desire, as the propriety of attempting to remove such growths can never be foretold until the finger has been placed in contact with them.

Digital exploration of the bladder relative to the treatment of tumors seems to me to be called for when it can fulfil at least three objects: 1, The relief of symptoms which are otherwise irremediable; 2, for verifying the diagnosis of tumor; 3, for determining whether the removal of the growth can be proceeded with. The circumstances which require a surgeon to open the bladder for the purpose of finding out what is inside it must be very exceptional; but when by this proceeding the three important objects I have mentioned are to be obtained with little risk, then its importance cannot well be overrated. There are recorded cases which seem to suggest that if the exploratory examination had been limited to

[1] Read before the Surgical Section of the British Medical Association at its Annual Meeting, 1885.

[2] British Medical Journal, January 12, 1884.

providing a means for draining the bladder, and for examining the growth, it would have been better.

In the case of an epithelioma of the bladder, such as you see in the illustration, which I have also taken from Quain (Plate xxix.), to attempt its extirpation is obviously out of the question; to explore it with the finger, and to feel so far satisfied, and at the same time to give the patient an opportunity of emptying his bladder completely by means of a short and open road so long as he lives, is legitimate; nay, further, experience has already sufficiently shown that there is no better way of controlling the considerable bleeding which nearly always attends these cases, than by providing the means of permanently maintaining the bladder in a condition of more or less contraction.

And now a few words in reference to the operation for exploring the bladder with the finger. If there are two ways to a place of about the same length but with somewhat different surroundings, you may depend upon it you will have two sets of travellers, with the same aims, but with very opposite notions as to the respective merits of the two routes. So with the bladder; though we are agreed as to the necessity of exploring it, we are not so unanimous about the route. In this country, as well as in America, median perineal urethrotomy seems to be preferred, whilst in France the claims of the suprapubic operation have been forcibly urged by Professor Guyon, Pousson, and others. Sir Henry Thompson has advocated the former method, not only as being the safest and most convenient for exploration, but, as he has shown by examples, for extirpating these growths. It seems to me that this form of procedure is to be preferred on several grounds.

In the first place, it provides a direct access to the more usual position of these growths; by a continuance of the incision forward into the membranous urethra and backward to the extreme limit of the prostate, it affords more room for manipulation than at first sight appears; but what is of more importance, it is, I believe, the best position for the drainage to follow, and which is a most important item in the management of these cases. If a perineal exploration shows the position or character of the tumor to be such as would be benefited by an access from the front, should it be determined to remove it, there is nothing to prevent the addition of the suprapubic incision, as Billroth demonstrated. A suprapubic incision is none the worse for having a more dependent opening, as Frère Côme practised a hundred years ago in connection with his success as an operator for stone. But, as I have already intimated, the great importance of the after-treatment, in relation to thorough drainage, renders, to my mind, the perineal procedure almost a necessity.

In connection with this point, it must not be forgotten what are the conditions under which these operations are often undertaken. In addition to the tumor which it is purposed to remove, there are usually present, either in the bladder itself, or in the organs associated with it, pathological changes which add considerably to the danger arising from the retention of anything which ought to escape. The viscus is occasionally sacculated, the ureters are patent and frequently largely distended, whilst the kidneys are rarely sound where the obstruction caused by the growths has been of long continuance. Hence we have much to fear from any extension of a suppurative process after the operation, as I have seen in two instances which have recently come under notice. One of the best safeguards against a contingency such as this, is thorough drainage, and this I think can best be secured through an opening in the perineum.

The feasibility of attempting to remove the tumor having been determined by digital exploration, the precise means of doing so has now to be considered.

It will not be necessary for me to describe at length how this has been effected after an opening has first been made into the bladder; in some instances the finger-nail has sufficed; in others, various kinds of forceps; quite recently, Mr. Pitts has recorded[1] a case where a growth was successfully removed by the *écraseur*. In examining two cases which terminated fatally, it appeared that if it had been possible to have applied a ligature round the pedicles, and then to have removed the growths cleanly, either with forceps or scissors, a different result might have followed. The nearest approach to such a proceeding seems to be one recorded by Mr. Henry Morris,[2] who, failing on the first attempt to remove a growth, in consequence of the want of the most appropriate means for extraction, the patient was left for two days, when the tumor was found prolapsed into the wound. Having stretched the edges of the wound apart by retractors, he succeeded in placing a ligature of catgut over the base of the growth and removing it with scissors. The patient made a good recovery.

When, after the bladder has been opened and explored, it seems practicable to remove the tumor, this should be effected as completely as possible; to take away a portion of it is to leave the remainder to inflame, suppurate, and possibly to become gangrenous, thus providing a fruitful cause for pyelitis, through the largely dilated ureters. Not being entirely satisfied with the forceps that hitherto have been used for the purpose of seizing and extracting these growths, I have had some others made for me by Messrs. Krohne & Sesemann, which, so far as I have been able to judge of them in practice, are well adapted for this object. It will be seen that they consist of an ordinary pair of bladder-forceps, with a free margin; by this contrivance it is almost impossible to do any damage to the wall of the bladder itself. The removal of the growth is effected partly by twisting slowly with the hand, and partly by the crushing action of the jaws of the instrument. In the exploration of the pedicle, both before and after removal of the growth, I have found one of Marion Sims' enucleator hooks exceedingly useful. If, however, the connections of the tumor are extensive, and there is a doubt as to whether all can be got away without doing serious damage to the bladder itself, I feel sure that we had better content ourselves with the opening, which may under all circumstances be safely made, and the drainage that this opening with a suitable apparatus will provide. The lesser proceeding has in many instances proved the means of arresting hemorrhage, and of adding materially to the comfort, as well as to the life of the patient, even where it has been found impossible either to remove the tumor, or with safety to reduce its size.

Time will not permit me to illustrate these remarks with cases from my own practice, where I have operated in accordance with the views expressed in this paper; these have already been noticed in a previous communication.[3]

I hope that Dr. Stein of New York, who has contributed importantly to the literature of this subject,[4] can tell us something to-day as to the general results following operative treatment, drawn from his most recent investigations upon this point.[5]

And what applies to the male is equally applicable to the female, though with the latter, by reason of the anatomical differences in the parts, both exploration and removal can be more readily effected. My friend, Dr. Alexander, of Liverpool, was, I believe, one of the first in this country to demonstrate the successful removal of growths from the bladder under these circumstances.

Of excision of portions of the bladder I have had no experience; so far as I am aware, it has been limited to some experiments on the lower animals, in furtherance of the subject which we have now under discussion.

In conclusion, it cannot be denied that operative surgery has already proved itself to be of considerable service

[1] Clinical Society, May, 1885. [2] The Lancet, April 21, 1884.
[3] On the Surgical Treatment of Hæmaturia, Liverpool, Medico-Chirurgical Journal, July, 1884.
[4] A Study of the Tumors of the Bladder, New York, 1881.
[5] Results of Operations, New York Medical Record, No. xxviii, 1885

in the treatment of a very distressing class of disorders, and for which little is to be hoped for from medicinal agencies.

If I may be thought to have been too general in some of my remarks, permit me to say that this has been my intention; my object has been to open a discussion, and not to narrow it unnecessarily. The time has not arrived when it would be possible to lay down hard and fast lines of demarcation; much must be left to individual judgment. Where therapeutics are to end and surgery is to commence, experience and the application of those principles which are of general utility, and are not the exclusive property of any one set of organs, will enable us to determine what is best for each case as it presents itself to our notice.

ON FEEDING THE SICK.[1]

By WILLIAM ROBERTS, M.D., F.R.S.,

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My first duty is to express my acknowledgments to the Council of the Association, and to the South Wales and Monmouthshire Branch, for the honor they have done me in inviting me to deliver the address in therapeutics. This is, I believe, the first occasion in the history of the Association on which, from the wide domain of medicine, that portion which deals with the treatment of the sick has been specially selected as the theme of an address at the Annual Meeting. The subject of therapeutics is so large and complex that to deal with it comprehensively within the compass of an hour's address would be beyond my powers. Such an attempt, even in much abler hands than mine, could scarcely issue otherwise than in the enunciation of a series of barren generalities which would edify no one. I therefore felt, as soon as I came to consider the matter, that the most prudent course for me, and the one most likely to prove interesting to you, was to confine myself to a very limited area in the field of therapeutics, and to endeavor within that area to say something which might prove of use in the daily practice of your profession.

Perhaps of all the many duties which fall to the province of the medical practitioner, there is none so common as the duty of regulating the diet of his patients. Whatever the disease may be from which the patient is suffering, and whatever special means may be indicated for his relief, the regulation of the diet is sure, sooner or later, to crop up as an integral part of the management of the case. Dietetics, therefore, cover more ground than any other branch of the healing art—they are also, perhaps, the most ancient branch. Hippocrates traces back the very origin of medicine to dietetics. "For," he says, "the art of medicine would not have been invented at first, nor would it have been made a subject of investigation, if, when men are indisposed, the same food and other articles of regimen which they eat and drink when in good health were proper for them, and if no others were preferable to these." Notwithstanding this universal applicability, and this high antiquity, it must, I think, be allowed that dietetics, except in a few special cases, are somewhat neglected in these days. The often contradictory advice which is tendered to invalids in regard to their diet by the several medical men whom they may consult, betrays the want of a guiding principle and of a general consensus of opinion in the medical profession on the subject of feeding the sick. This is, perhaps, not to be wondered at when it is considered how little systematic study is devoted to dietetics, and how fragmentary is the instruction on this subject which is given to the student of medicine. So far as I know, there is no systematic teaching of dietetics, even on the most limited scale, afforded to the student at any of our medical schools. He is left to pick up his knowledge of this subject, as best he may, during the earlier years of his practice—and he often ends by taking his own digestive organs as his type, and prescribes for his patients according to the likings and dislikings of his own stomach. This is, I need hardly say, a very unsatisfactory proceeding; for there is, perhaps, no subject in which individual experience is so fallacious a guide as dietetics, and none in regard to which it is more important to draw our inductions from a wide basis of facts.

The first prerequisite for the acquisition of a sound knowledge of the dietetics of the sick is to have clear ideas on the origin and meaning of the dietetic customs of the healthy; for it is obvious that the proper diet for the sick must be some purposive modification of the diet of the healthy. We have, perhaps, been too much inclined to seek, or to seek too exclusively, in the physiology of digestion and nutrition, for our guiding principles and our point of departure in the study of dietetics. I doubt whether this is always, or even generally, the best starting-point. There are problems in human dietetics which appear to be beyond the reach of physiological research. What conceivable physiological inquiry, for example, could throw light on such problems as the following: What are the remote effects of the use or disuse of meat, or of alcoholic beverages, or of tea and coffee, on the bodily health and mental attributes of the individual and on those of his descendants in succeeding generations? And such questions are certainly, as I believe, involved in a comprehensive study of dietetics. On the side of natural history, it seems possible to approach such questions with some hope of success. For if we had the information, and could compare the mental and physical condition of the classes and nations which use these articles systematically, with that of the classes and nations which abstain from them, the elements of a solution would seem to offer themselves.

I venture, therefore, to say that the science of dietetics must be mainly based and built up on an observation and a study of the practices and customs of mankind in regard to their eating and drinking, rather than on any *à priori* data supplied by physiology. In the case of the lower animals, we assume that each creature selects, from the nutrient materials within its reach, those articles which are most suited to its well-being, and are best fitted to promote its success in the struggle for existence, and that it is guided in this selection by an almost unerring instinct. This, like other instincts, is now explained by biologists as consisting essentially in an inherited experience, which has been gradually accumulated through a long line of ancestors, and is transmitted by heredity to the descendants. Accordingly, when we see an animal feeding on a particular kind of food, we conclude without hesitation that that food is, of all the nutrient materials accessible to it, the best adapted for the special wants of its economy. But we know that man, in regard to his bodily functions, is subject to the same laws as govern the life of the lower animals; and we cannot doubt that in the formation of his dietetic habits man is guided by the same kind of instincts as those which guide the rest of the animal creation in the choice of their food.

The generalized food-customs of mankind are, therefore, not to be viewed as random practices adopted to please the palate, or to gratify an idle or vicious appetite. These customs must be regarded as the outcome of profound instincts, which correspond to important wants of the human economy. They are the fruit of a colossal experience accumulated by countless millions of men in successive generations. They have the same weight and significance as other kindred facts of natural history, and fitted to yield to observation and study lessons of the highest scientific and practical value.

In taking dietetic customs as objects of study it is obvious that widely disseminated customs, followed by many races and by vast masses of population, have a deeper

[1] Address in Therapeutics, read at the Annual Meeting of the British Medical Association, July 29th.

and broader significance than customs limited to a few races or to small communities. It is also obvious that the practices of the more successful races, and of the easier classes of a nation, are more likely to yield good dietetic models than the practices of backward races or of the poorer classes, because the former, owing to their ample means, have greater freedom of choice, and because also their greater success in the struggle for predominance is *primâ facie* evidence of the beneficial tendency of their food-habits. I need hardly say that dietetic customs which are not the outcome of the free choice of the population, but are the consequence of legislative enactments or of religious injunctions, are of no utility as guides in the study of dietetics—except, indeed, as warnings of the mischief that may accrue from ignorant meddling.

The British races and the other races of Western Europe, together with their kindred and descendants in different parts of the globe, are, on the grounds just stated, fitted to supply us with a body of dietetic customs which may be regarded as a beneficial model. These races and nations are every way, but especially in intellectual power, and in their productiveness of men of originality and eminence, far in advance of all others. Their food customs have grown up spontaneously, without material interference from legislator or religious reformer. Their world-wide commerce has brought cheaply to their doors the products of every land and every clime, and has enabled them to exercise a greater freedom of selection that has been possible to any other races.

The salient characteristics of the diet of the Western nations may be expressed in a few words. It consists partly of cereal and leguminous and other farinaceous articles, and of green vegetables and fruit, and partly of the various forms of animal flesh. The systematic use of alcoholic beverages is universal among them; and they consume, in large quantities, tea, coffee, or cocoa, or all three.

It is important to remark that the main dietetic customs of a country grow up and are established for the benefit of the robust and healthy, of the sober and temperate, and those of mean or average constitution—in other words, for those who are bearing the burden of the day, and fighting the battle of life. These form the great mass and bulk of the adult population, upon whose bodily and mental efficiency national progress and ascendancy depend. A good many individuals, and even entire families, may not find these customs, in certain particulars, beneficial to their exceptional tendencies or weaknesses; they may even find in them a source of destruction to their health and life; but here, as elsewhere, and indeed universally in Nature's operations, the individual is sacrificed to the welfare of the community.

> So careful of the type she seems,
> So careless of the single life.

Alongside the main dietetic habits formed for the operative mass of the community, there are secondary habits formed for the use of infants and children, and for persons advanced in years.

With regard to infants and children we observe that they are not allowed to partake of the accessory articles of food which form so conspicuous a part of the dietary of their elders. They are allowed neither the use of alcoholic beverages, nor of tea and coffee—except gradually as they draw toward adult age—but are fed on simple nutrients, milk, cooked cereals, and more or less meat.

With advancing years the diet undergoes a certain modification; the consumption of meat is, I think, somewhat lessened, and the consumption of soups, milk, and cooked cereals proportionally increased. With regard to alcohol, this modification of diet seems to vary with the preceding practice of the individual. Persons who have been in the habit during their prime of taking a full allowance of stimulants gradually diminish the proportion as age creeps on and their nutritive processes decline in elasticity and power. Sometimes the indications of this natural tendency are neglected or resisted by the unwary; they imagine that the quantity of stimulants they tolerated with impunity during the vigor of manhood cannot hurt them in later life. This is a serious mistake, the commission of which tends to accelerate senile decay, and to provoke fatally tending organic changes in the large organs of the body and in the arterial system. On the other hand, persons who during their youth and prime have only used alcohol occasionally, or have abstained entirely from it, find advantage in their declining years in a more systematic use of alcoholic beverages.

There is a clear difference also to be discerned in the dietetic habits of the two sexes. There are no available statistical data to go upon, but, from common observation, we cannot fail to note that men eat much more meat than women. Probably we should not err in estimating that two-thirds of the meat brought to market is eaten by men and only one-third by women. In regard to alcohol the contrast is still more marked. My impression is that, in this country, three-fourths, if not four-fifths, of the alcohol consumed is consumed by men, and only one-fourth or one-fifth by women. This difference is consonant with our experience as medical men that women are more sensitive to the effects of alcohol than men, and are more easily injured by the excessive use of it. On the other hand, the consumption of tea and coffee, but especially of tea, is markedly more abundant among women than men. The comparison is completed when we add that women consume, in proportion to the totality of their food, more milk and more bread than men do.

It would not appear to be a wise proceeding to depart capriciously and without clear reason from the general dietetic customs of the country. We may be quite sure that the use of meat, and of alcoholic beverages, and of tea and coffee, subserves some useful purposes to the human economy, though we, in our ignorance, may not be able to specify them with precision. These customs are the spontaneous outcrop of natural instincts and the fruit of an immense experience, and the sanction they derive therefrom constitutes an incomparably higher authority than the opinion of the wisest among us.

Nevertheless, differences of constitution and personal idiosyncrasies have to be reckoned with; and there are frequently solid, indeed paramount, reasons why individuals should, in some particular or other, depart from the general dietetic plan. I have known a few natural-born vegetarians who have had a life-long distaste for meat. Some persons are intolerant of tea, others are intolerant of coffee. It is, however, with respect to alcohol that the most important deviations from the mean type of constitution occur. Some persons are made uncomfortable by the most sparing use of alcoholic beverages, either through their life or at some epoch of it. A good many also are wanting in that self control which is necessary to the salutary use of this stimulant. These peculiarities or idiosyncracies must be attended to. It may be regarded as certain, as a very general rule at least, that any food or food-accessory the use of which is followed by a sense of discomfort is not beneficial to that individual. Persons who are unable to take alcohol in moderation should, on pain of loss of health and life, refrain from its use—for to them it is easier to abstain than to be abstemious.

These general considerations, as furnishing the natural groundwork of dietetics, should be kept steadily in mind in dealing with the practical questions which arise in feeding the sick. We may distinguish in a rough sort of way the patients who seek our aid in the matter of diet into two classes—namely, first, those who are able to take and to digest solid food and to conform in the main with the general dietetic habits of healthy people; and, secondly, those more seriously sick, who can take little or

no solid food, and must be fed on a plan deviating widely from the common custom.

The great majority of our patients belong to the former class, and are able to use the ordinary diet. They consist of invalids who are suffering from various ailments of the slighter sort, or from some more serious disease which does not interfere radically with the digestive functions. In regard to all these, I take it that (except in special cases, which I do not purpose to consider) it is a sound canon of practice to adhere to the main features of the current dietetic habits, and to avoid teasing our patients with irksome and needless restrictions for which we cannot give a clear reason. Diversity and variableness are marked characteristics of the dietary of the leading races of mankind—especially among the easier and more successful classes. The multifariousness of our eating and drinking is something very remarkable, and contrasts strongly with the monotonous fare of the less advanced races, and of the lower animals. Scarcely any two of our meals are exactly alike. Not only do the several daily meals—breakfast, dinner, etc., differ from each other, but the breakfast or dinner of one day usually differs more or less from the corresponding meal of another day. This variableness or diversity, we cannot doubt, fulfils some useful purpose beyond the mere gratification of the palate. It may, therefore, be inferred that to prescribe a monotonous regimen is to contravene a beneficial rule, and to depart from a salutary principle in human dietetics. We know that a healthy man soon rebels against a daily repetition of the same dishes, however wholesome and savoury; much more an invalid, with weak appetite and feeble enjoyment of his meals, who craves for more change and variety than the robust.

Another part of our duty is to study the peculiarities and idiosyncrasies of the invalid's stomach. Our stomachs are nearly as individual as our faces, and are very peremptory in regard to their likings and dislikings. In adapting diet to these idiosyncrasies it is, however, a good rule, as far as practicable, to lessen the quantity of the offending articles rather than to forbid them altogether; or, if they must be forbidden, to provide in their place substitutes of kindred nature. The practice of forbidding fresh vegetables and fruit is especially open to objection. These articles, in addition to their use in promoting the peristaltic action of the intestine, have important anti-scorbutic virtues; and although in these days, and among our own people, we almost never meet with fully developed scurvy, we are probably, without knowing it, often in the presence of incipient or larval scurvy. As there is a prearthritic stage of gout—a dietetic disease at the opposite pole of the feeding scale—so likewise, we may presume, there is a prehemorrhagic stage of scurvy. I have sometimes observed the existence of a low standard of health, without any very definite symptoms, which I could only attribute to a too protracted abstinence from fresh vegetables and fruit. I think it is possible to go too far in humoring a capricious stomach; and that, in persons of a hysterical or neurotic constitution, a too indulgent consideration for the ease of this organ may entail disadvantages in regard to the general nutrition of the body, and produce effects which in the long run tend to lower the level of health, and even to aggravate that gastric sensitiveness which we are seeking to abate.

I need hardly say that due mastication and cooking of the food are essential to easy digestion. Perfect cooking is especially important in regard to farinaceous articles and fresh vegetables. These are often imperfectly cooked and thereby rendered difficult of digestion by invalids. The bad reputation of potatoes and pastry in regard to digestibility is chiefly due to the fact that they are often imperfectly cooked.

A matter of considerable interest and importance is the regulation of the accessories which we use with our food. The chief of these are the various kinds of alcoholic beverages, and tea, coffee, and cocoa. These articles are usually taken with meals, and they mingle in the mouth and stomach with the food, and thereby directly complicate the task of the digestive organs. In the course of last year I subjected the effects of these accessories on salivary and peptic digestion to a somewhat extended experimental inquiry. The time at my disposal will not permit me to lay before you the details of these experiments; but as they will be shortly published I may ask you to take them for the present on trust, and to allow me to indicate some of the conclusions and practical lessons which appear to be derivable from the inquiry.

In studying the influence of our food-accessories on digestion, it is necessary to distinguish sharply between their action on the chemical processes, and their action on glandular and muscular activity. These two actions are quite distinct and generally opposed to each other; for, while all the food-accessories were found to exercise a more or less retarding influence on the speed of the chemical process, some, if not all of them, exercise a stimulating influence on the glands which secrete the digestive juices, and on the muscular contractions of the stomach. It is, also, necessary to distinguish between the effects of the food-accessories on salivary digestion and their effects on peptic digestion, inasmuch as wide divergencies were found to exist in this respect.

The distilled spirits—brandy, whiskey, and gin—were found to have but a trifling retarding effect on the digestive processes, whether salivary or peptic, in the proportions in which they are commonly used dietetically. Their obstructive effects only became apparent when used in quantities which approached intemperance. Taking this in conjunction with the stimulating action which they exercise on the glands which secrete the digestive juices, and on the muscular activity of the stomach, their effect in these moderate dietetic proportions must be regarded as distinctly promotive of digestion.

Wines and malt liquors exhibited an action differing considerably from that of ardent spirits. Wines were found to be highly inimical to *salivary* digestion. Even very small quantities of sherry, claret, hock, or champagne inhibited the action of saliva on starch to a very high degree. This is due to the considerable acidity which all wines possess. When this acidity was neutralized by the addition of an alkali, the inhibitory effect of wines on starch digestion was entirely removed. It is a common practice, as you know, to mix wines, especially sherry, claret, and hock, with soda, seltzer, or some other effervescent table-water. These waters all contain a charge of alkaline carbonate, and it was found that when wines were thus mixed they ceased to embarrass salivary action. This practice may, therefore, be looked on as highly commendable in the case of persons of weak digestion.

On *peptic* digestion wines exhibited a retarding effect altogether out of proportion to the alcohol contained in them. Both the stronger and the lighter wines, except in very moderate proportions, checked the speed of peptic digestion. In the customary dietetic use of wines with meals there is, probably, a double action—on the one hand, a stimulating action on the secretion of gastric juice and on the muscular contractions of the stomach, and, on the other hand, a retarding effect on the speed of the chemical process. In the case of persons of weak digestion, wines should be taken sparingly, and the quantity so adjusted as to bring out their stimulating action without provoking the retarding effects which follow their more liberal use. Champagne was found to have a distinctly less retarding power than an equal volume of claret or hock. This I judged to be solely due to the mechanical effects of the effervescence and liberation of gas, whereby a more efficient stirring up of the digesting mass would be effectuated. Effervescent wines therefore, other things being equal, favor the speed of peptic digestion more than still wines.

The effects of tea, coffee, and cocoa exhibited some interesting diversity. It was found that tea had an intense inhibitory effect on *salivary* digestion; even in very

minute proportion it completely paralyzed the action of saliva. On the other hand, coffee and cocoa had only a slight effect on salivary digestion. The inhibitory action of tea on saliva was found to be due to the large quantity of tannin contained in the tea-leaf. Some persons have supposed that by infusing tea for a very brief period—two or three minutes—the passage of tannin into the beverage could be avoided. This, however, is a delusion. Tannin is one of the most soluble substances known—it melts like sugar in hot water. One gentleman of my acquaintance, in his horror of tannin, was in the habit of preparing his tea by placing the dry leaves on a paper filter, and simply pouring on the boiling water. In this way he thought to evade the presence of tannin in his tea. But if you try the experiment, and allow the product, as it runs through the filter, to fall into a solution of perchloride of iron, you will find that an intense inky-black coloration is produced, showing that tannin has come through in abundance. You can no more have tea without tannin than you can have wine without alcohol; and I found, experimentally, that tea infused for two minutes had almost exactly the same inhibitory effect on digestion as tea infused for twenty or thirty minutes. If you wish to mitigate the effects of tea on salivary digestion, you should direct the patient not to sip the beverage with the meal, but to eat first and drink afterward. In this way time is given for the saliva to perform its functions unhindered. Another device is to introduce a pinch of carbonate of soda into the tea-pot: this removes the deterrent effect of tea on salivary digestion; it is a practice occasionally followed in some households under the idea that soda helps to extract the virtues of the tea-leaves. It was found that the addition of so small a proportion as one per cent. of the weight of the dry tea greatly mitigated its injurious effect on starch digestion, and that twice this quantity (two per cent.) almost entirely removed it. This latter proportion corresponds roughly to ten grains of bicarbonate of soda to an ounce of tea-leaf.

The effects of tea, coffee, and cocoa on *peptic* digestion were found to be as nearly as possible alike for infusions of equal strength. All three exercised a retarding effect when their proportion in the digesting mixture rose above twenty per cent. These beverages should therefore be taken very moderately by persons of weak digestion. The good reputation of cocoa in regard to digestion seems to be wholly due to the fact that it is used in weaker infusions than tea and coffee. The directions for the preparation of this beverage, printed on the packets of cocoa sold in the shops, indicate a strength of about two per cent.—whereas a medium tea is usually made of a strength of four to five per cent., and a medium coffee of a strength of five to seven per cent. The strong coffee which it is customary to hand round after dinner must have a powerful retarding effect on gastric digestion, and although this practice may be salutary to robust eaters, it is not to be recommended to those of feeble peptic power.

FEEDING THE SICK WITH LIQUID FOOD.

In a considerable number of conditions our patients are unable to take solid food, and are reduced to the necessity of using food which can be administered in the liquid form. This is usually the case in the febrile state and in serious organic disease, especially of the abdominal organs, and in the terminal stages of almost all diseases. There are other conditions in which, although the patient may have the ability to take solid food, it is not desirable that such food should be administered to him. In narrowing of the pylorus or other part of the digestive tract, in ulceration of the intestinal mucous membrane, it is obviously undesirable to administer articles of food which are capable of forming lumps or masses which may block up the narrowed parts of the intestinal tube or irritate the ulcerated surfaces. There is thus a large field for the employment of liquid food, and one of the most embarrassing tasks in clinical dietetics is to devise food in this form in sufficient change and variety, and having at the same time an adequate nutritive value. Our resources in this state of things consist of milk, beef-tea and other meat decoctions, cold-made meat infusions, raw eggs, and the various gruels. I propose to make some remarks on each of these articles.

Milk.—By far the most serviceable liquid food we possess is milk. Milk contains, in almost equal proportions, proteid, saccharine, and fatty matter, and is capable alone, as we know, of sustaining life. All plans of feeding the sick on liquid food centre round milk. It can be given alone, or mixed with tea, coffee, or cocoa, or with lime-water, soda-water, ardent spirits, or with farinaceous gruels of various sorts, or as buttermilk, koumiss, or whey. Were it not for the necessity of change and variety, we should, in a large number of cases, want nothing but milk. It should, however, be remembered, that milk is by no means a perfect kind of liquid food. In the course of its digestion, both in the stomach and in the intestine, milk, or rather the casein contained in it, is coagulated into solid masses, and these masses have to be redissolved before they can be absorbed. Not infrequently, if milk be given too freely, these curdy masses fail of being dissolved; and they pass down the intestine more or less unchanged, and are ultimately discharged with the stools. In this way milk may become an objectionable form of liquid food; these curds may block up a narrowed part of the intestine, or they may undergo putrefactive changes, and thereby irritate the tender or ulcerated mucous membrane. This drawback to the use of milk may be obviated by predigesting or peptonizing it, which is easily accomplished at a warm temperature by means of pancreatic extracts. The bitter flavor of peptonized milk is, however, nauseous to many invalids, and you cannot fully peptonize milk without developing this unpleasant flavor. One of the best means of covering the taste of peptonized milk is to add coffee to it. Another device, which may sometimes be adopted with advantage, is to add the pancreatic extract to cold or iced milk. In the cold the action of the ferment is comparatively slow, and it takes some hours to produce an appreciable change of flavor. But as soon as milk, thus charged with the ferment, is swallowed and passes into the warm atmosphere of the stomach, it is rapidly digested. I have seen, in cases of typhoid fever, when undigested curds of milk were observed to be coming away with the stools, this plan followed by the immediate disappearance of these masses from the motions. But the palates of invalids are sometimes abnormally sensitive, and they detect, and resent, the mere presence of the ordinary pancreatic preparations in articles of food, quite apart from the digestive changes produced by them. Recently Mr. Benger has placed at my disposal a pancreatic preparation which is absolutely free from taste and smell. This preparation, of which I have here a specimen, consists of the pancreatic enzymes in a highly-purified state, under the form of a light, nearly white, powder. It is not hygroscopic, and may be kept unchanged for an indefinite period fully exposed to the air.[1] This beautiful preparation is excessively active, and no palate can detect its presence in milk or other article of food until its effects are revealed in the process of digestion. I am inclined to think that it will prove a valuable addition to our resources when it is considered desirable to subject food to a process of predigestion, and still more when it is desired to add the ferment to the food in the cold state, with a view to promoting its rapid digestion after being swallowed.

Beef-tea and Other Meat Decoctions.—Next to milk in frequency of use and in high esteem come beef-tea and other meat decoctions. Long experience has satisfied us in this country of the usefulness of these preparations in feeding the sick. Beef-tea and its con-

[1] It slowly acquires a slight peculiar odor when kept in a tightly-corked bottle, but this passes off when it is exposed to the air.

geners, however, take rank as restoratives and stimulants rather than as nutrients. They contain no albuminous matter in solution, and the small quantity of gelatin contained in them cannot be of much account. There is a widespread misapprehension among the public in regard to the nutritive value of beef-tea. The notion prevails that the nourishing qualities of the meat pass into the decoction, and that the dry, hard remnant of meat-fibre which remains undissolved is exhausted of its nutritive properties, and this latter is often given to the cat or dog, or even, as I have known, thrown away as useless rubbish into the midden. A deplorable amount of waste arises from the prevalence of this erroneous notion in the households of many who can ill afford it. The proteid matter of meat is, as you know, quite insoluble in boiling water, or in water heated above 160° F. The ingredients that pass into solution are the sapid extractives and salines of the meat, and nothing more except some trifling amount of gelatin. The meat remnant, on the other hand, contains the real nutriment of the meat —and if this be beaten to a paste with a spoon, or pounded in a mortar, and duly flavored with salt and other condiments, it constitutes not only a highly nourishing and agreeable, but also an exceedingly digestible form of food.[1]

Cold-made Meat Infusions.—The defect in nutritious value of beef-tea led Liebig to suggest the use of cold-made meat infusions. He recommended that minced beef should be infused in cold water acidulated with a few drops of hydrochloric acid. An infusion so prepared differs essentially from beef-tea in the fact that it contains in solution a large amount of albuminoid matter. The addition of the acid is, according to my observations, a needless complication of the process. Infusions quite as rich in albumen were obtained when simple water was used as when the water was acidulated with hydrochloric acid. Infusions made from minced meat with half its weight of water, and allowed to stand for two hours, and then pressed through cloth, were found on analysis to contain over four per cent. of dry albumen. This amount of proteid is equivalent to that contained in cow's milk. The nutritive value of such infusions is, therefore, very high. When heated to the boiling-point they coagulate into a solid jelly. Made from beef or mutton, the product has an unpleasant bloody appearance; but when made from veal, the coloration is much paler. The best preparation, however, is made from the meat off the breast of a chicken. This meat is nearly white, and it yields an infusion which is almost colorless, and which sets, on heating, into a solid white jelly of very agreeable appearance. Cold-made meat infusions cannot be heated above 114° F. without becoming turbid from commencing coagulation of albumen. It is, therefore, impossible to cook them without destroying their liquid character. The objection to these infusions is their raw flavor, which to many is highly disagreeable—though some invalids take them without the slightest objection. The best way of covering the raw taste is to add some ordinary beef-tea or a little of Liebig's extract of meat. Some prefer a flavor communicated by a slice of lemon, or by the addition of a little claret.[2]

Beaten-up Eggs.—Another highly nutritive form of liquid food is supplied by raw eggs. The yolk, or white, or both together, are beaten up in various ways and combinations which are well known. Eggs are more easily digested by the stomach in the cooked than in the uncooked state; but when the stomach is weak and unable to digest solid food, beaten-up eggs pass through it into the duodenum without being meddled with, and are slowly digested in their passage down the intestine. They are incapable of forming lumps or masses, and are, therefore, well adapted for cases of narrowing or ulceration of any part of the digestive tract.

Fortified Gruels.—A very important kind of liquid food is furnished by gruels made with the several kinds of cereals or leguminous seeds. Gruels are not by themselves an agreeable kind of food; they lack flavor. But mixed with milk or beef-tea they constitute a valuable addition to our resources in feeding the seriously sick. When prepared from the cereal flours in the usual way they can only be made of feeble nutritive power—if their liquid character is to be preserved. These flours are very rich in starch, and gruels made from them become thick and pasty if the proportion of flour used in their preparation rise to four or five per cent., and a gruel of this strength does not contain more than one-half per cent. of proteid matter. But if the meal be mixed beforehand with one-eighth of its weight of ground malt you can prepare from these flours gruels of much higher nutritive value and still preserve their liquid character. The diastase of the malt acts upon the thickening starch as the heat rises and converts it into soluble starch and dextrine. These fortified gruels can be made with as much as twenty per cent. of meal and still maintain the fluid state. Such gruels contain about two per cent. of proteid matter, and about fourteen per cent. of carbo-hydrates, and are admirably adapted, combined with milk or beef-tea, to supply a varied kind of liquid food of highly nutritious character. Mixtures of this class seem especially suited for nourishment of cases of typhoid fever.

A matter of interest in designing food for the sick-room and nursery is the consideration of the special properties of the several kinds of cereal and leguminous substances used as food. In point of chemical composition the several kinds of cereal grains are closely allied. Still there are differences between them; and these differences may be of importance. The proteid of wheat is not quite identical with that of oats or barley. On the other hand, leguminous seeds differ importantly in composition from the cereal grains. Taking the lentil as a type of the leguminous group, it is to be observed that lentil flour contains twice as much proteid matter as wheat or oat flour, and almost twice as much lime. Moreover, the proteid of the leguminous seeds differs materially from that of wheat or oats. These differences are probably of not a little importance in feeding the sick and the young; and if we had more knowledge and experience in their use, we could perhaps utilize with advantage these several cereal and leguminous products, and combine them in varied ways to meet the indications and necessities of different cases.

You must all have observed how there has grown up in these latter years an enormous trade in prepared "foods" for infants and invalids. The very success of this trade is some evidence of the usefulness of these articles. Their composition is generally made more or less of a secret, but whatever secret there be must be hidden within a very narrow compass. The several possible flours out of which these "foods" are mingled can be easily counted —wheat, barley, oat, maize, pea, lentil, and one or two others. These are the ingredients—with malt flour in some cases—out of which they are all compounded. Now, I cannot help thinking that it would be an advantage both to ourselves and to our patients if we knew more precisely what we were about in this matter; and if we were in a position to prescribe for infants and invalids the several kinds of farinaceous aliments in proportions known to us, instead of blindly using some mixture of which we know not the exact composition. It is impossible for us to make progress in dietetics on such a path. I can quite believe that these flours have their special excellences, and that they are severally adapted for different cases and conditions. In the first place, they have distinctive flavors, and thereby may be made to contribute to the important end of providing change and variety for the invalid. Moreover, the faculty of "agreeing" of the

[1] These remarks on beef-tea apply equally to Liebig's Extract of Meat, Brand's Essence of Beef, and Valentine's Meat Juice—all of which are devoid of albuminous constituents.

[2] Cold-made meat infusions keep badly. They should be preserved in a cold cellar—or, still better, on ice.

different flours in reference to the individual idiosyncrasy is a point of not a little significance. Lastly, the difference of chemical composition between the cereal and leguminous flours must have an important bearing on the dietetic uses of these two groups of aliments. It is, I repeat, a serious disadvantage that the control of the preparation of food for the sick-room and nursery should pass from the hands of the medical attendant to those of the purveyor. In the matter of drug-giving, all enlightened practitioners are chary of prescribing secret remedies. Such a practice, it is felt, must be fatal to the intelligent use of drugs. So it is with providing food for the sick. What we want is to have at our disposal a supply of the several articles of food in their simple state, and suitable appliances in connection with the sick-room or nursery for cooking and combining them in various ways according to the exigences of our patients.

If I were asked to enumerate the ingredients and apparatus which are necessary for the cuisine of the sick-room and nursery, I think I could do so very briefly. In addition to the resources of the domestic kitchen and larder, the sick-room kitchen should contain a supply of the following flours: oat, maize, malt, and lentil flours in a finely pulverized condition and freed from bran. It should be provided with a solution of soda bicarbonate of known strength. This would be of use to add to milk when necessary, and to assist in the preparation of peptonized articles of food. Next to these would come a reliable pancreatic extract, and a preparation of pepsin or rennet for the production of whey. The associated apparatus should include a thermometer wherewith the nurse could, when desirable, heat up cold-made meat infusions to a proper temperature, and regulate the warmth required in the predigestion of food. A double-cased saucepan would form an indispensable item; this makes an admirable hot-water bath for the preparation of beef-tea and fortified gruels. A pair of scales, glass measures, and a mincing machine would complete the list. Finally, there should be, for the service of the nurse, a card or sheet containing plain directions for the preparation of the various kinds of liquid food.[1]

Given these simple appliances, I see no difficulty, in these days of skilled nursing, in the medical attendant being able to prescribe almost any kind of liquid food for his patients in any combination, and having it served up for the invalid in the most suitable possible manner. I have ascertained that there is no difficulty on the part of the miller in producing meals from malt, oats, or lentils, reed from bran and coarser particles, and in nearly as fine a state of preparation as wheaten flour. In this state these meals are susceptible of much more rapid and perfect cooking than when roughly ground. I have little sympathy with much that has been said of the advantages of whole meal and decorticated flour. It has been alleged that the too complete separation of the outer parts of the grain deprives the flour of its mineral matter. If we lived on bread alone there would be some force in this objection, but as that is not so, and as we find in milk, meat, fish, eggs, soups, and fresh vegetables a superabundant provision of mineral matter, and have, moreover, always at our elbows a supply of salt, there can never be any lack of saline materials in our food. The branny matter of the flour is both indigestible and irritating to the primæ viæ; and although it may not injure, or may even be useful, to the strong and healthy, it is quite an unfit element in food designed for the weak and tender membranes of the invalid and infant.

In bringing my remarks to a close I should like again to press for a more systematic and a more comprehensive study of dietetics. The effects of diet are profound and far-reaching, and exceedingly subtle. Some inkling of this is got from the history of gout. You all know how slowly and how insidiously the gout diathesis is developed under the influence of diet, and how it may affect the descendants into the third and fourth generations. The immediate effects of diet are often not the most important. Behind these are remote sequences of vital concern to the family and the nation. And it is not solely in regard to feeding the sick that a scientific knowledge of dietetics is useful. There are public questions of great moment, affecting the food-habits of the people, the consideration of which ought not to be dominated exclusively by popular opinion. In legislating on such questions it is of the last importance to proceed on correct lines; for it is certain that any policy which ignores the instincts of mankind and the laws of nature is foredoomed to failure. I believe that a comprehensive study of these questions from the side of history and of natural history would throw unexpected light on the issues involved, and furnish data of great value for the guidance of the legislator and social reformer.

[1] Messrs. Payne & Benger (Mottershead & Co., chemists, Manchester) have put together the ingredients and apparatus above enumerated in a portable box, of which a sample was exhibited at the Annual Museum.

ABSCESS OF BOTH FRONTAL SINUSES—OPERATION AND COMPLETE RECOVERY.[1]

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The following case of abscess of both frontal sinuses and of the ethmoid bone is presented, not only on account of its comparative rarity and the extensive absorption of bone-tissue, but also on account of the long time which elapsed between the occurrence of the injury and the appearance of the permanent distention of the sinus, as well as the very rapid recovery.

Jane L——, aged fifty-three, widow, presented herself for treatment on October 27, 1884. Fourteen years before, while engaged in chopping wood, a piece of large size struck her on the bridge of the nose and median line of the forehead with such force as to knock her down. It made an ugly lacerated wound about three inches long, running from a point a little to the right of the median line of the forehead, and midway between the superior orbital margin and the hairy scalp, downward to the left, across the bridge of the nose, and ending just at the end of the left nasal bone, on the side of the nose. There was a fracture of both nasal bones, and a slight deviation of the septum to the right side. There was considerable swelling produced in the soft parts, the right eye was entirely closed by infiltration into the eyelids, and a rather profuse purulent discharge from the wound for several weeks. The wound itself did not close for about seven weeks. Since then the patient has at times suffered from a sense of distention or pressure over the eyes, which after lasting a few days would subside. Nothing unusual occurred until about four years ago, when the patient first noticed a somewhat hard, elastic swelling at the upper and inner angle of the right orbit, which at first could by pressure be caused to disappear, but which gradually increased in size, extended downward and along the superior orbital margin outward toward the temple, until the eye was entirely closed by the swelling and the complete ptosis. At somewhat long intervals there would be all the signs of an acute inflammation in the lid and neighboring tissues, accompanied by great pain, but these symptoms always subsided under the application of continuous heat. When I first saw the patient there was complete ptosis of the right upper lid, but without any infiltration. In the upper and inner angle of the orbit was an elastic, firm, resisting tumor, which could be traced some distance backward beneath the superior orbital margin into the orbit. The tissues along the orbital margin and over the glabella and bridge of the nose were very markedly thickened. The scar of the old injury was plainly visible. On lifting up the lid the eye was found to be pushed downward, outward, and forward, and to be almost completely immovable. Vision was reduced to $\frac{20}{70}$ in this eye, and was normal in the other eye.

[1] Read before the American Ophthalmological Society, New London, July 15, 1885.

A diagnosis was made of distention of the frontal sinus, and the patient was told that an operation must be performed in order to relieve her, to which she at once consented. On October 31, 1884, the patient was etherized, and a free incision, nearly two inches long, was made through the upper lid, just beneath the orbital arch, and parallel with it. As soon as the knife had cut through the skin and fascia, it entered a deep cavity and sunk out of sight up to the haft. A very large quantity of fetid pus at once poured out and covered everything in the vicinity, and as the wound was enlarged it continued to well up from the deeper parts, assisted by pressure with the finger in the orbit, and by turning the head of the patient upon the right side, until between two and three ounces of pus had been evacuated, as nearly as could be estimated. After all the pus had been removed the cavity was washed out with a five per cent. solution of carbolic acid, all of which came out again through the wound, none passing down into the nose. A careful examination was then made with the probe and finger, and it was found that the right frontal sinus was enormously distended; its floor had been corroded and worn away by pressure at the superior orbital arch, nothing remaining but a very much thinned periosteum. The bony partition between the two frontal sinuses had disappeared in part, so that the probe and the finger could be carried into the sinus of the opposite side. The carious and purulent degeneration had extended into the ethmoid bone, which in the course of years had become an immense abscess, and the plate forming the inner wall of the orbit had been in part worn away, so that nothing separated the pus-cavity in the ethmoid bone from the orbit except the periosteum. All attempts to discover the existence of any connection with the superior nasal meatus, by means of the probe and syringing, failed, but this examination revealed the presence of numerous osteophytes, mainly situated in the cavity of the ethmoid and left frontal sinus. As many of these as could be reached with the finger or forceps were broken off, and then the entire cavity was again carefully washed out with a solution of mercuric bichloride, one to two thousand. A small rubber drainage-tube, properly fenestrated, was then introduced, the external wound and neighboring parts carefully sponged with the above solution, and covered with several layers of iodoform gauze, and the patient placed on the right side. For the first week the cavity was washed out every three hours, but afterward this was done only twice a day, and subsequently only once a day. After a few days the drainage-tube was found not to act well, as it became clogged; it was therefore removed, and drainage was carried on by a few strands of long-fibred lint ravellings. There was a slight rise of temperature on the day after the operation, and considerable swelling of the lids and region of the eyebrow, but hot applications and frequent syringing of the cavity soon removed the symptoms, and from this time the filling of the cavity and the recovery of the patient was uninterrupted.

The patient was discharged on December 16, 1884, a little more than six weeks after the operation, with the wound entirely healed. The cavity had apparently filled from the bottom, and as it filled the infiltration in the soft parts gradually disappeared, so that when the edges of the wound healed the resulting cicatrix had already retreated somewhat beneath the orbital arch, and the patient began to regain some power over the levator palpebræ muscle. The patient was not seen again until February 2, 1885. At this date there was complete restoration of the position and action of the upper lid, and an entire disappearance of the scar beneath the superior orbital margin. All protrusion of the eye had subsided, and the motility was completely restored, but the eyeball was still on a plane somewhat lower than that of the opposite side. Vision had improved to $\frac{20}{40}$, and she had binocular single vision. The fundus of the eye showed nothing abnormal, except a slight discoloration of the temporal half of the right optic disc. The patient complained of a loss of sensation in the course of the supra-orbital nerve, but as this anæsthesia was limited in extent, and not very annoying, it was deemed unwise to attempt any operative interference for its improvement.

The pathogenesis of the case is somewhat obscure. The force of the blow was in the direction from below upward, and the first effect was probably a fracture or dislocation of the nasal bones at their line of union with the frontal bone, or possibly both. The violence of the injury to the bones, complicated by the extensive laceration of the soft parts, probably induced a periostitis, followed by a degenerative osteitis and caries of the nasal process of the frontal bone, which in time opened into the right frontal sinus and also extended through the thick bony septum in the median line into the frontal sinus of the opposite side. It is possible, also, that the caries extended along the floor of the right frontal sinus, in a line with the superior orbital margin, and in the course of years ended in complete degeneration and absorption of the bony partition between frontal sinus and edge of the orbit. All this time the process was extending backward, as well as laterally, into the cellular spaces and body of the ethmoid bone, and eventually the orbital plate of the ethmoid was perforated and in great part absorbed.

The patient was again seen on June 17th, and the recovery was found complete, with perfect restoration of motility of lid and eyeball, and a return of the eye to the normal plane.

THE SURGICAL AND PATHOLOGICAL ASPECTS OF GENERAL GRANT'S CASE.

By GEORGE F. SHRADY, A.M., M.D.,
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No case has excited a greater interest from a medical point of vew than that of General Grant. Aside from the disease attacking a patient so widely known and so universally beloved, it has shown some features which are of surgical as well as of pathological significance. It is not the purpose of this article to treat of details of description or of treatment, as such will properly be left for elaboration by Dr. J. H. Douglas, whose constant attendance upon the patient best qualifies him for the performance of such a duty.

It is not definitely known when the throat trouble commenced, but probably it was early in June 1884, as at that time General Grant first complained of soreness in the right tonsillar region.

In October, after his return to New York from Long Branch, one of the lymphatic glands under the right angle of the lower jaw became enlarged, and he consulted his family physician, Dr. Fordyce Barker, who after satisfying himself as to the nature of the trouble referred him to Dr. J. H. Douglas for special treatment. The latter gentleman, also recognizing the serious nature of the malady, made the diagnosis of epithelial cancer, and commenced the use of palliative applications with the view of preventing the spread of the ulcerative process, then just commencing in the right posterior faucial pillar. For a time his endeavors were crowned with some success. Coincidently, however, with severe mental strain, occasioned by pecuniary embarrassment and attended with great physical prostration, it was noticed that early in December the disease took a fresh start and spread in upward and downward directions, so that in the course of the two months following, the posterior pillar of the fauces was almost entirely destroyed, the tonsillar space infiltrated, the base of the anterior pillar perforated, and the right side of the base of the tongue indurated and superficially ulcerated. This was the condition of affairs when, on February 19th, Drs. Barker and Douglas held a consultation with Drs. T. M. Markoe and H. B. Sands. The diagnosis of epithelioma was then unanimously confirmed and the judiciously conservative treatment of Drs. Barker and Douglas was fully endorsed.

On March 7th, when I first saw the patient, in consultation with Drs. Barker, Douglas, and Sands, it was found that the perforation at the base of the anterior pillar had extended so that its internal edge was converted into a mere bridle of tissue. The entire soft palate was uniformly reddened and swollen from inflammatory infiltration, and the surfaces of the right tonsillar region and adjoining portion of the vault of the pharynx were covered with a thick, consistent, yellowish exudation resembling sloughing tissue. This deposit was evidently the result of an acute process, engrafted upon the original disease, and partook in its clinical as well as physical features of many of the characters of a diphtheritic membrane. The enlarged and hardened gland under the angle of the jaw was then freely movable.

This view of the complication explains many of the grave symptoms which were subsequently associated with great prostration, but which were not directly traceable to the progress of the epitheliomatous degeneration.

Subsequent to this consultation visit an opportunity was offered the staff for examination of the microscopic specimens previously removed from the ulcerated edge of the posterior pillar of the fauces of the patient and prepared by Dr. George R. Elliott. I inspected the specimens in common with Drs. Barker, Douglas, and Sands, and agreed with them in expressing a due appreciation of the significance of the appearances presented. In other words, the microscopic examination showed the disease to be epithelioma. The appearances are correctly summarized by Dr. Elliott in his recent paper, and are properly judged by Dr. T. E. Satterthwaite. There was, in brief, a more or less lobulated appearance of the epithelial mass, with great diversity in the shape of cell elements—and marked evidences of epithelial proliferation; but, above all, there were present distinct cell-nests, and a tendency of the new cell-formation to burrow into the deeper parts of the underlying tissue. Extravasations of blood were also found in the diseased specimens.

The expediency of a radical surgical operation for the removal of the growth was discussed early in the case. It was considered that such a measure would have involved the division of the lower jaw in front of the ramus, the extirpation of the entire tongue and the greater part of the soft palate, together with the removal of the ulcerated and infiltrated fauces and the indurated glandular structures under the right angle of the lower jaw. This was considered mechanically possible, despite the close proximity and probable involvement of the tissues adjoining the large arteries and veins in the neighborhood of the ulcerations; but in the best interests of the distinguished patient the surgeons did not feel inclined to recommend the procedure. Even by such means there could be no guarantee, in view of extensive surrounding infiltration, that the limits of the disease could be reached without immediate risk to life by the severe shock to a constitution already much enfeebled.

From the time that the exudation appeared in the throat there was noticed for several days a marked depression of the vital power of the patient. Owing partly to the progress of the cancer and partly to the extra-inflammatory condition of the throat there was an increased accumulation of mucous secretion, the expectoration of which was attended with occasional attacks of choking. The latter of themselves had a tendency to exhaust the patient, and on more than one occasion alarmed his family and the public. The most serious attack of the kind occurred about 2 A.M. of March 30th. The General for a time lost his composure, and believed that he was about to suffocate. His distress was extreme. Dr. Douglas, who was summoned, called for me on his way to the patient. By the prompt syringing of the throat by Dr. Douglas the accumulated mucus was dislodged, when, as usual, immediate relief was obtained. The apprehension of a recurrence of the difficulty was so great on the part of the family, that we remained with the General until the afternoon, when another general consultation was held, attended by Drs. Barker, Douglas, Sands, and myself. The patient was found somewhat weaker, but was not considered in a dangerous condition. The area of exudation was increased, as well as the swelling of the palatal curtain, accounting for the extra difficulty of swallowing and a thickness of speech which were painfully perceptible. The pulse was inclined to be intermittent, and was decreased in volume, but there was no elevation of temperature. This weakened condition continued, despite the administration of heart-stimulants (digitalis and coca) and the careful regulation of liquid diet, until the early morning of April 1, when the patient was rather suddenly seized with an attack of fainting, and death from heart-failure seemed imminent. Dr. Douglas and myself were with him at the time. The members of the family were around the patient expecting that every moment would be his last. It was feared that he could not rally, and the farewells were said. Finally, hypodermic injections of brandy were administered, with the gratifying effect of tiding the patient over a threatened collapse. In the course of the next four hours he was considered out of immediate danger, and was able to take his liquid food.

The patient did comparatively well for the next few days, the swelling in the throat gradually diminishing, and the exudation showing a tendency to become separated. On April 7th, however, a hemorrhage from the throat occurred about midnight, which ceased spontaneously, after about four ounces of blood had been lost. The occasion for the bleeding was the detachment of a portion of the slough from the right side of the pharynx. No large vessel was implicated.

During the twenty-four hours succeeding the hemorrhage the pulse became more feeble, frequent, and intermittent, and the temperature at one time rose to 102° F. In order to relieve pain and procure sleep the patient was kept mildly under the influence of morphine, the latter being injected hypodermatically to the amount of six minims every six hours. The morphine was afterward decreased to six minims in the twenty-four hours, and but slightly exceeded that, save on one or two occasions, up to the day of his death.

The separation of the slough was anxiously awaited, and when it occurred the patient, as was expected, became much relieved of many of his more distressing local symptoms and of his depressed bodily condition. Then it was announced by the press that because the General had rallied, the physicians had erred in diagnosing the case, and consequently the patient's chances of recovery were good. Much as this happy result was to be hoped for, the stubborn fact of the existence of the original disease, and of its steady progress toward an inevitably fatal issue was painfully apparent to the gentlemen watching the case. The return of the patient's strength was not a surprise to his physicians. It was what they aimed to bring about by the treatment employed. The general exhaustion, which was in a great measure independent of the cancer, was at this time most feared, and the treatment of that condition was naturally of the first importance. But the gratifying change for the better was believed to be simply of a temporary character. Death, directly or indirectly due to the extension of the throat disease, was a question of a few months at most. The surfaces of the throat covered by the inflammatory deposit presented a clean appearance after the deposit was separated, but the primary cancerous ulcerations of the palate and tongue never changed for the better. The original disease was always there, slowly but surely progressing, resisting every treatment, defying every hope for cure, and grimly inviting the inevitable issue.

The temporary rally of the patient's strength was taken advantage of in every possible way to conserve his vital forces and make his last days as comfortable as possible. The success attending these efforts was manifested in many ways. He, however, possessed, in a remarkable degree, the faculty of repressing his feelings, bearing his

pain, and maintaining his mental composure, all of which was calculated to deceive a casual observer as to the real extent of his suffering. In the midst of this, and with a constant reminder of approaching death, he stoically gave himself up to the composition of his life-story, anxious only that he should live long enough to finish it.

The progress of the local disease was a steady one from the beginning. The ulcerations of the pillars of the fauces extended to the right side of the palatal curtain, almost destroying the latter and eating away the adjoining side of the uvula. The same process spreading to the region at the right side of the base of the tongue enlarged and deepened the ulcer there, destroyed the soft parts in the neighborhood, and burrowed its way downward beyond the reach of inspection or palpation. Toward the last the extent of the disease could only be estimated by examination with the finger in the throat, and even by that means its limit downward and backward could not be reached. The cavity at that point was irregular and deep, and was surrounded by a hard and ragged margin fading into surrounding indurated infiltration. The enlargement and hardening of the glands under and around the angle of the lower jaw continued to the last, when the superficial and deep structures of that side of the neck and face constituted a mass of cancerous disease solidly connected with the ulcers of the inside of the throat. At no time did the swelling outside threaten to break down into ulceration, but its size varied from time to time as the result of accidental inflammatory deposits. These increases in size were treated by warm applications, which quickly reduced the tumor to its original and fixed dimensions.

The loss of the palate and adjacent soft parts, with the consequent lack of perfect control of the tongue, occasioned great difficulty in swallowing. This was most painfully marked toward the end. His nourishment, which for six months was always in liquid form, was seldom taken without some choking. These paroxysms, however, became quite severe. It was only by his supreme self-control and calm determination to sustain his powers to the end that he was enabled to take his allotted quantity of food. He was compelled toward the last to hurriedly drink the entire contents of the tumbler without taking a breath. At the completion of the swallowing a choking fit would occur, which would result in a regurgitation of the last portion of the food through the mouth and nostrils. The latter difficulty was in a great measure overcome by following the suggestion of Dr. Douglas, not to attempt to swallow the last mouthful, and consequently at no time was strangulation threatened. During all his illness the breathing was not mechanically impeded by the extension of the disease into the larynx.

Just before he was transferred to Mount McGregor he rather suddenly lost his voice, never to regain it. This was due partly to thickening of the vocal cords by the inflammatory infiltration, and partly to a relaxation of the parts from general weakness.

A brief summary of the treatment is all that will be necessary to give now. Early in the disease, in order to eliminate every possible chance of error in diagnosis, the patient was placed under specific treatment, although the clinical history of the case gave only negative indications for its necessity. This treatment, although continued for a sufficient period, produced no effect in healing the ulcerations or in arresting the progress of the disease. Iodoform was used as a local application to the ulcers, as well as gargles composed of salt and water, diluted carbolic acid, solutions of permanganate of potash and yeast. A four per cent. solution of cocaine was occasionally applied to the painful parts with happy results, but it was never employed to any such excess as is generally believed by the public, nor were there any bad effects manifested from its administration at any time. The latter were carefully guarded against with the full knowledge that the drug was a new one, and that only its cautious use was admissible. Red-clover was given quite constantly, but produced no effect whatsoever upon the local disease. It only proved itself useful as a laxative and was so employed as being the least harmful of medicines of its sort for continuous administration.

His food consisted of beef-extracts, milk, eggs, and farinaceous materials, always in liquid form. In all detail matters bearing upon his food such appetite as he would occasionally manifest was the guide for any change. The rule was to deny him nothing he might crave.

During the last two days of his life he began to fail very perceptibly. On the evening of July 22d he signified his wish to be transferred to a bed. This was the first time he had left his easy-chair for purposes of rest or sleep since early in March. Dr. Sands and myself, who had been previously summoned at the final consultation, agreed with Dr. Douglas that the end was near, and that nothing more was to be done than to make the patient as comfortable as possible. The General had then lost his ability to swallow, his pulse was 120 per minute and feeble, and his respirations 25 per minute and shallow. His consciousness gradually left him at midnight. Continuing to sink, he died without a struggle at 8.08 A.M., Thursday, July 23, 1885.

Much to the regret of the entire staff, no autopsy was permitted. The family, gave as a reason for the refusal that each member was entirely satisfied with the diagnosis and treatment of the disease.

Thus ended a remarkable case. In commenting upon its features it must be conceded on behalf of scientific medicine, that everything possible in the present state of our knowledge was done to prolong life and make it as tolerable as the circumstances of the disease would admit. The diagnosis given early in the case was proved to be correct by the microscope, by the clinical history of the patient, and by the fatal issue. Appreciating the usual course of the disease, the staff at no time set any period for death until within the last twenty-four hours; nor did any member of it at any time during the patient's illness give the slightest reason for alarming the public by sensational rumors. As it is, the disease had a much shorter course than usual, owing to the prostration of the patient's system, dependent in a great measure upon other causes.

The cause of the disease in this case is largely conjectural. Epithelioma, as a rule, starts from local irritation, and, unlike other forms of cancer, is not dependent upon hereditary predisposition to the disease. There must, however, aside from this, be a latent tendency toward cancerous troubles which is more pronounced in some individuals than in others, otherwise we should be unable to explain why simple and continued irritation would induce the disease in one case and not in another. It is, however, quite probable that the irritation of smoking was the active cause of the cancer in General Grant's case, or, at least, it is fair to presume that he would not have had the disease if his habit had not been carried to excess. This assumption is made in the face of the fact that, of the thousands who smoke, but a very small proportion suffer from the disease.

As far as can be estimated, the cancer commenced only nine months before death. Fortunately the breathing was never affected by the involvement of the parts around the windpipe, nor was there any impediment to swallowing by the extension of the growth to the œsophagus. Both of these conditions might have obtained had the patient lived long enough to give an opportunity for the local disease to gain sufficient headway. The cancer presented an unusual feature in first invading the side of the throat rather than that of the tongue, as the latter is most frequently the original seat of this disease. The appearance in the throat of a sloughing process during the regular progress of the cancer was a circumstance worthy of note, and explained much of the exhaustion of the patient during one of his critical periods. If it had not been for this accidental complication the

epithelioma would have taken its usual course, and the public would not have mistaken the extension of the inflammatory process for that of the cancer, and would not have been ready to believe that the original disease was disappearing when the sloughy deposit was discharged. The patient at the time was better of the complication, but not of the cancer. The latter never changed but for the worse.

The occurrence of hemorrhage from the erosion of the walls of the larger vessels in the neighborhood was believed to be eventually possible, but was at no time seriously feared, as nature had thrown out her safeguards in the shape of dense deposits around the branches of the carotid artery and jugular veins.

Although there was more or less constant pain of a gnawing character, the patient was happily spared that agony of suffering which is often associated with the invasion of the deeper parts of the tongue by cancerous disease. Had the latter occurred, it was proposed to divide the sensitive nerve of the tongue (gustatory) through the mouth, which operation oftentimes gives absolute relief. Such pain as existed, however, was kept under control by cocaine and morphine, so that the last wish of the patient that his death should be a peaceful one was fully realized.

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Clinical Department

ENORMOUS DOSES OF OPIUM IN PERITONITIS.

Dr. A. L. Haines sends the following interesting notes: May 4th I was called to see Norman W——, aged fourteen, who two days before had been subjected to severe atmospheric conditions.

Early history.—Four years before suffered with severe attack of acute articular rheumatism. Since, had no severe sickness; but unable to bear muscular exercise like most boys of same age.

Symptoms.—Complained of wandering pains in chest, arms, and limbs, especially in knee- and wrist-joints; also some in lower part of abdomen. Considerable nausea existed, and he had vomited several times. On examination, wrist- and knee-joints were found to be slightly swollen, and skin over them was red and glairy. Respirations were short and catching in character. Tongue was covered with a white coating. Temp., 100°. Pulse, 80—small, slightly hard, and irregular. A distinct purring thrill, with the other evidences of a mitral disease of the heart, was found on examination. There were considerable distention and tympanites over the hypogastric and right inguinal regions. This latter condition had escaped the attention of the attendants in the presence of the more active rheumatic symptoms.

The diagnosis of commencing peritonitis was made. The patient had been given a cathartic the day before, with the result of obtaining a few hard masses from the bowel. A hot flaxseed poultice was ordered over the bowels, and opii, gr. j., was given every three hours, and quinia sulph., gr. j., the same, except at 8 P.M. and 8 A.M., when he was given gr. v. of the same drug. In twenty-four hours I saw patient again. The tympanites and swelling over bowel had markedly increased. Pulse, 100, and temp., 101°. Vomiting had taken place several times. Patient had now assumed the characteristic position—on back with limbs flexed. These symptoms continued to increase in severity; and on the third day I saw him a very marked case of general peritonitis was to be seen. Poultices were now changed to Indian meal and hops, moistened in an alkaline solution of lye. These were made of generous size, and were covered with oiled silk and flannel. The doses of opium had been steadily increased, in order to keep patient narcotized, until they had grown unwieldy. Morphia sulph. was now substituted; gr. ss. of this drug was given, to commence with, every hour. As this was found insufficient, the dose was increased from time to time in order to keep patient completely under its influence. At the end of sixth day the patient was receiving gr. ij. to v. every half hour. This amount was scarcely sufficient to control patient. Having the case under immediate observation, I gave at one dose gr. v. of morphia and then repeated this dose in half an hour. The respirations came down to twelve per minute, and I was unable to arouse patient for two hours. Temperature at this time 103°, and pulse 110. When turning patient over to care of nurse, gr. ij. to v. was given every half hour, according as the respirations began to increase or decrease in frequency. From sixth to ninth day patient was in a critical condition; temp., 103°; pulse, 120, small and irregular. Tongue dry and brown; sordes on teeth; abdomen distended to the utmost. Patient continually sliding down in bed. Turpentine stupes were now employed along with poultice. Judicious stimulation with brandy was commenced from the very first sign of heart-failure. At the end of eighth day a slight softening was detected along direction of transverse colon, and from this time the tympanitic condition gradually subsided, and on the fourteenth day patient was convalescent. On ninth day there was a slight movement of bowels from natural causes.

The above case was interesting to the writer in many respects. But the most noticeable point was the toleration on part of patient of such large doses of morphia and so much of it. During the activity of the disease (first ten days) the patient received six one-eighth ounce bottles of morphia, and during the period of greatest activity (sixth and seventh day) he received one bottle of morphia, same size, in twelve hours. This large quantity of morphia could not have been needed to relieve the pain, nor could its object have been to produce a paralysis of the muscular coat of the bowels, as once taught, as that condition already existed. That this drug acted medicinally we have proof in its being so well tolerated.

The chief danger of this disease, and in fact of all serious inflammations, is the shock to the nerve-centres, and the consequent depression to the vital organs, especially the heart. Most cases of serious inflammations that result fatally do so because of this depression. These cases are of too rapid development to cause death from exhaustion. If death results it is generally before the tenth day. Almost every system, unless seriously undermined previously by disease, has vitality in reserve sufficient to carry them far beyond the period. Neither do these patients die from high temperature, as generally the temperature is not above 103°, and in the majority of cases it is below that degree. Death in most cases would seem to result from shock rather than from other causes. In counteracting this shock to the nerve-centres is to be seen the chief use of opium in this and allied affections. The danger of surgical operations from shock is greater, perhaps, than from any other cause. Take, for example, such operations as lithotrity, where death often results from this cause. In amputations death often results when there is scarcely any hemorrhage at all. It is a well-demonstrated fact that nearly all surgical operations are better borne when a full dose of opium is given.

The Cholera in Italy in 1884.—The Italian Government has just published an official report of the cholera epidemic of last year. Eight hundred and sixty-three communes, with a population of 5,771,000, or about one-fifth of the kingdom, were visited by the scourge; 25,587 cases were reported, 14,198 of which terminated fatally, a mortality of about sixty per cent. In Naples, with a population of 945,000, there were 15,927 cases and 7,968 deaths.

Progress of Medical Science.

Treatment of Neuralgia by Osmic Acid.—This subject was recently discussed at the meeting of the American Neurological Association. *The Lancet* of June 13, 1885, gives the following account of Dr. Schapiro's observations concerning the utility of osmic acid in inveterate neuralgia. The author's paper was read before the Medical Society of St. Petersburg. His observations include eight cases of trigeminal neuralgia (three males and five females). The age of the patients varied from thirty-eight to sixty. In every case the disease was of a very severe type and of long standing. The result of the treatment was complete cure in five cases (three females and two males), great alleviation of the pain in two cases, and no success at all in one case (female). The number of injections made in each was from one to twelve (twenty in one case), five to ten drops being injected every time. The duration of the treatment was from one to sixty days. Dr. Schapiro adopts a modification of Neuber's 1 per cent. aqueous osmic solution on account of the osmic acid soon undergoing decomposition in a watery solution. After a whole series of combinations, he concluded that an addition of glycerine to the watery solution prevents for a long time osmic acid from undergoing any change. In not one of the cases treated by him was an injection followed by any ill effect. The patients are now under the author's observation (two to six months after the commencement of the treatment).

Nephrectomy; its Indications and Contraindications.—Dr. S. W. Gross, in a paper in the July number of *The American Journal of the Medical Sciences*, based upon a study of nearly four hundred and fifty cases of different operations on the kidney, presents a careful analysis of all the facts pertaining to the surgery of this organ, and arrives at the following conclusions: 1. That lumbar nephrectomy is a safer operation than abdominal nephrectomy. 2. That primary extirpation of the kidney is indicated, first, in sarcoma of adult subjects; secondly, in benign neoplasms at any age; thirdly, in the early stage of tubercular disease; fourthly, in rupture of the ureter; and, lastly, in urethral fistula. 3. That nephrectomy should not be resorted to until after the failure of other measures, first, in subcutaneous laceration of the kidney; secondly, in protrusion of the kidney through a wound in the loin; thirdly, in recent wounds of the kidney or of the ureter, inflicted in the performance of ovariotomy, hysterectomy, or other operations; fourthly, in suppurative lesions; fifthly, in hydronephrosis and cysts; sixthly, in calculus of an otherwise healthy kidney; and, finally, in painful floating kidney. 4. That nephrectomy is absolutely contraindicated, first, in sarcoma of children; secondly, in carcinoma at any age, unless, perhaps, the disease can be diagnosticated and removed at an early stage; and, thirdly, in the advanced period of tubercular disease.

The Surgical Treatment of Cysts of the Pancreas.—In an article on the surgical treatment of cysts of the pancreas, Dr. N. Senn, of Milwaukee, in the July number of *The American Journal of the Medical Sciences*, presents a full report of a case of retention-cyst of that organ which has recently come under his observation, and, at the same time, summarizes, in a compact form, the clinical history of similar recorded cases, which serve as a basis for some general remarks. Of all abdominal organs the pancreas has been least frequently subjected to surgical treatment, for which its anatomical location, as well as the obscurity of its affections, furnish a sufficient satisfactory explanation. Situated high up in the abdominal cavity, and hidden behind such important organs as the stomach, omentum, and transverse colon, it is the least accessible of all abdominal organs, and on this account its affections, wrapped in obscurity, have for the most part constituted objects for empirical medication. The relation of this gland to the surrounding organs, and its great distance from the anterior wall of the abdomen, the only point of approach, necessarily offer serious obstacles to diagnosis and direct treatment. From a diagnostic point of view, another great difficulty is our want of positive knowledge concerning the physiological functions performed by this gland in the process of digestion. As the symptomatology of all affections of the pancreas is always obscure, and a probable diagnosis can only be made in cases where the gland has become considerably enlarged by disease, it is apparent that our present clinical knowledge is limited to diseases which increase the size of the organ to a sufficient extent to permit its detection by palpation. Primary malignant disease of the pancreas, when it has advanced to such an extent that its presence can be diagnosticated with certainty by physical signs, will have invaded the adjacent tissues to such a degree as to preclude the advisability of an operation; consequently the efforts by the surgeon, for the present at least, must be directed exclusively toward the recognition and treatment of benign affections of this gland. Clinical experience does not extend beyond an imperfect knowledge of cysts of the pancreas. The pancreas, like other secretory organs, is prone to become the seat of cystic tumors, the result of obliteration or obstruction of the common duct, or one or more of its branches. Cysts originating in this manner are true retention-cysts, containing the physiological secretion from the distal portion of the gland tissue, with perhaps accidental products, such as altered secretions, blood, and the products of inflammation. The author concludes his study of the subject by submitting the following propositions: 1. Cysts of the pancreas are true retention-cysts. 2. Cicatricial contraction or obliteration of the common duct or its branches and impacted calculi are the most frequent causes of cysts of the pancreas. 3. A positive diagnosis of a cyst of the pancreas is impossible; a probable diagnosis between it and some other kind of cysts amenable to the same surgical treatment is adequate for all practical purposes. 4. The formation of a pancreatic fistula under antiseptic precautions recommends itself as the safest and most expedient operation in the treatment of cysts of the pancreas.

Blisters in Head-Symptoms Produced by Cranial Lesions.—Dr. Handfield Jones records two instances of cerebral symptoms from long previous injury to the head. The first case was that of a man aged thirty-four, who received a cut on the right forehead sixteen years ago, and for the last two and a half years suffered from pain round the right eye and headache all over the head, which was generally brought on by exertion. He had frequent attacks of giddiness, and occasional fits of unconsciousness. The patient was under Dr. Jones' care for about two months, during which time ten blisters, at various intervals, were applied to the forehead, producing each time almost instant relief from pain for many hours, and sometimes days. The second case was that of a navvy, who received several wounds on the scalp through some bricks falling upon him. About two years after the accident he became subject to attacks of giddiness. In this case eighteen blisters (in all) were applied to the head, the result being a complete recovery from all his bad symptoms; and when he was seen by the author, fourteen years afterward, there had been no return of the attacks. —*London Medical Record*, June 15, 1885.

The Doctors of New York, says a second-hand Sixth Avenue book-dealer, are the only men who have the money, the taste, and the inclination to buy books. If there is anything good in the way of a book or a print they are sure to find it. The doctors are my best customers.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, August 1, 1885.

THE RELATION OF THE TARIFF TO MEDICAL WORK.

THE matter of the tariff and the relation it bears to his work seldom enters the mind of a physician.

It would seem that the first duty of a government would be to protect the health of every individual under its care. One would naturally suppose that one of the methods of attaining this method would be to educate the physicians of the nation to the uttermost. This apparently is the last thing the Government thinks of. Instead of encouraging such education by patronage and increasing the facilities, as is the case with some European governments, it throws obstacles in the way. The doctor must pay twenty-five per cent. duty on every foreign book that he purchases.

It is possible that if this tax were removed, that our American books would be less read; but it is hardly probable that the dust would accumulate more thickly upon them than it does now as they lie on publishers' tables and on library shelves. If the medical man gets broader ideas and wider views, as might happen, what would be the result? A better knowledge of how to treat his cases, how to restore his patient to a condition of health.

If a physician wishes European instruments, either because they are not made in this country, or if made, not of so good or useful material or form, he must pay, if metal or glass enters into their composition, forty-five per cent. duty; if soft rubber, twenty-five per cent.; if gum, thirty-five per cent.; if silk, fifty per cent., making the price from one-fourth to one-half as much again as they could be purchased for in the country in which they were made. Are these articles of luxury, without which one could easily accomplish the purpose? No, they are often instruments familiarity with which either improves the possessor's knowledge, or will increase his power of performing difficult operations successfully. It has been said so many times that it has become trite, but is nevertheless truthful, that the physician holds life and death in his hands. Should not, therefore, the Government, instead of demanding tribute and withholding thereby from those whose incomes are not abundant the means of perfecting themselves in their exacting calling, rather facilitate the procuration of books and instruments which, in reality, or according to individual opinion, will tend to this end.

The makers of medical and scientific instruments used in medical education are a small class in this country, and if their industry should suffer on account of the withdrawal of the protection which they now enjoy, their loss would be small in comparison to the great gain which might result to individual health and well-being because of doctors who, through imported ideas and instruments, have learned facts potent for good to their patients.

This is not a plea for foreign ideas rather than American, but for freedom for the physician to receive both on as nearly the same terms as possible, so that if there be anything in this country or out of it which will help suffering humanity, he may learn of it as speedily as possible, and at as little cost as possible.

It is ill becoming a Government which is supposed to have all the interests of its subjects at heart—and what interest is there greater than health?—for the sake of the small advancement to be obtained in commercial prosperity to cripple even in the smallest way the efforts of those which are exerted in this direction. We cannot but think that, coming in equal competition, instrument-makers would strive more than they do now to perfect their work, and the removal of the tariff for these things would be thus beneficial to the productions of the country.

It may be stated that colleges and hospitals can obtain instruments free of duty. It is so, but often with so much red tape and waste of time that the importers would prefer to pay the duty, as, indeed, an instrument-maker told us, they often did, than to endure the delay and vexation incidental to obtaining a permit. The law expressly states that no such instruments should be for the individual use of the physicians connected with the institutions. It is blindness which does not see that the advancement of the individual is the advancement of the whole, and that the need of Government patronage is as great for him as for the institution whose aim it is to educate these individuals.

In the matter of duty on drugs, on which there is an ever-varying tariff, possibly it is not such an injustice, if it forces the raising and preparing of them in this country in as good if not in a superior manner; but whatever interferes with the instruction of the physician in how to use these drugs to obtain the best possible results for his patient is to be greatly deplored, and will in the end prove a most short-sighted policy.

THE MEDICAL PROFESSION AND THE PALL MALL GAZETTE EXPOSURES.

THERE is one point in the recent exposures of London vice which seems to have attracted but little attention, and which we think ought not to be allowed to pass without a word of special condemnation. We refer to the part taken by certain medical men in granting the certificates of virginity, supposing, as one can hardly doubt, that these were genuine and not forged by the procuresses. There are, of course, rogues in every walk of life, but that men of a noble profession, whose aim is, or should be, to relieve misery and to advance the cause of humanity, should lend their names and thus give their sanction to such a horrible crime is almost incredible. One can hardly say which was the greatest villain, the retired physician who sacrificed annually between seventy and eighty virgins upon the altar of his lust, the procuress

who furnished the material for sacrifice, or the, presumably, impecunious practitioner who was willing, for a consideration, to certify to the fitness of the victims for the sacrifice. It is almost a pity that the matter was not taken into the courts so that the names of these brutes might be made known, and their bearers branded as unfit for association with decent men.

THE OLEOMARGARINE DECISION.

The reversal of the decision of the lower courts by the Court of Appeals in the recent oleomargarine suit, was not entirely unexpected, unless in the case of the officials of the Dairy Commissioner's office, but the decision seems to have put a temporary stop to efforts to destroy the traffic, and future efforts will have to be directed rather to discovering fraudulent sales of oleomargarine for real butter rather than to preventing all sales of the imitation.

The principle involved in the decision is one of great importance, and will have a far-reaching effect. It has been the theory on which many laws have been enacted in recent years to label a measure a health one, and that would enable the law to run the gauntlet of all the courts. The Tenement-house Cigar-law decision and now the oleomargarine decision show that a law must in reality be proven to be positively necessary for the prevention of health, or else individual rights cannot be overridden. In the case of the oleomargarine law it is very difficult to prove that pure oleomargarine is unhealthful, and the court held that to manufacture or sell such an article was not improper.

THE POVERTY OF DR. WARBURG.

Shall a physician keep secret his formulæ?

The answer to this question can be made promptly and emphatically in the negative. Whatever injustice may fall upon the individual, it would be demoralizing to the profession and injurious to the public if physicians attempted to make secrets of their favorite and most helpful formulæ.

We make this criticism as introductory to the case of Dr. Warburg which has just been brought up in the London medical papers. Dr. Warburg, who compounded Warburg's Tincture, is now a poverty-stricken old man. Professor W. C. Maclean, formerly of the Netley Army Medical School writes:

"Some years ago I appealed through the press on behalf of Dr. Warburg, to whom the people who serve in malarious climates are indebted for the most powerful febrifuge known to the medical profession, and which has saved many valuable lives. I have before me a letter from the lamented General Gordon, dated Khartoum, October 25, 1876, when Governor of the Soudan, addressed to Dr. Warburg, in which he says: 'I am (D. V.) coming home on leave (it would be for good were it not for your medicine, but I have such confidence in it that I look on returning with no dread), and will give you an order for £20 worth.' I urged Dr. Warburg to make its composition known. In compliance with this advice, Dr. Warburg came to Netley, and in the laboratory there made up a large quantity of his tincture, giving me at the same time his formula for publication, which I made known to the profession in the pages of *The Lancet* and *Medical Times*. I regret to say that this well-intended act of mine was followed by disastrous results to the inventor. It is now made and sold by druggists without any profit to Dr. Warburg, and I invite such of your readers who have derived benefit—perhaps had their lives saved—by this remedy to assist the man who has given to tropical medicine a powerful weapon to contend with a disease that kills twice as many victims as cholera and small-pox put together. The Government of India some time ago took the very unusual step of marking their sense of the value of Warburg's tincture by a grant of £200 to the discoverer. Dr. Warburg is now upward of eighty-one, and is in embarrassed circumstances."

The medical profession demanded of Dr. Warburg his secret; he gave it, and now the druggists make the money, and Dr. Warburg is left a poor man. It belongs to the medical profession to relieve the poverty which it has brought about.

SUPPLY AND DEMAND.

The demand for the degree of M.D. on the part of dentists has been met by the College of Physicians and Surgeons of Baltimore. This institution announces that graduates of the Baltimore College of Dental Surgery, who have also attended lectures on materia medica, anatomy, and oral surgery, will be entitled to graduate in medicine after attending one additional course of lectures on passing a successful examination.

This amalgamation of schools has another advantage—it swells the graduating list of the Baltimore College of Physicians and Surgeons.

We have heard that a dental school nearer home than Baltimore, or Hoboken even, gets the degree of M.D. in this way whenever any of its students feel the need of it.

THE BRITISH MEDICAL ASSOCIATION.

The meeting of the British Medical Association, which occurred this week and of which we present a cabled report, was a well-attended and interesting meeting. The character of the papers seems to have been so far largely clinical.

The most important event was, doubtless, the decision of the Association to erect a building for itself, at a total cost, probably, of over $150,000. Such a procedure will doubtless in the end prove economical, and will certainly add to the stability and power of the organization.

THE INTERNATIONAL MEDICAL CONGRESS.

The fact is unmistakable that the present organization of the International Congress seems gradually falling to pieces. Its best and most representative men have withdrawn. Opinions from the other side show that no confidence or sympathy will be felt in the position taken by the American Medical Association. It is useless to deny that unless something radical is done the Washington Congress will be simply a humiliation of American medicine before the world.

Is the Association willing to take the responsibility of bringing this about? We trust not, when, by a manly

and sensible acknowledgment of a mistake, the whole matter can be adjusted.

There is no quarrel between the East and West, nor do any but a few care for changes in the *personnel* of the present Executive Committee. We see no reason why, as has been urged, they should resign. Let them remove the medico-political issue and we can assure them that the whole profession will manfully stand by them in all other points.

News of the Week.

The International Medical Congress.—Perhaps, with the exception of one or two journals, the medical press, both in the United States and in England, has disapproved of the action of the American Medical Association in overthrowing the work of the original Committee on the Organization of the Congress. In fact, we are able to mention at this time but one prominent journal which has sustained the Association in its course, and this is the journal owned by the Association and conducted solely in its interest. The present outlook for the Congress admits of but one opinion, which is this, that the Association has committed a serious blunder and has shown itself incapable of reorganizing or conducting the Congress under its auspices. It seems clearly the duty of the Association to resign this matter into the hands of the general profession. The Association has so completely forfeited the confidence of the best minds in the profession, and has so antagonized the medical press of the country, that it seems a mistaken policy for it to attempt to proceed with the work of reorganization.—*Maryland Medical Journal.*

"The Washington Congress in Danger."—Under this title we copy the following from a leading editorial in the *Medical Times and Gazette* of London: "Those who have looked forward to taking part in the next International Medical Congress, and have counted perhaps on making personal experience of that friendliness and hospitality of which every English doctor who has yet crossed the Atlantic has brought back such golden report—yes, and not only those, but every practitioner to whom the reputation of his profession is dear, will have read with intense surprise, if not distress, the intelligence we published last week, that the Washington Congress is in imminent danger of falling through. We are sorry to announce that our worst anticipations are in process of realization. . . . We can only hope that the sound sense for which our American cousins are so distinguished will prevail, and that the decisive action of the Philadelphia practitioners will rouse the mass of the profession in America to step in, and to decide by overwhelming numbers before it is too late, that old controversies shall be sunk, that old ill-feeling shall be buried, and that no one shall be allowed to turn partisan spirit into a ladder for his own elevation at the expense of the reputation and good-fellowship of the profession to which he belongs. We do not wish, and we hope no one on this side the Atlantic will attempt, to revive the memories of the celebrated dispute on the Codes. We believe that the late Dr. Panum, the lamented President of the Copenhagen Congress, distinctly insisted, when the invitation to America was accepted, that the Code question should not be raised; and we feel sure that a very large majority of English and Continental practitioners will refuse to cross the water if this understanding is not rigidly kept to. They will feel, too, that if they go to Washington they can only go as the guests of an undivided profession. A Congress from which the most distinguished representatives of American medicine were excluded or had withdrawn, would not be worth going to as a scientific meeting, while the remembrance of the bitterness and heart-burnings which had attended its organization would rob its social distractions of all their charm. It would be like feasting with a man, while his wife, unjustly divorced, stood in the street watching. We can assure our American readers that in the present case the best English sympathies will be with the wife. The men whom English visitors, if they go, will go to see and hear, are the very men who have been elbowed out of the Congress. The scientific success of a Congress does not depend on numbers, but on quality. The profession in America is no doubt rich in numbers, as well as in scientific activity, but it is not so rich that it can afford to play all Europe with only pawns on its side of the board."

Navy News.—Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ended July 25, 1885. Surgeon C. S. D. Fessenden, leave of absence extended eight days on account of sickness, July 20, 1885. Passed Assistant Surgeon Fairfax Irwin, granted leave of absence for ten days, July 14, 1885; to inspect unserviceable property at St. Louis, Mo., July 15, 1885.

Chloroform Poisoning.—Dr. Llewellyn Eliot, of Washington, D. C., writes concerning his paper on "Chloroform Poisoning": "In table, Case 2, 30 grs. should be 30 gms.; in table, Case 5, ℥ ivss. should be ℥ v. In abstracts, Case 49, one gramme should be gr. ij."

Professor J. W. Wright, M.D., of New York, has resigned as Professor of Clinical Surgery, University of Vermont.

Medical Education.—In a learned address, delivered at Albany before the University Convocation, July 9th, on Medical Education, Dr. William H. Watson asks: "What, then, should constitute the proper conditions of medical licensure in the State of New York? and answers: 1. A fairly liberal preliminary education. 2. Four years of professional study. 3. Examinations and license by an impartial court appointed by the State." In regard to the last point, Dr. Watson says: "A single paragraph of law would, by making the law of 1872 compulsory, convert it into a system as effective as the German Staats Examen, which, in the judgment of the speaker, is by far the most efficient system in the world. We firmly believe, therefore, that some modification of this law, made compulsory, will at no distant date revolutionize the system of medical education in the State, for the following reasons: First, it cannot, if made compulsory, fail to accomplish the object which all educated men so much desire—the elevation of the standard of medical education in this State. Second, while it confers no special or peculiar privileges upon a class, yet the degree will be an assurance to the public of the qual-

ifications of all who shall attain it, and will, therefore, be a legitimate passport to professional success. Third, the provisions of such a law will not in any way conflict with the vested rights and privileges of the medical colleges. It will, however, furnish an inducement to them to increase the thoroughness of their instruction, and to advance their standards of graduation, since in course of time that institution would attain the highest reputation from which the largest number of graduates should have obtained this degree. Finally, we believe that no other measure can be devised which would so powerfully tend to the advancement of sound practical knowledge among the future members of the medical profession, while its liberal, impartial, and entirely catholic provisions would leave no reasonable room for objection, and would eventually commend it to the good sense of the people of the State."

The Faith-cure for Cholera.—The correspondent of the *British Medical Journal* at Valencia, Spain, writes: "There have suddenly come into our city four 'apostles' of 'faith-healing,' who have gathered crowds around them. It is said that numbers have been healed of cholera. They are all poor men, receive neither money or gifts for their reward, only they accept a little food wherever they are at meal-time. They sleep in the fields at night, and beg to be allowed two hours out of the twenty-four for sleep and prayer. They belong to Andalusia and Jaen. They gently rub the abdomen, then place a jar of cold water on the mouth of the sick, exhorting them earnestly to put faith in God with all their mental or soul power, at the same time reading out from Scripture several passages; then they pray and breathe over them. It seems there are several of them scattered about. They never interfere with the medical man's duties."

Dr. Fehling, of Stuttgart, well-known for his invention of "Fehling's Solution" for testing for sugar, died on July 1st, in his seventy-third year.

Ferrán's Defence of Himself.—The *Progrès Medical* contains a full account of M. Brouardel's experiences in Spain with Ferrán, but adds nothing new to what we have published. The Paris correspondent of the *Philadelphia Medical Times* writes that Dr. Ferrán gave the following answer to the Commission: 1. That he refused to make known to them his process of attenuation of the virus of the cholera. 2. That he would allow them to examine his liquid in his *own* laboratory, but that he would not allow a drop of it to be taken away. 3. He proposed to the Commission that they would make a culture of the bacilli from the cholera-dejections and hand it to him, when he would attenuate it and return it to them. The Commission refused, and returned to France. It is only fair to give Dr. Ferrán's reasons. He writes a long letter to justify his views. He says: "I commence by declaring that in regard to the prophylaxis of cholera there are two points of view that are quite different. The first one is the effects produced by the vaccination. This is the one that really interests humanity; and the second one is the manner in which I make the attenuated liquid. This last is quite apart from the first. What interests all the world is, Do the inoculations practised with my method really prevent cholera? and I claim that they do. That the second part interests all the world I do not believe, and I have particular reasons for not giving up, at present, my secret. After having worked a long time at these studies I submitted my results to my Government, but I was received with a silence and an opposition that was trying. I received no help except from a few friends. I sacrificed all I had—my health, my practice, and what little resources I had—to find not the slightest assistance, even after I had proved the great importance of my discovery. I do not refuse to show my process to all the world if the Government will recompense me in some slight way for all my trouble, as the German Government did Dr. Koch. All the glory in the world cannot recompense me for the pain I should feel if I should leave my children in poverty."

Medical Women in India.—The association established at Bombay, about two years ago, for bringing out medical women from England, for the treatment of zenana females, have published their first annual report. It appears that over two hundred thousand rupees have been subscribed, a dispensary started, a hospital put under way, and that two medical women have already been at work, treating one hundred to three hundred patients daily.

The International Medical Congress.—The Cincinnati members of the organization, embracing leading members of the profession in that city, have formally withdrawn, as have also Professor E. S. Dunster and Dr. Henry Sewall, of Ann Arbor, Mich. In so doing they say: "In taking this step we do not intend to criticize the Committee for their action. On the contrary, we think that, handicapped as they were, they did their work remarkably well. But we do object to the action of the American Medical Association, at its New Orleans meeting, in introducing into the question of the organization of a congress for scientific work an element that has no more pertinency to such a purpose than the matter of a man's religion or his political views."

Intemperate Illinois Physicians.—We can hardly believe that the following item, vouched for by the *Journal of Inebriety*, is true. If it is, we must recommend St. John or the Salvation Army to our Illinois brethren. Says the *Journal* in question: "A Chicago physician sends us the following: The State Board of Health of Illinois reports the death of two hundred and two physicians. Six are attributed to suicide, five are recorded as coming from the accidental overdose of morphia, and two from an overdose of chloral. Over thirty of this number were known to use spirits to excess. He thinks that twenty-five per cent. of all physicians who die under forty may be classed as victims of alcohol or other narcotics."

A Medical Curiosity — Balfour's Disease, or Chloroma.—A disease of which only eleven cases have ever been observed must have interest purely as a curiosity. Chloroma was first described by Balfour in 1834. Since that time ten cases have been reported, and now an eleventh case has been observed by Gade in Christiania. The subject was, as is invariably the case, a child, a little girl of five years of age. The first symptoms

were deficiency of blood, a tumor of the left cheek, toothache, otorrhœa, singing in the ear, deafness, and exophthalmos, which gradually increased. Afterward fever and extreme prostration supervened, and she died in about two months. At the autopsy, numerous yellowish-green tumors of fibro-sarcomatous structure were found in many different parts of the body, more particularly on the periosteum. They were found also on the dura mater, in the liver, colon, lateral ligaments, and kidney, and even in the marrow of the long bones. On the legs a number of dark spots were seen, some of which contained a soft greasy substance. The origin of the greenish coloring-matter was thought by Otto, and Gade agrees with him, to be in the fat-granules, numbers of these being found in the cells, and so to be independent of both bile coloring-matter and hæmatin.

The General Verdict.—The International Medical Congress is becoming moribund.

Another Honor for Pasteur.—The Barotte prize of 3,400 francs, awarded to the inventor of the most important and useful invention for agriculture, has been awarded to M. Pasteur.

The Institute of Heredity and Hygiene of the Woman's Christian Temperance Union is the modest and unassuming title of a new society recently organized in the solid little State of Vermont. We are glad to see "Institutes" and other evidences of scientific progress, but we must give a caution to a society that starts off with such an intemperate length of name as the above. One must not think that because he read papers at an "institute" that he is therefore wise and scientific. The fact is such a name as the above suggests greatly a party of pseudo-scientific sentimentalists. Get rid of it, therefore, and prosper.

Not the Consultant.—Dr. A. Y. P. Garnett, of Washington, D. C., has taken the trouble to send us a discourteous note denying our conjectural statement that he was called in consultation with the homœopathic physician attending Mrs. Bayard. Having heard a rumor to the contrary, we take the opportunity now of begging Dr. Garnett's pardon for supposing that he would be called in consultation in this case.

Professor Van Ermengen, of Brussels, who went to Spain to study Ferrán's methods, makes a similar report to that of the French Commission.

The Difficulties of Becoming a Successful Physician.—The press of competition is so fierce in the present over-crowded state of the medical profession, that unless a man has some peculiar and decided advantage over the general run of his fellows, he stands no chance of coming to the front. Something more is necessary nowadays for success in the higher walks of medicine than mere general ability. Supreme talent will, of course, ultimately find its level, unless kept down by accident or misfortune; but for the average clever man there is little prospect of brilliant success unless he has (or can persuade the world he has) the power of doing some particular thing better than any one else, or at any rate pre-eminently well.—*Dr. Morell Mackenzie, in the Fortnightly Review.*

Reports of Societies.

British Medical Association.

FIFTY-THIRD ANNUAL MEETING.

Held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1885.

(DIRECT CABLE TO THE MEDICAL RECORD.)

Tuesday, July 28th—First Day.

President: James Cuming, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. Edwards, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

The fifty-third annual meeting of the British Medical Association was held at Cardiff, the chief city of Wales. The general session was opened Tuesday morning by the retiring President, Dr. James Cuming, who made a brief address thanking the Society for the honor it had conferred upon him, and expressing gratification at the progress and prosperity of the Association, especially in the amount of scientific work done.

Upon concluding his address, a vote of thanks was moved by Mr. McNamara, seconded by Mr. Husband, and carried.

Dr. Balthazar Foster, President of the Council, then moved that the report of the Council (published in the *British Medical Journal*) be adopted. This motion was seconded by Mr. Power.

A long discussion then followed with regard to the project of

BUYING A SITE AND ERECTING A BUILDING

for the use of the Association. Those opposing the project said that the estimated cost of the site was $75,000, that of the building $50,000, making a total of $125,000. In reply to this charge of great expense, it was said that the Association absolutely needed larger premises; that it would be cheaper in the end for it to do its own printing; and, besides, it could probably get a building at a less cost than that estimated. Finally it was voted to adopt the Council's report and authorize it to buy or lease a site and erect a building thereon for printing and publishing the *Journal*, with offices, council-chamber, reading-rooms, etc.

The President-elect, Dr. W. T. Edwards, then delivered the

ANNUAL ADDRESS.

After having expressed his thanks for the honor conferred upon him, the speaker, in behalf of the profession of Cardiff, gave a cordial welcome to the visitors. He then gave some description of Cardiff. It was, he said, the age of great towns, and Cardiff had, owing to its mineral resources and other natural advantages, become one of the greatest of them. If, however, the estimates

were correct, and all the coal of that region were consumed in the next hundred years, Cardiff would soon collapse. Some account was given of the Cardiff schools, hospitals, and of Cardiff sanitary work. Prevention, he said, was not only better but cheaper than cure. The health officer of to-day stands, as did the Hebrew priest of old, between the living and the dead. Cardiff had many historic memories connected with it. King Arthur was said to have been born within its walls.

The rapid growth of the British Medical Association was eloquently described. It had now, he said, become a power in the country, socially, politically, and morally.

Dr. Edwards enumerated some of the additions to medical science and art that had been made during the period of the society's prosperity. Such were chloroform, ether, iodoform, the bromides, the immense advance in our knowledge of disease-germs, the introduction of antisepsis, etc.

The speaker, in conclusion, gave some statements showing the economy of preventive medicine. The cost of a single ironclad would, he said, save many lives.

At the conclusion of the address, a vote of thanks was moved by Dr. Strange, seconded by Dr. William Roberts, and unanimously carried.

Wednesday, July 29th—Second Day.

Dr. William Roberts delivered the

ADDRESS IN THERAPEUTICS.

(See page 115.) The address was received with marked attention; at its conclusion Dr. Chadwick moved and Mr. McNamara seconded a vote of thanks.

The Association then passed to a discussion as to the

PLACE OF THE NEXT ANNUAL MEETING.

Brighton was finally selected.

The work in the sections was then begun. In the Section on Medicine, the President, Dr. Samuel Wilks, of London, delivered an address. Diseases, he said, arose originally from peculiarities of climate, race, food, and the surroundings. Later the influence of heredity entered and is now potent. He had long taught that in all diseases of slow origin and progress the predisposing and exciting causes were identical. Dr. Wilks referred to the present ascendency of bacteria and bacilli in pathology, and believed that the fashion would in a measure pass away. Therapeutics, he said, was not really before pathology; the latter really leads. The nature of a disease must be known before therapeutics can achieve its greatest results.

Dr. Wilks called attention to the views about zymotic ferments as set forth by Liebig, and showed how these views had fallen through. Thus, on the so-called zymotic diseases, where ferments were to be expected, they had not been found, while microbes were found in phthisis, cholera, etc., where there is no analogy between the symptoms and those of specific diseases. The notion that each microbe has its specific pabulum he thought absurd, and the search for specific causes of disease by pathologists he thought very difficult, if not impracticable. Disease was often the result of irregularities in development of organs and lack of harmony in functions of kidneys, spleen, lungs, heart, etc. The best physicians survey the whole system and attempt to regulate properly these organs. As illustrating

IRREGULARITY OF FUNCTIONAL ACTIVITY,

the speaker described the curious intermittent or remittent action of many organs, occurring daily, or rhythmically night and day. No organ acted steadily and constantly.

He called attention, in conclusion, to the fact that pathological changes were of two kinds, reparative and destructive, and this fact should be borne in mind by the therapeutist.

At the conclusion, a vote of thanks was moved by Dr. Canning, and seconded by Dr. Roberts.

A discussion then followed on the

TREATMENT OF ACUTE RHEUMATISM.

It was opened by Dr. J. S. Bristowe, and participated in by Drs. Latham, Coupland, Prosser James, W. K. Thomas, Skerritt, Pavy, Harkin, and Wilks. The general tenor was in favor of the use of the salicylates. The blister treatment did not receive endorsement.

Papers were then read by Dr. L. Duncan Bulkley on "Asthma as Related to Skin Diseases," and by Mr. C. R. Straton on "Chorea, its Pre-ataxic Stage."

In the Section on Surgery an address was delivered by its President, Dr. E. H. Bennett, of Dublin.

The speaker took up the subject of the

BEST METHOD OF STUDYING FRACTURES

and injuries of the skeleton. The best method, he thought, was not by dissecting cadavers or experimenting on animals, but by collecting together many examples of the same kind in ordinary surgery. He had, in illustration, collected for study fifty-one cases of Pott's fracture. He had found that there were two forms of this injury, and that impaction was common. He had seen twenty-five cases of fracture of the costal cartilages, concerning which there were some peculiarities that needed further elucidation. A form of fracture of the upper part of the fibula oblique, without much displacement, was caused by a sudden jar, the foot being extended. Of fractures of the metacarpal bones, that of the thumb was most commonly affected. The fracture usually occurs close to the proximal end of the joint, and the whole bone slips back. The hand remains disabled for a long time.

A recent dissection and various specimens were shown.

A discussion upon Dr. Bennett's address followed, after which

Mr. Reginald Harrison opened a

DISCUSSION UPON TUMORS OF THE BLADDER.

(See p. 113.) To the discussion that followed Mr. Humphreys added letters received from Mr. Cadge and Mr. Annandale.

Papers followed by Mr. W. Adams, on the

SO-CALLED CONGENITAL DISLOCATION OF THE HIP-JOINT;

by Dr. J. Ward Cousins on "The Treatment of Infantile Hernia and a new Washable Splint," by J. Davies Thomas on the "Treatment of Pulmonary Hydatid Cysts by the Establishment of Large Openings into the Sac and Subsequent Free Drainage, based upon Thirty-two Cases."

IN THE SECTION ON OBSTETRIC MEDICINE

an address was delivered by the President, Dr. Henry Gervis. He referred to the decline in the general death-rate of late years, and then to the decline in the deaths from childbirth. He expected that this decline would continue. He recommended the more frequent early and judicious use of the forceps, the more careful study of contracted pelves, great precautions for the prevention of hemorrhage, and the use of antiseptics. These latter were equally important before and during labor. The more healthy the surroundings and the more vigorous the patient the fewer the germs and the less the danger from them. The use of the antiseptic spray was seriously suggested, but its practical difficulties admitted. He advised regular antiseptic bathing and syringing after labor, a careful examination of the parts, and stitching up of lacerations. Advised sublimate solutions or boric acid. He referred to the results of the collective investigation in support of the use of vigorous antiseptic measures in childbirth.

He discussed the subject of Puerperal Fever, and said that morbid anatomy must still further correct clinical study.

In the Section on Public Health the discussions were chiefly devoted to cholera.

Dr. R. Pringle read an article on "Cholera."

Dr. H. J. Paine read a paper on "Cholera and other Zymotic Diseases in their Relation to Sanitation, Practically Illustrated."

Dr. J. Maunsell read a paper on "The Various Schemes for Medical Aid with a View to their Adaptations to the Requirements of the Present Day."

In the Section on Therapeutics a discussion on the "Duration of the Action of Medicines" was started by Professor Leech, and a discussion on "Hypodermatic Medication" by Dr. Talfourd Jones.

(To be continued.)

THE VIENNA SOCIETY OF PHYSICIANS.

Stated Meeting, June 19, 1885.

Professor Leidesdorf in the Chair.

(Special Report for The Medical Record.)

This, the last meeting before the summer vacation, was called to order by the President, who regretted that the attendance was not larger, but hoped that, after the long rest, the members would be present in large number at their next meeting in the fall.

Professor M. Rosenthal presented a patient suffering from

LEAD PARALYSIS.

The patient was an actor who had been in the habit of employing lead paints upon his face. The paralysis affected the extensor muscles of the right hand.

He also showed a case of

HEMIANÆSTHESIA

following diphtheria. The patient, a young girl, had complete loss of sensation of the skin covering the entire right side of the body, together with paresis of the muscles of the palate and of the vocal cord on the same side. There was, however, hyperæsthesia of the right brachial plexus. The muscular sense was unimpaired.

Dr. Guido Schwab reported a case of

TRAUMATIC ANEURISM OF THE COMMON CAROTID ARTERY.

The patient was a woman, forty-one years of age, who had inflicted upon herself, with suicidal intent, a number of wounds in the neck with a pocket-knife. When seen two hours after the injury was inflicted she was found to have several wounds in the left side of the neck, from which a few drops of venous blood were exuding. The tissues in the neighborhood of the wounds were very greatly swollen. An iodoform dressing was applied and maintained in position for five days. Upon its removal at this time a distinct bruit was perceptible in the space between the heads of the sterno-cleido-mastoid muscle. Two months later a tumor, the size of a hazel-nut, easily compressible, was found in the left side of the neck along the course of the common carotid artery, at about the level of the conoid ligament. The swelling presented an expansive pulsation and a strong fremitus was perceptible. On auscultation of the tumor, as well as of the ascending and descending aorta, a loud murmur, synchronous with the cardiac systole, could be heard. This murmur as well as the pulsation ceased upon compression of the carotid below the seat of the aneurism.

Dr. Riehl then read a paper embodying the results of his investigations upon the

PIGMENTATION OF THE SKIN IN ADDISON'S DISEASE.

These confirmed the assertion of Nothnagel that the pigment in this disease is not elaborated in the epidermis, but is found in the deeper layers of the skin, sometimes massed around the vessels, and is deposited there by the blood. The writer had made microscopical examination of the vessels of the skin, and had found the adventitia in all cases remarkably nucleated. The cell-infiltration was found not only in the pigmented, but also in the colorless portions of the integument. In the arterial twigs of the cutis the media was also swollen and indistinctly pigmented. In some cases he found thrombi of the small arterioles. Since these arterial lesions were found in the entire integument, even in the non-pigmented portions, and also in some of the subcutaneous tissues and some of the internal organs (liver, peritoneum, and pleura), but thrombi only in the skin and suprarenal capsules, the author concluded that the arterial disease was primary and the cause of the deposit of pigment from the blood.

Professor Meynert read the last paper, entitled

THE RADIATION FIBRES OF THE ANTERIOR LOBES.

The author stated that choreic movements might proceed from the anterior cerebral ganglion, from the pons, or from that portion of the gray matter of the cord where the pyramidal tract ends, though in most cases they originated in the first-named portion of the central organ. He opposed Unvericht's theory that epilepsy depends upon an arterial neurosis and originates not in the cortical substance but in the subcortical motor centres.

The Society then adjourned.

Substitute for Morphine.—A correspondent from Milton, Wisconsin, writes: "When morphine or opium makes a patient wakeful or crazy instead of quieting them, what substitutes or combinations of opium will agree with them? You will confer a favor on me by publishing an answer to this."

AMERICAN OTOLOGICAL SOCIETY.

Eighteenth Annual Session, held at the Pequot House, New London, Conn., July 14, 1885.

C. H. Burnett, M.D., President, in the Chair.

Dr. Chas. J. Kipp, of Newark, N. J., exhibited the work of Gustav Retzius on the anatomy of the organ of hearing of vertebrate animals.

Dr. Samuel Sexton, of New York, read a paper on

INFLAMMATION OF THE ATTIC OF THE TYMPANUM.

The greater importance of inflammation arising in the attic as compared with that arising in the atrium was first referred to. Two forms of the affection were considered, acute and chronic inflammation of the attic, the latter presenting itself in the form of deep sinuses extending from the inner end of the canal up into the attic, into the antrum, and sometimes through the membrana flaccida.

The atticus tympanicus is that portion of the tympanum lying above a plane extending transversely from the prominence on the inner wall, formed by the external semicircular and facial canals, to the auditory plate on the outside. Beneath this plane lies the atrium tympanicum. The attic is divided below into two compartments, the inner being the larger, by the incus and malleus, the cord, ligaments, etc. These compartments communicate freely with each other, with the atrium, with the Eustachian tube, and with the antrum. These cavities are lined throughout with mucous membrane.

Acute inflammation of the attic may follow catarrh of the head, the exanthemata, and the entrance of fluids propelled along the Eustachian tube. The very frequent occurrence of inflammation of the attic from these causes is readily accounted for when we remember the Eustachian tube at its tympanic orifice opens by a free sweep into the attic as well as into the atrium. Irritating fluids seem always to be better borne in the lower than in the upper part of the tympanum. Inflammation of the attic may be simultaneous with, or independent of, inflammatiion of the atrium. It is the more serious from the fact that swelling of the mucous membrane prevents drainage. In such cases the membrana flaccida is red, the vascular turgescence extending above into the external auditory canal and sometimes downward about the short process of the malleus. Should the disease progress further, the inflammation may extend beneath the margo tympanicus of the auditory plate and be followed by effusion of serum and blood, which presses away the membrana flaccida and integument of the canal, producing a bulging sac so great sometimes as to entirely conceal from view the membrana tympani, and may entirely fill the canal and present at the lumen as a purplish tumor.

Periostitis of surrounding parts may occur and the inflammation may extend downward to the atrium, but as long as this does not happen and the membrana tympani is unaffected there may be little deafness. As a rule, inflammation in some degree extends into the antrum and mastoid cellules or those overlying the external auditory canal or in the tegmen. If the escape of secretions into the atrium or Eustachian tube is prevented, the case is more severe and extension to the cranial cavity more to be dreaded.

The subject of treatment resolves itself into a question of drainage and the employment of such constitutional remedies as tend to check the inflammation and prevent the formation of pus. Aconite and calx sulphurata were particularly referred to. Owing to the impossibility of making an accurate differential diagnosis between the pains of pachymeningitis and the neuralgic pains of otitis media, we should be very cautious about trephining the mastoid where pain is our only indication. It is manifestly useless to perform this operation after pachymeningitis has set in.

Dr. D. B. St. John Roosa, of New York, had nothing to venture in regard to the anatomy, but the remedies mentioned, mercury and calcium sulphide, are not in common use in the way recommended by the speaker. He had used mercury in doses of one-tenth to one-fifth grain and also sulphide calcium without any favorable effect. He asked Dr. Sexton to describe a case, indicating the manner in which he would use these remedies.

Dr. Sexton gives the remedies in small doses, frequently repeated. The moment there are symptoms of purulency calcium sulphide is given. He had seen congestion and swelling over the mastoid disappear under the use of the calcium.

Dr. J. A. Andrews, of New York, referred to a case in which the inflammation was most intense in the upper part of the tympanic cavity. A perforation was established between the mastoid, antrum, and external auditory canal. There was a fluctuating point in the superior posterior part of the canal, which was opened. The patient made a good recovery.

Dr. Sexton recommended for the relief of pain the use of aconite or pulsatilla, the latter especially.

Dr. C. R. Agnew said that with children there is always a certain amount of indefiniteness in the symptoms, and he asked Dr. Sexton what he would do in a case of acute otitis media catarrhalis in an infant six months old.

Dr. Sexton replied that he would examine the history, ascertain the general condition, whether it was subject to catarrhal trouble, the condition of dentition, and whether there had been a previous attack of inflammation of the middle ear. If there were accumulation, he would not hesitate to let it out. If there were suppuration he would give calcium sulphide, but if there was only catarrh, give mercury.

Dr. Charles J. Kipp, of Newark, N. J., was surprised to hear nothing said of inflation of the middle ear. This relieves the pain. Where there is protrusion in front of the membrane, incision gives relief to the suffering.

Dr. Theobald, of Baltimore, had found the instillation of a warm solution of atropia of great service (four grains to the ounce), with this cathartics may be combined with great benefit. After perforation of the drum membrane he would recommend the use of boracic acid.

Dr. C. J. Blake, of Boston, spoke of the reduplication of the mucous membrane in the upper portion of the tympanic cavity. This he had found in fifteen or twenty per cent. of two hundred specimens examined. They serve to separate the upper portion of the tympanic cavity from the lower, and are an important element in inflammation of this part, and may tend to retain secretions.

Dr. Sexton said, in conclusion, that he had used mercury and the sulphide of calcium for the last ten years in a large number of cases and was convinced that they are beneficial in a certain number of cases. If he was to give up anything, he would rather give up the local applications than give up these internal remedies.

A paper entitled

THE TREATMENT OF CHRONIC OTITIS MEDIA

was read by Dr. W. W. Seely, of Cincinnati, in which the speaker alluded to the abandonment of the nasal douche and the posterior nares syringe, and held that all applications to the naso-pharynx should be made with care, as all were liable to do harm. All of the points thus far were to justify the author's condemnation of the slurring of these cases by specialists in various ways, such as putting the catheter or balloon into the hands of the patient or parents, throwing over the treatment of the throat also to the patient. He claimed that this class of cases were almost all amenable to treatment, and only time and patience were necessary to manage them.

The speaker thought that the attention of the general profession was becoming too much centred on the Eustachian catheter as the only means of treatment, and especially as the only means of opening the tubes. Often

catheterization does harm rather than good, and some application of boric acid and vaseline, or, what is still better, of the yellow oxide of mercury and vaseline through the nostrils, will open the tubes, while the catheter has little or no effect. He said that salves had almost if not quite supplanted all other applications for nasal and naso-pharyngeal troubles.

The speaker concluded his remarks with the following propositions:

1. That only experience of sufficient length of time (often lasting over months) in each case can determine whether treatment shall be continued (daily), or interrupted, *i.e.*, perhaps daily for a week, followed by an interruption of some weeks or months.

2. Only experience in each case can inform us whether treatment is to be entirely directed to the middle ear, or entirely to the naso-pharynx or combined against both.

3. Only experience in each case can inform us whether injections into the cavitas tympani are called for. Under this head it was stated that direct medication, either of the middle ear or naso-pharynx as routine treatment was unwise, till simple inflation had failed.

4. Mechanical dilatation of the tubes is rarely necessary or advisable. Only in extremely dry states of the tube is dilatation followed by much success.

5. Hearing-tests are not reliable, and hence patients with great deafness, great loss of bone conduction, etc., should not be sent away till the test by trial has been gone through with.

6. Simple inflation failing, the greatest attention should be given to the naso-pharynx, even though it is in an apparently fair condition.

7. Syringing, douching, and swabbing the naso-pharynx should be abandoned.

Dr. Charles H. Burnett, of Philadelphia, read a paper on

THE RELATIONS BETWEEN CHRONIC CATARRHAL OTITIS MEDIA AND CHRONIC RHINITIS.

The author finds: 1. A constant causal relation between chronic catarrh of the middle ear and chronic rhinitis and rhino-pharyngitis. The latter is chiefly of the hypertrophic form. The atrophic form, which is made to include the fibrous degenerations and the sclerotic forms, as well as the truly atrophic, with shedding of epithelium and exposure of basement membrane, constitutes about fourteen and one-half per cent.

2. The appearances of the membrana tympani in the first or numerous class are very diversified, so much so as to preclude a predication of the state of the middle ear and hearing from them alone. In the second class, however, the atrophic, the symptoms presented by the membrana tympani are more uniform and consistent, and the surgeon is able to predicate from them more precisely concerning the aural disease. Yet, on the whole, the appearances of the drum, taken by themselves, cannot aid greatly in the diagnosis of chronic aural catarrh. The faucial symptoms play a very subordinate part in diagnosis in chronic catarrh of the middle ear, because faucial and throat disease have little or no causal relationship to aural disease.

3. Tinnitus aurium is more marked in the atrophic class than in the hypertrophic, as a rule. There is also a greater patency of the Eustachian tube in the atrophic forms of aural disease than in the hypertrophic, though it is found in both forms of naso-aural disease. It is most relieved by treatment of the nares and naso-pharynx.

4. The treatment in the first class should be by cleansing and astringent sprays, with applications of preparations of iodine never stronger than half-and-half. Nitrate of silver is not to be used at all in hypertrophic rhinitis. In the atrophic form, the treatment must be cleansing, the removal of inspissations, if they occur, and then the application of stimulant sprays, preferably nitrate of silver, not stronger than four grains to the ounce of water.

Where the hypertrophies have become dense and large, requiring surgical removal, Dr. Burnett thinks the case should pass into the hands of the rhinologist.

A word of caution is given in regard to the use of the galvano-cautery in the nares, since it, like the nasal douche, may lead to inflammation in the naso-pharynx and middle ear. The aural surgeon should always examine the nares, being prepared to treat the non-surgical forms of chronic rhinitis in order to properly cope with chronic aural catarrh.

Dr. Agnew, of New York, thought it was impossible to apply salves to the whole of the diseased surface by means of Bowman's probe. He was not prepared to abandon the nasal syringe. He thought more stress should have been laid on the importance of hygiene, which is the most important element in the treatment.

Dr. Roosa agreed with the last speaker that the principal and only benefit to be obtained in the majority of these cases is from proper hygiene. He thought that we need not continue our examinations very long or repeat them very often to determine whether or not we may expect to give the patient any relief. If he finds diminished bone conduction he considers it unnecessary to go on and treat that patient.

Dr. E. Williams, of Cincinnati, had been in the habit of using the Eustachian catheter in every instance where he thought it indicated. Not only so but he often introduced a flexible bougie through the catheter sometimes into the middle ear. In some cases of stricture of the tube this is quite useful.

Dr. Seely said that since he had adopted the use of salves as a routine treatment he had had more satisfaction than by any other treatment. They remain longer in contact with the affected part than do solutions, thus giving a more decided effect.

Afternoon Session.

Dr. Sexton presented a conversation-tube for the aural instruction of deaf-mutes. By means of this tube the patient was able to hear his own voice and compare it with the voice of his teacher.

Dr. Graham Bell was then introduced and called the attention of the Society to the greater number of children who were classed in institutions as deaf-mutes, but who, under proper treatment and education, could be made simply hard-hearing members of society. He also referred to the importance of otologists formulating a list of causes of deafness to facilitate the proper registration in institutions for this class of individuals.

Dr. Charles J. Kipp, of Newark, N. J., presented the history of

A CASE OF FATAL EAR DISEASE, BEGINNING AS A CIRCUMSCRIBED INFLAMMATION OF THE EXTERNAL AUDITORY CANAL.

The patient, a married woman, aged twenty-eight, was first seen nine months before her death. Since the previous confinement, which occurred four months before coming under observation, she had suffered occasionally with severe pain in and about the left ear. There was swelling and redness of the posterior upper wall of the external canal. There was no perforation and no otorrhœa. Under the use of leeches, instillations of morphia, and inflation of the middle ear, there was decided improvement in the course of a month, when she passed from under observation.

Eight or nine months later the pain again appeared, shortly after a confinement. Examination showed furuncles in the ear. There was no involvement of the middle ear. The patient soon recovered from this, but was subsequently attacked with severe pain in the head. There was no evidence of mastoid disease. The patient shortly afterward died.

At the autopsy there was found evidence of intense inflammation over the entire extent of the arachnoid and pia mater. There was a collection of pus immediately over

the posterior surface of the petrous portion of the temporal bone. Pus was also found on the pons varolii. A small abscess was found in the anterior part of the left lobe of the cerebellum near its junction with the pons. The mastoid cells were filled with pus. There was only a thin exudation in the middle ear.

Dr. Burnett reported a similar case in which the patient died from what was diagnosed as cerebral abscess, but no autopsy could be obtained.

Dr. E. E. Holt, of Portland, Me., reported

THE PRESENT CONDITION OF A PATIENT FROM WHOM TERATOID TUMORS WERE REMOVED TWO YEARS AGO.

The patient had remained free of the disease for one year, when they again appeared and have since progressed quite rapidly.

THE LOCAL USE OF COCAINE AND BRUCINE IN DISEASES OF THE EAR

was the title of a paper read by Dr. C. H. Burnett, of Philadelphia. The speaker had employed both the sulphate and hydrochlorate of cocaine in painful affections of the ear to produce anæsthesia. He found neither efficient when the pain was due to inflammation in dense tissues of the external auditory canal, as in furuncle of this part, nor when acute inflammation occurs in chronically thickened periosteal and mucous tissues in the tympanic cavity. The hydrochlorate of cocaine, however, is efficient to induce local anæsthesia in four per cent. solution, in cases of not excessive congestion of the skin of the fundus of the auditory canal and in the membrana flaccida of the drum membrane, as is observed in acute coryza attended with pain of a not continuous or intense variety. The solution may be applied to the inflamed tissues either by mopping it gently upon the affected portion, or by soaking a small dossil of lint and laying it upon the seat of inflammation, both procedures being done under perfect illumination of the fundus of the auditory canal by means of the forehead-mirror. But solutions of cocaine are not competent to produce local anæsthesia in the external auditory canal profound enough to permit painless incision into it. Local anæsthesia in the membrana tympani, prefatory to paracentesis, is not required, as the operation is not painful enough to demand local anæsthesia.

The Doctor had also used brucine in five per cent. solution with decided success in several cases of ear trouble, and had produced decided anæsthesia with it.

Dr. E. E. Holt, of Portland, Me., read a paper entitled

DOES COCAINE HYDROCHLORATE, WHILE RELIEVING THE PAIN IN ACUTE OTITIS MEDIA, PROLONG THE CONGESTION?

The Doctor concluded that while cocaine relieved the pain and for the time holds the inflammation in check, yet after the effect of the remedy passes off, the inflammation goes on unaffected.

Dr. H. Knapp, of New York, read a paper

ON THE DESIRABILITY OF ADOPTING A UNIFORM METHOD OF EXPRESSING THE RESULTS OF TESTING THE ACUTENESS OF HEARING.

The following nomenclature was suggested in which the plan pursued in recording the condition of vision is applied to the hearing:

$H=\frac{4}{4}{}''$, normal audition for watch.

$V=\frac{20}{20}$, normal hearing for whispered voice.

$V=\frac{20}{20}$, normal for conversational speech.

$V=\frac{20'}{8}$, whisper or speech heard, but not understood, *i.e.*, qualitative perception of sound.

$V=60'=O$, voice not heard at all; $H=O$, complete deafness for all sounds.

$H=\frac{c}{24}{}''$, watch of 24″ hearing distance is heard in contact.

$H=\frac{Tr}{24}{}''$, watch of 24″ hearing distance is heard when pressed on ear.

$H=\frac{M}{24}{}''$, watch of 24″ hearing distance is heard when applied to mastoid.

$H=\frac{T}{24}{}''$, watch of 24″ hearing distance is heard when applied to temple.

$H=\frac{O}{24}{}''$, watch of 24″ hearing distance is heard when applied to teeth.

$H=\frac{Gl}{24}{}''$, watch of 24″ hearing distance is heard when applied to forehead (glabella).

$H=\frac{V}{24}{}''$, watch of 24″ hearing distance is heard when applied to vertex.

$H=\frac{Ub}{24}{}''$, watch of 24″ hearing distance is heard when applied everywhere (ubique).

To indicate that the watch is not heard at the places indicated, the following are used: $H=\frac{c}{24}{}''=O$, $H=\frac{M}{24}{}''=O$, etc., means that the watch is not heard in contact over mastoid, etc.; $H=\frac{Ub}{24}{}''=O$, means that bone conduction for the watch is lost.

Dr. Knapp was appointed a committee of one to present the matter at the coming meeting of the German Naturalists and Physicians.

PRESBYKOUSIS.

Dr. D. B. St. John Roosa, of New York, applied this term to the failure of hearing which is incident to old age and which is not dependent upon inflammatory affections. It comes on after the age of forty or fifty years. Such persons hear badly in a noisy room. They hear the watch badly, but in a quiet room they can hear quite well. This is characteristic of this affection. In inflammatory troubles with the ear, the person often can hear pretty well in a noise, while in a quiet room he hears badly. These three symptoms go together: diminished bone-conduction, hearing worse in a noise, and the disproportion between the ability to hear the voice and the watch. The conditions on which this presbykousis is dependent has not been determined, for as yet there have been no opportunities for post-mortem examinations.

Dr. H. Knapp thought the term presbykousis was not a good one, because if used in analogy with presbyopia it would indicate a diminished range of accommodation of hearing, which would refer more to pitch than anything else. What is meant is senile involution, which occurs in every organ.

Dr. Roosa, in conclusion, said that he thought the term presbykousis applicable, as its meaning was simply the hearing of old age. In regard to the hearing better in a noise, he was convinced that patients with tympanic disease could hear better under such circumstances. He cited the example of a lady who heard with difficulty under ordinary circumstances, but who in a boiler-shop heard the ordinary voice distinctly while her husband with normal hearing, heard only when words were shouted.

Dr. Sexton exhibited a glass ear-syringe and an ear-forceps with several attachments.

Dr. E. Dyer, of Newport, R. I., reported a case of fistula of the helix in a girl of fourteen.

The following papers were read by title: "A Case of Chronic Otitis Media Suppurativa, resulting in Cerebellar Abscess, with the Autopsy," by Dr. O. D. Pomeroy, of New York; "Otitis Media Suppurativa, Mastoid Disease, Pyæmia, Mastoid Operation, Recovery," by Dr. G. Bacon, of New York.

The meeting then went into executive session.

The following officers were elected:

President—Dr. J. S. Prout.

Vice-President—Dr. S. S. Sexton.

Secretary and Treasurer—Dr. J. J. B. Vermyne, New Bedford, Mass.

Publication Committee—Drs. Vermyne, Blake, and J. O. Green.

Committee on Membership—Drs. Carmalt, Kipp, and Theobald.

Dr. F. L. Capron, of Providence, R. I., was elected to membership.

The meeting then adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

MR. WOOD'S LECTURES ON THE RADICAL CURE OF HERNIA —MR. LUND ON RECTAL AFFECTIONS—THE ELECTION AT THE COLLEGE OF SURGEONS—DISFRANCHISEMENT FOR MEDICAL RELIEF.

London, July 4, 1885.

An interesting historical *résumé* of the subject was given by Mr. Wood in the concluding lecture of his course at the College of Surgeons on "Hernia and its Radical Cure." It was, I am sure, news to many of his hearers that Celsus practised excision of the sac and its covering; and that Galen and Paulus Ægineta ligatured the sac at the superficial ring, and tied up also the cord and skin. These and many other interesting historical particulars were recounted by the lecturer. Coming to more modern times, Mr. Wood made the just protest that his name had been applied to operations in which all his precautions were neglected, and also to the employment of a part of his operation only as the basis for a new method. The result, in many cases, he said, had been a want of success, for which, not the operation, but the operator, was really responsible.

Mr. Wood maintained that the position of those who maintained that the radical cure should not be attempted except in the severest cases was untenable. In conclusion, he enumerated the rules he had adopted in his own cases. He said he had adopted the subcutaneous plan:

1. In cases of children above five years of age in whom trusses were useless or unavailable.

2. In cases of young adults, or boys under fourteen, whose prospects in life were seriously impaired by the hernial condition.

3. In reducible cases, where the sac was thick and indurated from truss-pressure, or where the omentum continually slipped down under the truss, thus showing that it was abnormally elongated. He opened the sac, tied the vessels of the omentum separately, and removed it below the ligatures. The neck of the sac was tied up flush with the peritoneum at the deep hernial opening, and wire or tendon-ligatures applied to the canal and rings.

4. In all favorable cases of strangulated hernia (both inguinal and crural), the coverings and front wall of the canal being necessarily divided to search for the constricting tissues, he opened the sac, examined the contents, removed adhesions and doubtful portions of omentum, then tied up the neck of the sac, cut it off short, and removed it altogether (except in congenital hernia), and secured the walls of the canal and rings, as in the subcutaneous method.

5. Cases of irreducible hernia, and of large and unmanageable cases of reducible hernia, in patients otherwise in good health and not above sixty, and in which truss-pressure entirely failed to render the patient comfortable and free from danger, seemed (said the lecturer) to justify and require operation (under strict antiseptic methods). In these cases, as in the last class, the operation assumed more or less of the character of an open operation under spray. The sac was freely opened, tied and removed, but the suturing of the canal and rings was effected as in the subcutaneous method.

In Mr. Lund's third lecture he spoke of the value, in cases of proneness to diarrhœa and irritability of the lower bowel, of making a careful digital rectal examination. He referred to a case of this kind in a lady which was by this means shown to be due to the irritation of a fibroid tumor in the pelvis. In another case, a surgeon about to operate on a fistula discovered an epitheliomatous deposit, with contraction of the bowel and a corresponding dilatation above, with rupture and abscess as a starting-point for the fistula. The operation was thus rendered useless. In discussing the operative treatment of fistula, Mr. Lund indorsed Mr. Curling's axiom, that the surgeon who operates for fistula should be his own dresser. While the incisions are being made, he avoids the use of water or wet applications to the part. Any blood or pus is removed by pieces of dry lint or linen cloth. After the operation, Mr. Lund said he used carbolated castor-oil to protect the freshly-cut surfaces from the irritation of fæces, mucus, or flatus. The oil should be so prepared as to be clear and bright, and, if applied freely, no washing of the part is necessary.

The annual election of members of Council at the College of Surgeons was held on Thursday. In spite of his known opposition to reform, Mr. Savory was returned at the head of the poll. The other successful candidates were Mr. Pemberton, of Birmingham, and Mr. Macnamara, of the Westminster Hospital. Both these latter gentlemen have declared themselves in favor of reform, and both have been strongly supported in their candidature by the Council of the Association of Fellows of the College of Surgeons.

The question of disfranchisement for medical relief, though not exactly a medical question, or at any rate only partially so, is exciting a good deal of interest just now. As originally drafted, the recent Franchise Bill did not disfranchise persons who received medical relief. By an amendment inserted in the House of Lords, however, such persons *resident in England* were disfranchised, though the amendment was not made to apply to Ireland. A good deal of agitation is now going on against this clause in England. Some people appear to think that being attended by the parish doctor does not make a man a pauper, though the acceptance of food or lodging from the parish does. Medical men who have large opportunities of judging of the character of the proposed new voters seem to regard them with but little confidence, and are inclined to argue that these people will never be provident so long as they are encouraged to look to the State to provide them with medical attendance.

OUR PARIS LETTER.

(From our Special Correspondent.)

DISCUSSION ON ERYSIPELAS — TEST FOR DIGITALINE — ASEPTOL.—NEW HOSPITAL AT HAVRE.

Paris, July 3, 1885.

In expressing his opinion on the debate that has occupied so many meetings of the Academy of Medicine, Dr. Dujardin-Beaumetz stated that he could not understand why so much time and controversy were devoted to the subjects of erysipelas, particularly as nothing new has been added to our knowledge of the pathology, etiology, and the treatment of this affection. Erysipelas, he added, was a very common affection in the medical wards, and is in general rather benign; death from it was altogether the exception. Professor Hardy entirely agreed with this opinion. During the last ten years that he has been clinical professor at one of the largest hospitals in Paris, he has seen a very great number of erysipelatous patients, and among them there were only three deaths, and yet it cannot be said that the three patients died from erysipelas, as they were at the same time the subjects of other affections which, of themselves, were of a fatal character. Dr. Féréol remarked that there was a wide difference between medical and surgical erysipelas, and that the gravity of the former was not to be compared to that of the latter. It is, however, generally admitted that erysipelas is a highly contagious disease, and many of the speakers expressed their surprise at the promiscuity of erysipelatous patients with those suffering from other ailments. This led to the proposition emanating from Professor Verneuil that special wards should be constructed with the view of isolating erysipelatous

patients from the others. There is no doubt that there is much to be done in this direction, and it is a crying disgrace to a country that is supposed to be in the van of civilization to have no special arrangement at this period of medical history for the accommodation of persons suffering from infectious or contagious maladies, and yet millions of money are spent on objects much less useful.

Very great difficulty often attends the testing for digitaline, the coloring re-agents indicated by authors being so little distinct and varying according to the source of the samples on which experiments are performed. M. Lafon, in making some researches, found a new re-agent which is very sensitive, and permits one to differentiate more distinctly than has up till now been possible the numerous products employed in therapeutics under the name of digitaline. This process consists in treating a trace of this substance by a mixture of sulphuric acid and alcohol, and adding to the mixture one drop of the perchloride of iron. A beautiful greenish-blue tint is immediately produced which is altogether characteristic and lasts for several hours. These results were submitted at a recent meeting of the Academy of Sciences.

At the same meeting M. Serran drew the attention of the members present to the antiseptic, antiputrid, and antifermentescible properties of orthoxy phenylsulphurous acid or aseptol—a syrupy liquid, of a pink or reddish color, of a slight special odor, not so disagreeable as carbolic acid, over which it presents, according to the author, a real superiority, on account of its great solubility in water—to its being much less toxic, and to its antiseptic qualities being three times greater than those of carbolic acid. Aseptol can be administered internally in very large doses without the least inconvenience, whereas carbolic acid, in doses three times smaller, produces the gravest accidents.

A new hospital was opened at Havre last week in the presence of the official authorities of that town and of the Department of Calvados. The Prefect of the Seine, and the Presidents of the Academy of Medicine, and of the Société de Médecine Publique, were also present. This is an institution that was much needed in that important seaport. The hospital, which covers an area of 65,000 square metres, or 71,108 square yards, consists of seventeen detached pavilions, which are well ventilated and have a sunny aspect. They are built over a subbasement, raised to a good height, in which are established promenades for wet weather, reading and recreation rooms, calorifers, etc. The wards, which are on the ground-floor, are lofty, measuring seven metres, or about twenty-three feet, in height. The roofs are ogival, and the walls are varnished so that they may be easily washed. The floor is mosaic, which I think is a mistake, as however closely the pieces may be joined together the dust will accumulate between them. The pavilions, eleven only of which are devoted to patients, have double walls, and the air that fills the space between them being a non-conductor protects the wards against sudden changes of temperature. The hospital is lighted by electricity, and is furnished with all the modern appliances for disinfecting furniture, linen, etc., which are established underground, and to which persons from the exterior can also have recourse. There is also every variety of baths, which are equally open to the public. A pavilion is set apart for contagious and infectious diseases, another for cases undefined, and one for convalescent patients.

The hospital was built at great expense, and can furnish 312 beds, each bed costing $1,200, and each patient has a cubic space of 50 metres, or 164 feet, 0.539 inch, which seems to me far below that allowed by the ordinary rules of hygiene.

A fortnight ago Dr. Gibier was sent to Spain by the Minister of Commerce to study the progress of the cholera epidemic in that country, and the results of Dr. Ferrán's inoculations as a preventive of the disease. The French Government has also sent a mission to Spain with the same object. This mission is composed of Drs. Brouardel and Charrin, and M. Albaran, who is an interne and a native of Cuba.

PRELIMINARY REPORT OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION — REPLY TO DR. DUGGAN'S CRITICISMS.

To the Editor of The Medical Record.

Sir: My absence in Europe has prevented an earlier reply to Dr. Duggan's criticisms. It was hardly to be expected that a *preliminary* report, made, by special request, before the experimental investigations undertaken by the Committee were completed, would be beyond criticism. But the writer has been surprised that a criticism of this character should have been made by one who has been daily working in the same laboratory with him, who for a time was his trusted assistant, who has received compensation and full credit for all work done by him, and who has had ample opportunity to personally call attention to the points which he has seen fit to criticise publicly. This seems the more remarkable in view of the fact that I asked Dr. Duggan if he had any criticisms to make soon after the publication of this report, when there was still time to revise it, if necessary, before it had been placed in the hands of the public.

Moreover, the only part of his criticism which is valid was uncalled for, inasmuch as the "Disinfecting and Antiseptic Powder" had been withdrawn in a communication to the *Medical News* of May 2d, more than a month prior to the publication of Dr. Duggan's paper in The Medical Record, June 6th.

The writer alone was responsible for this powder, and freely confesses that he made a chemical blunder in his attempt to combine in the same formula the two potent germicides, mercuric chloride and chloride of lime. The mistake arose from the fact that in the powder, made as directed, the yellow oxide of mercury is not formed, and the two active ingredients remain indefinitely, in sealed packages, without undergoing change. *It is only when water is added that the reaction* occurs. But this is fatal to the usefulness of the powder.

Having made this free confession with reference to my unfortunate chemical blunder, I shall briefly consider the other criticisms made by Dr. Duggan; but first it seems necessary to state certain facts, which will perhaps explain why he has seen fit to rush into print with his criticisms when he had daily opportunity to call my attention personally to the points he has attempted to make.

In carrying out a series of experiments upon commercial disinfectants under my direction, by my method, and at the expense of the Committee on Disinfectants, Dr. Duggan had his attention drawn to the superior value of Labarraque's solution, as compared with the various proprietary disinfectants tested. This led to his giving special attention, at my request, and at the expense of the Committee, to the hypochlorites. At the time these experiments were made, Dr. Duggan was (and I believe still is) in the employ of an enterprising firm of manufacturing chemists. I found that through him this firm was getting *points* with reference to our work which were of value in a commercial way, and which gave them an advantage over other manufacturers, whose products were being examined and reported upon. I found also that Dr. Duggan's work for his employers took so much of his time that he could not push the work of the Committee on Disinfectants as rapidly as I desired. I therefore placed the further examination of commercial disinfectants in the hands of my efficient laboratory assistant, Dr. A. C. Abbott. From this time Dr. Duggan ceased to give me the benefit of his chemical knowledge, and,

as the limited funds at the disposal of the Committee on Disinfectants did not enable me to secure the services of another chemist, I was thrown upon my own resources; for the chemists upon the Committee are not located within consulting distance of the laboratory in which I work.

What follows will show very clearly, however, that if a biologist may go astray on chemical questions, chemical experts are not infallible; and that something more than laboratory training is necessary in judging of practical questions relating to the use of disinfectants. This is shown by Dr. Duggan's criticism relating to the directions given for disinfecting clothing with Standard Solution No. 4. He says: "We would suggest burning the clothing as preferable to this treatment, for when they are taken out of this solution they will be of a dark yellow color," etc. Now as a matter of fact *no discoloration occurs* when soiled clothing is treated in the manner directed. A small piece of perfectly clean goods immersed in a considerable quantity of the solution, diluted as directed, is slightly stained, especially if distilled water is used in making the dilute solution. But the organic matter present in soiled clothing, and even in new goods, very quickly neutralizes the small amount of potassium permanganate present—less than half a grain to the gallon—and no discoloration occurs. A worn sock and two small pocket-handkerchiefs, slightly soiled, immersed in a quart of the disinfecting solution caused the color due to the presence of the permanganate to disappear in less than two minutes; a clean pocket-handkerchief immersed in the same quantity of the solution for two hours was very slightly stained. This possibility of staining was fully considered by the Committee before the recommendation was made, and since Dr. Duggan's statement that "burning the clothing would be preferable to this treatment," three members of our Committee have repeated the experiments, and find that this is something more than a gross exaggeration. From a practical point of view the objection is entirely without foundation. If the permanganate were really objectionable on this ground it would be a very simple matter to reduce the quantity prescribed "to give color to the solution," for ten or twelve grains per gallon would suffice for this purpose. The intention is to give color to the concentrated solution and not to the dilute solution, which is made by adding one ounce of this to the gallon of water.

So far as injurious action upon clothing is concerned Standard Solution No. 4 has a decided advantage over solutions of the hypochlorites on account of the bleaching action of those salts.

Again, with reference to the application of Standard Solution No. 4 to plastered walls, Dr. Duggan says: "*Of course*, Standard Solution No. 4 would color walls the same as it would clothing." It is not well for a critic to say "of course" about a thing of this kind when it is so easy to make the experiment. Two members of the Committee on Disinfectants have made the experiment, and are able to testify that *no discoloration occurs*.

The suggestion that the inmates of a room disinfected as directed might subsequently suffer from mercurial poisoning has no value, inasmuch as after the application of the disinfecting solution the walls and ceiling are to be "whitewashed with a lime-wash" (no yellow discoloration results from this), and "the floors and woodwork to be well scrubbed with soap and hot water."

The criticism which affirms that the addition of one pound of corrosive sublimate for every five hundred pounds of the contents of a privy-vault would accomplish little more than would be accomplished "by dropping a sulphur match into the vault," is hardly entitled to serious consideration. This criticism, moreover, is based upon the assumption that the mercuric chloride is to be added in solid form, whereas our directions explicitly state that it is to be used in solution. Dr. Duggan speaks of the difficulty with which mercuric chloride dissolves, and says that "in such a mass of fecal matter every particle of it would probably become encysted in an envelope of the insoluble albuminate, and remain so indefinitely." The Committee did not for a moment contemplate the use of the undissolved salt, and prescribed a standard solution on account of the difficulty with which mercuric chloride dissolves. After giving the proportion in which, in its judgment, this agent should be used, it explicitly directs the use of Standard Solution No. 4, diluted with three parts of water; and says further, "All exposed portions of the vault, and the wood-work above it, should be thoroughly washed down with the disinfecting solution."

For the disinfection of excreta, in small quantities, in the sick-room, the Committee has given precedence to the solution of chloride of lime (Standard Solution No. 1) on accounts of its rapid action. But for masses of material in privy-vaults the solution of mercuric chloride is preferred for the following reason:

The chloride of lime solution in contact with organic material is promptly decomposed, and if the organic material is in excess and a certain number of germs escape destruction, they may subsequently develop in the presence of fresh supplies of pabulum. But the mercuric chloride remains in the vault indefinitely in a potent form—for the albuminate of mercury is a potent germicide—its wonderful restraining influence upon the development of germs comes into play even when it is present in too small a quantity to destroy the vitality of germs with which it comes in contact. I would here call attention to the fact that I have demonstrated by actual experiment that mercuric chloride does sterilize semi-solid fæces, when a solution of one-half the strength of that recommended in our preliminary report is well mixed with the material (*Medical News*, February 21, 1885, p. 208).

Finally, I would say that the Committee on Disinfectants invites unprejudiced criticism, and will be glad to avail itself of all information attainable, in order to accomplish the whole object which it has in view, viz., to give the public the best possible information with reference to practical disinfection. But this object can be as well attained if the critics will communicate directly with the Committee, and this course will save valuable time and printer's ink.

I would say, in conclusion, that I do not understand what additional force Dr. Duggan's criticisms receive from the signature of C. T. McClintock, A.M., attached to his paper.

GEO. M. STERNBERG, M.D.,

Major and Surgeon U.S.A., Fellow by courtesy in Johns Hopkins University, *Chairman of the Committee.*

LETTER FROM THE CITY OF MEXICO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: As your paper has more than once published correspondence from various places in this country, I hope the following will not be altogether without interest to your readers.

The most striking features of medical life and hygiene in this country and during the last few years have been the following:

1. A constantly and disproportionately increasing mortality in the capital of the Republic; having been a couple of years ago 240 to 250 per week, and having run up lately to 300 a week, the population being over 250,000, and probably not reaching 300,000. Certain it is that the population has increased during late years, but not in such a proportion as the death-rate; for ten years ago the population of the capital was already estimated to be 250,000. The above figures give the city of Mexico a yearly death-rate of 30 per 1,000, or 1 in 20; while the city of Guanajuato is still worse off than the capital, showing a death-rate of 74.4 per 1,000, or 1 in 13.4 a year, the population being 58,000 souls. The lead among the prevailing diseases

belongs to diarrhœa and other intestinal troubles (often of alcoholic origin), pulmonary complaints (pneumonia, bronchitis, tuberculosis), and typhus. A great deal has been talked and written about the causes of the daily growing worse hygienic state of this place, but nothing has been done. It is evident that the filth of three hundred and fifty or more years, and the absolute lack of drainage and sewers, must be the most important factors of such a pitiable condition.

2. Another important accident has been the appearance of severe epidemics of yellow fever on the Pacific coast of Mexico, a calamity that for more than two hundred years, it is said, did not take place. It is not ascertained how yellow fever this time happened to be carried across the continent; it may be that the work on the interoceanic railway over the isthmus of Tehuantepec, with a considerable accumulation of unacclimated people, had something to do with it. The places most cruelly visited, twice in two consecutive years, have been Colima, San Blas (where last year six hundred people died out of a total population of two thousand), and Guaymas in Sonora.

3. The investigations of Dr. Carmona y Valle into the origin of yellow fever and its protective inoculation. As your paper has already briefly mentioned the trials of Dr. Domingo Freyre and Dr. Carmona, it may be time to say a few words about the latter's ideas and practice. Dr. Freyre takes particles of the entrails of yellow-fever corpses—for instance, of liver, heart, or brains—puts them in appropriate liquids for cultivation, and of the fourth culture he takes a particle again, and inoculates it. Dr. Carmone claims that the yellow-fever germ is not reproduced in that way, and consequently Dr. Freyre only inoculates broth, etc.

Dr. Carmona has found in all the liquid and solid tissues of yellow-fever patients one and the same microscopical fungus, identical with the "peronospora lutea." He considers that to be the characteristic of yellow fever. The easiest way to get that "peronospora lutea," or rather its "zoosporon," is to take a quantity of urine and to evaporate it. The dry sediment contains the vaccin matter against yellow fever. A minimum of this sediment is diluted in distilled water and injected hypodermically.

Physicians versed in the use of the microscope pretend that the "peronospora lutea" is found in every urine of every body, if it stand a certain time exposed to the air, or if the recipient vessels have not previously been perfectly well cleaned. Your correspondent has no pretension to be a judge in the matter; however, if the "zoosporon" of "peronospora lutea" is not the cause of yellow fever, its introduction in the living might still prove to be a preservative against the terrible scourge.

Several thousand people have been inoculated by Dr. Carmona's method, and experience will soon show whether he has made a mistake or a great discovery.

F. S.

City of Mexico, June 29, 1885.

NEURONYMY.

To the Editor of The Medical Record.

Sir: In the report of the recent meeting of the American Neurological Association in The Record for June 27th, page 713, and in the editorial, "Brain Nomenclature," page 708, the words *neuronomy*, *paronomy*, and *heteronomy* should be *neuronymy*, *paronymy*, and *heteronymy*. There may be room for a difference of opinion or taste as to which of the two forms, ὄνομα, onom, and ὄνυμα, onym, should be used in combination, but the latter occurs in *synonym*, *eponym*, and *paronym*, which are given in English dictionaries, and in *mononym*, *dionym*, etc., recently suggested by Dr. Coues, as well as in my own *organonymy* and *toponymy*. The three words in question are correctly printed on the program of the meeting.

Time failed for the public discussion of my address, but in private conversation with two well-known and progressive members of the Association, one of them expressed a preference for the unchanged Latin names (e.g., *commissura media*), while the other would rather render them into ordinary English (e.g., *middle commissure*) by translation or heteronymy. My mononym for the Latin dionym is *medicommissura* and its English paronym, *medicommissure*, permitting the formation of the adjective *medicommissural*. It will be seen, therefore, that my position is strictly intermediate between the classicalism which may appear pedantic (e.g., *iter a tertio ad quartum ventriculum*), and the vernacularism (heteronymy) which may be undignified (e.g., *worm, body of Luys*, and "*passage from the third to the fourth ventricle*"). I am neither surprised nor disturbed at the reluctance of teachers and writers to change their accustomed modes of expression, but my belief that the English neuronymy of the not far distant future will consist chiefly of mononymic paronyms (English forms of Latin names of a single word each) is certainly not shaken by the incident just mentioned. On the contrary, as a not unhappy mean between two extremes, I am reminded of Lord John Russel, who "knew he was right because all parties found fault with him."

Burt G. Wilder, M.D.

Siasconset, Nantucket, Mass., July 3, 1885.

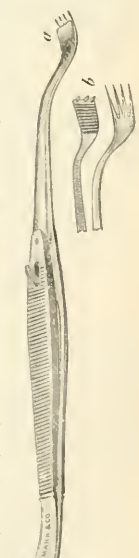
New Instruments.

A NEW TISSUE OR TRACHELORRHAPHY FORCEPS.

By Geo. Cowan, M.D.,

Danville, Ky.

The difficulty of clearing out the angles nicely between the flaps in lacerations of the cervix, so as to bring the planes of incision to their true line of intersection, is a well-recognized one; and no apology to the profession is necessary for inflicting upon its consideration a new instrument in the shape of a tissue forceps. Everyone who has had to operate upon irregularly-shaped, unsymmetrical lacerations, filled with tough cicatricial tissue, has experienced the difficulty of locating and controlling, with a proper degree of precision and ease, the lines of incision with the instruments used for cutting, whether they were the curved scissors or scalpel. I have, therefore, had the Messrs. George Tiemann & Co. construct for my use the tissue-seizing forceps illustrated by the accompanying drawing.



The blades are designed to transfix and then clamp firmly small areas or layers of tissue between their grasp, and at the same time to serve as a mechanical guide which limits and directs the scalpel or scissors in any given direction of dissection. They nest or *spoon together* like a pair of silver forks; one of them having small sharp tines or prongs like those of a common eating fork, while its companion presents a flat surface to its fellow, and is armed with short, sharp, and very small teeth, which interdigitate with the tines or prongs. The method of using it is as follows: The tined blade is first thrust in underneath the tissue to be removed, when the clamping blade is pressed down upon it, and its hold secured by a catch spring and the small teeth, which bury themselves in the tissues.

A scalpel or curved scissors now is made to cut along

under the surface of the tined blade, freeing the instrument from its position where it has been embedded in the tissues, and leaving the separated tissue adhering by one end. Underneath this detached portion the pronged blade can be reinserted as often as necessary, and the whole finally taken off in one continuous layer; or the whole piece may be left at the point of intersection of the opposite side, to be removed by uniting the two planes of dissection at the proper centre. The tissue may in this way be so removed as to make any angle at the pleasure of the operator, and clear of all togs and shreddy bits of tissue which the bistoury or scissors often leave behind. The workmanship is in accordance with the well-known skill and excellence of the manufacturers.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from July 19, 1885, to July 25, 1885.

ELBREY, F. W., Captain and Assistant Surgeon. Sick leave of absence further extended four months on surgeon's certificate of disability. S. O. 162, A. G. O., July 17, 1885.

STRONG, NORTON, Captain and Assistant Surgeon. Ordered for temporary field duty with battalion Eighth Cavalry, at Hillsboro, N. M. S. O. 34, Headquarters District of New Mexico, June 27, 1885.

EVERTS, First Lieutenant and Assistant Surgeon. Ordered for duty as Post Surgeon, Benicia Barracks, Cal. S. O. 70, par. 3, Department of California, July 22, 1885. (Modifies par. 2, S. O. 68, c. s., Department of California).

WINNE, C. K., Captain and Assistant Surgeon. Ordered for duty at Benicia Arsenal, Cal. S. O. 70, par. 3 Department California, July 15, 1885. (Modifies par. 2, S. O. 68, c. s., Department of California).

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 25, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
July 18, 1885	0	12	46	1	109	70	0	0
July 25, 1885	0	11	31	4	69	50	3	0
Deaths.								
July 18, 1885	0	3	9	1	21	34	0	0
July 25, 1885	0	3	3	4	18	18	0	0

THE PRESERVATION OF BODIES OF PERSONS DYING FROM ARSENIC POISONING.—With reference to the cases reported under this head (see RECORD May 9th) our correspondent from Lafayette, Ind., writes there was no formation of adipocere, but the bodies were preserved as if injected for dissection.

RETENTION OF URINE.—Dr. Malley recommends an ointment made of one part extract of nux vomica to ten of lard in the treatment of functional retention of urine. A piece the size of the thumb-nail is to be rubbed on the hypogastrium once or twice a day.

SCIENCE, FREE THOUGHT, AND THE BRAIN OF VICTOR HUGO.—In a recent issue *La Tribune Médicale* enters a complaint under this caption against the family of Victor Hugo, because they did not accede to the request made for an examination of the poet's brain. "If ever," the writer says, "a brain ought to have been studied in order to discover and to demonstrate the relations of the organization and structure of the organic substratum to the extent and perfection of its functional activity, that brain was certainly Victor Hugo's. In the case of Gambetta, there was found an exceptional development of the cerebral convolution constituting the organ of spoken language, and," *La Tribune* continues, "what might we not have found as regards the organ of thought and of its expression in the brain of Victor Hugo!" What indeed! We might also, though this did not occur to the writer apparently, have been enabled to locate with more definiteness than at present the organ of self-esteem and of its untiring expression. But with two such finely developed convolutions the difficulty would have been to decide which was thought and which wasn't. "As I was crossing the new iron bridge I met Tim Farley. 'How do you do, Mr. Farley?' sez I. 'How do you do, Mr. Muldoon?' sez he. Sez I, 'I'm not Mr. Muldoon.' Sez he, 'I'm not Mr. Farley.' And we looked at each other again, and bedad it was nayther of us!"

THE WOMEN'S MEDICAL COLLEGE OF THE NEW YORK INFIRMARY.—A correspondent writes that one of the recent graduates of this college, while on a visit in a Western State, was called to see a case of retained placenta. When she arrived she found the attending physician, a regular practitioner, and a man of some age, sitting by the bed fanning the patient. The young woman's opinion being asked, she said she would try Crédé's method of expressing the placenta, and failing in this, she would introduce her hand and remove it. The physician replied that the patient had lost too much blood and was, in his opinion, too much exhausted to bear the operation, but gave his consent, finally, to the trial, and suggested that the visitor should do it, as her hand was smaller. This the young graduate did, and, finding the placenta attached, removed it and secured uterine contractions. The patient did well. Another young graduate, of one week's standing, was called unexpectedly to a case attended by a homœopathic physician. The patient was unconscious and pulseless. Examination showed that the head was engaged, but the cervix uteri was separated from the body through half its extent. The young woman at once divided the cervical ring with scissors, applied the forceps, and delivered the child. The patient made a good recovery. These cases speak well for the coolness and quick wit of these young graduates, and also for the excellence of the instruction imparted to the students of the Women's Medical College of this city.

NOVEL FRAUD.—A case which well exemplifies the advisability of medical men viewing the body before giving a certificate of the cause of death is reported from Flash, near Buxton. A man, named William Mellor, of that place, lately perpetrated a most curious imposition. Having been ill and attended by a medical man, he, upon recovery, shaved off his whiskers and beard, and otherwise so altered his appearance as to induce the surgeon to believe that he was William Mellor's brother, and that the sick man was dead. Having obtained a certificate, he registered his own death, and drew the burial-money from a Foresters' lodge. Upon the discovery of the fraud, he decamped.—*Lancet.*

THE DIAGNOSIS OF SUBMERSION DURING LIFE.—The Paris correspondent of the *Lancet* writes, asking us to correct a mistranslation of his in an item on the above subject published in THE MEDICAL RECORD of May 16th. The word "*mousse*" should be rendered "froth," instead of "moss."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 6 NEW YORK, AUGUST 8, 1885 Whole No. 770

Original Articles.

ASTHMA.

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ASTHMA is a term applied to totally different conditions. Its meaning is changing, hence the confusion. According to Dr. Johnson, in 1824, asthma is "a frequent difficult and short respiration." According to Dr. Nuttall, 1880, asthma is "a chronic, intermittent disorder of respiration; the term is also sometimes applied to any chronic difficulty of breathing." Of old the term had no definite meaning, covering the ground now embraced by "dyspnœa." At the present time a medical teacher uses the word "asthma" only when he speaks of a condition of hard breathing brought about by spasm of the circular muscular fibres of the bronchiæ. A lay person will use it in Dr. Nuttall's second sense "any chronic difficulty of breathing," as in emphysema, pulmonary congestion from a mitral lesion, or any other cause of dyspnœa.

Spasmodic or bronchial asthma is an affection which comes on suddenly, and varies in intensity and duration, from a mere thickness of the wind to a terrible choking, from a few minutes to several days. When an asthmatic attack is on the patient's energies are bent to the act of breathing. There is a look of earnestness upon the features, which are pale and clammy, or even livid, according to circumstances. The shoulders are fixed so as to get the advantage of the pectoral muscles as accessory respiratory muscles. Very commonly the individual is spare and of the neurosal diathesis. After repeated attacks the shoulder-tips stand forward more angular than normal, so that the lean asthmatic may be recognized in the streets. A girl of ten on whom these characters are already stamped came under notice while writing this paper. An asthmatic, like a dyspeptic, is often an intelligent person; both having usually highly developed nervous systems.

At other times asthma is found with the truly emphysematous individual with the barrel-shaped chest, and a high-colored complexion; a matter which will be referred to again later on.

The circumstances under which spasm of the bronchial muscular fibres is set up vary. With the susceptible nervous system it may have as its causal relations some mental disturbance, as emotion even; or in a woman the perturbation of the catamenia may, and commonly does, excite it. Probably this aspect of asthma as a true neurosis has not been sufficiently considered. Then it has relations to food; and an attack may follow a good dinner. The late Hyde Salter pointed out that when asthma has such causal relation it is apt to come on in the small hours of the morning; and that if the asthmatic will sit up awake till the hour is past, he can escape the attack, which certainly comes on if he allows the hour of its approach to find him asleep. In one asthmatic patient a non-nitrogenized dietary is enforced by her asthma; akreophagy alone renders life tolerable. As we are seeing gouty neuroses of the heart of various kinds so gouty disorders of the respiration are looming up. In one case of sudden thick wind in a gouty man the attack, after lasting six-and-thirty hours, passed off with a sharp bilious purging. The older writers spoke of "gouty asthma," indeed. Of course, all know its relation to the inhalation of irritant matters, mechanical or chemical. In such cases organic changes in the lung are set up in time. Needle-grinders, masons who hew fine stone, like that of the Edinburgh quarries, potters who inhale the fine dust of biscuit-ware, millers, bakers, feather-dresses, millstone pickers, all, indeed, who inhale fine particles, suffer from asthma; and in time bronchopneumonia, which is fatal if they do not change their occupation.

There are other relations, however, of bronchial asthma which may profitably be considered. In persons of a highly developed nervous system the starting-point of asthma is commonly a cold. The bronchial lining membrane is so made irritable, with the consequence of this condition in turn starting bronchial spasm. There is some obstruction to the breathing in consequence of the swollen mucous membrane, which measurably lessens the lumen or calibre of the finer bronchial tubes. Superimposed upon this comes the spasm of the bronchial muscular fibres, and then an acute condition of "asthma" is set up. Such is the natural history of attacks of asthma in some very charming young women.

The recognition of the causal relations of an asthmatic attack clears up the line of treatment to be adopted. In pure primary spasm the fuming remedies are of service. When secondary to bronchial irritation then inhalations of medicated vapor are more likely to be of service. In the latter case the treatment of the first stage of bronchitis (which will be considered in the article treating of bronchitis) is also indicated. Such, then, are the ordinary relations of spasmodic asthma in persons of the neurosal diathesis.

Persons of a totally different build and physique are subject to truly asthmatic attacks, which follow upon chronic bronchitis and emphysema. In these cases, along with sacculated conditions of some portions of the air-tubes are found other areas of thickened muscular tissue; and in these tracts of muscular hypertrophy spasm is common. Habitually "asthmatic" (in the popular sense), they are liable to attacks of "asthma" to boot—engrafted on the chronic dyspnœa, and causing acute distress. Here the treatment of the attack is that of spasmodic asthma—however brought about.

There are two conditions under which asthma *spasmodica* is simulated. There is pulmonary congestion from disease of the heart; either a mitral lesion, a failing left ventricle, or dilatation, or temporary distention of the right heart. Wherever the blood-flow through the lesser or pulmonic circulation is obstructed the condition is one liable to sudden aggravation with acute distention of the right ventricle. Such a condition is commonly spoken of as "cardiac asthma"—a not inappropriate term.

The other is flatulence. When there is a sudden development of gas in the intestines, the diaphragm can not descend, and the acute difficulty of breathing is experienced. Whenever from any cause (pulmonary or cardiac, or, indeed, hepatic) there is venous fulness of the portal circulation, and with that venous congestion of the mucous membrane of the alimentary tract, gas is given off, often in considerable quantities. In old-standing cardiac disease, in old-standing disease of the respiratory organs, and especially in emphysematous conditions, such sudden evolution of gas is common; and when elas-

tic gas interferes with the descent of the diaphragm and presses upon the right chamber of the heart, acute distress is experienced. The sufferer will often call such an attack "asthma," and can find dictionary warrant for his use of the term. In chronic emphysema the diaphragm is the great matter in inspiration; and when it cannot descend, very acute distress and breathlessness result. No wonder these sufferers speak of "the wind" with considerable empressment!

When the physician is called in to a case of "asthma" his first business is to differentiate the particular case before him, and refer it to its proper class. So soon as this is done the treatment suggests itself naturally therefrom.

In "hay asthma" the existing cause is the pollen of certain plants, and specially the anthoxanthum odoratum. Here avoidance of the cause does away with the whole train of results. If the sufferer can manage it, a sea-voyage at the season would save him from his asthma. How far "hay asthma" is amenable to any line of treatment here to be suggested the writer can not say; it is not a malady grave or serious enough to come, or be brought under his notice.

Primary spasmodic, or bronchial asthma, in persons of neurosal temperament involves two lines of assault. There is the treatment of the attack and the treatment of the interval. When the attack is on, then something which will relax the muscular spasm is indicated. For the last fumes are in vogue. Nitre or touch-paper (brown paper soaked in a strong solution of saltpetre) may be burned. Himrod's powder, the solace of the late Lord Beaconsfield, is held in high repute by sundry well-known physicians liable to attacks of asthma. Cigars de Jay are the favorite resort of others. With some tobacco is sufficient. With others cigarettes of datura tatula, or datura stramonium are found serviceable. With most asthmatics these "fuming" remedies give relief—more or less complete; but with others (fortunately for them but a small class) these fuming remedies are useless and inoperative. An emetic is the only measure of any service. In one case where the lean of animals has to be eschewed entirely, on account of the asthma set up by any indulgence therein, an emetic or a bad night are the alternatives. A scruple of ipecacuanha powder at bedtime ensures a fairly unbroken night; but this is a terrible alternative. Food has to be taken early in the day, otherwise the emetic is impotent to give relief. It is a life of misery, yet borne courageously. Then local applications by means of vapors (produced by the spray) give relief in some cases. Sulphurous acid, nitrate of silver, and other medicaments have been tried with advantage. At one time lobelia inflata was a fashionable remedy in asthmatic attacks, and is certainly worth a trial in many cases, though a nauseous remedy.

Then as to the treatment of the interval. First and foremost comes belladonna, a potent stimulant to the respiratory centre, while at the same time it relaxes all circular muscular fibre (this statement is made deliberately). Then ipecacuanha is good, and the two may be combined in pill advantageously. Arsenic often gives good results. Of course the vegetable tonics of all kinds and hæmatics suggest themselves; it is unnecessary to run over the gamut of tonics. Locality is a great matter. In one place the asthmatic is at ease; in other places residence is one prolonged agony. Change of locality is a matter to be discussed in all severe asthma. In catamenial asthma sometimes it is enough to give belladonna, or bromide of ammonium, as the case may be, at the flux, with some appropriate treatment in the interval. In asthma caused by the inhalation of irritants change of occupation may be essential to relief. The grinder or mason may enter the police force or enlist. Then there is asthma secondary to an irritable congested condition of the bronchial lining membrane, catarrhal asthma. Here inhalations of steam, plain, or medicated, give great relief. To relax the turgid vascular mucous membrane (see article on Bronchitis) is to give relief. It is usually a persistent first stage of bronchitis, of a dry membrane with arrested secretion, which starts up the spasm. Fuming remedies here usually rather aggravate than allay the condition. Hence the importance of a correct diagnosis as to the causation of the spasmodic condition when called in to a case of spasmodic asthma. How far a chronic irritable condition of the bronchial lining membrane underlies recurrent asthma is a subject needing further investigation; it seems probable enough. That such a condition should exist in persons of the neurosal diathesis—the chosen subjects of asthma—is in harmony with one's experience of such persons; a distinct class, having features of its own. Asthma, neuralgia, migraine, dyspepsia, neurosal skin affections, as herpes, in women dysmenorrhœa and disturbances called hysterical, are the maladies which these "neurotics" step into as part of their inheritance.

Cardiac asthma carries with it its own appropriate treatment. Here the matter par excellence is the distention of the right ventricle, threatening paralysis in diastole. To prevent this untoward event two measures suggest themselves. One is to relieve the engorged venous system and right heart by venesection; and certainly in all grave cases the lancet should be brought on the scene. Relief being so afforded the distended muscular chamber can once more contract upon its contents. The other is to flog on the heart by the external application of heat, as hot poultices to the front of the chest, or hot water in an india-rubber bottle (as that used to warm the bed), and by stimulants. Alcohol (in unstinted quantities if need be), ammonia, digitalis, strychnia, belladonna, all are useful. Sometimes alcohol is the only measure at hand, and must be used freely. In a lone farm-house the whiskey-bottle may be the only available medicine. To push stimulants and to bleed at one and the same time are not antagonistic measures; and the combination is indicated in severe cases.

In cases presumably of gouty origin a mercurial followed by a sharp dose of laxative medicine is the first step to take. Indeed, in other cases experience may have taught the sufferer that prompt action upon the liver will commonly avert or abort the attack. Asthma, like epilepsy, is in some cases preceded by the free indulgence of the palate or neglect of the bowels. Attention to the general health and the correction of everything amiss are often as essential as a complete equipment of fuming remedies for an asthmatic.

Asthma (or dyspnœa) of flatulent origin is a very common occurrence with many persons, and specially invalids. Here, of course, the fuming remedies are useless. Emetics may give relief. Carminatives certainly do. Essence of ginger or peppermint, cayenne in pill with breadcrumb, sal volatile, all are good. But perhaps best of all is the old Scotch wife's plan (advocated eloquently by the late Sir James Young Simpson, Bart.), viz., to put as much black pepper as will lie on a sixpence or a dime into a teacup, and fill half up with hot water; then drink all. This can be repeated at short intervals if necessary.

It is quite clear that in each and every case of asthma, indeed, perhaps every attack, no stone should be left unturned, and every association should be weighed in relation to it. Attention to the causation will guide the treatment in one case; the experience of the afflicted individual at other times is invaluable in giving direction to our therapeutic endeavors. Asthma is a complex matter, with different pathological conditions (speaking of the term in its broadest sense) and varied clinical features. Equally capricious is the malady in its amenability to remedial measures; as variable as a coquette with her favors. What suits one case utterly fails with another—to all intents and purposes as like it as two shrimps are to each other. No one can tell why or wherefore! The locality which is preservative against asthma with one may provoke it with another asthmatic. "A gentleman, mentioned by Dr. Bree, could never sleep in the town of Kilkenny, in Ireland, without being

attacked by asthma; and Lord Ormond could never sleep out of the same place without suffering in the same way" (Forbes).

But, granting all this, it is possible to so approach most cases of asthma as to elicit its associations, and on a correct and ample diagnosis to assail it on a distinct principle, and so to cope with it successfully, provided sufficient pains be taken in each case.

EXTRACTION OF A LENS, DISLOCATED INTO THE VITREOUS, WITH THE AID OF DR. C. R. AGNEW'S BIDENT.[1]

By DAVID WEBSTER, M.D.,

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James B——, aged sixty-eight, a native of Scotland, salesman in a lumber-yard, of correct habits and of good general health, received a blow upon his right eye from a chip of wood which he was chopping some time in November, 1883. There was immediate loss of vision, with severe pain, and considerable ecchymosis of the lids followed. Under the care of his family physician the pain and inflammatory symptoms subsided, but the disturbance of vision remained. This led him to seek expert advice, and in February, 1884, some three months after the injury, he consulted Dr. C. R. Agnew at the College of Physicians and Surgeons. He was found to have a dislocated lens, but as the eye was "quiet," and as the vision of the other eye was $\frac{2}{3}\frac{0}{0}$, no operative interference was advised. He visited the clinic at the Manhattan Eye and Ear Hospital a few times with like result. From that time nothing noteworthy in his case occurred, except some impairment of the sight of his left eye from incipient cataract, until Friday, May 1, 1885, when he awoke before daylight with a severe pain in and around his right eye. He was, at the same time, attacked with cramps in the stomach and vomiting, which continued through the forenoon. On looking at his eye by means of a mirror he found that it was bloodshot, and that the color of the pupil had changed from black to white. In the evening of that day he was seen by Dr. Neil J. Hepburn, Assistant Surgeon to the Manhattan Eye and Ear Hospital, and to him I am indebted for careful notes of the case. Dr. Hepburn found a cataractous lens incarcerated in the pupil, partly in the vitreous and party in the anterior chamber. He noted extreme ciliary injection and increased tension, with vision reduced to perception of light. He applied a four per cent. solution of cocaine hydrochlorate freely several times, at intervals of a few minutes, but this had no effect in relieving the pain. He then resorted to the use of the sulphate of atropia, a solution of four grains to the ounce, which gave considerable relief, but which did not release the lens from the grasp of the pupil during the time that he remained with the patient. The use of atropia was continued, at regular intervals, until I saw the patient the next day at 3.45 P.M., along with Dr. Hepburn and Dr. M. Donnelly. The lens had, by that time, become disengaged from the pupil, and was lying loose in the vitreous humor, a portion of its periphery presenting at the lower border of the pupil. On the slightest movement of the eye it floated about freely, appearing to have no attachment in any direction. The pain had mostly passed away, and the tension of the globe was nearly normal. The eye was still very red, however, and the vision had not risen above perception of light.

Having decided to attempt the extraction of the dislocated lens, a four per cent. solution of cocaine hydrochlorate was dropped into the eye half a dozen times at intervals of a minute or two, the eyelids were separated by a Graefe's speculum and the conjunctiva of the upper part of the eyeball was seized with fixation forceps in order to steady the eye. Dr. Agnew's bident was then passed through the temporal side of the eye-wall, the points of puncture being about three millimetres back of the sclero-corneal junction, and was swept around back of the floating lens, which was easily pressed forward into the anterior chamber and against the cornea, by depressing the handle of the instrument and thus elevating its points. The bident was then pressed forward and made to transfix the nasal wall of the eye, the points of counter-puncture being about two millimetres from the limbus corneæ.

The lens being thus safely secured in the anterior chamber, I made, with a Graefe's knife, an incision downward of about the same size and position as in ordinary cases of cataract extraction. I then tried to pass a wire spoon between the lens and the bident but failed to do so because the latter had been pressed too firmly against the former before transfixing the opposite wall of the eye. The central portion of the lens evidently protruded backward between the prongs of the instrument. I therefore withdrew the bident, and the lens, remaining where the bident had placed it, because adherent to the cornea, was removed with the spoon without difficulty. The speculum was quickly removed, so that only a few drops of vitreous escaped. A flannel bandage, with absorbent cotton, covered with a black silk mask, constituted the dressing. Dr. Hepburn took charge of the patient and I did not see him again until after his recovery.

The bandage was removed on the fourth day, and a drop of a four-grain solution of eserine was instilled to draw the iris away from the wound. The eye was opened and carefully inspected on May 9th, seven days after the operation. The wound had healed, and there was an adhesion of the iris at its outer extremity. The patient easily counted fingers with the eye, although some lens-matter still remained in the pupil. At no time after the operation was there any pain. The lens-matter gradually settled down and disappeared by absorption, while by the use of eserine the synechia became so attenuated and stretched that the pupil was nearly circular.

June 15th.—R. V. $= \frac{6}{2\,0\,0}$, made $\frac{2\,0}{2\,0\,0}$ with $+ \frac{1}{4\frac{1}{2}}$; L. V. $= \frac{2\,0}{4\,0}$, made $\frac{2\,0}{4\,0}$ with $+ \frac{1}{3\,6}$. The patient has been attending to his business since June 1st.

July 13th.—R. V. $= \frac{2\,0}{1\,0\,0}$, with $+ \frac{1}{4\frac{1}{5}}$. So far as my observation goes this case is unique. Here we have a dislocated crystalline lens, which has been ploughing about through the vitreous for over a year, and finally becoming accidentally incarcerated in the pupil, and setting up a glaucomatous inflammation, threatening the destruction of the eye, removed with very little difficulty, and the eye saved with vision sufficient to rank as a "success" after an ordinary cataract extraction. Before the invention of the bident such an eye would probably have been enucleated for the relief of pain and to prevent possible sympathetic inflammation. Or perhaps an iridectomy or a paracentesis would have been performed, leaving the dislocated lens in the eye, with all the conditions necessary to repeated attacks of inflammation, leading possibly to total blindness. With the bident I believe many an eye will be saved which, without it, would have been inevitably lost. It may not be applicable to all cases of dislocated lenses. I certainly should not use it where the lens is already dislocated into the anterior chamber, or even where the dislocation was only partial, but in all cases where the lens is floating about in the vitreous, and can be brought into view, I think the instrument may be used with advantage. Without the bident I do not think it is always possible, even when the dislocated lens can be plainly seen, to remove it from the eye, even with great loss of vitreous. If a lens, becoming dislocated during the initial steps of an ordinary cataract extraction, sometimes disappears in the depths of an eye, and cannot be fished out with hook or spoon by the most expert operator, how much more liable is such an accident to occur in a case where the lens is already loose in the vitreous. But if with the

[1] Read before the American Ophthalmological Society, July 15, 1885.

bident you press the lens into the anterior chamber and hold it there, you are not only sure of getting it out of the eye, but its presence acts as a kind of a plug to the pupil, preventing escape of vitreous. The objection to wounding the ciliary body in this way I do not consider a grave one. The clean punctured wounds heal without much secondary cicatricial contraction, and, in the two cases in which I have seen it used, have left no visible scar. Those who have practised "Hancock's operation" for glaucoma, which is essentially an incised wound of the ciliary body, say they have never seen sympathetic inflammation result from it.

I shall close this paper with citations from two of our well-known text-books on the eye.

"If the lens is completely dislocated into the vitreous humor, and is setting up no disturbance, it is wiser not to interfere. But if inflammatory complications arise, or the sight is much impaired by the lens floating about across the pupil when the eye is moved, it will be best to remove it. . . . The operation is, however, very dangerous, for a considerable amount of fluid vitreous will be lost, and severe irido-choroiditis, with subsequent atrophy of the globe, may supervene" (Wells).

"The removal of the lens is especially indicated in cases in which inflammatory symptoms have already appeared. Unfortunately, the removal of the lens from the vitreous involves so great a loss of that fluid, while the difficulty in extracting the lens is so great, that the operation can hardly be said, at present, to come within the sphere of practical surgery, and it is better in such a case to enucleate the eye" (Juler).

THE PULLEY MODIFICATION OF HIS LIMITING TENOTOMY AND ADVANCEMENT OF THE RECTUS OPERATION.

With a Report of a Case of Section and one of Exsection of the Rectus.

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In the St. Louis *Medical and Surgical Journal*, June, 1881, subsequently in H. D. Noyes' "Diseases of the Eye," appeared the publication of my method of advancing the rectus for the correction of extreme degrees of strabismus and of affording a safeguard against the danger of

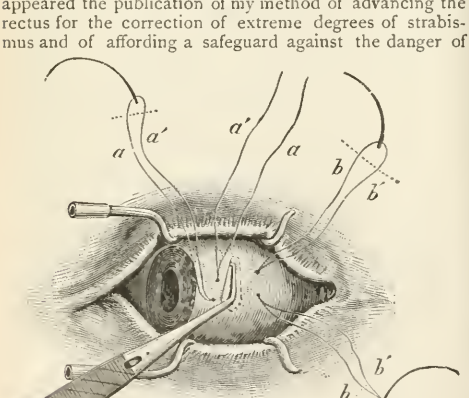

Fig. 1.

over-correction in moderate and minimum degrees of deviation. The advantage then claimed over other methods, and since that time personally acknowledged by a number of careful operators, was twofold: First, that of avoiding the tendency on the part of the stitch to *split the theca* of the rectus, allowing it to retract, thus compromising the result of the operation; second, a desideratum long felt, but not heretofore attained, viz., that of enabling the operator to *modify the effect* after several hours, when recovery of the elastic tension and muscular contractility shall have occurred.

By the *double loop suture* (see Fig. 1) an attempt to gain both of these advantages was made. As to the first of them, both in my experience before publication and during the past three years, and also in the use of the operation in the New York Eye and Ear Infirmary, its results have been satisfactory, when the suture has been firmly secured to the *sclera*.

Not so much has been substantiated by additional experience as to the universal success of the second advantage claimed. In tying suture *a*, after twisting both branches together, with suture *b*, similarly treated, four threads form the knot, which renders the manipulation of tightening or loosening more difficult and less precise

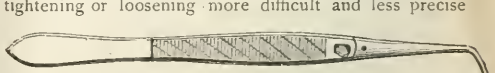

Fig. 2.

than when but two threads are employed. In my present operation, to be described below, this difficulty, of modifying the effect by changing the tension of the suture, is overcome by forming a loop or pulley with *a*, through which passes one branch of suture *b* (see Sec. 7).

The formation of this suture and its action will be perfectly understood by reference to the following brief description of the operation:

Operation.—1. The patient being cocainized, a medium-sized antiseptic silk suture, *a a*, is introduced into the *dense* superficial scleral tissue[1] two millimetres from the corneal margin.[2]

2. The conjunctiva and Tenon's capsule are opened in the usual manner.

3. One branch of the *fixation advancement forceps* is introduced and the remaining branch closed down on the conjunctiva, grasping the tendon of the rectus, which is now to be separated from the sclera with the strabismus scissors.

4. The muscle having been elevated by the forceps, both needles of the double loop suture *b b'* are introduced from beneath through Tenon's capsule, muscle, and conjunctiva, including the middle portion of the rectus, sufficiently far back to allow for the portion to be excised. This step will be further facilitated by the use of the advancement needle illustrated below.

5. The forceps still remaining elevated, the belly of the muscle is severed by the scissors two mm. on the corneal side of the suture *b b'*.

6. The needles being cut away, four independent sutures are formed, viz., *a*, *a'*, *b*, and *b'*.

7. Ignoring *a'* and *b'*, one branch of suture *b* is crossed over suture *a*, both branches of which are now tied down enclosing *b* in a loop or pulley.

8. Both branches of *b* are now tied together, and it will become apparent that *in proportion as they are tightened* over the pulley formed by *a* will the cut end of the rectus be approximated to the insertion of the tendon, simultaneously closing the conjunctival gap.

9. A bow-knot is applied, by loosening which the effect may be modified, after several hours. If all is then satisfactory, sutures *a'* and *b'*, which are reserve sutures to be used in case of entanglement, are now withdrawn. The eye is washed and dressed with absorbent cotton kept wet with a one-half per cent.

[1] A theoretical objection has been made that the suture *a a'* will not hold, since it involves so little tissue, as compared with that of Wecker, Graefe, Agnew, and others. This objection is answered by emphasis placed on the words *dense superficial scleral tissue* (Sec. 1). After introducing the suture which should be done in exactly the same manner as Knapp introduces a guy into the sclera for increasing the effect of an internal tenotomy), its security should be tested before proceeding further.

[2] The difficulty of securing a needle both sharp and slender which may be introduced into its dense superficial scleral tissue without much resistance has been overcome by those of Liier, Paris, which have hitherto been used. They have been successfully duplicated and will be furnished by Tiemann—needle No. 25.

aqueous solution of acid. carbol. pur., plus ten per cent. of glycerine.

The stitches may be removed on the fourth day. Usually, the tendon of the opposite rectus is divided as a preliminary step. In case of over-correction following a faulty operation in which the belly of the rectus, in place of the tendon, has been divided, it is impracticable, if of long standing, to advance the receded muscle, in which case the opposing muscle is to be divided back of its transit through the capsule and the advancement stitch introduced in the opposite conjunctival tissue, as in the first of the exceptional cases described below. In case of complete paralysis of either rectus, the opposing muscle should be exsected or divided as far as possible back of the capsule of Tenon, inserting the advancement stitch in the opposite tissue should the tendency to deviate still continue.

Limiting Tenotomy Suture.—The substitution of the pulley (Sec. 7) in place of the original form constitutes an especially safe and effective procedure to afford security against the danger of over-correction, first, in those cases in which one desires to produce extreme effect by extensive division of the capsule; and, second, in the minimum degrees of deviation which compromise comfortable binocular vision. In these cases single sutures are used, and *b* is introduced

Fig. 3.

further forward, simply dipping into and out of the muscle with a sharply curved needle, which is made for me by Tiemann.[1]

Care being exercised to exert no traction on the hook, thus avoiding temporary paresis and diminishing the

Fig. 4.

danger of subsequent deviation, both conjunctiva and capsule are divided, together with the tendon, after which the effect is limited by gradually tightening suture *b* over pulley *a*, as in the advancement operation, until the symmetric effect is perfect, or better, when possible, until vertical double images are produced by a prism with horizontal axis.

Case I. *Over-correction of internal strabismus followed by extreme external deviation of both eyes with limited motion.*—The following case is an illustration of what is fortunately much less common now than twenty years ago, when the importance of the relation of the anatomy of the capsule of Tenon to the operation of strabismus was seldom recognized by the numerous travelling so-called oculists and general surgeons, who, without the knowledge of refraction and its relation to strabismus so prominently brought before the profession by Donders in his "Anomalies of Refraction," conceived no other essential for a successful operation than that of "hooking up the muscle and cutting it off." The trail of these empirical peripatetic strabotomists is marked by such cases as that of Mr. Barney B——, of Sidney, Ill., aged forty-three, who consulted me April 24, 1883, and whose experience will be appreciated by reference to the accompanying photo-engraving, in which effort has been made to preserve the exact appearance which he presented with the following history: Twenty-three years ago his father entertained a guest over night, who made it his business to travel the country and straighten cross-eyes. The young man having an internal squint, it was considered a rare fortune thus accidentally to have presented an opportunity which might never occur again, for they were poor, and he was willing to straighten both eyes for his lodging and $2.50. A week later, when Dr. Strabotomist was pursuing his calling many miles away, it was considered safe to expose the eyes to the light, when the condition was revealed which has suffered no material change since that time.

Both eyes were deviated extremely outward, measuring with Snellen and Landolt's method[1] 50° in the right eye, of which a portion of the iris was concealed under the external canthus and the lateral motion limited to 10°. With H. = 1.5 D. (or $\frac{1}{24}$) corrected, V. = $\frac{20}{40}$. In the case of the left eye external deviation was 40°, lateral motion 15°, H. = 1.5 D., V. = $\frac{20}{40}$. Direct vision was very imperfect, but by turning the head to bring objects in the visual axis of either eye he could see tolerably well. As he was very anxious to have an effort made for which I knew no precedent, I explained to him that I would attempt as bad an operation on the external muscles as his $2.50 operation had been on the internal muscles, and that I hoped by the aid of a stitch to be able to draw the eyes over and hold them in position, and to effect a parallelism of the eyes, so that he would look well and have direct vision, but that he must not expect to have lateral motion, for, with the lateral rectal attachments of both eyes destroyed, he must be satisfied if they were simply straight. With this understanding, the operation was undertaken. A lateral incision was made above each external rectus and the hook introduced far back, exposing the muscle, which was divided outside the capsule. An internal advancement suture was placed in each eye, and no deviation made from the usual after-treatment. The weak carbolic acid wash was acceptable to the patient, and prevented inflammation. No pain followed the operation, which was done under ether. On the fourth day there was a deviation of 5° inward.

The most gratifying and at the same time *surprising* fact, especially worthy of note, was the *unpredicted amount of lateral motion*, which in the right eye amounted to 40°, and in the left to 45°. As this is the only case of the kind known to me, I am unable to compare it with reference to this point, and the theoretic explanation is offered that both external and internal recti

[1] This needle will be found greatly to facilitate the introduction of suture *b b'*, when the tendon has retracted with the capsule. The correction is then made without difficulty after dividing the conjunctiva and slipping the needle as a strabismus hook between the capsule and the sclera when a half-rotation with depression of the handle brings the point out through the conjunctiva. The short end of the thread is then caught with toothed forceps and the point retracted. Without removing the thread the point is reintroduced and the thread caught on the same side of the needle as before, when the withdrawal of the needle leaves the suture *b b'* in position, exercising a firm hold on the muscle, which may then be brought forward and secured. This needle will be sent on approval by Geo. Tiemann & Co., when its action will become manifest. By its curve also the co-apeation of the conjunctival edges after enucleation, as well as the introduction of the sutures in canthoplasty, is facilitated.

[1] Bestimmung des Schielens. Snellen u. Landolt. Handbuch der Augenheilkunde. Graefe and Saemisch, vol. iii., p. 235.

formed a union with the posterior hemisphere of the capsule, for it is scarcely probable that so great an amplitude of motion could be accomplished by the recti muscles acting alone on the orbital cellular tissue. An application of this theoretical view will appear in the treatment of the following case. The above case being of unusual interest, the result, photographed before his departure, ten days after the operation, completes a unique history, with the good result continuing to exist to the present time.

Case II.—Mr. T. A. D——, Oneida, N. Y., aged about thirty years, presented himself at the College of Physicians and Surgeons, New York, with a condition of complete paralysis of the external rectus of the left eye, following a railroad accident twelve years since. In the collision his head was jammed between two cars. The recovery from the injury was rapid, leaving no other effects than an extreme internal deviation with partial concealment of the iris. Some years since an unsuccessful operation was performed. Tested at the College and at the Manhattan Eye and Ear Infirmary, several days later: V. = counts fingers at 6 inches; internal deviation about 50°; absolutely no motion.

Fig. 5.

Having the good fortune to be in the city, the courtesy of Dr. Webster was extended in an invitation to demonstrate my method of advancement, on the following day, at the Manhattan Eye and Ear Infirmary. From the experience of the case related above I considered that a simple section of the muscle back of the capsule would be insufficient; that an attachment to the posterior hemisphere would probably occur, and reproduce a partial internal deviation. Determination was therefore made to exsect the muscle as far back as possible to avoid this danger, the intention being to destroy the efficiency of the internal rectus. Under the influence of cocaine, the globe was rotated, with fixation forceps, as far to the temporal side as the contracted and hypertrophied muscle would permit, in order to allow of the introduction of the hook. Having no reliable advancement forceps, a thread was passed around the muscle after Agnew's method. Parallel lateral incisions were made above and below the muscle, which was drawn out by the continued traction of the hook, and divided, at the remotest visible point, and the anterior portion was then separated from the sclera. An exsection and advancement of the external rectus was made, and the eye kept moist with saturated solution of boric acid, on cotton, a favorite and efficient remedy of Dr. Webster and other members of the Infirmary staff. No pain or special elevation of temperature followed the operation. The stitches were removed on the fourth day. The eye was perfectly straight. No exophthalmos or unnatural appearance except the absence of lateral motion. After a week V. = $\frac{20}{30}$; in a direct line has binocular fixation, but lateral motion of the head either way causes diplopia. He left the hospital satisfied, with still some little ecchymosis, rapidly absorbing.

Taken in connection, we conceive the above cases to have sufficient interest and value to justify their publication, inasmuch as they initiate a discrimination between the indications for section and exsection of the belly of the rectus.

UPON THE ORIGIN OF TUMORS AND CANCERS.[1]

By THEODORE A. McGRAW, M.D.,

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Since the publication of Virchow's "Cellular Pathology" and his great work on "Morbid Tumors," the current of professional public opinion has run almost altogether in favor of the dogma of the local origin of tumors and cancers. It cannot be denied that the arguments in its support seem at first sight to be very conclusive. A cancer of the breast begins as an apparently local trouble, it grows and spreads, and new lumps form in the neighborhood of the primary tumor. The neighboring lymphatic glands become next affected, and afterward those which are more distant. Then metastatic tumors form in distant parts of the body, and finally a cachexia develops which soon ends in death. Or a boy receives a blow in the eye, from the effects of which it becomes inflamed. The inflammation, however, does not pursue its usual course but develops a sarcoma, which soon kills the patient. In these and in most cases of tumors the influence of location and local irritation is so manifest as not to be mistaken. The progress of the disease, whenever it assumes a general character, is apparently from a local lesion to a constitutional infection, and it is natural for practical surgeons to incline to a theory which not only promises possibilities of cure, but also seems well sustained by the facts of the case and the results of treatment. For it is certain that the plans of treatment based upon this hypothesis have had far greater success than those established when it was universally believed that cancer was primarily constitutional—infecting the blood from the very beginning. The quick and thorough excision of every malignant growth has saved thousands of lives, and every surgeon of experience can now show cases in which tumors of undoubted malignancy have been so successfully removed that no recurrence has taken place after many years; and yet, notwithstanding this vindication which the theory has received from actual practice, there arises certain arguments which make us doubt sometimes whether one's ancestors were altogether wrong, and whether, after all, besides the causes which influence its production, there must not be behind some abnormal constitutional condition, without which neither cancer nor tumor could arise to vex the body. It is to call attention again to this constitutional something that I venture to write this paper, even at the risk of shocking that pathological faith in the localization of this kind of disease which has become nearly universal in the profession. It is my purpose not to deny the influence of local causes in the production of neoplasms, for I firmly believe in them as partial factors, but I insist upon the recognition of those other groups of facts which demonstrate to my mind beyond doubt that the theory of local origin is insufficient to account for all the phenomena, and that cancers and tumors arise from the combined influence of constitutional as well as local conditions.

[1] Abstract of paper read before the Michigan State Medical Society.

I find it necessary, however, at the very outset, to say that I do not regard the word "constitutional" as synonymous with "pertaining to the blood." It is very curious, that with full and undoubted faith in the doctrines of a solider pathology, the profession have not been able to divest themselves of certain conceptions which are consistent only with systems of humoral pathology. The most persistent of these fancies is the inborn belief that a constitutional dyscrasia must reside in the blood. If we ask a surgeon to-day whether a cancer is primarily constitutional, he will answer, "No; it appears first in the solid tissues, and the blood becomes only secondarily affected; therefore, cancer is of local origin."

Now it may be a question whether any disease has a constitutional origin in the sense understood by our fathers, and it has seemed to me that an unnecessary confusion has been caused by this misunderstanding of the word "constitutional." Unless we would abolish it altogether—and no one would think of doing that—we must give it a meaning more in consonance with our prevailing theories. There are, in fact, very many possible constitutional conditions in which the blood itself would be affected only secondarily, if at all, and which must be recognized as possible factors in the production of disease. Of these we may instance, first, any general degeneration of the blood or lymphatic vessels. When we think of these vessels in their actual relations, how they penetrate into nearly all tissue, how all tissue depends upon them for their nutritive supply, and how they govern all of the processes of inflammation and repair, we must admit that any disease affecting them generally, must exert a positively deleterious influence upon the whole animal economy.

The same is true of the vaso-motor nerves, which have an immense though not yet well-understood or sharply-defined influence upon the nutrition of the higher animals. Certain glands, too, have their relations with the whole body, so vital in kind, that even a disturbance of their functions may be regarded as a constitutional disease.

Let us suppose that we should find, as a matter of fact, that cancer was caused by some abnormal condition of the kidneys or liver. Should we not say that it was of constitutional origin?

The fact that the original disease—that of the kidneys or liver—was local would not affect the state of the case as regards the cancer, for that would depend upon a condition common to the whole body. The same would be true if it resulted from disease of the system of blood-vessels or of the nervous system, or from any condition which had become general, and of which cancer was a secondary result. Thus a general loss of power in the tissues of the body to maintain their integrity in the face of disturbing causes must be regarded as a constitutional condition, and we are obliged to assume the same even of such cases where a tissue is studded with primary germs of tumors. Multiply a local condition indefinitely, and we have finally a constitutional condition. Now, this faith in the local origin of tumors and cancers has given rise to many speculations in regard to the exact nature of the local influences which are able to produce such disastrous results. The most famous of these is the hypothesis of Cohnheim, who supposed that all neoplasms, of whatever kind, had their source in residual germs of embryonic origin. These germs were believed to consist of superfluous formative material which was not needed in the development of the various organs, and remained in a latent condition buried among the completed tissues, and retaining their embryonic power of evolution. They were then liable under any sufficient stimulus to become active and develop, at a time when they could serve no physiological purpose, into masses, whose relations with the rest of the organism must of necessity be abnormal and illegitimate. Such germs as dated from the earlier periods of embryonic life were credited with enormous powers of growth and multiplication and a peculiar aggressive force, against which the normal tissues were powerless. In this way was accounted for that peculiar power of malignant growths by virtue of which cancers and sarcomata were enabled to infect the body. How plausible such a theory would seem to the ardent believers in the doctrines of local origin is of course apparent. I was myself very enthusiastic in my reception of the hypothesis at the first reading, and the idea was especially welcomed because it seemed to place on a firm basis that doctrine on which surgeons based their most ardent hopes of success in their struggles against malignant diseases.

It must not be forgotten, however, that even Cohnheim was obliged to incorporate in this theory an hypothesis of constitutional influence in order to account for the long periods during which these germs lie latent, notwithstanding their subjection to the most varied kinds of irritation.

He imagined that every normal tissue had the power of resisting the encroachments upon its territory of any and every other tissue, and that only when the power of resistance had from any cause been lessened or lost did it become possible even for the most aggressive germ to develop and grow. In this admission he may be said to grant the whole question of a constitutional origin for tumors and cancers. Whether we are disposed or not to think well of this speculation, it is probable that our bodies, so to speak, swarm with germs which await only the proper stimulus to develop into tissue. Every regeneration of tissue after injury points to this conclusion. The immense growth of integument over large tumors, such as the large lipoma of the back, shows the vast capacity of normal tissue to develop under the proper stimulus. Whether the germs which then develop, or which develop into morbid tumors, are of embryonic origin, is, however, quite another question. In any case this may be regarded certain, that the mere presence of a potent germ is insufficient to account for its growth. The uterus, for example, is supposed by Cohnheim to contain vast masses of such germinal material which are vitalized by nature in pregnancy to enable the womb to grow to the necessary size and capacity, and which when cheated of their proper destiny are apt to develop into fibroid tumors. In fact, however, the vast majority of maiden ladies and childless married women are not afflicted with fibromata or fibro-myxomata, even though the uterus may have been stimulated by frequent or even habitual sexual intercourse. It is evident that there is in normal life some restraining power, some constitutional government which does not permit every rebellious cell to sprout and grow after its own fashion. While the origin of very many tumors from embryonic germs must be considered exceedingly doubtful, there is a class of growths which can be explained in no other way than by referring their beginning to anomalies of development. These are the dermoid cysts, the parotid enchondroma, the adenoma of the axilla, Grawitz's tumor of the kidneys, and some others. The peculiarity of their class is that they present examples of growths composed of adult tissues which are heterologous to the tissue in which they are located.

The explanation of such tumors by the assumption that they have sprung from aberrant or dislocated germs, which in some early period of fetal life by some hook or crook have got into strange neighborhoods, has of late years gained much credence among pathologists. Putting aside the dermoid cyst of the ovary and of the testes, whose origin is obscure, it seems highly probable that those which are formed along the edges of the branchial clefts, on the line of junction of the ventral lamina, are due to the infolding of the edges of the epiblast at its line of union, and the burial of some of its germs among the deeper parts. We may believe, too, that a cartilaginous tumor of the parotid may have had its origin from some germ accidentally detached from the ear. The adenoma of the axilla may in early life have formed part of that material set apart for the formation of the mammary

gland, and that those tumors of the kidney which, as Grawitz has demonstrated, exhibit a structure like that of the suprarenal capsule, may be reasonably supposed to have been portions of that organ which had become embedded in the kidney during its process of evolution. It is possible that those theories may be all wrong, and that the whole process of evolution may have got awry in such a way as to cause tissues which ought to develop from the epiblast to develop from the mesoblast, and *vice versa*. However that may be, it is highly probable that all tumors of this kind are due to some anomaly of embryonic life. It is a striking fact that since the attention of pathologists has been directed to this point the examples of heteroplasia have rapidly accumulated. It has, indeed, become the fashion for ambitious pathologists to hunt in morbid tumors for structure which would indicate this kind of origin. One important investigation has, however, been apparently neglected, and that is the careful examination of fetal organs with the view of determining to what extent a certain dislocation of germ is the rule during the process of evolution. It is, for instance, by no means impossible that nature may do her work habitually in a somewhat slovenly manner, and that the epiblastic germs may usually, if not always, become infolded and buried in the mesoblast during the process of uniting the various embryonic laminæ. The investigation of tissue and organs shortly after their differentiation might do much to clear up this question, a most vital one, as I regard it, in the pathology of these growths. Should we find that processes are habitual, which we have become accustomed to regard as exceptional, the whole subject would assume a different aspect. At present we infer that these tumors are due to the dislocation of germs, but if this kind of dislocation should prove to be the rule of evolution, we should then have to ask why, in a given case, the dislocated germinal matter, which in the natural course of things, as nature completed her work, ought to have been disintegrated and absorbed, has been able to persist, develop, and grow in defiance of physiological laws.

It is a serious question, too, whether every heterologous group of cells ought to be called a tumor. When particles of the epiblast, which, normally developed, would make a square inch of skin, become buried in the mesoblast and form there a square inch of similar tissue, is that a tumor in the same sense that a lipoma is a tumor? Extra fingers and toes growing from superfluous germs, having become attached, by a thread of connective-tissue, far from the normal location of fingers and toes, are they to be regarded as tumors? When a tooth grows down into the body of the lower jaw, or, as I once found one, in the upper part of the antrum, is it a tumor? In short, should mere dislocation of tissue be sufficient to constitute a neoplasm in the same sense that a lipoma or sarcoma is a neoplasm? There is one property that they have in common with true tumors. They persist in defiance of that general law of nature by virtue of which useless structures atrophy and disappear. That law is so decided in every other condition, whether physiological or pathological, that the exceptions seem to be confined to tumors alone, and to be their one pathological symptom. A tumor might be very correctly defined as a mass of useless tissue which develops, grows, and persists in defiance of physiological laws. The alveolar process disappears after the loss of the teeth, the breast and womb atrophy after the climacteric period, the unused bone becomes soft and thin, the muscles of a stump undergo fatty degeneration. Where, excepting among tumors, do we find an exception to this rule? In other respects these tumors of embryonic origin differ from many others, and notably from cancer and sarcoma. They exhibit in the first place that diversity of structure which we should expect from the development of a material which contains in itself the potentiality of all tissues. In dermoid cysts we find epidermis, hair, bone, teeth. The enchondromata of the parotid is usually a tumor of mixed tissues; the adenoma contains both the glandular structure and the connective-tissue in which it finds its support. The mole is a medley of sebaceous glands, hair, epidermis, and sweat-glands; and the several tumors which spring from embryonic vestiges are always remarkable for the variety of their contained tissue. Should we not expect the same phenomena in all tumors, if, as Cohnheim supposes, all tumors spring from such potential germs? This is, however, not the case. A cancer is composed of the simplest form of epithelial cells. It not only shows no variety of tissue-formation, but its epithelial cells are always of the same kind. If the mother tumor is composed of cylindrical epithelium, every secondary knot in the whole body will show the same formation.

A sarcoma, unless it springs from some embryonic residue, shows usually one form of young connective-tissue cells, and but one, and the secondary tumors repeat that form indefinitely. Now this is what we might expect from those growths springing from pre-existing adult cells, but not if they owed their existence to embryonic germs. The type of an adult tissue is fixed. Its cells may generate their successors and perpetuate their race, but they cannot change their form or character. The metaplasia of which Virchow speaks is confined, for the most part, in normal relations to immature structure, and in pathological matters presents a vexed and undecided question. It is certainly a rare phenomenon in normal adult life. As far as our present experience goes, we may safely assume that when a tumor presents in all of its parts, and in all of its generations, a fixed monotonous form of cellular elements, it owes its source to adult tissue. The term embryonic, as applied to the cells of certain tumors, has led, doubtless, to some confusion. It can be properly applied only to the form of the cells, not to its source. The young cells of adult tissue may be embryonic in form, although they do not date by any means from fetal life. I will say one word more in explanation of the term adult tissue. I understand by adult tissue one which has reached its maximum of development, no matter at what age that may occur. The epidermis of a child may be an adult tissue, while its bones may be made up of immature tissue. If, then, the question arise in regard to any given tumor, whether it was or was not of embryonic origin, I should not hesitate, as a test, to inquire into the evidence which is presented of development, as well as growth and multiplication of cells. Embryonic germs develop into vast varieties of forms while the progeny of adult cells repeat indefinitely the form of their progenitors.

Applying this test to Cohnheim's theory, we must deny that mode of origin. It is to be noticed further, before leaving this subject, that the immense power of growth and cell multiplication which some tumors exhibit, and which Cohnheim regards as an expression of embryonic energy, is more a feature of embryonic than of adult life. A fœtus grows, it is true, with vast rapidity, but it grows, nevertheless, in accordance with law, and its power of growth and evolution both diminish with age. In normal life this is the rule. As time goes on, development first, and then growth, comes to a standstill, and finally the organism in all its parts is engaged to the end in the struggle to maintain what it has acquired. The development of a tumor, on the contrary, is something contrary to all of our experience with normal tissue, and the terrific momentum which a cancer or round-celled sarcoma acquires in its progress, is something as foreign to embryonic as to adult life. Every surgeon knows by bitter experience how steadily the aggressive malignity of an infectious tumor increases with age. For these reasons I cannot but feel that the evident origin of many tumors from anomalies of development has been given a significance which the facts do not warrant. If, however, we respect Cohnheim's hypothesis, we have no tenable theory whatever by which we may explain the phenomena of cancer and tumors as a merely local disease.

Mr. Savory, who apparently respects all constitutional influences as factors in the production of these maladies, ascribes the malignancy of cancer and sarcoma to the low character of their component protoplasm. Recognizing that the so-called cancer cells are embryonic in form only, and lack all embryonic power of development, he seeks to account for their aggressive power of multiplication on the assumption that protoplasmic cells of low grade have inherent powers of growth and multiplication far in excess of tissues which are capable of higher development. In this power we are to seek for the reason of that hitherto inexplicable fact that the elements of malignant growth penetrate into all surrounding structures, growing at their expense and actually devouring their substance.

Unfortunately this is one of those explanations which does not explain ; for if we grant, what is by no means proven, the truth of this assumption, we are no nearer the true mystery, for we have yet to ask how it happened that normal structures become liable to give birth to such illegitimate and formidable progeny, and in the answer to that inquiry we find involved again the whole question of constitutional or local origin. There are, however, good reasons for believing that the solution of the problem is not to be found alone in any peculiarity of the protoplasm or protoplasmic cells of the tumor. Certain ulcers of quite innocent character exist only because the epidermis of the part is incapable of producing a sufficient amount of highly organized cells to make up for the loss by wear and tear. Such epidermis produces young broods of embryonic form which lack embryonic power, but they do not grow into cancers. They are simply disintegrated and destroyed. So, too, among those diseases which are esteemed cancerous we find differences in the grades of their component cells. The elements of a cancroid of the face are, as far as we know, fully as degraded as those of an epithelioma of the lip, and those of the latter as those of a scirrhus, but the degree of malignancy is by no means the same. If, putting aside the prejudices which have grown up during a generation, we ask what facts there are which are incompatible with any theory of purely local origin of cancers or tumors, we will find them to consist of two groups, the one of which includes such facts as relate especially to cancers and tumors ; to their characteristics as regards heredity, to the relations existing between benign and foreign growths, to the peculiarities of race and climate, to the endermic influences which foster or retard their growth, or to changes in, near, or distant from, the affected tissue which takes place before the advent of the tumor. The other group consists of those facts which serve to indicate, however obscure, that law which governs the development of all tissues and regulates the relations of any one part of the body to every other. Of the former group clinical evidences come first in order, both from their inherent value and from their precedence in point of time of other facts which are ascertained with more difficulty. The simultaneous appearance of several primary tumors indicates a constitutional tendency to tumors. Every surgeon has met with such cases of multiple primary cancers, multiple lipomas, multiple exostosis and the like. If we accept Virchow's explanation of these cases—that they represent only multiple local force, usually confined to but one kind of tissue—we shall, nevertheless, have a condition which, for all practical purposes, must be considered constitutional. If the connective-tissue swarms with young primary sarcomata, is it not just as essentially constitutional as if they swarmed in the blood ? If I do not dwell upon cases of this description it is because the plausible explanation has rendered it possible to reconcile the appearances of multiple primary tumors occurring in one tissue with the theory of local origin. It is otherwise when we find tumors of various kinds occurring in the most varied tissues of the body, and composed of cells of both epiblastic and mesoblastic origin.

THE TREATMENT OF MASTITIS BY REST AND PRESSURE.

By W. F. MILROY, M.D.,

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WHILE house-surgeon to Maternity Hospital, New York City, a year ago, during the service of Dr. Paul F. Mundé, and through his kindness, I had an opportunity of developing an idea which resulted in the adoption of this mode of treatment in all of our cases in which this calamity threatened.

I had never seen anything written upon the subject, and the idea was suggested to my mind by the use of a support for unusually pendulous breasts.

In the main my experience exactly coincides with that of Dr. Harris, as related in his exhaustive paper to which your editorial of May 30th refers. There are, however, several points of difference which appear to me to be of sufficient importance to warrant their presentation.

My method is as follows :

A piece of strong muslin is used, fourteen to sixteen inches in width, and of a length sufficient to reach around the thorax of the patient and overlap a few inches. The patient lies upon her back with the arms elevated so as to clasp the hands above the head, thus drawing the axillæ well upward. One end of the muslin is slipped through beneath the patient, and the two ends made to overlap exactly as in the application of an abdominal binder. A pad of cotton wadding is placed between the breasts to serve as counter-pressure. The breasts are then pressed upward and toward the sternum by an assistant, and the muslin is fastened by pins, which are placed along the middle line about three-fourths of an inch apart. As the pins are put in place, the bandage is drawn tense by about all the force one can comfortably exert through his arms.

When the bandage has been fastened, proceeding in this way from above downward, it will usually be found that its upper part is comparatively loose, and a few pins should be removed and reapplied. The bandage should be brought well up against the axillæ, and thus the upper part of the breast will all be included within it. When it is in place, a small wad of cotton should be tucked in beneath the folds of the axilla above the bandage. This will relieve all feeling of irritation from the bandage in that location. A small hole should then be cut with a scissors over the nipple of the sound side, and the child allowed to nurse this breast. The one principle to be borne in mind in the application of this bandage is to make sure that every part of the breast is included in it, and that the pressure is even throughout. With reasonable care this is easily accomplished. In case the trouble occurs long enough after confinement, so that the patient is out of bed, a strap of muslin may be passed over each shoulder and pinned to the upper edge of the bandage, before and behind. This will overcome any tendency toward slipping down. If the patient is in bed this is wholly unnecessary. The bandage having been once applied need not be removed until the unpleasant symptoms are entirely gone, but may be tightened above and below, as the diminishing size of the breast will permit. After all tenderness is gone, having removed the bandage, the breast appears greatly reduced in size, the integument is relaxed in small wrinkles and folds, and no sign of inflammation is present. There is, however, a uniform induration over the entire organ, it being in a condition somewhat analogous to that of hepatized lung-tissue due to pleuritic effusion. From this it recovers in a few hours if the child be reapplied to the breast, and in a little longer time if the breast be allowed to remain inactive. I would emphasize the necessity for all parts of the breasts being subjected to pressure, for if this be not done, signs of inflammation will very soon appear in the part not compressed.

It will be observed that the most essential point of

difference between this treatment and that of Dr. Harris consists in the employment of *firm* pressure, instead of the slight pressure which he recommends. This I consider a positive advantage. It was a source of great surprise to me to note how much pressure can be brought to bear, with comfort to the patient, in the way I have described. In cases in which the mastitis had progressed so far as to produce an area of bright redness and induration, and so sensitive that the most careful handling produced severe pain, strong pressure made after this fashion gave immediate relief. I have never been able to pin a bandage so tightly as to increase the pain, provided it was evenly applied.

Dr. Harris, in describing his treatment, speaks of an increasing distention of the breast, as a rule, for one, two, or three days after the roller is applied, and says that there is no retrogression, and often an increase in the degree of redness, induration, and tenderness for a day or two; though often improvement begins immediately after its application. In my cases I have, without exception, seen a progressive decrease, from the first application of the bandage, in the distention of the gland and in the redness, tenderness, and induration, in cases in which these were present.

According to my theory of the *modus operandi* of this pressure, in addition to the advantages of rest, another very important element of gain is introduced. In the early part of any inflammation there is a dilatation of the capillaries and small arteries, not only of the inflamed part, but also of all the tissues in its neighborhood. There is also an increase in the rapidity of the blood-current in its flow through these parts, and, as a result of these two factors, the local increase in blood-supply is very great. It is with this early stage of inflammation that we have to do in the prevention of abscess in the mammary gland. Again, the stomach, the intestine, the liver, or any other digestive organ, during the time of its physiological activity, is engorged with blood; and without this increased blood-supply its functional activity is crippled or destroyed. In the same manner, during lactation, the mammary glands normally receive an increased blood-supply, which is provided for during their development in the period of gestation.

Now, owing to the spongy and compressible nature of these glands and the unyielding underlying chest-wall, it is possible so to apply pressure, that, simply by mechanical force, the amount of blood gaining access to them is very much diminished. This being done, we have the danger of inflammation, in an equal ratio, reduced, and that by a twofold action: first, by the actual lessening of the degree of congestion of the part, and, secondly, by diminishing the excessive secretion of milk, which is undoubtedly a potent agent in the production of inflammation. It is true that inflammation itself checks the secretion of milk, but this occurs at a later stage than that at which the bandage will be applied. By the use of such pressure as I have indicated, advantage is taken of this powerful agent in accomplishing the end desired. That it does serve a useful purpose is shown by the fact that recovery begins promptly upon the application of the pressure, so that no further development of the inflammatory symptoms occurs, and also by the rapidity of the cure. Dr. Harris refers to the use of the many-tailed bandage in this affection, as recommended by Dr. L. A. Dugas. I have given the many-tailed bandage no extended trial, but it seems to me impossible to obtain the uniformity of pressure by its use which is essential.

The following objections, suggested by Dr. Harris to the use of the many-tailed bandage, he would evidently apply as well to the bandage that I have described, viz.: "In exerting compression it must flatten the gland and tend to press it out of form. It does not lift the breast—a measure which is always grateful to the patient and beneficial to the inflamed organ. It must exert a greater restraint upon respiration than though the breasts were first lifted and the shoulders included in the bandage."

To the first of these objections I would say, there is no doubt that pressure applied as I have suggested does "flatten the gland," and to a slight degree "press it out of form;" but this I regard of no consequence whatever, since in a very short time after removal of the bandage the gland returns to its normal shape. The breast is effectually lifted and retained in the elevated position, and, therefore, the second objection does not hold.

To the third I answer that I have once or twice heard patients complain of slight discomfort from constriction when the bandage was first applied, but before it had been an hour in place they experienced the discomfort no longer.

Mastitis is a disease so common that every general practitioner must be frequently called upon to treat it. Any mode of treatment, whether of mastitis or any other prevalent disease, in order to come into general use must be of such simplicity and ease of application that the average physician can adapt it successfully to his patient. Now, it must be apparent to any one who reads the description of the application of Dr. Harris' bandage, that its complexity will deter very many from attempting its use, and many more from succeeding in it. Let him who does not think so make trial of it once. Dr. Harris quotes Velpeau, in speaking of this use of the roller bandage, as follows: "The great drawback to its use is the difficulty of applying it in such a manner as to exert equable pressure and at the same time prevent displacement, which movements of the head, trunk, and arms are so apt to bring about."

When a man of Velpeau's genius meets with so much difficulty it is hardly possible that the use of "eighteen large safety-pins," as suggested by Dr. Harris, can obviate the whole difficulty. The extreme simplicity of the bandage, as I have described it, assures its successful application by any one who cares to make the attempt.

I would also call attention to the facility of examination of the breast while this bandage is still in place. Since but a single thickness of muslin covers it palpation shows the exact condition of the breast beneath, and once applied, as I have already stated, it need not be removed until it is no longer needed.

Still another point of advantage of the single piece of muslin over the roller is the absence of the cotton padding which accompanies the use of the latter. The heat of this pad gives more or less discomfort, and, probably, to some extent, delays resolution.

Another point of gain rests in the fact that the patient lies on her back during the application of the bandage I have described. This avoids the exertion and positive danger that attends her sitting up, if the case is one of recent confinement.

For the sake of brevity I will relate but a single one of the thirteen cases of which I have a history. This one I have selected because it was quite aggravated, and also because it showed the result of the old method of treatment, by emptying the breast, as compared with that by rest and pressure.

CASE.—Bridget S——, aged twenty-eight, American, primipara, fairly nourished, was confined June 17, 1884. At the time of confinement both nipples were considerably depressed. The child was put to the breast as usual.

June 21st.—Temperature, 99.6°; pulse, 90; respiration, 18. Both nipples slightly sore. Ordered to carefully dry the nipples and dust them with tannic acid when the child is not nursing.

June 22d.—Condition about the same.

June 23d.—P.M.: Temperature, 101.3°; pulse, 108; respiration, 26. Breasts very full and painful; nipples still sore; head aches; is inclined to worry. Ordered the breasts nursed out and tannin applied to the nipples when the child is not nursing and the breasts supported by a bandage.

June 24th.—9 A.M.: Temperature, 101°; pulse, 108; respiration, 32. Breasts very full, and there is a red, painful, and indurated spot, about two inches in diameter, in the upper part of the left breast, causing great distress. Both nipples are very sore; patient slept but little last night; is much exhausted; anorexia complete. Ordered the breasts thoroughly nursed out and supported. Tannin applied to the nipples during the intervals of nursing.

June 24th.—6 P.M.: Since last seen, two babies, one on each breast, were kept nursing almost constantly until 3 P.M. At this time the breasts still appeared nearly full of milk. The inflamed spot at the upper part of the left breast remained as described. The nipples became extremely sore and the pain from nursing unendurable. At 3 P.M. the nurse began "rubbing out" the breasts and has been thus employed for three hours. It seems impossible to empty the breasts, as they are still well filled. The induration is but slightly diminished. The general condition of the patient rather worse than this morning. Temperature, 101.3°; pulse, 100; respiration, 33. The nipples were thoroughly dusted with tannin and the bandage tightly applied as described, affording instant relief to the pain.

It should be remembered that the Maternity afforded an abundant supply of babies for carrying out the above plan. A rubber nipple-shield was used during nursing from the time the nipples began to be sore.

June 25th.—A.M.: Temperature, 99°; pulse, 80; respiration, 20. Patient rested well during the night and feels much better. The breasts feel comfortable except at the upper part of the left one. In this situation the bandage has become slightly relaxed. The milk has been draining away from both breasts constantly since the application of the bandage.

The bandage was tightened above and below and all pain instantly relieved.

June 25th.—P.M.: The breasts have been comfortable all day but constantly discharging milk. The bandage was drawn a little closer at the upper part.

June 26th.—A.M.: Temperature, 98.4°; pulse, 92; respiration, 18. The patient slept well and is very bright this morning. There is no pain or tenderness in the breasts, and the induration at the site of inflammation is not perceptible. The milk has ceased to drain away from the breasts. The bandage not disturbed.

June 27th.—A.M.: Temperature, 98.5°; pulse, 90; respiration, 18. The breasts are perfectly comfortable. Patient rested well, but is weak and appetite poor. The breast-bandage again tightened.

On the evening of this day (June 27th) the bandage was removed and the breasts found in the condition already described as usual after removal of the bandage. They still contained some milk. The nipples, though still quite sore, were very greatly improved. The breasts were nursed out and the tannin dressing continued to the nipples as before.

It was our custom to transfer all patients, whose convalescence was normal, from the pavilion in which they were retained after confinement to the "convalescent ward," in the main hospital building, on the eighth or ninth day, the transfer being made upon a stretcher.

This patient was not transferred until June 27th, the eleventh day. It almost invariably happened in cases in which there was a hypersecretion of milk that this ceased as soon as this transfer was made. In the present instance, after the transfer was made, the patient had only enough milk for her own child and there was no further trouble with the breasts.

In this case all attempts to empty the breasts by the natural method were fruitless and the condition of the nipples had become simply frightful.

The employment of the "rubbing process" was undertaken with the same result, and in the midst of our very efforts the inflammatory process was developing. The patient was rapidly becoming exhausted, and under old methods of treatment one or more abscesses seemed inevitable. Could any combination of circumstances more satisfactorily demonstrate the efficiency of the treatment I have described?

Your editorial refers to the desirability of further light upon the method of treating sore nipples by bandaging the breast. So far as my experience goes severely excoriated nipples will seldom be met with unaccompanied by trouble with the breasts as well. When allowed to rest, the nipples recover with remarkable rapidity, and it would seem advisable, at least in aggravated cases, to adopt this plan.

2208 FARNUM STREET.

Clinical Department

A CASE OF MORPHIA POISONING IN A CHILD AGED FIFTY HOURS.

DR. WILLIAM JUDKINS, of Cincinnati, O., reports a case of morphia poisoning in an infant aged *fifty hours*, where by mistake a quarter of a grain of morphia in solution was given. At the time the doctor was summoned, two hours after the first dose was taken (an eighth of a grain in a teaspoonful of water, for supposed colic; the first dose not having the desired effect it was repeated an hour afterward), the child was cyanotic, breathing only three times to the minute, and that very feeble; pulse barely perceptible. Immersions in hot water were at once commenced, and whiskey hypodermatically, in the gastrocnemius. Strong black coffee was also administered per orem and anus. After two hours' constant work, respirations increased in frequency and the heart's action became stronger. Recovery was final, and now, ten weeks after the accident, the child is as well and bright as could be wished. The catheter had to be used several times the first twenty-four hours, and three abscesses were opened that were produced by the frequent introduction of the hypodermic needle. The doctor states he has been unable to find a similar case on record.

Progress of Medical Science.

INHALATIONS OF OXYGEN IN PUERPERAL ECLAMPSIA.—At a recent meeting of the medical section of the Kharkov Society of Experimental Sciences, Professor V. G. Lashkevitch, in the course of a communication on the therapeutic value of oxygen in neuro-pathology, pointed out that oxygen possesses a considerable power of lowering an increased reflex action, and also made the suggestion that oxygen-inhalations may prove of service in cases of puerperal eclampsia. Acting on the suggestion of Professor Lashkevitch, Dr. V. G. Favr, of Kharkov (*Vratch*, No. 13, 1885), resorted to oxygen in two cases, and obtained brilliant results. The first of the cases was that of a seamstress, primipara, aged nineteen, who was brought to the hospital in an unconscious state, with cyanosis, stertorous breathing, and frequent eclamptic seizures, each of the latter being preceded by a uterine contraction. Warm baths, wet packings, and enemata with chloral-hydrate brought no relief; chloroform-inhalations only slightly controlled the intensity of the convulsive paroxysms. In view of the failure of all these means, oxygen was tried. In five minutes from the beginning of the inhalations, the patient asked for water, and then fell into a quiet sleep of two hours' duration, the pulse descending from 120 to 90 per minute; uterine contractions ceased to be a starting-point for convulsive fits. The latter reappeared each time when the inhalations had been stopped, and again gave place to sleep and quiet on resuming the administration of oxygen. The delivery was accomplished with the help of Barnes' dilators, and of puncture of the membranes.

The patient left the hospital on the nineteenth day after the labor, her general health and the state of the kidneys being greatly improved under an appropriate treatment. A second patient, primipara, aged eighteen, was attacked with eclampsia about an hour and a half after the labor. Two severe paroxysms (each of twelve minutes' duration, separated by a free interval of twenty minutes, during which the patient remained unconscious) had occurred before oxygen inhalations could be resorted to. Consciousness returned immediately. Four more paroxysms occurred, but they were considerably milder, and separated by the intervals of absolute comfort; indeed, the patient took her tea and dinner between the eclamptic fits. She made a rapid recovery. Encouraged by his success, Dr. Favr enthusiastically invites all professional brethern to give a trial to so simple a weapon against so formidable a foe, and even goes so far as to ardently hope that in a near future oxygen-gasometers will be found in all lying-in hospitals, side by side with forceps, cranioclast, cephalotribe, and other necessary instruments.—*London Medical Record*, June 15, 1885.

The So-called Fatty Diarrhœa of Demme and Biedert.—Dr. Tschernoff has made a large number of analyses of the stools of healthy and diseased infants. The fat in seven healthy children under six months old amounted to from 25 to 30 per cent. of the dried fæces. The average quantity in four dyspeptic children was 48 per cent. Two infants with erysipelas showed respectively 44 and 52 per cent., and the amount remained high long after their recovery. Two cases of catarrhal pneumonia gave 51 per cent. each, and another case 60 per cent. A child with bronchitis and nearly normal temperature showed 39 per cent.; another with chronic diarrhœa 42 per cent. A child nine months old showed during an attack of scarlatina 57 per cent., and after recovery only 32 per cent. The next case was remarkable, for the stools, which were frequent, offensive, and whitish, contained, when dried, no less than 75 per cent. of fatty matter; the child, aged two months, was icteric, with greatly enlarged liver and spleen. A wasted child six months old, nursed by its mother, had diarrhœa, with slimy, blood-stained, offensive stools, which showed 50 per cent. of fat. After treatment, including the substitution of a wet-nurse, the child recovered, and regained all its flesh, but the dried stools still showed 40 per cent. of fat. This case exemplifies the difficulty with which children regain their power of assimilating fat. In the experience of the author, every disturbance of the digestive tract is accompanied by increased fat in the stools, and this increase is greater still if the temperature is raised. Even adults, when feverish, show an increase of 14 per cent. The quantity of fat in the food does not seem to affect the proportion in the stools.—*London Medical Record*, June 15, 1885.

Resorcin in Malignant New Growths.—In the *Russkaia Meditzina*, No. 6, 1885, Dr. G. J. Gatchkovsky details four cases of cancer-like new growths, in which he, following the instance of Dr. Mannino, applied locally resorcin, either in substance or in the shape of a 50 per cent. vaseline ointment. In two cases of what seemed to be epithelioma of the lower lip, complete cicatrization followed after eight and five weeks' treatment; in one of them there was no return up to the date of the article (thirteen months have elapsed); but in the second case, by the end of two months the cicatricial tissue became exulcerated, and lancinating pain reappeared; the ulcer again healed under resorcin treatment of three weeks' duration. A third patient, a woman aged fifty-six, presented a malignant tumor of the anal margin, as large as a hazel-nut, and diffuse cartilaginous infiltration of the lower part of the rectum. The tumor entirely disappeared after fifteen days' powdering, twice a day, with resorcin; subsequently daily rectal suppositories with twenty grains of resorcin were administered, but unfortunately the patient soon left the town, and thus was lost out of sight. A fourth patient, a woman aged forty-five, was admitted to the hospital about one month before her death, with advanced cancerous destruction of the whole right half of the tongue, and with induration of the submaxillary lymphatic glands. Powdering (twice daily) with resorcin rapidly removed the offensive odor and hæmorrhagic tendency, and also greatly improved the general state of the ulcer. Dr. Gatchkovsky found resorcin in powder of great use, also in cases of acuminated condylomata and fungus umbilici.—*London Medical Record*, June 15, 1885.

The Influence of Cocaine, Atropine, and Caffeine on the Heart and Blood-vessels.—From an experimental paper on the influence of cocaine, atropine, and caffeine on the heart and blood-vessels, by Dr. H. G. Beyer, U. S. N., *The American Journal of the Medical Sciences*, July, 1885, concludes: 1. That *cocaine* is exceedingly prompt and uniform in its effects upon the heart. 2. In small doses it is a powerful stimulant to the heart's action. 3. In medium doses it has an inhibitory influence over the ventricular contractions. 4. In large doses it produces diastolic arrest, from which, however, the heart may be recovered under suitable conditions. 5. In small or large doses it produces contraction of the blood-vessels, independent of the central nervous system. 6. A rise in the blood-pressure consequent upon the administration of cocaine is due to a direct action of the drug on the heart and blood-vessels, stimulating the former and constricting the latter; a fall in blood-pressure coming on after the rise must be accounted for by the action of cocaine on the heart alone, since its constricting influence on the blood-vessels outlasts the stimulating influence it exerts over the ventricle of the heart. That *atropine* in certain doses increases the rate of beat of the heart, and also the amount of work done; that it exercises an inhibitory influence over the contractions of the ventricle; that it first causes a contraction and afterward a dilatation of the blood-vessels; that cocaine acts on atropized vessels in the same way that it does on normal ones, *e. g.*, it causes their contraction. That *caffeine* in small as well as large doses produces dilatation of the blood-vessels in the terrapin; any rise in arterial pressure due to caffeine is, consequently, to be explained only by the stimulating effect caffeine exerts on the heart itself.

The Etiology of Erysipelas.—The now fairly-well-determined fact that erysipelas is a disease due to the invasion of micrococci has not hitherto led to a sufficient explanation of the varieties of the disease, and particularly of the points of difference and of resemblance between traumatic and idiopathic (so-called) erysipelas. In an interesting study of the subject in Virchow's *Archiv*, Dr. Rheimer, after reviewing the evidence as yet adduced concerning the nature of erysipelas, details the results of his examination of two cases of typhoid fever in which this complication occurred. The cases arose in a very severe epidemic which took place in Zurich in the spring of 1884, and he contrasts the microscopical characters of the affected skin, and other tissues obtained from them, with those observed in traumatic erysipelas. In the latter he describes not only masses of minute cocci in the lymphatic spaces and vessels, but also very definite chains of larger cocci and diplococci, apparently the same as those originally described by Recklinghausen, and since by Lukomsky, Koch, Ziegler, and many others. In typhoid erysipelas these last-named micro-organisms were conspicuous by their absence; for although the minuter forms were present in much the same situations and character as in traumatic cases, there were, instead of large micrococci, a number of mostly straight rod-shaped organisms scattered throughout the tissue. These organisms stained badly with reagents, and were apparently identical with the bacilli which Klebs, Eberth, and Gaffky have found more or less constantly in typhoid fever. Although the fact of the existence of a "bacillus typhosus" is still *sub*

judice, and has, indeed, been contested by many, it receives a certain amount of confirmation from this discovery. The latter has, however, a bearing upon the etiology of erysipelas, as indicating that the cutaneous lesion—*i.e.*, the dermatitis—may, indeed, be excited by more than one kind of poison, or, perhaps, to speak more correctly, by more than one kind of micro-parasite. It may be that there is a specific erysipelas organism for the traumatic affection; but it is possible that the spontaneous cases, and especially those which arise as complications of other infective diseases, own a different etiology. The question is a suggestive one, and offers a fertile field for further research.—*Lancet*, June 13, 1885.

Œdema of the Glottis in Tabes Dorsalis.—Any phenomenon may be met with in the course of tabes dorsalis; at least, this statement would seem to be a warrantable conclusion from known facts. We must not lose sight of the circumstance that accidental phenomena also exist and may occur in tabes dorsalis, as in any other disease, without any special significance. M. Huchard read at a recent meeting of the Société Médicale des Hôpitaux a paper on a case of œdema of the glottis following the administration of iodide of potassium in a patient the subject of tabes dorsalis. There was no history of syphilis or alcoholism, and no evidence of Bright's disease. The man was treated on account of the locomotor ataxy with four grammes of iodide of potassium per day. The treatment had to be suspended owing to the induction of iodism. After some days the medicament was given in smaller doses. This renewed treatment was followed by grave attacks of dyspnœa, which threatened suffocation. M. Gougenheim detected œdema of the arytenoid region by laryngoscopic examination. During one of the attacks the "interne" was obliged to perform tracheotomy. The patient ultimately did well. M. Huchard thought that the grave result was largely due to the influence of the iodide of potassium, while admitting that a sensory disturbance in tabes dorsalis may have played a part in the occurrence of the phenomenon. Chemical examination of the iodide of potassium showed that it was impure and contained a certain amount of iodates.—*Lancet*.

The Hygienic and Climatic Treatment of Pulmonary Phthisis.—This year's Croonian Lectures were delivered before the Royal College of Physicians in London by Dr. Hermann Weber. By pulmonary phthisis the author means a chronic disease of the lungs, with consolidation beginning almost always at the apex, having a tendency to caseation, softening, and the formation of cavities, or of fibrous changes; all the changes may occur in the same individual at the same time in different parts of the lungs, or may follow one another at different periods of the disease. These changes are mostly found associated with the tubercle-bacillus, discovered by Koch, and are intimately connected with a state of malnutrition of the whole organism, especially the cells and tissue of the lungs. There is no doubt that the bacillus is intimately connected with phthisis, but the exact relations appear to require further elucidation, as to why it thrives in some persons and not in others; or why it thrives in a person at one time and not at another. It is known that the range of temperature within which the bacillus of tubercle can grow is much more restricted than in the case of some of the other bacilli. Its growth entirely ceases below about 82° F., and above 107° F.; it thrives best at about 98° F. to 100° F. A further point against the spread of the tubercle-bacillus out of the animal body is that it does not form spores in the air. When there is any catarrh of the mucous membrane of the bronchi, and especially of the smaller divisions, and when the expiration is imperfectly performed, the bacillus finds a favorable opportunity for its development. The lecturer then shows that many cases of phthisis are certainly curable; and in the *post-mortem* room many instances are familiar to every one of old phthisical cavities having healed. With reference to treatment, it is impossible to restrict ourselves to that of the developed disease, and to pass over the preventive treatment. In many cases this is the only chance, for, when the disease is once established, in some constitutions it runs a rapid course. The poor have far less hope of recovery than the rich; and, contrary to what is the case in many diseases, existing hospitals cannot put the poor on a par with the rich in the question of the treatment of phthisis. That phthisis is capable of being transmitted from patient to patient is an accepted fact, in the author's mind, and numerous precautions are laid down with reference to the manner in which persons suffering from the disease should behave when living among those either with or without hereditary tendencies. The second lecture commences with the curative treatment of phthisis. This subject is divided under five headings: 1. Diet; 2. Air and ventilation; 3. Exercise; 4. Management of skin, clothing, etc.; 5. Climate. Food should be taken in small quantities and often, and the appetite should be humored as much as possible; milk is the most important article. Fresh air, good ventilation, and healthy exercise without fatigue, are essential. With regard to climate, the most essential feature is the purity of the air from floating matter. A soothing climate is not so good as a tonic one; it should allow the patient to remain in the open air, and at the same time enable him to take exercise and to gain an appetite. The author speaks very strongly on the use of alcohol by phthisical patients, and is convinced that in health alcohol is rarely necessary, but that in phthisis, especially in the febrile stage, it is of the greatest use, as long as the kidneys are sound. The third lecture deals with the effects of climate, and commences with remarks on the beneficial results produced by the dry cold of the Alps in winter on phthisical patients. Altitude climates are recommended in hereditary and acquired tendency to phthisis, but in advanced or complicated cases no benefit is derived from them. After mentioning several health-resorts, the author concludes by remarking that the climate of several places in Great Britain is good for the prevention of the disease, but not for developed cases. The health-resorts on the southern coast lack the necessary arrangements required to render them suitable for consumptives; and Dr. Weber urges the medical profession to use their influence in securing the erection of well-arranged houses with suitable balconies, verandas, covered walks, seats, etc., and with shelters from cold winds, so that those who cannot afford a journey abroad may reap the full benefit derivable from home climate.—*London Medical Record*, June 15, 1885.

Differentiation between Tubercular and Fibroid Phthisis.—Sir Andrew Clark (*British Medical Journal*), speaking of the differentiation between tubercular phthisis and fibroid phthisis, says: "Tubercular phthisis is primarily of constitutional origin, and appears for the most part in the young. It is bilateral. Its course is accompanied by elevation of temperature and rapidity of circulation, by progressive loss of flesh, strength, and color; sometimes by laryngeal ulceration, and sometimes by sensations of painful exhaustion and *malaise*. It is usually rapid in its progress; the majority die within three years, and the few who, in consequence of fibroid complications, live for a longer time, enlarge the average duration of the disease to four or five years. On the other hand, fibroid phthisis is usually of local origin, and appears for the most part in the middle-aged. It is, in the main, unilateral. It is unaccompanied by elevation of temperature or hurry of circulation; flesh, color, and strength may remain but slightly affected for years. It is not incompatible with great bodily and mental energy. The urine always contains a little albumen. The progress of the malady is slow. Œdema is never absent throughout, and death, which seldom occurs within five years, is often delayed for thirty."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, August 8, 1885.

INFANT DIARRHŒA AND THERMIC FEVER.

THE opinion seems to be gaining ground among certain observers that there is some analogy or connection between ordinary heat-stroke and the summer diarrhœa of infancy. It is, of course, the universal experience of physicians practising in large cities that the frequency and mortality of infantile diarrhœa is in direct proportion to the extent and duration of the high temperature. Exactly how the heat acts does not seem so plain. Inasmuch as removal from the city to the country is so frequently followed by improvement and recovery, the bad effects of the heat have been supposed to be chiefly due to fermentative changes produced in food, and to increasing atmospheric impurity. The heat of the city, however, is very different from the heat of the country, disregarding all other factors, even though the thermometer may register the same in both places. The bricks and paving-stones of the city, in the unshaded glare of the sun, reflect and radiate an oppressive, stifling heat that is shut in by high walls; in the country, however, not only is there a free expanse for any breeze, but the trees and foliage combine to lessen the deadly effects of a prolonged high temperature.

There is reason to believe that several different conditions may be produced by continuous heat. Dr. Guiteras, in the March number of the *Therapeutic Gazette*, describes a thermic fever he has observed at Key West, that is apt to be compounded with typhoid and continuous malarial fever. This form of fever prevails only during the summer, disappearing at once with the advent of cooler weather. Poorly nourished, over-worked persons, living in close houses, are especially liable to be attacked. The writer notes the peculiar predisposition to fever affecting the inhabitants of the tropics from prolonged heat. While the nervous mechanism that inhibits heat production may not be exactly understood, it is certainly overtasked during the long tropical summers, and as a result fever is a very common symptom. Particularly among children is an elevated temperature present with the slightest indisposition. It is more a prolonged than necessarily excessive heat that appears to produce the thermic fever. The condition of infants living in the badly ventilated tenement-houses of a large city during the long summer months, seems not unlike that of those persons living in the tropics who are most apt to be affected by thermic fever.

It is not difficult to understand how digestive symptoms would assume a prominent place in infants suffering from such fever. Not only is the food upon which they are obliged to live subject to speedy fermentative changes, and impossible to procure very fresh, but heat depresses the nervous mechanism of digestion. The supposition that a sort of thermic fever acts as a main factor in causing indigestion and diarrhœa, instead of the diarrhœa or entero-colitis primarily producing the fever, has some points to commend it. We know that infantile diarrhœas begin to increase in frequency and fatality abruptly with the inception of hot weather, and as quickly stop at its close. Again, of the two hot months of summer in this city, the mean temperature of July is somewhat higher than that of August, and the death-rate from diarrhœal diseases of young children is very much larger in the former month than in the latter, although all other conditions are largely the same. When the weather for a time becomes cooler, the death-rate sensibly diminishes. If the trouble is primarily a thermic fever, the temperature should be elevated before the diarrhœal symptoms manifest themselves. This it is difficult to ascertain accurately, as most cases are brought to the physician for the relief of the diarrhœa. Many drooping, weak babies, without looseness of the bowels, would probably be found to have a fever during a prolonged hot spell if the thermometer were employed.

Instead of falling back on teething or malaria to explain fever in the absence of local symptoms, the direct effect of the heated atmosphere of summer will often afford a more natural explanation. The view that much of the summer complaint is really a form of thermic fever derives its principal interest from emphasizing a point of treatment, namely, the free employment of cooling applications. Dr. Comegys believes such cases should be treated more by the external use of cold water than by giving drugs. As the intestinal irritation is but a secondary condition, it does not require the stress of treatment that should be reserved for the primary factor, the fever. The avidity with which babies having summer complaint will drink water, and the evident relief they experience from cool sponging, are easily explained by the high fever and dry mouth accompanying this condition. Any new idea involving a radical change of treatment should be received very cautiously; but in reference to the summer diarrhœa of infancy, the more common employment of cool sponging will undoubtedly be beneficial.

A NEW FIELD FOR YOUNG DOCTORS.

THE old advice, "Go West," seems to be losing its force as applied to physicians. Western cities are, relatively speaking, crowded with medical men, and if the estimate be true that twenty-five per cent. of those who die under forty die from intemperance, the moral and social status of those who are surviving and practising is not very cheering.

To those who are intending to become doctors we would say at once, in a general way, "'Don't;' unless you see your way to a practice tolerably clearly before you." To those who have cast the die and got their diplomas we suggest the coast of Mexico, the Argentine Republic, and the Congo Free State. We have seen evidence that there are openings in all these places, but we would par-

ticularly call attention just now to the Congo. We have the authority of *The Lancet* for stating that there are openings for medical missionaries there.

Says our contemporary: "They would have the care of the persons employed at the stations and of the dispensary or hospital. There is ample scope for practice, including a large amount of surgery, among the natives, and unlimited opportunities for scientific exploration—botanical, geological, etc. Of course, only gentlemen in hearty sympathy with the missionaries would care for the appointment; but there are probably many young men who would be glad to devote a few years to such a field of practice, and it is impossible to predict what opportunities may open before any who might afterward desire to remain in the new Free Congo State."

Instead of dying of intemperance in the West, let our young doctors become medical missionaries in the East and help to build up a new State, if they can keep off the fever.

INTERMITTENT ALBUMINURIA.

It is only within a comparatively recent period that a condition has been recognized in which there is found albumen in the urine, the presence of which cannot be accounted for by any renal lesion or departure from apparent health. This has, rather inappropriately, been called physiological or normal albuminuria. The etiology of the affection, and the pathological conditions under which it occurs, are as yet unknown, though it would seem to be dependent upon some vaso-motor disturbance. In *La France Médicale* of June 25, 1885, Dr. Merklen reports a case of this sort, which would appear to furnish a slight clue to the nature of the malady. The patient was a youth, sixteen years of age, of ordinarily fair health, but with a family history of rheumatism. He himself was of somewhat lymphatic temperament, with pale face, skin prone to eruptions of acne, and some cyanosis and habitual coldness of the extremities. On two occasions, after a horseback ride, he was seized with a sudden but evanescent dimness of vision. An examination of the urine showed a considerable quantity of albumen. But there being no other signs of nephritis, the urine was examined daily for a week, and it was found that the water passed between noon and midnight was albuminous, while that passed from midnight to noon was free from the slightest trace of albumen. There were no casts at any time. An ophthalmoscopic examination, made by M. Giraud-Tenlon, revealed a slight turgescence of the retinal veins, a sign which the examiner interpreted as indicating vaso-motor atony. There was slight hypermetropia. The temporary visual defect was thought to be due to a sudden suspension of accommodation, occasioned by congestion or a central nervous trouble. Some months later the patient suffered from an acute pulmonary trouble accompanied by a high fever, and during the three weeks that the fever continued, the patient being confined to his bed, the albumen was absent from the urine, but returned again as soon as the patient recovered and began to walk about his room. Its appearance was intermittent as before. In view of these facts, the author was led to surmise that the albuminuria was due to vaso-motor disturbances which were not sufficiently marked to give rise to external manifestations during the period of rest and artificial warmth in bed, but which led to renal congestion, or blood stasis, when the patient was exercising or exposed to cold.

There is another form of intermittent albuminuria which has been noted by Dr. Eichhorst in adolescents, and which, although differing in its symptoms, as well as in its periodicity, from the variety just considered, may nevertheless be mentioned in this connection.

Dr. Eichhorst writes in the *Correspondenzblatt für Schweizer Aerzte*, No. 12, 1885, that he has observed, in individuals at the age of puberty, a peculiar indefinite train of morbid symptoms which did not seem referable to any organic lesion. A chance examination of the urine in one instance revealed the presence of albumen, and being thereby led to examine this fluid methodically, the author found that it was very frequently albuminous. The urine was of a light-yellow color, clear, and only once was a single hyaline cast discovered. The albuminuria was periodical, appearing at intervals of weeks or months, each attack lasting from a day to a week, but seldom longer. The general symptoms were divisible into three groups: 1. Lassitude, debility, weak memory, and mental distraction; 2. capriciousness, irritability, and mental excitement; 3. more rarely there were headache, vomiting, muscular twitchings, and even slight epileptiform seizures. The prognosis was in general favorable, though in some cases the albuminuria recurred at intervals during two years. Internal medication was without effect, and the best results were obtained by a life in the country and by nourishing food.

HOW TO CARRY, UNAIDED, AN INSENSIBLE MAN.

This question is asked by a correspondent in one of our English contemporaries. It is easy to see of what practical use the solution of such a problem would be before actually confronted with it. In battle, at a fire, in many places of danger, an individual becomes insensible, and must be immediately taken from the spot.

The London Fire Brigade teach their firemen how to do this. In a reply to the correspondent, the following description is given:

"A small platform, some forty or fifty feet high, has been erected on the roof of one of the buildings in the drill-yard. One-half of the men who are drilling go up to this platform and prostrate themselves in all kinds of peculiar attitudes, some on their backs, some on their sides, and some curled up. The other half have to go up and fetch them down single-handed. The rescuing fireman first straightens out the seemingly lifeless body of his comrade, and rolls it over onto the face. Then taking hold under each armpit, he raises the body onto his right knee, so that he can put the arm of the insensible man round his own neck. Taking a firm hold, he suddenly straightens himself up, and walks away with his burden in an upright position, and the whole weight of the other's body supported and hooked, as it were, by the arm. He has then to carry his comrade through the window as best he can, and shoot him down the escape."

Several other methods are described for the benefit of the inquiring correspondent. One is to carry the patient "pickapack." Another is to get him in a sitting posture, and for the rescuer to sit back to back with

him, and hook his arms into the patient's arms, and gradually raise himself and his load to the upright position. Still another method is described, that of taking the patient astride the shoulders, the legs having been first strapped together below the knees.

News of the Week.

A DECREE, gazetted Paris, July 8th, requires any person receiving a traveller from Spain to notify the municipality of the fact. Posts of observation are also to be created near Toulouse, Foix, and Perpignan.

FATAL TRICHINOSIS IN BALTIMORE.—Three deaths have occurred in one family from trichinosis following the eating of uncooked ham. They are said to be the first cases of the kind that have been observed in that city.

HENLE'S SUCCESSOR AT GÖTTINGEN has been found in the person of Professor Merkel, of Königsberg.

A PRIZE OF EIGHT HUNDRED DOLLARS has been offered by the Empress Augusta, of Germany, for the best portable hospital or sick-room tent for use in war and during epidemics, and will be awarded in connection with the Antwerp exhibition.

ANTHRAX IN LOUISIANA.—Charbon, or anthrax, prevails to a serious extent in Louisiana. Why not give Pasteur's protective inoculation a trial on American soil?

MEDICAL PROGRESS IN JAPAN.—A new building in Tokio, recently purchased by the Sei-i-Kwai (Society for the Advancement of Medical Science in Japan), for the purposes of a medical library and museum, was opened on March 18th, by the President of the Society, Dr. K. Takaki.

THE MEETING OF THE INTERNATIONAL CONGRESS OF HYDROLOGY AND CLIMATOLOGY, which was to be held at Biarritz on October 1st, has been postponed until the same date in 1886, in consequence of the general elections in France having been fixed for the sixteen days preceding October 14th of this year. It is not intended to make any other change in the programme.

VAN ERMENGEM ON FERRÁN.—Like Brouardel, of Paris, Dr. van Ermengem, of Brussels, is displeased with the results of his inquiry into Ferrán's mode of inoculation for cholera. Van Ermengem questioned and examined about three hundred persons who were inoculated and reinoculated. Not one of the individuals observed showed symptoms in the least suggestive of algidity. Six specimens of blood, taken twelve hours after inoculation, from the top of the first finger, were normal, and contained neither micrococci nor bacteria. In plate-cultivations in nutritive gelatine there was no development of micro-organisms. He did not observe that the slightest precautions were taken to prevent the access of particles from the air to the fluid used for inoculation. The fluid was collected in an unsterilized cup, protected against particles from the air only by an ordinary piece of paper. Even the syringes were only sterilized, as it was called, by having a little boiling water drawn through them. Dr. Ferrán neglects all the precautions that are observed in the laboratory in inoculations *in corpore vili*. The most difficult part of van Ermengem's task of investigation was as follows: He was obliged first to convince himself of the presence of comma bacilli in Ferrán's fluid-cultivations. The bacilli were rather scanty, and there were none of the forms of development that Ferrán pretends to have discovered. He saw that the cultivation-liquid of Ferrán was not very favorable to the development of the cholera-microbes, and that they speedily perished in it. Dr. Ferrán afterward took great trouble to let him see those foreign forms of the development-cycle in older cultivations which he has discovered. He showed van Ermengem, in *bouillon* that was fourteen days old and much changed in appearance, voluminous bodies of mulberry-leaf shape—five, even ten times the size of a blood-corpuscle—which he supposed to originate directly from endogenous spores of the comma bacillus! . . . Other rounded-off, but less voluminous corpuscles, which were found in the same liquid, corresponded, according to Ferrán's view, with free spores that had not developed so much. It is superfluous to say that these things are to be ascribed to impurities of quite a different origin. Van Ermengem was very much surprised to see that Dr. Ferrán is far from utilizing the perfected methods of bacterioscopy for the very delicate morphological investigations with which he is occupied; and everybody will be astonished, as he was, to hear that Ferrán has no object-glass with homogeneous immersion and Abbé's condenser, and that he omits to color the bacteria that he studies. His methods of cultivation, as far as van Ermengem is acquainted with them, are also not above criticism. He placed a series of written questions before Dr. Ferrán, the solution of which seemed to him to be indispensable before proceeding experimentally with the procedure adopted by Ferrán in producing his liquid. To his great regret, Dr. Ferrán declined to answer these questions. He sent word that the moment did not seem to him to have arrived for publishing what he calls his "secret."

LUMBAR NEPHRECTOMY.—Mr. Clement Lucas recently removed, in Guy's Hospital, a distended floating kidney, filled with large calculi, which could be felt through the abdominal parietes. The operation was performed without difficulty through the loin, leaving the peritoneum uninjured. The patient is progressing uninterruptedly toward recovery, her temperature continuing normal, as before the operation.

NEW CLINICAL INSTITUTE AT ST. PETERSBURG.—The Clinical Institute of Princess Helena Pawlowna, which has just been opened at St. Petersburg, is intended by the foundress to serve for instruction of a practical character to students of the University and of the Military Medical Academy in their last year, and to enable qualified men to work out specialties. Dr. E. Eichwaldt has been appointed Director, with charge of the Therapeutical Department. Dr. N. Monastyrski is to have charge of the Surgical Department, and Dr. A. J. Afanasieff has the Professorship of Pathological Anatomy. The Physiologico Chemical Laboratory is placed under Dr. Pöhl.

A SOCIETY OF GERMAN DENTISTS has been organized in Berlin. Its main object is the suppression of quackery in all that relates to dentistry.

Will the International Medical Congress Meet in America?—Should the arrangements for the meeting be continued under the existing strained circumstances nothing but disaster can ensue. It becomes an immediate question whether steps should not be taken for selecting another place than America as the scene of the next International Congress.—*The Medical Press and Circular*, July 22, 1885.

The most recent advices from the United States have brought the startling intelligence that there exists in the American medical profession a very serious discord concerning the next International Medical Congress. We do not propose to discuss the etiology of this rupture, for it is quite enough to be called upon to face the fact that it exists. The fact is very grave. Its existence jeopardizes, if it have not already destroyed, the probable success of the forthcoming Congress. Certainly our brethren in the States cannot expect those who have already promised to attend, and those who may expect to visit America at that time, to work with enthusiasm in the preparation of any scientific contribution while those whom they propose to visit are divided, and while wholesale secessions of the official executive and of well-known persons nominated to high offices are announced. Nor do we consider it to be either our duty or privilege to suggest a remedy for this exceedingly unpleasant dilemma. It seems to be conclusive that the profession in America at this moment is hopelessly divided on the subject. The outlook, as the matter now stands, is not at all encouraging. One committee has reorganized the work of another up to the point near that of destruction. Moreover, the work of the present committee must be submitted to the American Medical Association in May, 1886; and no one can say to what extent it may also be either overturned or modified in such a way as to seriously impede the labor necessary to be performed before the meeting of the Congress in 1887. Altogether, the position is lamentable, and there is much fear that the acceptance of the invitations to meet in the States may be withdrawn, and the next meeting of the International Medical Congress be held in Berlin or some other great medical centre, pending the settlement of the serious dissensions among our brethren of the United States.—*The British Medical Journal*, July 25, 1885.

Despite the very cheering assurances of the *Journal of the American Medical Association*, that the Ninth International Medical Congress will be conducted in the "most liberal and enlightened manner" by the "present able and judicious Committee of Arrangements," the progress of another week presents a wide-growing distrust of the recent work of the Committee at Chicago. The withdrawal of the appointees of the Committee in Philadelphia, Boston, Baltimore, and Washington has been followed by similar resignations in Cincinnati, St. Louis, Chicago, and in other localities. These declinations have come not only from the gentlemen originally appointed by the first Committee, but, in a number of instances, the appointees of the present Committee respectfully decline to hold the honors awarded them. Indeed, it seems to be quite apparent that the gifts of this Committee will go begging unless some unseen power is raised up to prop its waning fortunes. Under existing circumstances it seems clearly the duty of this Committee to abandon its work of reorganization as the most graceful and practical solution of the difficulties which embarrass it. By such a course the Committee would in no sense lose the respect of the American profession. It has been placed in a false position by the American Medical Association. It has been called upon to perform a duty which no similar Committee of the Association can perform under existing circumstances. The present status of the Congress is the result of a false and unnecessary issue which can work no good to the American profession or to the American Medical Association. Its introduction into this discussion was totally unwarranted and unjustifiable. The "Code issue" is not an issue which should be raised in the organization of an International Medical Congress. At previous meetings of the Congress all questions of medical politics have been rigidly excluded, and such should have been the case in the organization of the present Congress.—*Maryland Medical Journal*, August 1, 1885.

The Cholera in Spain.—The National Board of Health publishes the following figures: Cholera in Spain from March 4, date of reappearance, to July 4. 1885.

Province.	Cases.	Deaths.	Per cent. of mortality.
Alicante	1,588	646	40.6
Castellon	2,617	1,277	48 8
Cuenca	78	40	51.3
Madrid	1,700	753	59 2
Murcia	6,007	2,319	38.6
Taragona	31	19	61.2
Teruel	12	5	41.6
Toledo	455	207	45.5
Valencia	14,928	6,851	45.5
Zaragoza	628	280	44 7
Totals	28,044	12,347	....

The Composition of Kentuckians.—The last census reports show that the men and women of Kentucky are the tallest in the world, owing, we doubt not, to their good doctors and the blue-grass whiskey, which reminds us of the observation of an acute physiologist, who says that man is composed of one part solids and two parts water, unless he is born in Kentucky.

Mr. Erichsen's Political Candidature.—Mr. Erichsen is the Liberal candidate for the representation in Parliament of the Universities of Edinburgh and St. Andrews. The *British Medical Journal* says that the presence in Parliament of a certain number of members of the medical profession, accustomed to consider social questions such as those which urgently call for treatment in the next House of Commons, is very generally felt. Mr. Erichsen's return will largely depend upon the efforts of his medical friends and the support of the medical voters generally.

Students of the Berlin University.—The number of students matriculated at the Berlin University this term exceeds that hitherto attained in any preceding term. In the summer of 1873 there were only 1,590 students on the books; in 1880, the number amounted to 3,365; and this year it has reached 5,465. Comparing the figures in the Faculty of Medicine, we find 340 inscribed in 1873, 924 last year, and this summer 1,072. There are 11 students from Great Britain, and 89 from America.

Small-pox is on the increase in Great Britain.

Indian Munificence. — Maharani Surnamayi, of Cassim Bazaar, Moorshedabad, one of the millionaires of Bengal, and already well known for her munificent liberality, has given a lakh and a half of rupees toward the scheme for providing separate classes for female medical students at the Calcutta Medical College, and has promised to increase the gift to eight lakhs should a separate college be provided.

The Use of Chloroform.—In Dr. Pean's clinic, in Paris, chloroform is given with perfect safety by using an instrument which insures eight per cent. of chloroform to the air breathed. The great danger in administering chloroform is the shutting out of the necessary amount of air.

The Cholera Spreading.—It is certain now that cholera has appeared again in France, not only on the northern slopes of the Pyrenees but also in the city of Marseilles, where the mortality is from 15 to 20 a day. The daily mortality in Spain is probably not less than 1,500. It will be well for our quarantine authorities to be on their guard against all vessels arriving from Spanish or French ports on the Mediterranean. They should also be well informed about the sanitary condition of Cuban cities. News from Havana shows that while the inhabitants of that city well know that they are in danger very little has been done to prevent the introduction of cholera at that port.

The *Times* correspondent telegraphs from London, under date of August 4th, concerning the cholera in Marseilles, that the local authorities in their efforts at secrecy had decided not to open the Pharo Hospital, but two special emergency wards were fitted up in the Conception. This latter hospital is now crowded with more than twenty patients, mostly serious cases. It being dangerous to keep longer in the same hospital persons sick with other diseases, the Pharo will probably be opened to-day or to-morrow. The cases are far more serious than those of last year. The heat has been prolonged and intolerable, and the sanitary condition of the city is worse than then. There is every reason to expect greater ravages. Opinions differ widely regarding the cause of the outbreak. The common theory, that the disease was brought by Spanish refugees, is not borne out by the facts. Not one of the great host of these has died or been attacked. The doctors generally agree that either the heat developed latent germs from last year or that the disease spread from the troops at Pas de Lanciers, where there are in camp ten thousand men, and whence an average of eighty patients has been daily sent to the military hospital in Marseilles during the past fortnight—ostensibly cases of typhoid fever, but suspected to be really cholera. There is great indignation against the officials for their bungling, harmful attempts at concealment, and among the better classes at the fearful condition of the town. The issue of official bulletins will begin as soon as the Pharo is opened.

A dispatch from Marseilles, dated August 5th, says that M. Legrand, Minister of Commerce, bitterly upbraided the municipal authorities for neglecting to improve the sanitary condition of the city after the warning they received last year. The Pharo Hospital has been opened. Officers who have returned from China say the cholera is raging there, and that Admiral Courbet died from that disease. Thirty persons died of cholera here yesterday. Death follows soon after the victims are attacked. The municipal authorities are inactive and refuse to give any information as to the number of deaths. The cholera panic is increasing. Many persons are fleeing the city in dread. Over four thousand new cases of cholera were reported in Spain on August 4th. Reports from Paris say that the disease has reappeared there.

An Epidemic in an Indiana Village.—At Porter Station, a village of some three hundred inhabitants, an epidemic is reported to have broken out. The doctors appear to be unable to ascertain its true nature. The people of the village are mostly Swedes, of cleanly, thrifty habits, and until the present epidemic broke out among them they have been remarkably healthy. As uncontrollable vomiting and diarrhœa are the most prominent symptoms, the disease is probably an endemic of cholera morbus produced by tainted food, and not the mysterious epidemic which it is reported to be.

Ferrán Snubbed by the Paris Academy.—The Paris Academy of Medicine has refused to allow a long letter from Dr. Ferràn to be read before the Academy, thus virtually stamping him as an impostor.

The Siberian Plague.—It is stated that the "Siberian plague" has made its appearance in three different villages within the immedate neighborhood of Odessa. Among Russians cholera has comparatively slight terrors to those aroused by the presence of this disease, which is alike loathsome, fatal, and terribly contagious. The abnormally hot summer, such as has not been experienced during the last six years in the south of Russia, is propagating in an alarming degree many epidemics.

Suffering among French Troops in China.—Reports have reached Paris to the effect that the troops at Tonquin are suffering from "impaludism," and particularly pernicious fever, which latter is committing great ravages among the soldiers. By the last mail the total number of deaths was put down at about 100. Contrary to what has been stated in the political papers, the number of cases of typhoid fever is not greater, all things considered, than in the garrisons of France.

Poisoning from Ice-cream.—Telegrams from Rome state that two hundred persons have been poisoned through eating the ice-cream sold by an ambulant vendor of Riposti in Sicily, on the occasion of a local holiday.

The Opium Trade.—The opium treaty between England and China has been formally ratified at the Foreign Office. The chief points in the treaty are the abolition of inland barriers for opium and the adoption of a uniform tax.

The Illinois State Board of Health is now engaged in revising the "Official Register of Physicians and Midwives." Any notification of changes, omissions, or errors will be regarded as a favor, as the Board wishes to make the coming register as correct as possible. Address Secretary State Board of Health, Springfield, Ill.

A French Hospital in Yokohama.—A French hospital has recently been founded at Yokohama. It is specially intended for the sick and wounded of Formosa. About a hundred soldiers have already been treated there, exclusively by French physicians.

Gerhardt to be Frerichs' Successor at Berlin.—It is now definitely settled that Professor Gerhardt, of Würzburg, will succeed to the chair of clinical medicine at the University of Berlin, made vacant by the death of Professor Frerichs. Professor Leyden will also continue in charge of his medical clinic. Both clinics will henceforth be maintained on a basis of complete co-ordination. The former designation of first and second medical clinic is to be dropped.

One Doctor Sues Another.—Dr. George P. Bartlett, one of the Board of Pension examining surgeons, of Boston, has brought suit against Dr. E. N. Whittier for $10,000 in an action for libel, and has caused Dr. Whittier's property to be attached. The libel consists of charges against the character of Dr. Bartlett, including statements that he was implicated in the Dr. Azel Ames case, and that he was discharged from the position of medical examiner for the Travellers' Insurance Company, at Woburn, because of being a party to attempts to swindle the company by practising graveyard insurance. Dr. Bartlett has retained General Butler and Mr. Washburne as counsel.

Trained Nurses for Rheims.—A school for the instruction of male and female sick nurses has just been founded at Rheims. The courses of instruction will commence in October.

Charity Hospital.—Dr. Charles W. Allen has been appointed a member of the Medical Board of the above institution, vice Dr. H. G. Piffard, resigned.

HOW CAN THE WASHINGTON INTERNATIONAL CONGRESS BE RESCUED FROM FAILURE?

An Open Letter.

To Dr. John V. Shoemaker, Secretary of the Committee of the American Medical Association for organizing the Ninth International Medical Congress at Washington in 1887.

Dear Sir: Having been appointed by the committee of which Dr. Billings was chairman to be the president of the Ophthalmological Section of the International Medical Congress, to be held at Washington in 1887, and having accepted its duties and begun to perform them, I think it becoming that I should report to the committee which has superseded the one from which my commission came, what I have done, and state my views upon the method of conducting the proposed Congress which the American Medical Association adopted at its last meeting in April and May. This method is a signal departure from the original plan, and I must avow that with its conspicuous and essential features I cannot concur, and I think it my duty to declare myself openly both to the committee and to the medical profession.

I attended the Congress at Copenhagen in August, 1884, and entered heartily into the scheme for bringing the next meeting to the United States. In September following I attended the annual meeting of the Ophthalmological Congress at Heidelberg, and at their banquet I publicly urged the members to join us in the Congress at Washington. I also took occasion, in private intercourse, to present this invitation to many ophthalmological colleagues. In December following, while living in Switzerland, I received notice of my appointment as President of the Ophthalmological Section. From that time I officially called attention of medical men to the subject in various cities of Germany and Switzerland, in Paris, and in London. I found a ready and enthusiastic response in favor of coming. I also discussed, with some distinguished men, the topics in ophthalmology which should have special consideration, and some of them agreed to prepare papers on particular subjects to be read at Washington.

The International Medical Congresses, of which the last two were held in Copenhagen and in London, are composed of persons who come together as individuals, not representing societies nor universities, but simply as individuals who have a common interest in scientific and practical medicine. Each Congress is an aggregate of units, *not an assemblage of delegates*. It has power to perpetuate itself, and it recognizes no other organization. The medical men of the city and country where it meets combine together in a suitable organization to prepare for its accommodation, both in reference to its business and to its social entertainment. They unite as organizers and hosts. When the Congress has adjourned and the transactions are issued, their organization is disbanded forever. They do not pretend to any power to decide who shall be members of the Congress, either domestic or foreign. For proof of these statements it is only needful to make inquiry of the leading men of the Congresses in Copenhagen and in London. When, as a private individual, I invited my colleagues at Heidelberg, and when afterward in my official capacity I pressed other medical men in other places, to come to us in 1887, they necessarily assumed that in the United States the Congress would be of the same composition and formed on the same basis as were the previous eight Congresses held in Europe. They had also been told by the committee of invitation at Copenhagen that if they came they would have a national greeting, and be the guests of the whole medical profession of the United States. By its committee the American Association declared that it simply assumed the honor of speaking the words of invitation, which were intended to voice the welcome of the whole profession of the country. At Copenhagen, and among all with whom I have had intercourse on this subject since that meeting, I know that this has been the understanding. In the list of officers chosen by the committee of which Dr. Billings was chairman I recognized this broad and liberal spirit. At the same time, in the rules adopted, the principle of delegate membership was introduced, and made applicable only to American members. This circumstance was pointed out to me by European physicians as something new and strange. This infraction of previous custom has opened the way to mischiefs which have followed. The idea of delegate membership was stringently pressed at the last meeting of the American Medical Association. It was also declared that only members of this Association and of such other bodies as it deemed to be in affiliation with it should participate in the Congress. As a result of this decision the committee of organization was reconstructed, and in carrying out the manifest wishes of the Association, it dropped from the lists of officers the names of certain men. The men thus held up to obloquy were not declared to be unfit because of lack of capacity, or because of deficient scientific attainment. They were simply distasteful to the feelings of a majority of the Association. They had been more or less conspicuous in a recent controversy, whose embers were smothered but not extinguished. The marked distinction conferred upon the medical gentlemen, who by being lopped off have been held up conspicuously to the view of Europe and the United States, may have been meant to be retributive. I trust that the sober second thought of the American

Medical Association will realize that if by putting these gentlemen into their present position any disgrace has been incurred, it certainly does not attach to them.

For my part, I cannot acquiesce in a policy which leads to these results, nor can I do violence to my sense of right by abetting such exclusions. If the intrusion of the delegate idea into the Washington Medical Congress is an unwarranted innovation, and subversive of the previously uniform composition of the International Medical Congresses, we have the strongest reason to rectify our course when we see that the outcome of it has been to cast reflections upon men who are among the brightest lights and best workers in the profession. The baleful influence of this course is beheld in the numerous withdrawals from appointments to office, and from participation in the Congress, which have since taken place.

But it may be thought that enough able men will remain to present a sufficient and capable body of American physicians to welcome our European friends. *Are we likely to have any European guests under existing circumstances?*

Read late numbers of the London medical journals, which naturally are the first to take note of American events. Especially peruse an article from the *London Medical Times and Gazette* of July 17th, which was sent to me by the editor when I left Queenstown on my return home. Its important parts have appeared in the New York Medical Record and in the *Philadelphia Medical News* of August 1st. The whole article is reprinted in the *New York Medical Journal*, August 1st, p. 139. It recites the facts to which I have referred; and its comments, pungent and stinging, will not be flattering to our pride. It is entitled, "The Washington Congress in Danger." It points out that the "danger" arises from the maintenance of old controversies and of old ill-feeling. I quote this pregnant sentence: "*We feel sure that a very large majority of English and Continental practitioners will refuse to cross the water if this understanding* (not to raise the Code question) *is not rigidly kept to.*" We know that it is not easy to persuade the medical men of Europe to cross the sea to attend a meeting. Most certainly their reluctance will become refusal, if they are to be landed in the midst of contentions, and are cut off from seeing many of the physicians whom they would expect to meet. They, like all gentlemen, shrink from complicity in broils, however ready they may be to enter into scientific debate. We shall shut out invited guests by closing the doors against our own brethren with whom we differ on matters absolutely irrelevant to the purposes of the Congress.

As an illustration growing out of my own endeavors, let me refer to the ophthalmological section. In the printed schedule of March 24, 1885, I find my name as president (page 21) associated with two eminent men as vice-presidents, and with thirteen other gentlemen as a council, who are not less eminent. They represent all sections of the country except the Southwest, and this omission I pointed out to the committee. The changes made by the present committee (see New York *Medical Journal*, July 4th, p. 19), are as follows: One of the vice-presidents is made president—and I cheerfully accord to Dr. E. Williams, of Cincinnati, the right of precedence, because he is the veteran scientific ophthalmologist of the country—my name comes first among the vice-presidents, and there are two others associated with me, both of them distinguished, viz., Dr. Thomson, appointed by the former committee, and Dr. Holmes, of Chicago, newly appointed.

Instead of thirteen members in the council, the new committee have appointed nineteen, and they omitted to reappoint Drs. Agnew and Knapp, of New York, and Dr. Jones, of Chicago, who were upon the council appointed by Dr. Billings' committee. Can any men among us be found of more distinguished merit than they? All are professors in well-known medical schools. The first two are in the front rank the world over, and Dr. Jones needs no praise from me. Was the reason for the rejection of these men one which the committee would like to publish in Europe? What has since followed is most painfully suggestive. Of the officers in the ophthalmological section appointed by the new committee, the following have to this date, August 1st, declined to serve, viz., the president, Dr. E. Williams, of Cincinnati; the second vice-president, Dr. Thomson, of Philadelphia; the secretary, Dr. Burnet, of Washington; of the council, Dr. H. Derby, of Boston; Dr. Norris, of Philadelphia; Dr. Theobald, of Baltimore; Dr. Wadsworth, of Boston; Dr. H. W. Williams, of Boston, and Dr. W. W. Seely, of Cincinnati, have resigned. That is, nine officers have withdrawn, and three who had been officers, were cut off. I declare freely that without these men the ophthalmological section will be robbed of its brightness. But the whole has not been told. The American Ophthalmological Society, at its late meeting, passed the following resolution by a vote of 24 to 12.

"*Resolved*, That it is the sense of the American Ophthalmological Society that the action of the American Medical Association at its late meeting in New Orleans, and of the enlarged committee appointed at that time to make arrangements for the International Medical Congress, in overturning much of the carefully planned work of the original committee appointed at Washington for the same purpose, was unwise and not to be defended, unless, possibly, upon technical grounds; and this Society hopes that none of its members will indorse the action of the enlarged committee by accepting official positions at its hands."

Not intending to assume that there are not many competent ophthalmologists in the country who are not members of this society, it is self-evident that under existing conditions the Washington Congress can have only the ghost of a section of ophthalmology. With the excisions and withdrawals of our ophthalmologists and of other medical men can we still offer inducements powerful enough to bring to us the men we want from Europe? Can I explain to my confrères in Germany, Switzerland, Paris, and London, who expressed their intention of coming and who loaded me with hospitalities—can I account for these withdrawals and exclusions in any way which will not bring disgrace upon our medical profession?

The situation is profoundly critical and failure is certain unless an absolute reversal of the present policy is quickly effected. The delegate idea must be abolished. The pledges given at Copenhagen must be carried out in good faith to the letter. This means that men who have been treated with indignity must be invited back. To do this is not pleasant to human nature, but it is manly, and it is imperative. The Congress must be free to all physicians of honorable standing. Better to have a sprinkling of unworthy men, or of irregulars, than to persist in the mischievous and suicidal course now causing disintegration. Nor can we long delay. To wait until next May is to multiply difficulties and aggravate evils. The officers of the American Medical Association and the new committee should take the responsibility of such measures as will be radical enough to restore confidence, to bring back harmony, and to counteract the distrust which will spread through Europe most rapidly and be counteracted very slowly. I have at present nothing to say about the course which I shall pursue. I have striven sincerely for the success of the Congress and I make this effort also in its behalf.

I remain your obedient servant,

Henry D. Noyes, M.D.

233 Madison Avenue, New York,
August 1, 1885.

Don't Roll Manuscripts or Periodicals.—This excellent bit of advice is at present being circulated, and the wider it goes the better.

Reports of Societies.

British Medical Association.

FIFTY-THIRD ANNUAL MEETING,

Held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1885.

(DIRECT CABLE TO THE MEDICAL RECORD.)

(Continued from page 132.)

THURSDAY, JULY 30TH—THIRD DAY.

AFTER a meeting of the Council at 9.30 A.M., the Third General Meeting was held in the Assembly Hall, and the

ADDRESS ON SURGERY

was delivered by MR. JOHN MARSHALL. The speaker undertook a comparison of the surgery of 1843 with that of 1883, and made especial mention of the methods employed by Mr. Liston at the former period. He said that epithelioma was more common in hospitals now than forty years ago, but he would not have it inferred that this proved an increase in that disease. On the same principle it might be claimed that strictures were more common now, since they were oftener seen by hospital surgeons. He spoke of Liston's skill in operating and the wide range of its application, operating for strabisums, staphyloma, and cataract.

Septic diseases were much more common forty years ago. Accuracy in physical examination was less, there being no laryngoscopes, ophthalmoscopes, thermometers, sphygmographs, etc. Still, the urine was carefully examined for albumen, the breathing, the pulse, and other objective symptoms noted with even more care, perhaps, than now. Though the microscope was but little used, yet cancerous tumors were correctly diagnosticated. Forty years ago very much less attention was paid to the hygiene of the patient, the wards were crowded and ill-ventilated, the closets were not separated from the wards, and the drains not trapped. The diet, also, was much worse. Along with modern improvements the cost of treating the individual patients was increased. The practice of antiseptics, especially, was an expensive one. In the University Hospital this item alone amounted to over $6,000 a year. On the other hand, the stay of patients in hospitals was shortened. Among the striking contrasts between the treatment of 1843 and 1883 was that of simple fractures. These, which used to be leeched violently, are now simply put up in starch-dressings. Inflammatory strictures used to be much leeched. Ulcers of the leg were treated with water-dressings. The use of iodide of potassium for periostitis, so much advocated now, was then just beginning. Many cases of bone caries from syphilis were observed, and some of these cases died. Mr. Liston's particular pride was in his plastic operations. In those days few wounds closed by first intention. Erysipelas and pyæmia followed the best operators. Hygiene was forgotten, and patients were dosed with mercury. Anæsthetics now encourage many more patients to undergo operations than was formerly the case.

At the close of the address Mr. Erichsen moved a vote of thanks, which was adopted.

The reports of the Council on Medical Reform and on Parliamentary Bills were presented.

In the

SECTION ON MEDICINE

papers were read by Dr. F. W. Pavy on "Cyclic Albuminuria (Albuminuria in the Apparently Healthy);" by Dr. E. Markham Skerritt on "Cases Illustrative of Rupture of the Pulmonary Air-vesicles;" by Dr. J. Tatham on "The Registration of Cases as carried out at the Hospital for Chest Diseases and Consumption, Brompton, and the Investigations Proposed to be Specially Worked Out;" by Dr. W. R. Thomas on "A Few Remarks on the Influence of Malaria on the Progress of other Diseases;" by Dr. S. Wilks on "A Case of Simple Stenosis of the Œsophagus, with a Specimen," by Mr. Lockhart Stephens on "A Rare Form of Congenital Heart Disease;" by Dr. C. R. Drysdale on "The Treatment of Syphilis and the Alleged Prevention of Tertiaries," and on "The Hygienic Treatment of Syphilis."

In the

SECTION ON SURGERY

MR. FREDERICK TREVES introduced the subject of

OPERATIVE INTERFERENCE IN INTESTINAL OBSTRUCTION.

The discussion which followed was shared in by Mr. Greig Smith, Alfred Eddowes, A. W. M. Robson, Mr. Pughe, and Dr. Cousins.

Papers were read by Mr. Robson on "A Case of Enterectomy for Acute Intussusception, also a Series of Surgical Cases illustrating the Use of the Eucalyptus-air and Dry Dressings;" also by Mr. E. Stanmore Bishop on "Enterorrhaphy, with a Description of a New Suture;" by Mr. Edward Owen on "Caries of the Cervical Vertebra;" by Mr. H. L. Snow on the "Non-heredity of Cancer;" and by Mr. C. B. Keetley, on the "Radical Cure of Hernia by Injection."

FRIDAY, JULY 31ST—FOURTH DAY.

In the

SECTION ON PUBLIC MEDICINE

an address was delivered by the President, MR. T. J. DYKE, in which he dwelt upon the remarkable progress which sanitary science had made, especially with reference to our knowledge of disease-germs and the methods of destroying them. The thanks of the Section were voted, on motion of Dr. Paine, seconded by Dr. Drysdale.

In the

SECTION ON MEDICINE.

the reading of papers was resumed by Dr. Sidney Coupland on "Gangrene of the Lung;" by Dr. T. D. Griffiths on the "Causes of the Localization of Tubercle in the Apex of the Left Lung;" by Mr. A. J. Harrison on "A New Method of Treating Tinea Tonsurans;" by Dr. Prosser James on "Pancreatic Digestion."

In the

SECTION ON SURGERY

further papers were read, by Mr. Bernard Roth on "Two Hundred Consecutive Cases of Lateral Curvature of the

Spine treated without Mechanical Supports;" by Mr. J. Brindley James, on the "Treatment of Lumbago and Rheumatic Pains by his Special Percuteur;" by Dr. C. B. Ball on "Melanotic Sarcoma of the Rectum;" by Dr. Hugh Miller on "Two Cases of Recurrent Placenta Prævia;" by Mr. T. E. Cahill on "The Latest Surgical Dressings."

In the

SECTION ON OBSTETRICS

the subject of the "Mechanism and Treatment of the Third Stage of Labor" was introduced by Dr. Berry Hart and discussed by the members. Papers were then read by Dr. J. Braxton Hicks on "A Condition of the Inner Surface of the Uterus after Delivery of the Child of Practical Importance." Mr. G. Padley reported a case of acute abscess of the unimpregnated ovary, with recovery by absorption; also a case of accidental rupture of an ovarian cyst, with recovery without reaccumulation.

Papers were also read by Dr. Barbour and Mr. Davies.

In the

SECTION ON PUBLIC MEDICINE

Dr. S. H. Wright made some remarks on the present management of the Medical Service, and papers were read by Dr. Roberts, Dr. Drysdale, and Mr. James.

In the

SECTION ON THERAPEUTICS

a discussion was held on anæsthesia.

At the last general meeting the reports of the various committees on Collective Investigation, Scientific Grants, and Habitual Drunkards were read.

There were about five hundred members present.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 27, 1885.

John A. Wyeth, M.D., President, in the Chair.

(Continued from p. 110.)

POTT'S DISEASE IN A CHILD FIVE YEARS OF AGE, WITH NECROSIS OF ALL THE PRINCIPAL LONG BONES.

Dr. William Perry Watson presented a specimen in which the curvature cervico-dorsal was at nearly a right angle, and yet no symptoms of paralysis. Death from pneumonia.

Gertie S——, aged five years and two months. Her mother was an American and her father a Spaniard. There is no specific history in either. Gertie was bottle-fed. Her first tooth appeared when she was one year old, and her mother says the anterior fontanelle closed about that time. She walked when eight months old. When she was about one year old, a swelling about half the size of an orange appeared on the inner aspect of the lower third of the right thigh. This is said to have entirely disappeared under the use of poultices. From the time she was able to sit up until she was two years old she was accustomed to sit on a counter in a store, by the window, day after day, and look at the passers-by. The lower limbs did not hang over the counter. Her mother thinks the curvature of the spine was produced by this prolonged position, as it was about this time that she first noticed the kyphosis. The mother is quite positive that she never received any injury either from a fall or a blow.

About two years ago she was brought from Syracuse to Jersey City, and came under my observation. At this time the curvature was very marked and could be quite, if not wholly, obliterated by extension and counter-extension. There was also a cold abscess on each wrist-joint, and one on inner aspect of lower third of right thigh. She was walking well and showed no evidences of paralysis. Stillman's backward-traction apparatus was applied, and worn, to her marked relief, for about two months, when a synovitis of the right knee-joint prevented her from walking. In March, 1884, she was admitted to the Daisy ward (for sick children) of Christ Hospital. In June following, she was placed in Meigs' case apparatus, by which she was made more accessible to the fresh air, which, together with cod-liver oil and iron, made a very marked improvement in her general condition. In October following, the right knee-joint with lower third of femur was exsected, as well as the lower third of right radius.

The amount of reparation taking place in six months is shown in this specimen.

In this portion of the vertebral column the absorption of the bodies of the fifth, sixth, and seventh cervical, and first and second dorsal vertebræ is very marked.

The small amount of compression of the cord for so marked a curvature is remarkable.

Dr. J. F. Ridlon had in two cases applied traction according to the method proposed by Dr. Brown, that of putting the child in bed and making counter-extension from the pelvis and shoulders by some fixed apparatus attached to the bed, and by weight and pulley when the lesion was high up. In one case the deformity was removed entirely in two weeks. In the other case the treatment was continued two months, when it became necessary to apply Taylor's instrument. He had been very favorably impressed with this method where considerable deformity seemed to be maintained by muscular spasm rather than by disease of the bone.

The President said that extension in the dorsal decubitus had proved satisfactory in one case under his observation, that of a man twenty years of age, in whom the third, fourth, and fifth cervical vertebræ were involved with partial subluxation. He had paraplegia, which was relieved completely until the patient became restless and uneasy, and the parents removed him from the hospital.

Dr. L. H. Sayre had seen some cases in which the patients had been kept for a long time upon the back without extension, and the deformity had steadily increased. He had seen a number of cases benefited by the same treatment which had been mentioned by Dr. Ridlon and Dr. Wyeth, that is, by extension in the horizontal posture. In small children, where the pelvis is not sufficient to give the required support, he had been in the habit of keeping the patient for some time in a wire cuirass with a jury-mast, and in this way had been able to make traction sufficient to relieve the symptoms and permit of the child being taken out into the open air.

The President remarked that when he first heard of Meigs' case apparatus he visited him and spent several days in examining it, and was very much pleased with its use, especially where the head was suspended, particularly for high deformities. He thought it was not so well adapted for the lower deformities.

Dr. Ridlon asked concerning experience of the surgeons present in the use of chin-pieces—if any had been annoyed by the pieces slipping back and cutting the trachea.

Dr. Sayre remarked that the trouble with chin-pieces, as ordinarily made, was that they did not fit the chin. Often the cup was not sufficiently deep to prevent it from slipping back, and that it was necessary for the chin-piece to be made specially for each patient, and that its fit should be supervised by the surgeon, and not by the instrument-maker.

Dr. Watson also presented a specimen which enabled him to give the history of a case in which there were

THREE SINGLE AND FOUR TWIN PREGNANCIES IN SIX YEARS.

Mrs. C——, English, aged twenty-eight, married six years, a robust healthy woman, was admitted to Christ Hos-

pital on May 21st with bilateral laceration of the cervix. Gave a history of six pregnancies, two children living. In the first she miscarried at the sixth month with twins; in the second she went to full term with one child; in the third she miscarried at the third month with twins; in the fourth she miscarried at the fourth month with twins; in the fifth she went to full term with one child, and in the sixth she miscarried at sixth week with twins. When admitted to the hospital she stated that she had menstruated on March 27th and on May 1st, and normally. On May 21st the right side of cervix was closed with two sutures, and the left with four, after which the sound was passed into the body of the uterus. The case progressed favorably, and on May 25th all the stitches were removed, soon after which there was some hemorrhage which was thought to come from the track of a suture, although both sides were still coaptated. In the evening she had labor pains, and during the night expelled the fœtus shown. Examination to-day, the 27th, shows the right side of cervix closed, while the left side is in about the same condition as previous to the operation. In this pregnancy, making the seventh in six years, she miscarried at sixth week with one. That all these miscarriages were not induced, excepting the last, where there was no reason to expect impregnation, is believed by the medical attendants, and yet their course is not apparent. There is no specific history either in the patient or her husband.

Dr. C. C. Lee said he had been very much interested in what Dr. Watson had stated concerning the patient with unusual fecundity. In a case which exhibited such extraordinary fertility it was almost impossible to avoid such an error, and doubtless many such cases occurred without ever being reported.

Dr. Watson said that the only sign which was even suspicious was the fact that the uterus was deeper than normal after sewing up the cervix and introducing the sound. But there was no evidence whatever of the nature of the case until four days after the operation and the introduction of the uterine sound.

Dr. W. P. Northrup presented a microscopic slide illustrating

INTRAMENINGEAL HEMORRHAGE.

A child, aged forty-four hours, was born in New York Foundling Asylum. Forceps; presentation vertex; labor accomplished after a long, hard pull; suspended animation, recovery; crying, convulsions for twenty-four hours; death.

Autopsy, April 7, 1885.—Body: Eight pounds, no abnormalities. Brain: Meningeal hemorrhage, blood over all circumference except anterior superior portion, most in posterior and middle fossæ; none in ventricles. Hemorrhage about beginning of cord; none in substance of brain. Lungs: Posterior portion of both firm, red, sink in water; anterior lighter in color, softer, aerated; there is found to be hemorrhage into the tissues everywhere—into alveoli, into septa, into connective-tissue about vessels. Kidneys: Hemorrhage into suprarenal bodies, and about right kidney; none into the organ.

The specimen under the microscope shows the hemorrhage into the pia mater. The blood is in the membrane—intrameningeal. The specimen shows the outer layer of the pia mater widely separated, the inner layer lying against the brain substance, the space containing blood.

Running down into the brain is a sulcus in which the pia mater is separated into two layers, and between them is blood. An artificial injection of the lymph-spaces has been well accomplished by rupture of the fine vessels of the membrane itself.

Dr. Northrup also presented a specimen with the following history:

DIPHTHERIA (CROUP)—PNEUMONIA—INTERSTITIAL EMPHYSEMA—CONVULSIONS.

Female, three years five months of age, inmate of New York Foundling Asylum, became croupy ten days before death. On autopsy an exudate of pus and fibrin was found in the larynx. Emphysema (interstitial) in the anterior lip of one lung, and a small mass of pneumonia of posterior portion.

Child had suffered from severe dyspnœa and died in convulsions.

The specimen is an antero-posterior section of the whole lung, showing emphysema and pneumonia. It also shows one of the uses of *celloidin*. The whole half lung, including the root, is one firm mass.

Dr. C. C. Lee remarked, concerning Dr. Northrup's first specimen, that he had no doubt that accidents of this kind occurred very much more frequently in cases where children were delivered with forceps than was usually supposed in the absence of autopsy. He then mentioned a case which he saw in consultation, and in which the head of the child had been dragged directly against the arch of the pubes with the forceps, and in which it was delivered with the use of only a moderate amount of force when the position of the woman was changed so as to correct the inclination of the pelvic contents. The child was resuscitated and its head was carefully examined, and there was no depression or evidence of fracture, but within thirty-six hours, having been quite well up to that time, it gave evidence of clonic convulsions, and died within a few days with symptoms of increasing compression, without the evidence of depression of the cranial bones.

Dr. John F. Ridlon presented a specimen of

THROMBOSIS OF THE LEFT CORONARY ARTERY—INTERSTITIAL MYOCARDITIS—FATTY DEGENERATION WITH DILATATION OF THE HEART,

accompanied by the following history: A man, about fifty-five years of age. General health always good, with the exception of dyspeptic symptoms, from which he had complained for twenty years. It was his custom to dine moderately about six, drinking a pint of light red wine, and take a light lunch with a glass of wine just before bedtime, between eleven and twelve o'clock. Two hours later he would wake up with a fluttering at the pit of the stomach and a peculiar anxious feeling, which would keep him awake two or three hours. Indiscretions in diet and mental worry would aggravate this condition. At times he was free from it. The patient came under my care three years ago. I believed the symptoms to be dyspeptic, but found no result from treatment extended over many months. I several times listened to the heart-sounds but detected nothing abnormal. I last saw him professionally about eighteen months ago, since which, up to his last illness, he was in unusually good health and did not require the advice of a physician. On the morning of April 30th he was in his usual health and went out to visit his pupils. About noon he felt some distress in his stomach, and went into a drug store and took a little bicarbonate of soda in some Vichy. Soon afterward he felt faint, and vomited. He was taken in charge by Dr. A. P. Dudley and taken home. He complained of pain about the pit of the stomach (or heart), and the pulse was very weak. Dr. J. H. Emerson saw him in consultation, but I do not think a diagnosis was arrived at. At about 3 P.M. the pulse stopped, and Dr. Dudley, believing him dead, left him. A few minutes later, however, he revived, and was seen by Dr. C. C. Lee, who gave some brandy by hypodermatic injection. Later Dr. Huntington Richards was called, and him I found on my arrival at 5 P.M. The pulse was very small and weak; the skin was covered with cold perspiration; he tossed about the bed and moaned, holding his hand over the pit of his stomach and heart to locate the pain. A soft, blowing murmur could be heard with the first heart-sound, and was very suggestive of the so-called anæmic murmur. He was given brandy and digitalis hypodermatically, and a blister put over the heart; and he had cracked ice and Vichy. The condition improved, but the pain continuing six drops of Majendie's sol. morph. was given. From

then he no longer complained of the pain and dozed at times. At 7 P.M. there was vomiting, the patient insisting upon going to the stationary basin, being able to walk unaided. At 11 P.M. the heart's action was stronger, the skin drier and warmer, no complaint of pain, and patient sleeping most of the time. At 3 A.M. he asked for and took a cup of beef-tea, but soon vomited it. At 7 A.M. he professed himself much better and got up for a glass of water. At 7.30 he was found dead. The autopsy was made by Dr. Frank Ferguson thirty-two hours later. The body was rigid (it had been on ice) and well nourished. There were a few adhesions between the lungs and the chest-wall. A small mass of tubercle was found at the apex of the left lung. There was some congestion in the posterior portion of both lungs, but little œdema. The heart was very large; it seemed almost large enough to put a normal heart inside of it; there was some roughening of the valves of the left heart, but nothing to cause insufficiency except the dilatation. In the left coronary artery, about an inch and a half down, was found a clot completely plugging the vessel for half an inch; the muscular tissue of the heart beyond this was deeply congested. A certain amount of interstitial myocarditis was found. The stomach seemed very nearly normal but contained about four ounces of blood. The liver, spleen, and kidneys were all enlarged and pale. Dr. Ferguson will report on the microscopic appearances.

MULTIPLE ABDOMINAL TUMOR—FIBRO-CYST OF THE UTERUS.

DR. C. C. LEE presented a specimen which consisted of the uterus and a multiple abdominal tumor. They were removed from a quadroon, married, and twenty-six years of age. When Dr. Lee saw the patient first she stated to him that she had some obscure tumor in the abdomen; that she had consulted several doctors, all of whom said that it was not due to pregnancy, she believing that she was pregnant. The patient was extremely feeble, was naturally a delicate woman, and was in a condition which rendered her very unfavorable for an extensive surgical operation. Dr. Lee diagnosticated an ovarian tumor, although he had never seen a pure ovarian cyst in this race. She entered his service at the Woman's Hospital where he attempted to remove it, and found that the growth involved the uterus, and that he evidently had to deal with a multiple tumor which had begun probably as a fibro-cyst and undergone colloid and partial cystic degeneration. At one point there was evidence of dermoid complication, as there were found a few hairs and slight bony formation. The operation necessitated the removal of the uterus, which was done in the usual manner. Although the patient was very feeble she had not yet had any bad symptoms. To be sure she had not yet passed through the most dangerous period for the development of septicæmia, that is from the sixth to the tenth day, yet there had not been a single trace of evidence looking toward the development of this complication. The specimen illustrated, first, that multiple tumors occurring in the negro race were very apt to be fibroids or fibro-cysts, and, second, that even in a feeble woman it was unjust not to give the patient the benefit of the doubt of a surgical operation.

EXCISION OF THE HIP-JOINT.

DR. L. H. SAYRE presented the remains of the head of the femur, together with the débris taken from the ilium in a case of morbus coxarius, accompanied by the following history:

Florence S——, aged eight years, of Wichita, Kas. Mother has always enjoyed moderate health; father's health poor, several of his family dying of consumption, himself being also somewhat affected, being unable to follow his calling, that of a physician, and compelled to seek other employment.

This little child is the only one the mother has ever borne, and has always been weakly, its birth occurring prematurely between the seventh and eighth months.

She first commenced to complain of her knee when she was not quite three years of age. Previous to this the grandfather had noticed that the child seemed weak in her lower extremities, and advised them to put her in short clothes as soon as possible so that she could move her legs more freely.

This pain in her knee went on during all the summer. The family physician, although afraid of hip disease, confined his treatment to constitutional measures. In October of the same year it became so painful that she could not walk at all. She was then taken to Dr. P——, of Johnsonville, Ill., who pronounced it hip-disease, and treated her in the horizontal posture with extension applied to the right limb by weight and pulley, counter-extension being secured by a bag of shot between the legs, against which the buttocks rested. This treatment was followed out faithfully for five months, at the end of which time she seemed to be perfectly cured. This brings us to the following April. She was up and running around from April until the following October, but as soon as the cold weather set in she again commenced to complain of her knee. She was at once put back to bed again, and remained there until the next February, 1882; and while in this condition the hip (as the mother states) became dislocated.

In March, 1882, the mother took her to St. Louis to see Dr. L——, for the express purpose of having an operation performed. The doctor, however, would not operate, but placed her in bed with extension. She remained there for three weeks. The mother becoming impatient took the child home again.

In July of 1882 an abscess formed at the upper and anterior part of the thigh; Dr. C——, the family physician, treating her in the meantime with extension and general constitutional treatment. In August of the same year the abscess closed up, and she suffered severely from blood-poisoning, which lasted for nearly two weeks, the child not being expected to live.

In January, 1883, the mother took her to the Eureka Springs in Arkansas, her condition then being very low. She remained there seven months, taking electric baths, vapor baths, etc. She seemed to be benefited by this treatment. In the following June she returned home, and had a brace made for her in St. Louis, the mother applying it when it was received. This brace, however, pained her so that she could not wear it for more than a week, when it was thrown on one side. While she was at the Springs two large abscesses appeared at the upper and outer parts of the thigh. Shortly after another abscess formed on the inner side of the thigh, over the adductors, and yet another made its appearance shortly after, making in all five sinuses, and as soon as the child was able to be moved they brought her on to me.

At the time she was brought to me the right thigh was flexed across the upper third of the left thigh, it was impossible to get at the adductors; the knee was also flexed at an angle of almost 45°. Three sinuses were discharging, and the remaining two were temporarily closed; the least movement of the leg caused intense pain; the trochanter major riding high up on the dorsum of the ilium. After a careful examination it was decided that if anything could be done there was nothing left but excision and subcutaneous division of the adductor muscles. Her health at this time was fair; the mother stated it was better than it had been for years, and was very anxious for an operation, saying she would rather take her back dead, if the operation proved too severe, than return with her in her present terrible condition.

On May 15th I performed exsection of the hip-joint, Drs. Bryant, Van Bibber, Devlin, and Woodbury assisting.

The patient being placed under an anæsthetic, I commenced my incision from a point midway between the trochanter major and anterior iliac spine, passing downward and outward in a curved direction about six inches, extending through the soft tissues down to and through the thickened periosteum of the femur. The head, neck,

and trochanter major and minor were absorbed; the dead bone being plainly visible was pushed up and cut off, with the bone forceps, about two and one-half inches below the trochanter major.

The acetabulum was carious and perforated, a large amount of débris being scraped out from it and also from the ilium, where necrosis extended within three-quarters of an inch of the anterior superior spinous process, and more than half way down the ramus of the pubes; the detritus being scraped out with a Langenbeck's scoop until the entire bony surface was bleeding and clear from dead matter.

The periosteum on the inner side of the ilium was very much thickened, as could be felt through the perforated acetabulum, and which prevented any communication into the pelvic cavity.

The femur being diseased farther down than the first incision, this was extended and an inch more of the shaft removed.

The adductor magnus and longus were divided subcutaneously and some bands of cicatricial tissue broken down, the limb being then brought parallel with the other. The sinuses were thoroughly scraped and all false membrane removed, they and the entire cavity being then thoroughly washed out with a bichloride solution 1 to 1,000. A drainage-tube was passed from the sinus on the anterior part of the thigh down through the perforated acetabulum, making its exit on the posterior part of the thigh below the gluteo-femoral crease, by way of an old sinus. A drainage-tube was also inserted on the inner side of the thigh, emerging from another sinus, the two sinuses on the outer side of the thigh being connected by my incision. The entire wound and sinuses were then thoroughly filled with balsam of Peru, and an oakum tent dipped in the same inserted in the upper portion of the wound down to the acetabulum, the lower edges of the wound being brought together with deep sutures and adhesive straps. A large compress of oakum was placed around the thigh, and firm compression made by means of a roller bandage, after which the child was placed in the wire cuirass and dressed in the ordinary manner. No hemorrhage occurred worthy of mention, and the child recovered well from the anæsthetic with very slight shock. Since date of operation the little patient has progressed favorably, temperature not being over 100°, except on the fourth day, when it reached 103°, due to obstinate constipation, which being relieved the temperature fell to nearly normal.

The Society then went into executive session.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.

Twenty-first Annual Session, held at the Pequot House, New London, Conn., Wednesday and Thursday, July 15 and 16, 1885.

DR. WILLIAM F. NORRIS, OF PHILADELPHIA, PRESIDENT, IN THE CHAIR.

WEDNESDAY, JULY 15TH—FIRST DAY—MORNING SESSION.

DR. C. R. AGNEW, of New York, read the first paper, entitled

OPERATION FOR REMOVAL OF DISLOCATED CRYSTALLINE LENS.

The operation was described as follows: The pupil was dilated with atropia. The patient was then etherized and cocaine was applied. The eye was secured with fixation forceps. An instrument resembling a two-pronged fork, termed a bident, was introduced into the vitreous chamber behind the dislocated lens, pressing it forward. The bident transfixed the eye and held the lens in position. Section was then made in the ordinary manner and the lens removed. The eye recovered without any unpleasant symptoms. The speaker did not claim that all dislocated lenses should be removed, but this instrument facilitated the operation when it was required.

DR. DAVID WEBSTER, of New York, read a paper (see p. 143) on the

EXTRACTION OF A DISLOCATED LENS BY THE AID OF DR. C. R. AGNEW'S BIDENT.

DR. H. KNAPP thought that in these cases there was not much difficulty in removing the lens, which could often be accomplished with the loss of very little vitreous, but the danger came afterward from inflammatory complications. And where the sight was lost, he thought it better to at once enucleate the eye and thus lessen the dangers of inflammation. He considered the bident which was exhibited to be an ingenious instrument. For the last six or eight years he had not introduced an instrument within the globe to facilitate the removal of the lens. This he was able to accomplish by external manipulation.

DR. C. R. AGNEW, suggested that the bident might also be useful in the removal of foreign bodies from the interior of the eye. He did not acquiesce in the view that enucleation was a simple operation. He regarded it as a serious mutilation.

DR. C. H. WILLIAMS, of Boston, thought that there was another alternative than those mentioned, and that was evisceration of the eye, and closure of the anterior opening with sutures. This he had performed a number of times with success. He thought it better than enucleation. It gives a better stump for the artificial eye.

DR. D. B. ST. JOHN ROOSA, of New York, read a paper, on the

EXTRACTION OF THE LENS IN ITS CAPSULE.

For the past three years the doctor had been in the habit of removing the lens in its capsule, in a large proportion of cases without iridectomy. The use of cocaine had facilitated the operation. He referred particularly to the method of dislocating the lens. The section is made as usual, but large. After puncture and counter-puncture are made, the knife is turned on its back so that it rests on the iris. The knife is then moved up and down two or three times until the lens is seen to move, then the section is completed and the lens can usually be removed with no loss of vitreous. The manipulations on the cornea are made with one or two spoons. Sometimes after the operation the iris is rolled under, but in many cases the pupil is circular. The writer had performed the operation between thirty and forty times, and was satisfied with his success. If the lens is not dislocated, iridectomy may be performed and the ordinary operation practised. A paper on the subject is to be found in the "Transactions of the New York State Society," and in THE MEDICAL RECORD of February 7, 1885.

DR. GEORGE C. HARLAN, of Philadelphia, reported two cases of

SUBCONJUNCTIVAL LUXATION OF THE LENS.

In the first case no operation was recommended, as vision was good. In the second case the lens was removed. The doctor thought it well that in those exceptional cases in which vision remains the operator should think twice before resorting to removal.

DR. O. F. WADSWORTH, of Boston, reported

A CASE OF DISLOCATION OF THE LENS UNDER TENON'S CAPSULE.

The eye had been injured two weeks before the patient came under observation. There was loss of sight, pain about the eye, and irritation of the other eye; the cornea was hazy, and there was blood in the anterior chamber; the eye was enucleated, and it was found that the lens was beneath Tenon's capsule, and that it was held in this position by inflammatory tissue.

Dr. J. A. Andrews, of New York, read a paper on

THE TREATMENT OF PURULENT CONJUNCTIVITIS.

The treatment is based upon the belief that the contagious element is of the micrococcus variety. He related a case in which he had secured an inoculation of the seventh generation of a pure culture of a gonococcus. This is the first case inoculated with the gonococcus. He showed an instrument which he had devised to wash out the conjunctival cul-de-sac. It consisted of an eye speculum, with hollow arms through which fluid may be passed. He had found bichloride of mercury solution (1 to 10,000) serviceable, but apt to irritate. A six per cent. solution of boracic acid was also found efficient. A two per cent. solution of carbolic acid is useful, as it inhibits the movements of the white corpuscles. Irrigation should be maintained for ten minutes in order to remove all secretion. Nitrate of silver solution (two to twelve per cent.) is then used, and an antiseptic dressing is next applied. This consists of vaseline and boracic acid or carbolic acid; but he laid especial stress upon the importance of maintaining irrigation of the conjunctiva by means of the instrument referred to above.

Dr. Charles S. Bull, of New York, read a paper on

ABSCESS OF BOTH FRONTAL SINUSES.

The patient had been hit on the forehead fourteen years previously with a piece of wood. This produced a fracture of both nasal bones and deviation of the septum. In seven weeks the wound had closed. Ten years after the accident a swelling was noted at the upper inner angle of the right orbit which could be made to disappear by pressure. There was complete ptosis. An incision was made into the swelling just beneath the orbital margin, and a large quantity of pus escaped (two or three ounces). The cavity was washed with a five per cent. solution of carbolic acid. No connection with the superior nasal meatus could be detected, but the bony septum between the two frontal sinuses was absorbed, and both sinuses were converted into large cavities. The entire ethmoid bone was an immense cavity, the bony structure being absorbed. A number of osteophytes were removed. A drainage-tube was introduced. The patient was discharged six weeks after the operation and recovered completely. The ptosis disappeared, and the eye was restored to the normal plane.

A case of melanotic sarcoma of the orbit was reported by Dr. Buller, of Montreal, Canada.

Dr. B. E. Fryer, of Kansas City, Mo., reported a case of

BONY TUMOR OF ORBIT.

The patient, a boy six years of age, came under observation April, 1885. There was swelling of left orbit, which included the whole line of the superciliary ridge. It was quite hard. Some time before the boy had been struck by a piece of wood, but it was thought that no splinter had lodged beneath the skin. It was decided to remove the tumor. This was done, and on examination it proved to be a bony cyst within which was a small piece of wood. This was enclosed in bone on all sides. The edges of the wound were brought together, and healing resulted without complication.

Dr. W. H. Carmalt, of New Haven, Conn., reported the case of a child of ten years of age from whom he removed a small growth from the upper lid. Six weeks later the growth had returned. An exploratory operation was done, and it was found that the growth extended into the orbit, and that it was impossible to remove it entirely. It was therefore decided not to complete the operation. The child has since died. The tumor proved to be a rapidly growing sarcoma. He thought that if in young children the tumor appears to be quickly recurrent, and not easily isolated, that no operative interference should be attempted.

Dr. Kipp, of Newark, thought that in many cases these tumors of the orbit are not primary, but secondary, and that the primary tumor may be in such a position as not to attract attention.

Dr. Harlan, of Philadelphia, reported several instances of inflammatory exudations in the orbit simulating tumors, and illustrating the importance of exercising great care in diagnosis.

Dr. W. S. Bennett, of New York, exhibited a series of new test-letters.

Dr. Norris, of Philadelphia, presented a new sheet of metric test-letters, devised by Dr. Oliver, of Philadelphia.

Dr. C. R. Agnew, of New York, made a brief reference to a case of occasional or simulated blindness, in which the vision suddenly returned.

Dr. Theobald described a similar case in which there was sudden blindness. The pupil acted normally, and the ophthalmoscope revealed no disease. A favorable prognosis was given, and the patient recovered in a short time.

Dr. Buller, of Montreal, thought that these cases could not be properly termed entirely imaginary. He thought that there was, for the time being, a functional loss of power in the nerve. He referred to a case in which there was hysterical blindness and deafness, associated with loss of sensation in the skin covering the mastoid region. On one occasion he applied to the anæsthetic surface an iron sufficiently hot to raise a blister. This was done without the patient's knowledge, and unexpectedly. But it did not cause her to wince.

Dr. Roosa had been led to believe from his experience that in these cases there is a basis for the blindness in the ocular condition. There is a derangement of sight from some condition, and the patient finally imagines that she is blind.

Dr. Harlan, of Philadelphia, considered that there were two classes, one in which there is purely deception, perhaps the result of deranged mental condition, and the second in which there is a real temporary suspension of function.

Dr. Risley, of Philadelphia, thought that some of these cases might be explained by an enfeebled condition of the circulation, in which the heart was unable to force the blood against the normal intraocular tension, and the loss of vision thus result from want of nourishment of the retina.

Other cases of hysterical blindness were described by Dr. Williams, of Cincinnati, and Dr. Andrews, of New York.

Dr. E. E. Holt, of Portland, Me., read a paper on

SOME OF THE RESULTS OBTAINED IN THE COMPILATION OF ONE THOUSAND CASES OF REFRACTION.

The writer had been in the habit of recording all the measurements connected with the prescribing of glasses. As a result he had found in one thousand cases thus recorded the average distance between the centres of the pupils of the human eye to be about sixty millimetres, The average of other measurements were given, and the importance of the physician determining and designating them and then seeing that they were carried out was dwelt upon.

A paper on

RAPIDLY PROGRESSIVE MYOPIA CHECKED BY SECTION OF THE EXTERNAL RECTUS,

was read by Dr. G. C. Harlan, of Philadelphia.

The case was that of a boy, aged sixteen, in whom myopia was progressing rapidly. The external rectus was divided seven years ago. The internal rectus was also exercised by the use of prisms. Since then there has been no increase of the myopia.

A paper was read by Dr. Samuel Theobald, of Baltimore, on

THREE CASES OF PROGRESSIVE ASTIGMATISM.

Astigmatism of traumatic origin, the author remarked, is observed not infrequently to undergo changes in de-

gree, but it has been commonly held that congenital astigmatism does not alter in degree though the refraction of the eye as a whole may undergo marked change. The cases which he reported he thought proved that there were some exceptions to this rule. The first case was that of a young man who, with a high grade of hypermetropia, had an astigmatism of each eye which required for correction, a $+\frac{1}{20}$. The case was observed at intervals during a period of twelve years, and during that time the astigmatism increased until finally a $+\frac{1}{13}$ c. was needed to correct it.

The second case was one of compound myopic astigmatism in a young man in which there occurred along with an increase of the myopia a growth of the astigmatism, during a period of sixteen years from $\frac{1}{16}$ to $\frac{1}{8}$.

In the third case a simple myopic astigmatism in a physician aged twety-five years, requiring a $\frac{1}{24}$ c. in one eye and a $\frac{1}{30}$ c. in the other for its correction, changed in five years so that a $\frac{1}{11}$ c. and a $\frac{1}{13}$ c. respectively were needed.

The speaker regretted that the examinations had not all been conducted under a mydriatic, as they would then be more apt to carry conviction to the minds of those disposed to be sceptical regarding the progression of astigmatism. He did not believe that the result would have been different. Such cases are not frequent, but it is important that the fact should be recognized. As the increase of astigmatism is probably due to change in the corneal curvature, the phenomenon should be met with more frequently in the yielding myopic than in the relatively stable hypermetropic eye.

(To be Continued.)

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

DISCUSSION ON THE PATHOLOGY OF REFLEX OPHTHALMITIS—THE NEW GOVERNMENT AND MEDICAL MATTERS—DISCUSSION AT THE OBSTETRICAL SOCIETY ON THE USE OF ANTISEPTICS IN MIDWIFERY PRACTICE—ARCHITECTS AND SANITATION.

LONDON, July 18, 1885.

An important discussion on the pathology of reflex ophthalmitis took place at the last meeting of the Ophthalmological Society. The discussion was based upon a paper on the subject read by Mr. Hutchinson, F.R.S, at a previous meeting. Mr. Hutchinson propounded the theory that reflex ophthalmitis had nothing to do with the nervous system. He thought the circulatory fluids rather than the nerves were the means by which the secondary lesions were originated. He suggested that certain elements derived from the original seat of disease were absorbed into the circulation, but that these elements only produced lesions in those tissues which were practically similar to the tissues in which the original lesion existed. He considered it a case of selective affinity. The elements were first given off from the ocular inflammation and circulated in the blood, and then picked out precisely similar tissues in the other eye as the seat of their selective inflammatory action. Mr. Hutchinson aptly remarked that it was an example of emigration in which the emigrant, cast off from home, settled down in a part where there were similar conditions to those he had left. Mr. Hutchinson maintained that such a theory as this would explain the very exact symmetry of reflex ophthalmitis and other related conditions. He said it would hold good, not only for traumatic diseases, but for other forms of acute inflammation, such as pneumonia. Mr. Hutchinson proceeded to develop this theory at some length. In discussing it, he remarked that a similar, though not identical theory, had been put forward in 1880, by Berlin, though he (Mr. Hutchinson) had only become acquainted with it after his own theory had been formed.

Mr. Henry Power opened the discussion on Mr. Hutchinson's paper. He said Mr. Hutchinson's theory presented many difficulties. How could it explain the frequency and rapid character of sympathetic ophthalmitis in young children as compared with adults? also its frequent occurrence after wounds of the ciliary region? How were we also to explain the long intervals which sometimes elapsed before it came on? In many cases, too, the diseased eye caused irritation, but not complete sympathetic ophthalmia. Relapses were also difficult to explain on this theory. Mr. Power's opinion was that some irritation was propagated from the damaged eye to the sympathizing one, either along the vaso-motor, ciliary, or optic nerves.

Mr. Spencer Watson objected to Mr. Hutchinson's theory on the ground that the eyes were the only organs of special sense subject to sympathetic inflammation. He admitted, however, that the appearance of gouty inflammation in joints symmetrically situated favored the theory. Mr. Watson believed that in sympathetic ophthalmitis the inflammation extended by continuity of tissue along the lymph-channels of the optic nerve.

Dr. Noyes, of New York, then spoke. He said we were not yet in a position to controvert any theory, and he was not prepared to support one. The doctrine of propagation by bacilli was well deserving of consideration. We wanted more facts concerning the circumstances under which sympathetic ophthalmitis occurred and did not occur. There were many classes of cases. In some we had to do with mere neurotic irritation, while in others there was genuine inflammatory exudation. Some of the latter sort might be explained on the assumption that the primary inflammation had taken on a septic character. Sometimes the wearing of an artificial eye was followed by the development of sympathetic inflammation which was not a true sympathetic ophthalmitis. He had seen herpes zoster ophthalmaticus followed by sympathetic inflammation of the other eye. Dr. Noyes said he had often seen cases of damage to the ciliary region which were not followed by sympathetic inflammation. He had known penetration of the globe by foreign bodies to be totally harmless. A case was mentioned of nineteen years' standing in which a foreign body in the iris had caused merely local trouble. Cases of foreign bodies in the vitreous were referred to, and also one in which a percussion-cap remained in the lens without causing any changes for some time. The formation of bony shells in damaged and atrophied globes might be followed by neurotic irritation of the other eye. Some cases of partial shrinking of the globe, caused by sympathetic irritation, might be recovered from. A shrunken, sensitive stump might not cause reflex irritation. He thought such cases tended to dispose of the theory of propagation by the ciliary nerves. Again, cicatricial tissue might or might not lead to changes in the other eye. In some cases he had found that mere removal of the cicatrix or other local mischief led to improvement in the sympathizing eye. The facts were so varied, numerous, and contradictory, that he did not know how to make them fit in with any one theory. Dr. Noyes referred in conclusion to the excellent results which sometimes followed the sub-conjunctival or sub-scleral division of the ciliary nerves. His experience during twenty-five years led him to think that indiscriminate enucleation of diseased globes was a practice of doubtful value. Of late years he had not largely recommended enucleation, and believed that he had thereby saved many useful lives.

Dr. Mules said he thought that sympathetic irritation and inflammation, though they had something in common, ought to be separated. He suggested that the former dilated the lymph-spaces, and so allowed infective elements to pass more easily. The length of time which sometimes elapsed might be explained on the bacterial hypothesis. He was not prepared to say that bacterial elements might not arise in the body without a perforating wound.

Dr. Brailey remarked that Dr. Mules's hypothesis was wide and comprehensive. Criticising Mr. Hutchinson's views, he said it was not necessary to advance another hypothesis; it was sufficient to show that that one did not hold good. How were we, he said, to explain on it the fact that secondary sarcoma was so rare in the other eye? In sarcoma of the eye the commonest site for the secondary growth was in the liver. Again, suppurative panophthalmitis was more likely to be followed by purulent meningitis than by a similar suppurative disease of the other eye; so that we had instances in which cancerous or pus cells were taken up into the circulation and caused similar disease in other tissues rather than in the other eye. Dr. Brailey said he did not support any doctrine, but he thought the facts were more explicable on the theory of direct transmission.

Mr. Nettleship said that the theory of blood-infection accounted more easily for some of the phenomena of the disease, viz., the simultaneous appearance of changes, such as neuro-retinitis or iritis, in widely different parts of the eyeball. The difficulties in accepting the theory were, that with it it was hard to understand how the incubatory period could ever be so long as it sometimes was, or why it should break out in the sympathizing eye at a long interval after the removal of the infecting eye. Two other questions might be asked, which would perhaps tell as much against the theory as for it. How could cases be explained in which parts outside the eye underwent organic change in the course of sympathetic inflammation? And how was it that the exciting eye might be but slightly damaged, though the sympathizing eye suffered profoundly? The severity of the inflammation in the latter must depend upon the number of germs it contained; if these were bred in the exciting eye, why did it not suffer in proportion? On the other hand, if they were not simply carried by the blood but multiplied in it, how did the other tissues of the body escape serious change? As regarded the transmission theory, there were difficulties in regard to all the paths along which the disease had been thought to travel. Deutschmann's view that septic inflammation was conducted along the optic nerves met with a certain amount of support from clinical facts. Mr. Nettleship concluded by stating that the chief objection to the theory of transmission along the filaments of the fifth or sympathetic nerves was that the path would be so very long and narrow; the nerve-twigs were so difficult to examine that inflammatory changes in them might escape detection.

In replying, Mr. Hutchinson said he perceived nothing in the arguments which had been brought forward which led him to doubt that his hypothesis might not still be the correct one. It was merely tentative. He said that Mr. Power seemed to hold two theories, one of reflex irritation, and another of direct extension of inflammation. He himself had no doubt of the occurrence of reflex irritation, and the fifth nerve was the agency in this process. According to some, it was dangerous to excise the exciting eye for fear of increasing the irritation; this was not, however, his view. With regard to the length and irregularity of the intervals, and the relapses of sympathetic ophthalmitis, he did not think such facts were more difficult to explain on his than on any other theory. Symmetrical cancer and sarcoma, also, though rare, were not unknown; cases of secondary tumor of the eye had been shown at the Society that evening and at recent meetings. Moreover, the sequence of the development of secondary growths varied exceedingly, and there was a general law to that effect.

The change of government is not without its effects on medical interests. There is now not the slightest chance of the Medical Bill being brought forward, and as the new Parliament will be busied with weightier matters, it may be regarded as practically shelved for some years at least. The Lunacy Acts Amendment Bill has been withdrawn, to the great relief, doubtless, of the owners of private asylums. The Poisons Act introduced by the late government has also been abandoned, but in future the stamps on patent medicines are to be altered so as to remove all appearance of a government guarantee. The new stamps are to bear the words, "This stamp implies no government guarantee." The question of disqualification for medical relief has assumed a new phase. Greatly to the surprise of every one, the new Conservative Government have taken up the matter and have introduced a bill to remove the disqualification. The bill is very similar to that brought forward by an independent Radical member while the late government was in office. I have previously referred to the opinion of the profession on this subject, and will only add that there seems to be some justice in the opinion freely expressed by many, viz., that the introduction of the present measure is simply a bid for the votes of the new electorate.

At a recent meeting of the Obstetrical Society the question of antiseptics in obstetric practice was discussed at some length. The subject was introduced by Dr. Priestley, who gave an account of a visit he had paid to some maternity hospitals at Copenhagen, Helsingfors, and St. Petersburg, and the antiseptic measures used therein. These had resulted in a considerable reduction of mortality. In the ensuing discussion Dr. Matthews Duncan remarked that the subject of antiseptics was the greatest in the obstetric department, but it got very little attention. It was more important than the prevention of epidemics, for they only came occasionally, while puerperal deaths continually occurred. In the history of the subject all measures had failed to reduce mortality till antiseptics were introduced.

Dr. John Williams said that while it was not possible to abolish by antiseptics the effects of pregnancy and labor, we might hope to do away with deaths from puerperal fever. Taking the deaths in childbed at one per cent., the lowest mortality after the destruction of puerperal fever would be a quarter per cent. The object should be to reduce the mortality to this level, and he believed it might be attained by antiseptics. This was the object of Dr. Champneys and himself at the General Lying-in Hospital, but it had not been attained. They had used in succession carbolic acid, permanganate of potash, and corrosive sublimate as antiseptic agents. The last had been in use since May, 1884. Since it had been employed there had been no deaths from puerperal fever and scarcely any morbility. Dr. Champneys said the total mortality at the hospital during the last four years and a half was 0.66 per cent. The last two deaths were from phthisis, with which the patients were practically moribund on admission. Dr. Playfair, Dr. Braxton Hicks, Dr. Harvey, of Calcutta, and others also spoke.

All the speakers agreed that the use of antiseptics was of great value in obstetric practice. Several of the speakers referred to the paramount importance of antiseptic cleanliness of the hands, including the nails, and this as much on the part of the nurses as on the part of the medical men.

At the anniversary dinner of The Sanitary Institute of Great Britain a rather sharp passage of arms took place between the Right Hon. G. Sclater-Boothe and Mr. Ewan Christian, President of the Institute of British Architects. The former roundly accused architects of gross ignorance in sanitary matters, and maintained that the medical profession had been the pioneers in sanitary reform. The latter defended the architects and laid the blame on the Metropolitan Board of Works, who had, he said, allowed whole estates around London to be covered with houses which were "mere rubbish," and a disgrace to the metropolis. He said the Board of Works ought to acquire new Parliamentary powers to check this building of unsanitary districts and to provide a proper proportion of open spaces, after the example of Chicago, which had reserved seven parks and thirty miles of boulevards.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 7 NEW YORK, AUGUST 15, 1885 Whole No. 771

Original Articles.

THE OPERATIVE TREATMENT OF INTESTINAL OBSTRUCTION.[1]

By FREDERICK TREVES, F.R.C.S.,

HUNTERIAN PROFESSOR AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; SURGEON TO, AND LECTURER ON ANATOMY AT, THE LONDON HOSPITAL.

In the history of the science of surgery it is not difficult to find instances where the progress of surgical therapeutics has been hampered by a nomenclature; and were such instances not forthcoming the present subject would, at least, afford an excellent example. By conventional usage intestinal obstruction is spoken of as if it were a clearly differentiated ailment, possessed of unvarying characters and a precise individuality. It is in reality a generic term, and one that embraces many conditions. At the most, it expresses a prevailing feature common to many different anatomical states. It is the product of clinical and not of pathological knowledge. It is the surviving relic of the old term "ileus," a term that was applied to a certain combination of symptoms at a time when the anatomical basis of those symptoms was without form and void. It is now known that the "ileus" of the ancients may depend upon a great variety of anatomical causes, separated from one another in many instances by the most diverse characters. Operative surgery obviously can concern itself solely with anatomical data. A symptom is beyond the reach of the surgeon's knife. I venture to think, therefore, that any discussion as to the operative treatment of intestinal obstruction must be founded upon our pathological knowledge of the disease, and must start from that standpoint. "Intestinal obstruction" is hardly a translatable term. It has different meanings to different minds. It is impossible to discuss under one heading the treatment of a collection of symptoms that, although alike, may depend upon such different conditions as a fibrous structure of the bowel on the one hand, and an impacted calculus on the other. It would be as reasonable to consider retention of urine as a distinct and isolated malady without recognizing that it may depend upon a stricture of the urethra in one case and an impacted calculus in another.

The operative treatment of intestinal obstruction is most conveniently considered under three heads. 1, The treatment of acute obstruction; 2, the treatment of chronic obstruction; and 3, the treatment of chronic cases that have become acute. Time will not permit a full consideration of the subject, and I think it would be better, therefore, in the present instance to deal solely with one phase of the affection, and to limit the discussion to the acute form, since it presents the most urgent claims to the surgeon's attention.

Acute Obstruction.—The fairly defined collection of symptoms that make up the condition clinically known as acute obstruction may, for our present purpose, be ascribed to three anatomical conditions: 1, To the hernia-like strangulation of the bowel; 2, to volvulus of the sigmoid flexture; and 3, to acute invagination.

1. Under the former heading many structural causes of obstruction may be placed. The following are the most common: Strangulation by peritoneal bands of all kinds, strangulation by omental ligaments or cords, strangulation by Meckel's diverticulum or by an adherent appendix or Fallopian tube, and lastly, strangulation through slits and apertures. With the last-named would be included internal herniæ. In their precise anatomy these various forms may be, and indeed are, often very unlike one another. The lack of resemblance, however, is no more pronounced than is the difference between an adherent appendix and an adherent diverticulum, or between these structures and a cord-like adhesion or an omental band. In every instance a knuckle or loop of bowel is held and kept in bondage until it is strangulated. The mechanism of the obstruction is in all main points identical with that of strangulated external hernia, the general pathology is the same, and, with some minor modifications, the symptoms are the same. For these reasons I have ventured to class all these forms of occlusion under the one heading of "hernia-like strangulation of the bowel." I do not know by what means the condition of the intestine in these cases could be distinguished from that met with in strangulated hernia, and it is also well to note that the segment of the intestinal canal that is usually involved in rupture is identical with that that is most frequently implicated in the internal form of occlusion. The varieties of intestinal obstruction that are classed under the above general heading are comparatively common, and, indeed, they form together no less than one-fourth of all known varieties of intestinal occlusion, both acute and chronic.

The *treatment* I would venture to propose is the following: The patient should be placed in bed and kept absolutely at rest. Some relief to the abdominal pain may be given by warm applications to the belly. The primary object in the general management of the patient should be to secure complete physiological rest to the alimentary canal. Physiological activity means increased peristalsis; increased pain, vomiting, and collapse; increased engorgement of the bowel, and an aggravation of the condition of the damaged part. No food of any kind should be administered. The dryness of the mouth and the intense thirst may be relieved by sucking ice, or in instances where this is not well borne, by sipping hot tea. Perfect rest may be brought to the disturbed intestine by means of opium. Some surgeons prefer belladonna, but it appears to me that a hypodermatic injection of morphia acts with greater readiness and certainty, and brings about a more complete paralysis of the gut.

It must be borne in mind, however, that by the use of opium the symptoms are masked, and the administration of that drug should be directed cautiously before the diagnosis has been established. It is as well to have the colon emptied, when occupied by fæces, by means of an enema, and, when once the bowel is stilled by opium, thirst may be relieved by copious enemata of lukewarm water without producing increased intestinal disturbance. So far for the preliminary routine treatment. The next step should be an attempt at the relief of the obstruction by laparotomy.

I would venture to urge that laparotomy should be performed, when possible, within the first twenty-four hours; provided, of course, that the diagnosis is in its main point clear. The arguments that may be urged in favor of an early interference are these: The course of the malady is rapid. Its average duration is six days. Its termination is fatal. The final issue appears to depend not so much upon the age and state of the patient, or the immediate cause of the obstruction, as upon the amount of bowel involved and the rigor of the strangula-

[1] Read before the British Medical Association, Cardiff, Wales, July, 1885.

tion. It is to the speedy relief of the dying intestine that all the surgeon's attention should be directed. With regard to the question of spontaneous cure, it is certainly not impossible; but I have been unable to find any recorded case or any museum specimen that affords an instance of it. Patients who have died of acute obstruction of the kind now under discussion have had previous attacks of acute occlusion in no way differing, except in duration and mode of ending, from the final fatal attack. It would be fair to assume—and it is only an assumption—that the previous attacks were of the same pathological character as the final one, but that they ended in spontaneous cure. Certain specimens also point to the possibility of relief by means of gangrene of the obstructing band or diverticulum, and also by the formation of a protected perforation with the subsequent development of an artificial anus. It must be evident, however, that these meagre data form no excuse for delay. Laparotomy is in itself not a serious undertaking. Its high mortality in the present class of cases depends, I venture to believe, upon the fact that the operation is usually undertaken too late. It is regarded as a last resource, whereas it should be the first resource, since it is the only resource. When once the diagnosis of a strangulated hernia has been established, and taxis has failed, no surgeon, I imagine, is disposed to temporize. The condition of the bowel in these cases is identical with that found in strangulated rupture, and the therapeutic principles that apply to the one should apply to the other. It seems to be tampering with life to waste time over the administration of metallic mercury and enemata of tobacco and the like. To thrust an aspirator into the abdomen, as some advise, is a stab in the dark, an empirical proceeding that leaves everything to chance. Massage or abdominal taxis has its advocates, but the procedure is at the best a blind one. The manipulation of the abdomen may, by a rare combination of circumstances, reduce a snared loop, but it is as likely to aggravate its condition and to produce a perforation in a segment of intestine that is approaching gangrene and that needs the tenderest handling. Even if the diagnosis be ill founded, the laparotomy merely resolves itself into an exploratory incision. Such incision adds but a fractional part to the sum-total of the risk to life involved; it displays a course of action, and even if it be found to be of no avail it is questionable whether in many cases it hastens the inevitable ending. The use of laparotomy in other than acute intestinal diseases for purely diagnostic purposes has been clearly established, and has been accredited a position of considerable and undoubted value.

With regard to the technique of the operation, I take it that the incision should be made in the linea alba, below the umbilicus; that it should be large enough to admit the entire hand at once, and that it should be made under antiseptic precautions. With regard to the latter point, it does appear to me—speaking only from my own experience—that much of the success of these operations depends upon the observance of the strictest Listerian methods, including the use of spray throughout the whole of the operation. It is well also that the incision should be a clean cut, and that the use of that uncouth weapon, the steel director, should be discarded. When the abdomen has been opened, the carbolized hand should be cautiously introduced, any protrusion of intestine being prevented by means of a flat warm sponge. The hand should be directed toward the cæcum; and if that part of the colon be found empty and flaccid, it may be assumed that the obstruction is in the small intestine. It is well next to search for the seat of trouble in the right iliac region, about which it is most commonly placed. If the affected loop be not readily discovered, I would strongly advocate Mr. Halke's plan of feeling for the collapsed coils below the obstruction. These coils are most commonly hanging in the pelvis, and by passing them through the fingers the constriction may be reached without much loss of time. It is needless to point out the difficulty of finding the point required by simply passing the small intestine in review inch by inch. Such a procedure is as likely to direct the surgeon's fingers to the pylorus as to the obstructed loop. The method also of straightening the mesentery, so as to make out its right and left side, is of much value in preventing the error just named. I think that the practice of allowing the intestinal loops to protrude, and of then examining them in detail, is open to serious objections, apart from the fact of its being quite unnecessary. The procedure is, however, advocated by some surgeons of considerable note. I am in the habit, as soon as the abdomen is opened, of placing a large, warm, carbolized sponge deep in the pelvic cavity. It is removed just before the operation is completed, and its use certainly economizes time, and saves much manipulation of the pelvic viscera and intestines by sponging. Should the bowels protrude and any difficulty exist in their proper reduction, I would point out that the puncture of the engorged intestines above the obstruction, for the purpose of relieving distention, is by no means either a simple, or a harmless, or even a useful addition to the operation. The closure of these punctures in instances where the bowel is much distended, paralyzed, and hyperæmic is, I venture to think, often not so certain as is sometimes supposed. When the obstruction has been found, small bands may be torn across, while larger ones may be divided between two catgut ligatures. An appendix or a diverticulum should be excised close to its base, and the opening so made closed by Lembert's suture in such a manner as to bring the serous surfaces in contact. Any persisting slit or aperture may be closed by a few points of catgut, so as to prevent any further trouble at the same spot. The involved bowel, if in good condition—that is to say, if still of good color, smooth surface, elastic, and resisting—may be returned free into the abdomen; but if it have lost its elasticity, be of dull surface, or visibly gangrenous, I am of opinion that it should be resected and an artificial anus established. I think that in these cases the immediate suture of the divided bowel after the resection is to be condemned, and that all the recorded cases, so far as at present known, are in favor of the establishment of a temporary artificial anus. In the first place, the suturing of the bowel after the excision would greatly prolong the operation, and the condition of the patients upon whom these operations are performed is usually not such as would encourage prolonged narcosis. In the second place, it is the obstruction to the bowel that clamors for relief, and not the mere circumstance that a segment of intestine is gangrenous. It must be remembered that the bowel above the obstruction is greatly distended, and if the intestine be sutured and returned, that distention will remain but imperfectly relieved. The bowel at the suture line will be entirely paralyzed, and will itself form a cause for an abiding obstruction. In the third place, it is difficult to precisely define the limits of the gangrenous action; and even if those limits are widely trespassed in the resection operation, there is still the circumstance that the state of the bowel above the occlusion is exceedingly unfavorable for the kind of healing process that the operation demands. Lastly, there is the mechanical difficulty of uniting the large and distended tube of bowel above the constriction with the shrunken and collapsed segment that exists below it. On these grounds, I think, therefore, that strong claims may be founded in favor of a delayed union of the parts separated by the excision.

The abdominal wound is closed in the usual way, and unless any peritonitis exists, I take it that no drainage-tube is required. If, however, peritonitis should have been established, and especially if it has led to much effusion, I would suggest that the whole abdominal cavity should be freely washed out with a weak carbolized solution, at a temperature of 98°, and that the peritoneal sac should be drained.

One point remains, and it is not perhaps a very important one. It is usual, with many surgeons at least, to have the abdomen supported, for a considerable period after any operation involving an opening of the belly, by a broad bandage or binder. The object, I take it, of this support is to prevent any yielding of the parietes at the seat of the wound, and to protect the patient from the possibility of some degree of ventral rupture. In stout women with pendulous abdomens this practice may be of value, but in patients of ordinary build its adoption appears to me to be a little against reason. If the abdominal parietes yield when the patient has left her bed and is up and about, such condition may fairly be ascribed to structural weakness of those parietes. It may also not be unfair to assume that if the abdominal walls were to become strengthened, such protrusion would not occur. Now I take it that a musculo-aponeurotic structure like the anterior abdominal wall is only to be strengthened by exercise ; and the use of the bandage not only greatly limits such exercise, but causes the responsibility of supporting the viscera to be thrown upon the fabric, and not upon the abdominal muscles. No man would endeavor to strengthen a weakened arm by holding it in a sling. I have been in the habit, in all cases in which I have opened the abdomen, for any cause, of keeping the patient in the recumbent position for—on the average—three weeks, and then of allowing her to move about without any kind of artificial support to the abdomen. So far I have never seen anything but a dense, firm cicatrix as a result of this practice.

With regard to the prognosis that has been given, as pertaining to the present form of obstruction, it must be noted that certain cases have been recorded where symptoms of an acute character existed, and where a recovery followed after a non-operative mode of treatment. Some of these cases may be examples of spontaneous cure. It would, perhaps, be not unfair to surmise that others may have been the subjects of an imperfect diagnosis, while the remainder may have belonged to certain rare forms of acute strangulation that can hardly be clinically distinguished from the hernia-like obstruction just dealt with. Among these forms may be named strangulation *over* a band, acute kinking of the small intestine, some cases of volvulus of the lesser bowel, and of occlusion by the pressure of an external tumor, or by a foreign substance inside the intestine. These forms are all quite rare, but may all be the subject of spontaneous relief. It will perhaps be allowed, however, that a laparotomy in such cases would not be a serious complication, and would render recovery somewhat more definite and certain.

2. Acute volvulus of the sigmoid flexure. Volvulus of any part of the intestinal canal other than the sigmoid flexure being comparatively rare, and chronic volvulus being still more uncommon, it will be convenient under the heading of volvulus to limit all observations to the acute twisting of the sigmoid flexure. This species of volvulus forms one-fortieth part of all varieties of intestinal obstruction. Its diagnosis is not obscure, and there is indeed little difficulty in differentiating it from all other forms of acute occlusion save that due to the kinking of the loaded sigmoid flexure above some stricture at the commencement of the rectum. So far as I can ascertain, there would appear to be no prospect of spontaneous recovery in these cases when once the twist has become complete. The average duration of life in twenty cases that I collected was six days, and the usual cause of death would appear to be from peritonitis, which is apt to set in somewhat early in the case.

I have pointed out in my Hunterian lectures, at the Royal College of Surgeons, that the arrangement of the normal sigmoid flexure is liable to considerable variation. The condition of the gut that is necessary for the production of a volvulus is the following: The loop must be of considerable length, the meso-colon must be long and narrow, and the two extremities of the sigmoid or omega loop must be brought as close together as possible. It is about this neck of the loop that the twist takes place, and the prognosis does not seem to be affected by the particular direction of the volvulus. The anatomical condition just named may be congenital, or it may be brought about by some contracting peritonitis involving the sigmoid meso-colon, although without doubt the commonest cause of the peculiar arrangement of the loop is chronic constipation. It may be necessary to point out that volvulus is much more frequently met with in males than in females, and that the bulk of the cases fall between the ages of forty and sixty.

The treatment of volvulus of the sigmoid flexure involves many points of serious difficulty. I take it that in the first instance the treatment by rest and starvation would be insisted on as a matter of routine ; opium would be administered, and it may be as well to empty the rectum by an enema. With regard to more active interference I believe that all attempts at relief by means of enemata or rectal tubes are likely to prove not only quite useless, but actually harmful. If the precise relation of the parts be borne in mind it will be perceived that a forcible injection into the rectum will tend to tighten rather than to relax the twist. In one subject, who had died of an unrelieved volvulus I found that when the twist had been nearly reduced on the post-mortem table it could be made to reappear by injecting water into the rectum.

Simple laparotomy, it must be confessed, is not a very promising procedure in these cases. In the first place, the distended coil often reaches to the ribs, or even to the diaphragm, and by no ordinary incision could the great loop be dealt with. Through such an incision, however, a volvulus may be reduced with success, as shown by a case reported by Mr. H. Clark (*Lancet*, 1883). If the abdomen be opened, I would suggest that the gut be reduced in size by a puncture with a capillary trocar, and then that attempts be made to replace the distorted flexure. This procedure may succeed, and it is possible that the surgeon may convince himself that the probability of a return of the volvulus would not be very considerable. In actual practice, however, I anticipate that the trocar will not sufficiently empty the loop to render it easy to be handled, and that after the reduction the operator will have reason to believe that if no further steps are taken a return of the twist will be exceedingly probable.

In any future case, therefore, that may come under my notice, I intend to adopt the following operation : To perform a laparotomy in the middle line, to puncture the gut and attempt its reduction. If this fail, or the result appears unsatisfactory to evacuate the involved gut through an opening in the summit of the flexure, to unfold the volvulus, and establish an artificial anus, using the opening just alluded to for that purpose. By this method the volvulus could be relieved in a very short space of time and without much handling, and the distended colon above the twist could empty itself through the artificial anus. Inasmuch as this artificial opening would be at the summit of the sigmoid flexure, a return of the volvulus would be impossible. The flexure would be permanently retained in good position by means of the adhesions that would form about the fecal fistula. In process of time the artificial anus would be closed by one or other of the operations adopted for that purpose. It may be unnecessary to point out that there is no anatomical difficulty in establishing an artificial anus leading to the sigmoid flexure through the middle line of the abdomen. The operation just alluded to is little more than a simple colotomy, since the manipulation of the bowel antecedent to the opening of the colon need not be prolonged. One thing is certain, that these cases of acute obstruction demand very prompt treatment. The rapidity with which peritonitis sets in in the present form of occlusion is very striking, and there is, moreover, great risk of the involved loop passing into a state of gangrene. A left lumbar colotomy in these

examples of volvulus would certainly relieve the obstruction, but it would probably effect no change in the volvulus, and there would be great likelihood that the artificial anus established would have to be a permanent one.

3. Acute intussusception. The chief point of interest in connection with this form of obstruction is concerned in the question of the frequency of spontaneous relief, and the matter that presents itself most prominently to the surgeon's notice relates to the reliance that is to be placed upon the prospect of such relief. This form of obstruction is quite common, and forms, indeed, no less than one-third of all known varieties of the affection, excluding hernia and obstructions due to congenital defects. The acute cases are defined as those that—if they follow an uninterrupted course—end in death within seven days. These cases form about fifty per cent. of the whole number of invagination cases. It is well, also, to bear in mind that the enteric and ileo-colic forms are not usually acute, and that fifty per cent. of all the examples of the disease are met with in patients under ten years of age. Spontaneous cure may be met with under two circumstances. In the first place, the invagination may reduce itself before the period has been reached when from structural changes it has become irreducible; and secondly, spontaneous cure may occur after the invagination has become irreducible, either by the formation of fecal fistula above the obstruction—a form of relief that is very rare—or by the elimination of the gangrenous intussusception.

The method of relief named in the first category is certainly not infrequent. Most surgeons must have met with instances of acute invagination that have become cured without elimination of the intussusception, and with no more elaborate treatment than that comprised by rest, starvation, and the use of opium or belladonna. It is to be regretted that statistics are not forthcoming to show with what frequency this termination of the case may be expected. To enter at once into the treatment of acute invagination, I imagine that general approval will sanction the immediate use of opium or belladonna, together with practical starvation and perfect rest.

By these measures the peristaltic movements are stilled, the irregular muscular action in the bowel that has provoked the malady is arrested, and the prospect of spontaneous reduction is greatly favored. Presuming that no benefit attends this mode of treatment at the end of twelve hours, it will be expedient to attempt reduction by means of insufflation or forcible enemata. Considerable success has attended these measures. By far the best instrument for the purpose—no matter whether water or air is used—is the admirable insufflator invented by Mr. Lund. I think that in children under ten years of age the injection should be cautiously administered while the child is under the influence of an anæsthetic; but in patients above that age it is, perhaps, safer to carry out this treatment without chloroform. There is no doubt that in adults the best guide to the amount of force to be used is the patient's own sensation. In any instance the colon should be distended gradually. When the bowel is fully distended the air or water should be retained for at least twenty minutes. The injection may be accompanied by gentle kneading of the intussusception tumor, when such exists. I think that it is a matter of primary importance that the bowel should have been rendered quite still by means of opium or belladonna before the attempt at reduction by injection is commenced.

I cannot understand upon what mechanical principles the inversion or shaking of the patient is recommended in these cases. Before such a method were adopted the exact position and extent of the invagination would have to be most accurately diagnosed.

It is obvious that these measures will have no effect when once the invagination has become irreducible. It is to be regretted that at present little is known of the precise circumstances under which such irreducibility takes place. It is known that the invagination may become fixed within a few hours of its formation, and it is needless to remark that adhesions play comparatively a small part in causing an *acute* invagination to become irreducible. Should the measures so far advocated fail after a patient trial, I would strongly urge that a laparotomy be at once performed. If enemata fail early in the case, they are not likely to succeed at a later period, and every hour that elapses renders the prospect of gangrene more immediate.

Against laparotomy in these cases many objections have been urged. In the first place, it is pointed out that an acute attack may become a chronic one. This is true, but the occurrence is very rare. By far the greater number of the patients do not live long enough to enter upon the chronic stage. Moreover, chronic invagination is exceedingly fatal, and out of fifty-nine recorded cases, taken without any selection, I find that there were no less than fifty-one deaths. A far more important objection, however, depends upon the frequent occurrence of spontaneous cure at a period when the patient is *in extremis* and the case desperate. Temporizing is constantly being urged upon this ground. One case of spontaneous cure is an argument against a score of proposed operations. An examination of the matter shows that little dependence is to be placed upon this mode of ending. "Elimination of the gut by gangrene occurs in about forty-two per cent. of all cases; but when it has occurred it by no means follows that the patient recovers. In fact, no less than forty per cent. of the subjects of spontaneous elimination die of the immediate results of the process of separation. Moreover, during the first year of life spontaneous elimination occurs in only two per cent. of the cases, and between the ages of two and five in only six per cent.; and when it is remembered that more than fifty per cent. of the total number of examples of intussusception occur in children under ten, it will be seen that elimination by gangrene offers no very extensive prospects of spontaneous relief. It is true that the older the patient the more chance has he of recovery by this means; but it unfortunately happens that the older the patient the higher is the mortality after the occurrence of the elimination, so that the chance of cure becomes remarkably slight" ("Intestinal Obstruction"). In favor of the operation it must be pointed out that the affection is very acute, that the general mortality of the disease is seventy per cent., and that eighty per cent. of the patients die before the seventh day. I would venture to urge that in these acute cases laparotomy should be performed at least within the first forty-eight hours, and if possible within the first twenty-four hours, provided, of course, that all other measures have failed.

When the abdomen has been opened, the invagination should be reduced if possible. The reduction is best effected by squeezing the intussusception with one hand, while gentle traction is brought to bear upon the gut entering the invagination with the other. Should the mass be found to be irreducible or in a condition that threatens gangrene, the whole of the involved bowel should be resected and a temporary artificial anus established.

It appears to me that there is little to recommend the operation of enterotomy for this class of cases. This measure is certainly readily performed, but it is of the nature of a cut in the dark. It will relieve the obstructive symptoms, it is true; but it will leave the invagination untouched, and leave it possibly to pass on into a state of gangrene or a condition that may lead to diffuse peritonitis.

Antipyrine in Rheumatism.—Dr. Immermann has found antipyrine a most efficient remedy in acute and marked articular rheumatism. He states that it not only reduces the temperature, but also exerts a specific action on the joint manifestations. In one case of marked rheumatism of the trifacial nerve a permanent cure followed the exhibition of only one drachm of the remedy.

PRESBYKOUSIS.[1]

By D. B. ST. JOHN ROOSA, M.D., LL.D.,

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A certain degree of impairment or diminution of hearing power is, I think, inevitably an accompaniment of old age, or even of life after fifty years. This impairment or loss cannot usually be detected unless certain tests are employed, hence it is usually not noticed in ordinary intercourse. It is produced by a physiological or senile, rather than a pathological, change in the ear, and it is for this reason fairly analogous to presbyopia, and may be termed presbykousis.[2]

Presbykousis may be readily distinguished from the impairment of hearing resulting from chronic catarrhal or proliferous processes in the tympanum and Eustachian tube. By means of the tuning-fork (C^2) and watch, or acoumeter, we may make certain tests, more or less objective, which will make this differential diagnosis between these affections and the impairment of hearing arising from the inevitable changes belonging to advancing years. If a "C^2" tuning-fork be held while vibrating in front of the external meatus and then upon the mastoid process, presbykousic patients always, if they have no disease of the middle ear, hear louder and longer through the air than through the bone. If they do not, a morbid condition of the middle ear, a pathological change, is added to the senile changes. The tick of a watch or of the acoumeter is heard by presbykousic subjects relatively much worse than the human voice. Besides the evidences from these two tests, presbykousis is marked by the fact, that its subjects are more sensible themselves of the impairment of which they complain, than are those about them. In other words, although there is an actual loss of hearing, it does not appear in the ordinary social and business intercourse of life. The fact that the conduction of sound to the ear through the bones of the head, notably of the mastoid process, is lessened as years go on, has been observed, but no attempt has been hitherto made to give this fact any particular significance in relation to the hearing power, nor has it been noted that the symptom exists in old persons in connection with others—the others which I have just described.

It will also be found that persons who are presbykousic, like young persons with good hearing power, hear much better in a quiet place. Indeed, if the circumstances be favorable, if the room be quiet and the distance from the speaker be not too great, then patients not only hear well, but perfectly well. An octogenarian in excellent general health, who consulted me a few mornings since in regard to his sight and hearing, exclaimed, as we sat conversing in an ordinary conversational tone: "Why, I hear you as well as I ever heard any one in my life." And yet this gentleman, a lawyer, said that his hearing was not sharp. On inquiry, I found that he could hear the judge when the court-room was quiet; that he also could hear his clients in his consulting-room; that no one spoke to him of not hearing well; that he was chiefly troubled in noisy places, such as a railway train or a large and vivacious dinner-party, or when the voices or other sounds came from a great distance. This inability to hear at long range is not marked, for the presbykousic patients that I have tested, if free from any inflammatory trouble of the middle ear, can hear an ordinary voice addressed to them in a quiet room, when in a listening attitude, at least fifty feet.

How much worse is the condition of a person, young or old, who suffers from a chronic catarrh of the Eustachian tubes and tympana! He hears badly under all the conditions of ordinary human intercourse. It is only in a din that his hearing power becomes acute enough to enable him to follow and join in ordinary conversation, although carried on very near him, no matter how distinct the tones of the speaker, nor how quiet the room. He thus finds himself unable to carry on any ordinary business, or hear a lecture, a play, or a sermon. His usefulness in any such profession as law or medicine is greatly impaired, if not destroyed. The presbykousic patient, on the other hand, may be greatly annoyed by the subjective loss of which he is so conscious, and which he usually and correctly attributes to senile decay; but he may so arrange matters—not as he does to relieve his presbyopia, by glasses—so as to go on with the ordinary work of life.

The anatomical conditions which form the basis of presbykousis, in the absence of *post-mortem* examinations of a large number of ears of old persons, cannot, as yet, be positively determined. The evidence of the tuning-fork points toward a lessening of the perceptive power of the acoustic nerve. Indeed, the symptoms are characteristic of those generally considered as evidences of a lesion of the nerve. It is possible that there are more factors than one involved in the causation of presbykousis, as there are in presbyopia. Besides the changes in the nerve, there may be, as suggested by Orne Green,[1] a senile dryness and rigidity in all the tympanic structures, a want of vacillancy, which prevents a normal vibration of the drum-head, and a proper conduction of sound to the senile nerve.[2]

It is not probable that presbykousis is caused by abnormal pressure through the base of the stapes bone upon the vestibule and semicircular canals, for vertigo does not attend it.

[1] Read before the American Otological Society, July, 1885.

[2] From πρεσβυς, an old man, and ἀκούω, I hear. Presbykousis is a more euphonious word than presbyakousis, and I hope etymologists will justify me in dropping the vowel.

RECTAL ABSORPTION CONSIDERED THERAPEUTICALLY AND WITH ESPECIAL REFERENCE TO THE RELIEF OF CONSTIPATION.

By C. M. FENN, M.D.,

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Hitherto the rectum seems to have been studied from an exclusively pathological standpoint, while its lesions have been relegated chiefly to the domain of surgery. Anatomical authorities have seldom done more than describe it as a portion of the colon, and define its surgical relations. Physiologists also have been silent as to any special or important function that it may possess, aside from defecation, being satisfied to regard it as a division of the large intestine, "the office of which is mainly confined to the separation and discharge of certain excrementitious substances;" or still further ignoring its capabilities, to style it "a reservoir for the fæces as they pass from the colon." More recently O'Beirne, Bodenhamer, and others, have been discussing the existence and purposes of its sphincters, in the endeavor to settle certain anatomical and technical questions which they evidently regard as *sub judice*.

For centuries, it is true, clysters have been employed to improve the complexion, to relieve the lower bowel of a portion of its contents, and as doubtful adjuvants to slowly-acting cathartics. But their action was supposed to be chiefly mechanical. In certain emergencies, also, physicians have resorted to medicated injections and suppositories to mitigate pain in the adjacent organs. Nourishing enemata were recommended by the divine Celsus as early as 50 A.D.; but the reliance upon such methods to sustain life, besides being of comparatively modern origin, is yet attended with doubt as to their efficacy. I am not aware, however, that any writer has yet suggested, or attempted to demonstrate, the probability of any other function pertaining to the rectum than that of defecation.

[1] Discussion: American Otological Society, July 15, 1885.

[2] The term presbykousis cannot be fairly criticised because the conditions causing it are not completely analogous to the changes in the crystalline lens and the ciliary muscle, for presbykousis means simply the hearing of an old person, having nothing to do with its causes, as does presbyopia, the *sight* of an old person.

At times, during the past two years, availing myself of such meagre facilities as are afforded by a private practice, I have been pursuing certain studies and experiments which have convinced me that the entire function of the rectum has not been fully appreciated, if, indeed, understood. That it is not sufficiently appreciated may be fairly inferred from the recent researches of Fubiné, with reference to the power of the lungs to absorb defibrinated blood; of Ziemssen, with subcutaneous injections of human blood; and from such comments thereon as the following, from a leading medical journal:[1] "It would be a great help in therapeutics if the functions of the stomach could be temporarily transferred to the lungs, . . . thereby giving the affected organs a rest."

Reasoning from analogy, then, the relative importance of any organ of the human economy may be predicated if it is a duplicate; if it is composite in construction and character, and especially if it is well provided with those elements of action, nerves, blood-vessels, etc. Furthermore, its lesions bear a striking relation to its functional activity. Now, whether we regard the rectum as a duplicate of the stomach, which it greatly resembles in everything save the ability to elaborate peptones, or consider its highly organized structure (in connection with the fact that defecation can be successfully performed through an artificial anus), the conclusion is legitimate that it is something more than a mere gateway for the passage of fæces.

Anatomically viewed, the rectum is the terminal eight inches of the large intestine, capable of great distention, empty except during defecation, and somewhat abruptly putting off the semblance of the lower bowel, of which it forms a part. It is but little shorter than the stomach, and has all of its muscles except the oblique. In the vascularity of its mucous membrane, as well as in many other respects, to which attention will be called as we proceed, it resembles the small intestine. Contrasted with the colon its longitudinal muscular fibres are no longer so distinctly marked, while the circular fibres, arranged in a thick, uniform layer, combine to form the sphincter; its sacculated appearance is lost, and the tube becomes a cylinder, contracted at each end. The connection between the muscular and mucous coats is much less intimate than that of other portions of the intestine, and in this respect, also, is suggestive of the upper portion of the canal. Still greater differences are presented by the mucous coat or membrane, which, pale and comparatively smooth in the cæcum and colon, now becomes thicker and much more vascular. When contracted the membrane is gathered into folds, called by Morgagni columns of the rectum. It also forms three valvular prominences of crescentic shape, their free surfaces looking upward and inward, which may be likened to the valvulæ conniventes of the small intestine. Like the jejunum, it is paved with columnar epithelium. The villi, which disappear at the termination of the ileum, again make their appearance and are inverted. They are so numerous, also, that the width of the intervening tissue is said to be "only one-sixth of the diameter of the follicle."

From the brief description given above it will have been observed that the structure of the rectum is not only in striking contrast with that of the colon, but that it is also of a composite character, so to speak, resembling the œsophagus, stomach, and portions of the small intestine, besides having peculiar features of its own. It will not be necessary to refer in detail to the number and size of the lymphatic vessels and glands of this region, nor to the extensive and elaborate arrangement of the nerves, which are derived from the cerebro-spinal and sympathetic systems. The evidence would be simply cumulative.

Whatever may be our conclusions with regard to so large a number of nerves and lymphatics as connected with a simple excremental gateway, the immense number of its follicles, and especially its vascular supply, are of still greater interest in this discussion, and point to some function more important than secretion and defecation. Whether the follicles secrete or absorb, for purposes of defecation an artificial anus has been found sufficient. Its arterial pabulum, then, is derived from two large arteries, the superior and middle hemorrhoidal, and three smaller ones, making five in all, whose aggregate volume must quite equal that of the three gastric arteries. Of its three sets of veins, the internal hemorrhoidal is chiefly concerned in the function which we would accord to the rectum, viz., the absorption of alimentary, and especially of medicinal substances. The latter certainly are not involved in the doubtful question of peptones. Having verified, by dissections, Kelsey's very accurate description of these veins, I have less hesitancy in using a few paragraphs from his recent monograph.[1] He says: "When the venous circulation of the rectum proper is in-

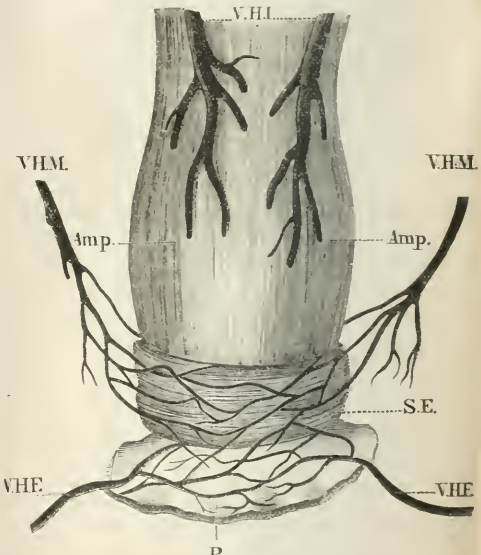

Fig. 1.

jected from the inferior mesenteric vein, three or four large venous trunks may be seen on the external surface of the rectum, ascending on the sides and posteriorly. These veins make their appearance suddenly by five or six branches, which peforate the wall of the bowel about three inches from the margin of the anus. If the rectum be opened longitudinally, and the mucous membrane dissected up to a sufficient height (about four inches), it will be seen that these five or six large veins, already visible on the outside of the bowel, come from within, and that they have already pursued quite a long course under the mucous membrane. They are formed by collateral branches, and especially by about a dozen primitive branches which originate about half an inch above the anus, and ascend in parallel and flexuous lines for several centimetres, to unite into common trunks. (The main trunks referred to, stand out in such bold relief that injection is not required to render them visible. The primitive branches also can be made out clearly by holding the intestine up to the light. From my observations, the accessory branches, or veinlets, are so numerous as to give to the membrane the appearance of a net-veined leaf.) Each of these little ascending branches

[1] New York Medical Record.

[1] Diseases of the Rectum and Anus. (See also woodcut from same work (Fig. 1), showing internal hemorrhoidal vein and ramifications.)

has its origin in a minute pool of blood, the size of which varies in the normal state from that of a grain of wheat to that of a small pea. (In one of my dissections, several of these radicals arose from quite a lacuna of blood near the anus. I did not make out the little pools as clearly as described by K.) These little sacs are arranged in a circular form around the extremity of the rectum. If carefully dissected, they may be seen to be connected with the little veins before mentioned, and also with another little vein which perforates the internal sphincter near its lower edge, and empties into one of the rudimentary branches of the external hemorrhoidal plexus. Many of these little communicating branches between the external and internal hemorrhoidal systems pass through the substance of the external sphincter." It is worthy of remark that, through the hemorrhoidal plexuses, there are anastomoses with the internal iliac veins, by which a direct channel, or communication, is made with the general circulation, while the mesenteric veins which relieve the small intestine, and the large one as far as the descending colon, convey their blood directly to the liver, via the portal vein. May not this in part explain Savory's experiment, showing a more rapid absorption of strychnine per rectum than through the stomach?

Having demonstrated the presence of veins in such large numbers and of such peculiar arrangement, it will only be necessary to refer very briefly to the important function performed by these vessels in other portions of the intestine, and system generally. The intestinal villi, for example, are essentially vascular organs, consisting of epithelial cells covering a network of blood-vessels, while the duct found in each is probably its excretory tube. The occasional presence of fat in the blood, though in small quantity, is a proof of venous absorption, as it could not enter through the lacteals without modification.

Panizza's [1] old, yet interesting, experiments in this line demonstrated that the blood-vessels absorb fluids from the intestinal canal even more rapidly than the lacteals. Küss [2] says that poisonous substances are undoubtedly absorbed by the veins, intoxication taking place so rapidly that the poisons can scarcely be supposed to pass through the lymphatics. Savory's [3] experiment with strychnine, already alluded to, is yet another evidence of this venous function. As a matter of fact, the veins, in contradistinction to the lacteals and lymphatics, may be called the common carriers of the system. This process is repeatedly and well shown in the liver, to which the veins bring materials for the formation of bile, and in certain pathological states diffuse it through the system. The sugar secreted is taken up by the veins and eliminated through the kidneys. "Albumen is transformed, because it comes in contact with the hepatic cells by means of the portal circulation." If these are facts, the question naturally arises, Why may not saccharine and albuminous, in fact, all substances, be taken up by the rectal as well as the portal veins?

Let us now recall a few facts taken at random from comparative and human physiology.

The powerfully digestive function of the lower bowel in solipeds is well established. Again, Bauer [4] has shown that the rectum of the dog can absorb pure albumen, as well as acidulated and saline meats. Liebig [5] found that a solution of salt (one to eighty) was entirely absorbed by the rectum within an hour. A recent investigator,[6] after injecting arsenic into the rectum *post mortem*, found it diffused through the intestine and system.

Upon the supposition that the rectum had neither digestive nor absorptive power, because unable to change colloids into crystalloids, it has been attempted to explain the disappearance of various enemata by *retrostalsis*. A recent contributor to one of our medical journals [7] vouches for the presence of portions of an injection in the small intestine, and for the taste of quinine introduced per rectum. So, too, the "Medical and Surgical History of the War" [8] cites instances of rectal injections reaching the stomach. *Per contra*, Dana's [9] experiments upon sixteen living dogs, seem to establish the fact that fluids, even in large quantity, *seldom* penetrate beyond the ileo-cæcal valve, and hence do not reach the so-called absorbent territory. Professor Dawson,[10] of the Ohio Medical College, in summing up the results of fourteen injections, two of which passed the valve, says, "the experiments performed show that the valve, when intact—when in normal condition—will not allow retrograde passage." Inasmuch as large quantities of fluid and force are required to penetrate the valve, the question does not particularly concern us.

Still further evidence of the existence of this function of the rectum may be drawn from the many cases [11] of rectal alimentation lately placed upon record. Flint writes of a patient whose life was prolonged for fifteen months chiefly by the aid of nutrient enemata. Another case, occurring in a German hospital, was not only kept alive for a considerable period, but gained a pound in weight in one month. C. Kay, Jr.,[12] records, as an evidence of retrostalsis (?), a case of peritoneal tuberculosis kept alive by rectal injections for more than three months. A foreign journal [13] gives an instance of a Roumanian wine-merchant, whose throat was cut by gypsies. By rectal alimentation his life was sustained for two years, until the œsophagus was restored.

I may be pardoned for giving here the details of a case which came under my own observation and treatment about two years ago, especially as it suggested the studies embodied in this paper. It was a typical and protracted case of gastritis, with all the attendant symptoms, such as nausea and retching, burning palms, constipation, low fever, and, of course, great prostration. For more than six weeks there was complete intolerance of solids as well as liquids, even melted ice being regurgitated. Hot-water draughts had not then become so fashionable as at present, though my patient used large quantities of it per rectum. Nourishment was administered only through the same channel. For the constipation, clysters of tepid water, sometimes with the addition of olive oil, were almost daily employed, some of which produced evacuations, while others were absorbed. Her condition was still further complicated from the fact that, believing herself of bilious habit, she had for a long period been tampering with patent and other remedies for the liver, and in the absence of its accustomed stimulant, besides its sympathy with the stomach, this organ now ceased to act. A dose of calomel was given, and after a considerable interval an attempt was made to assist its action by carefully selected adjuvants. But the result was so disastrous that no further appeals were made to the stomach. The exigencies of this case, then, taught me that not only was it possible to sustain life by food administered through the rectum, but that the liver could also be reached through the same avenue.

I need not stop to discuss the question of peptonizing alimentary enemata. As a matter of fact, nitrogenous and albuminous injections have been employed with more or less success for centuries, while the use of peptones as an aid to digestion is of comparatively modern origin. Furthermore, as most medicinal substances are not included in either of these classes, they require no such adjuvants for their assimilation.

I now come to a summary of facts, or "provings," as our homœopathic *confrères* might style them, most of which personal observation and repeated experiment permit me to corroborate. For example, the cathartic effect of aloetic injections has been frequently noted. It

[1] Dalton's Physiology. [2] Küss' Physiology. [3] Gazette Médicale, 1864. [4] Therapeutical Gazette, 1883. [5] Liebig's Animal Chemistry, p. 77. [6] Medical World, 1884. [7] Medical Age, March, 1885. [8] Part II., p. 836. [9] New York Medical Record, 1883. [10] New York Medical Record, 1876. [11] Lancet and Clinic, February, 1885. [12] Medical Age, May, 1885. [13] British Medical Journal, 1883.

has often become necessary to suspend their use because of even drastic tendency. "Headland," I believe, says that many remedies are absorbed and eliminated near the same region. Upon that theory, gums, resins, and medicines which do not seem to act until they reach the colon, should be introduced into the rectum. Inunction of the rectum with mercurial ointment will often not only produce loose evacuations, but if employed in sufficient quantity will act as a cholagogue. For certain types of constipation it is often only requisite to anoint the rectum with the unguent the previous evening. If guarded with sufficient opium or belladonna, and repeatedly applied, the specific effect of mercury may be expected; in fact, with more promptness than when rubbed into the skin. In some instances, by rectal medication I have been enabled to cause the expulsion of tæniæ which had resisted the usual methods. In certain cases of gonorrhœa, in which idiosyncrasy of the stomach precludes the continued exhibition of copaiba, cubebs, and oil of sandal-wood, I introduce capsules of the same into the rectum. I believe that the duration of the disease can be materially curtailed by this method, to say nothing of relieving the stomach from such nauseous dosage. Uterine and vesical hemorrhage can be more promptly arrested by administering ergot and other remedies per rectum. A few minims of copaiba, in capsule or emulsion, introduced into the rectum of the child, will ward off many an impending attack of spasmodic croup! In several rheumatic cases, requiring remedies for the relief of constipation, I have employed suppositories of blue mass, colocynth, physostigma, or aloes, as the occasion suggested, with satisfactory results. I have repeatedly noted the disappearance or absorption during a night, of fifteen grains of blue mass, with half as much colocynth. In two cases of paraplegia, a combination of aloes, calabar bean, or cascara sagrada, with or without belladonna and nux vomica, was quite sufficient to regulate the bowels for long periods. Ox-gall in form of suppository, or incorporated with fluid menstrua, not only softens scybala, but not infrequently relieves the constipation arising from a deficiency of the natural secretion. Enemata of hamamelis virginica I regard as almost specific in cases of intestinal hemorrhage, whether of hemorrhoidal or higher origin. Some months since, the writer was summoned in consultation upon a critical case of intestinal obstruction, which had already reached the stage of stercoraceous vomiting, etc. Copious clysters of various kinds having been frequently repeated without accomplishing the desired result, at my suggestion a small injection of olive oil with a few drops of croton oil was employed, and with almost magical effect. Within fifteen minutes the normal peristaltic action seemed to be restored; large doses of castor-oil, as well as nourishment, were retained by the stomach, and convalescence was uninterrupted.

Within a twelvemonth, ether [1] has been successfully administered per rectum, both in Europe and on this continent. Dr. Pepper,[2] of Philadelphia, also reports the successful use of chloroform in the same way. Drs. Vincenzo,[3] Cantani, and others, during the recent epidemic of cholera at Naples, tried injections of tannic acid and opium with excellent results. More recently the panacea, muriate of cocaine, has been employed by injection into rectum and piles,[4] rendering the operation for hemorrhoids a painless one.

But I need not further multiply instances from my own notes, nor from current medical literature. It is evident that, as never before, the profession is directing attention to the possibilities of the rectum as an aid to therapeutics, and the object of this paper is to assure them that their "faith is well founded;" that rectal absorption is no longer a matter of speculation and theory. Furthermore, in my opinion, the time is not far distant when this method of therapeusis will at least supplement, if it does not supplant, most of the means now employed to "regulate the bowels;" the fact that nine tenths of all cases of constipation, acute and chronic, originate in the large intestine, from want of contractile power, irregular peristaltic action, flatulent distention, and deficient moisture, should stimulate us to further investigation and experiment in the direction I have endeavored to indicate. Besides this, the mobile colon, with its gas-harboring flexures, is a most fertile source of the left-side pains, and of many other functional and sympathetic disturbances of thorax and abdomen, which can be soonest dispelled by remedies administered through the rectum. Furthermore, the class of medicines called irritant cathartics, including most of the resins, are absorbed, it should be remembered, with difficulty, if at all. It is manifestly unphilosophical, therefore, as well as hurtful, to pass these through twenty feet of normal intestine, when the colon alone is responsible. An authority [1] upon this subject has written: "Whenever a practicable line of treatment, with little or no medicine, can be successfully adopted in any individual case of constipation, such treatment certainly claims a primary consideration;" meaning, I infer, that the best course is one which interferes least with the general system. In this view of the case, I can suggest nothing better than rectal medication. Yet I would not ignore the hypodermatic use of remedies, a method susceptible of extended application. In my opinion, the administration of medicines should be, and ultimately will be, restricted to these two means. The size of the dose should be diminished, and the interval of administration materially shortened, especially in maladies attended with suffering. When these methods prevail, as I believe they will, the liver and pancreas, so rarely at fault *per se*, will not be called upon to respond to every cathartic combination, and the now much-abused stomach will assert and maintain its prerogative to be the receptacle for food, and food alone.

A few details as to the *modus operandi* may not be out of place at this point. Drugs must be selected, and the quantity modified with reference to the immediate or remote, moderate or full, effect desired. There must also be discrimination as to the doses for different individuals; as for example, the fourth of a grain of belladonna will sometimes seriously disturb vision. The law of endosmosis does not seem to prevail here, whatever may be the fact in other portions of the alimentary canal, the specific gravity of an enema being of less importance than its bulk. Powders may be incorporated with vehicles of varying consistence, of which morphine in water, or dry in capsule, may be taken as a type. In the absence of capsules, syringes, and ointment instruments, one may use blue mass, mercurial ointment, and some of the extracts in mass, though it is better to wet them up with syrup or glycerine. With a little dexterity in manipulation, a bolus or suppository may be introduced into the rectum at bedtime, with fair promise of an evacuation in the morning. For general purposes, the most convenient appliance that has yet come to my notice is a hollow shell, or capsule, of cacao butter, with adjustable cap, manufactured by Hall & Ruckel, of New York. There are several sizes of these, and to fill one of them with powders or extract is the work of a moment. Although drugs seem to be quickly diffused over the absorbent surface by these means, I have thought a long rectal suppository, or bougie, might offer some advantages. Emulsions, if not too bulky, form eligible vehicles for some medicines. If from any cause, such as hemorrhoids, the rectum is irritable or intolerant of medication, it is well to add a portion of belladonna or opium to the dose. Besides this, the former possesses laxative properties, and often may profitably enter into the combinations against constipation. Nux vomica is also a desirable adjuvant where deficient peristaltic action or absence of muscular

[1] Therapeutical Gazette, 1885.
[2] American Medical Journal, July, 1884.
[3] Lancet, February 21, 1885.
[4] H. A. Smith, M.D., Medical News.

[1] Birch on Constipation.

tone is the cause of trouble, its tonic effect seeming to be increased by such immediate application.

In conclusion, we find the rectum to be the antipode of the stomach, as to its position in the alimentary tract, yet presenting many analogies to the latter. It is capacious and, for the most part, empty. As a reservoir, it is superseded by the sigmoid flexure of the colon, and is not indispensable in defecation. Its mucous membrane is thickly inlaid with Lieberkuhn's follicles, or inverted villi, which must be allied in function to those organs in other portions of the intestine, or be superfluous. Besides these, and beneath them, we meet with a congeries of veins and capillaries, or veinlets, which are at least suggestive of the portal vein and its capillaries.

The preponderance of evidence is against retrostalsis, except in rare instances. But admitting the permeability of the ileo-cæcal valve, even under circumstances of great force or quantity, we shall derive no assistance from the lacteals, for the reason that they are especially arranged for the absorption of fat, and are probably only active during digestion. It therefore becomes a question of villi and capillaries at last.

Accumulated facts outweigh all theories with regard to rectal absorption.

Medicinal substances do not require peptones for their digestion and absorption, and, with suitable appliances and in proper combination, may be administered in this way, to the great relief of the stomach and with full assurance of the desired effect.

Clinical Department

THE TREATMENT OF DIPHTHERIA.

Dr. J. W. Alexander, of Newark, O., writes in favor of the constitutional treatment of diphtheria. He thinks that local applications of any sort are of doubtful utility, although, as palliative measures, antiseptic and disinfectant washes are not to be ignored. All caustics and irritants are injurious, he maintains, and should never be used. The following is the formula which he has used with success in many cases: ℞. Chlorate of potassium, 40 grains; simple syrup (slightly warmed) 2½ ounces; dissolve and add aromatic sulphuric acid and tincture of chloride of iron, of each one fluidrachm. The dose for adults is a teaspoonful every two to four hours, according to the urgency of the case. As soon as the symptoms begin to improve the dose should be decreased and the interval extended, but the remedy should not be discontinued until the throat is entirely free from the diphtheritic deposit. Dr. Alexander states that he has used this method of treatment constantly for several years, during which time he has lost but one case of diphtheria, and that one was not seen until the disease was too far advanced to be stayed by any remedy. He writes in conclusion: "It may seem that there is nothing remarkable in the above combination, as chlorate of potassa and tincture of iron are used by nearly everyone, but the union of the three articles combined in these proportions has produced very marked results. I will not attempt an explanation of the *modus operandi* of this medicine, but will leave it to those who are more competent; but if I can persuade any of my professional brethren to give this simple remedy a trial, I shall have accomplished my purpose."

TRAUMATIC TETANUS—RECOVERY.

In January of the present year, Dr. J. G. Stair, of Manteno, Ill., reported a case of traumatic tetanus which resulted fatally, notwithstanding a most heroic treatment with bromide of potassium, gelsemium, and chloral. A second case, which was recently under his care, has terminated in recovery. The patient, Mrs. M——, fell against an old corn cultivator, cutting the palm of the hand near the thumb on the rusty corner of one of the shovels or ploughs, forming part of the machine. The wound was about three-fourths inch in length and one-eighth inch in depth, caused the patient no anxiety, and had nearly healed without suppuration on the third day after the accident. At this time Mrs. M—— was seized with stiffness of the muscles of the left arm and the jaw, and pain, which started from the wound in the hand and extended up the arm to the jaw and the epigastrium. Soon the paroxysms became more general and involved all the muscles of the body; they continued for from one to two hours, and recurred at varying intervals of six to thirty-six hours. During the first week of the disease the temperature was 101° F., and the pulse ranged from 120 to 130. In the second week the temperature was from 99° to 99.5° F., and the pulse-rate between 90 and 100. The treatment consisted in the administration of bromide of potassium, chloral hydrate, and fluid extract of physostigma. These were given in succession until their physiological effects were observed. In addition, morphine was given in small doses as needed, to induce sleep. The wound was thoroughly cauterized with nitrate of silver and nitric acid, and covered with a soft poultice; it was freely incised several times and bled quite freely. A fly-blister was applied along the whole extent of the spine, and ice was placed from time to time over the lower portion of the back. Cascara and calomel were also given as occasion required. In two weeks the paroxysms ceased, and at the time of writing Dr. Stair reports the patient as having nearly recovered her usual health.

ACUTE ŒDEMA OF THE EPIGLOTTIS.

Dr. G. B. Hope, of No. 34 West Fifty-first Street, reports the case of a man, fifty-four years of age, who presented himself at the clinic of the Post-graduate Medical School, suffering from urgent dyspnœa. Laryngoscopic examination showed acute œdema of both ventricular bands rising high in the larynx, with the narrowest possible opening of the glottis, especially during inspiration. The swelling was most pronounced in the anterior portion, though pretty general throughout, and the cords were not visible in any part. Following the examination such a marked spasm occurred as seemed to threaten suffocation and to demand instant tracheotomy. The extreme urgency passed by, however, and as soon as a laryngeal knife could be procured the parts were freely incised. There was considerable hæmorrhage, and the relief afforded by the operation was immediate. There was no return of the œdema, and four days later the parts had resumed their normal appearance. Subsequent examination showed that the œdema was limited chiefly to the epiglottis and aryteno-epiglottic folds. The shape of the epiglottis was somewhat unusual, it being more than ordinarily short and broad, and when first examined had an appearance like that presented by the ventricular bands when largely infiltrated. The cause of the attack appeared to have been irritation, excited by the use of the finger in the throat to provoke vomiting. This case shows the readiness with which even extreme œdema may yield to free incisions, the necessity of the graver operation of tracheotomy being thus obviated.

HOUSEMAID'S KNEE—RECOVERY WITHOUT REMOVAL OF THE SAC.

Dr. Charles H. Carter, of Chicago, Ill., relates the case of a plasterer, aged thirty-four, who had received a fall three weeks before coming under observation, striking his knee against the edge of a board. No pain was felt until about a week after the injury had been received, at which time also a swelling was noticed. This tumor increased in size until it covered the lower two-thirds of the anterior surface of the patella, and was found to contain pus. There being no time for temporizing, Dr.

Carter proceeded to operate as follows: "With a bistoury I made an incision from above downward on the external side of the swelling, carrying it, with the aid of a grooved director, to the extreme lower limit of the cyst, so as to avoid leaving a 'pocket,' and to facilitate complete evacuation. The incision was made on one side, and from above downward, rather than from side to side, to prevent any gaping of the wound when the knee was flexed.

"After thoroughly emptying the sac by gentle pressure and gravity, I washed out the cavity with a two per cent. solution of carbolic acid in hot water, continuing until the water returned perfectly clear and unstained by either blood or pus. The time consumed by this part of the operation was probably ten minutes. I used hot water because that was more certain to dislodge any portion of pus which might, by its greater consistence, be retained around the edges of the sac, where the walls are reflected on the surface of the patella.

"Gently pressing out the water, but not taking any pains to thoroughly empty the sac, I carefully brought together the edges of the wound and hermetically sealed it with strips of silk isinglass-plaster, moistened with a ten per cent. solution of carbolic acid. Then, with the leg extended, I applied strips of mole-skin plaster to the whole knee-joint. I used strips about half an inch wide, and long enough to go about three-fourths around the joint, leaving the posterior surface uncovered.

"Commencing above the patella, I applied the first strip, drawing the ends strongly downward. The second slightly overlapped the first in front, but nearly covered the ends of it on the sides. The strapping was continued in this manner so that the strips firmly compressed every portion of the emptied sac, keeping the walls accurately in contact. The patient did not experience the least pain or discomfort in the part after the dressing was applied.

"Using no further means, except complete rest and low diet, I removed the dressing on May 5th, four and one-half days after the operation, and found the sac perfectly closed and not a drop of liquid to be felt in it.

"After remaining in-doors two days longer, the man went to his work, and has had no sign, as yet (June 30th), of a return of his 'housemaid's knee.'"

How an Opium Habitué was Cured.—Mr. S. T. Morton describes in the *Popular Science Monthly* his personal experience with opium, and denounces in vigorous terms the practice of treating opium-eaters by sudden withdrawal of the drug. He says: "I had been an *habitué* ten years, having reached at the end of that period the daily amount of thirty-six grains of gum-opium, taken only into the stomach. The 'habit' had been begun by a very small amount, and its increase had been extremely gradual. I knew not where to turn for help in effecting a cure: one thing seemed certain, it could not be done without help. At a venture merely, I called upon the late Dr. George M. Beard, feeling that, at any rate, I should be free from the risk of charlatanism; and I shall always remember him with gratitude, for it was through his recommendation that I placed myself under the care of another physician, who immediately undertook the treatment of my case. The gentleman whom, through the good fortune of Dr. Beard's introduction, I thus came to know, I found to be a young man, in the prime of good health and spirits, and one who at once inspired me with that confidence so important in such a case. His residence, it was manifest, was no ordinary 'institute' or 'asylum.' I was simply a courteously received guest in a private family." The patient was not placed under restraint, and was allowed to walk out and ride alone. His opium was gradually reduced until at the end of a week it was all withdrawn. He was subjected only to tonic treatment, and in the course of a few months was practically well. For a long time after, however, he was reminded at times of his old enemy.

Progress of Medical Science.

The Cutaneous Manifestations of Gonorrhœa.—M. Andret affirms that gonorrhœa may cause erythema of a nodose or papular kind and a rash resembling scarlatina. The author reports a case of "scarlatiniform erythema," and attributes such eruptions to the specificity and virulence of gonorrhœa, which, in his opinion, is a parasitic disease, depending on the presence of a special micro-organism. M. Raoul Mesnet, like M. Andret, looks upon gonorrhœa as a parasitic disease (*Thèse de Paris*), and, as such, liable to affect the skin like other infectious maladies. The greater part of the rashes commonly attributed to copaiba and similar drugs, the author considers to be really due to the gonorrhœa itself. Balsamic drugs alone, he maintains, cannot cause erythema, because they do not do so when given in other diseases than gonorrhœa; nor can the continuance or return of the eruption be procured by the administration of the drug even in large doses. Gonorrhœal eruptions are polymorphous (nodose, scarlatina-like, measles-like, etc.), and generally occur only in patients who have other symptoms of infection. They are usually accompanied by fever, and sometimes by a general condition of some severity. These eruptions cannot be dependent on reflex vaso-motor disturbance, which Lewin believes to be their cause; they are probably due to the presence of the gonorrhœal micro-organisms in the skin.—*London Medical Record*, June 15, 1885.

The Anæmic State.—At a recent meeting of the Brighton and Sussex Medico-Chirurgical Society (*The British Medical Journal*, July 4, 1885), Dr. Joseph Ewart read a paper on the anæmic state. This was manifested as an antecedent, accompaniment, or sequel, of specific fevers and "constitutional" diseases, of many local disorders, and of derangements which interfered with the nourishment of the blood or its depuration. As regarded the white and red corpuscles, it was probable that the same mode of genesis which led to their evolution in the blastema of the area vasculosa of the embryo, continued to insure their renewal and repair during their fully developed condition in thoroughly oxidized blood. Why should it be doubted that the red corpuscles possessed independent and self-reproductive powers? They were the analogues of the lungs, modified in structure, constitution, and distribution, so as to effect the interchange of oxygen and carbonic acid in the minutest recesses of the economy. The various phases of the anæmic state were then detailed; and, with regard to treatment, it was needful to note diathesis and temperament. In most cases, regulation of the bowels, improved hygiene, and open-air exercise, sufficed, especially if coupled with removal of the cause. In others, ferruginous preparations were demanded; the necessity of keeping the bowels free by means of salines in all cases of constipation being remembered. It had often seemed to Dr. Ewart, in managing malarial and other forms of anæmia, in which there was frequently manifested great intolerance of steel, that changing the particular preparation employed, a reduction of the dose, or a diminution of the number of doses administered in a given period, sometimes sufficed to get rid of the fulness in the forehead, headache, indigestion, and gastric or intestinal irritation attributed to its use. But, in the main, in such cases, and they were numerous, perhaps the best plan was to give very minute doses indeed; to assimilate them, in this respect, as much as possible to the condition in which they were found in chalybeate waters in a most diluted form, so that they might be taken between meals in large quantities of water during those periods of the morning and afternoon when out of-door exercise could best be taken. In summer, Dr. Ewart invariably recommended such persons as could afford it to try the excellent chalybeate springs of St. Ann's Well, Brighton, Tunbridge Wells, or Harrogate;

or the pure iron waters of Schwalbach or Spa; or the compound iron springs of Pyrmont, or St. Moritz, etc., under the direction of one of the physicians on the spot, and with the best results. Digestion, assimilation, and the nutrition of the blood, as regarded both albuminous material and the red corpuscles, were promoted by good but not too rich food, by drinking of the mineral waters, by open-air exercise, suited to the growing capabilities of the patient under the most agreeable surroundings of fine equable weather; by brilliant sunlight, tempered by abundance of shade; by society, and the best of music. The same mode of management was applicable to chlorosis, also, in anæmic Anglo-Indians, who had returned to their native country after long residence in or near the tropics; but very free purgation to remove portal plethora in such patients was necessary when the treatment was conducted in this climate. In the winter there was often practically no alternative. But in summer it was better to recommend them to drink, first, the saline waters of Carlsbad or Homburg on the spot, and to wind up with a course of any of the chalybeate springs already mentioned.

The Criminal Responsibility of Drunkards.—The Paris correspondent of *The British Medical Journal* (July 11, 1885), writes that M. Mottel, at a recent meeting of the Académie de Médecine, treated the important subject of the responsibility of criminal drunkards. Crimes, murders, etc., committed when the perpetrators are under the influence of drink, are much on the increase. Alcoholism at the present time presents unusual characteristics. M. Mottel believes that MM. Dujardin-Beaumetz and Audigé's researches explain this. Manufactured spirits currently sold are more toxic than pure vinous alcohols; they contain empyreumatic substances, which exercise a most dangerous influence on the nervous system, which is manifested by sudden fits of frenzy, and savage and brutal impulses. Magistrates are at a loss how to judge a criminal who suddenly commits a crime without any reason or previous intention. If the momentary delirium were the result of a former cerebral lesion of alcoholic origin, the medical expert's evidence would give some clue; but after the momentary influence of these manufactured spirits has passed away, the drunkard is in a normal condition, and no symptoms can be detected suggesting the probability of a return of mad impulses.

Trigger-finger.—Several Italian surgeons have recently published observations on the *dita a scatto*, or trigger-finger, first described by Rusconi in the *Gazzetta degli Ospitali*, in 1878. This affection consists in a sudden check to voluntary extension or flexion of a finger, only overcome by a violent effort, or by the aid of the other hand, when the finger suddenly completes the desired movement with an audible snap. It most frequently attacks the thumb and ring-finger, but has been observed in other fingers, in several simultaneously, and also in the toes. The patients are generally between forty and sixty years of age, and men are less frequently affected than women. Rusconi has collected thirty-six cases. Romei has since (1884) described another case in the same journal above quoted; the patient was a woman, sixty-five years of age, and the ring-finger was the part affected. Solaroli gave notes of a severe case, where the great toe was involved, in a strumous housemaid, twenty years of age. In one-third of the cases already observed, rheumatism was the predisposing cause; in others, there was a distinct history of injury; in some, the origin of the disorder could not be traced. There is generally severe pain, and in the cutaneous fold between the first phalanx and the palm, a thickening has been detected. Possibly this condition may indicate some inflammatory change in the tendons or their sheath, or even a loose cartilage, as in the knee-joint. Notta and Nélaton speak of a distention of the blind end of the synovial sheath at the free border of the palmar fascia, observed when the affected finger moves in the act of writing; some distinct protuberances have also been detected on the bulging flexor tendons. These swellings appear to press against the palmar fascia, and hinder further movements of the tendons. Notta has found a thickening of the long flexor tendon in a "trigger-thumb," and attributes the sudden check to the transverse aponeurotic fibres which pass across the sheath over the metacarpo-phalangeal joint. "Trigger-finger" is an obstinate disease, and a great hinderance to work. Passive motion, fixing the finger in splints, shampooing, and electricity, have been tried as remedies. As surgical operations, excision of the tuberosities, tenotomy, and subcutaneous division of the palmar fascia, have been proposed; but none of these measures have proved of permanent benefit.—*The British Medical Journal*, July 4, 1885.

Treatment of Asthma with Pyridin.—Professor Germain Sée has recently communicated to the Paris Academy of Sciences a valuable series of observations on the action of pyridin in the treatment of both neuro-pulmonary and cardiac asthma. Pyridin is a colorless liquid, which evaporates when exposed to the air, and possesses a very penetrating odor. This substance has been discovered by chemical analysis in the products of dry distillation of a variety of organic substances; in such alkaloids as quinine and morphine; and by Wohl and Eulenberg in the products of tobacco-smoke. Various anti-asthmatic cigarettes and burning papers have been found to owe all their virtues to this uniform base, which is developed by the combustion process. The best mode of application consists in evaporating a drachm or more of the liquid in a close room in which the patient sits, for twenty minutes or a half hour, three times daily. Absorption is immediate, as the pyridin appears almost at once in the urine. An almost immediate diminution of the oppression takes place, respiration becomes free, and the heart-beat calm and regular. Immediately after the séance, or an hour later, many experience a tendency to sleep. Usually after the second or third séance the wheezing in the chest disappears. Professor Sée observed the effects of pyridin on fifteen patients, five of whom were affected with heart disease. In all cases decided benefit was noted. In three cases of nervous asthma the attacks disappeared completely after from eight to fifteen days of treatment. The heart cases were immediately and markedly benefited. From these observations the author concludes that all forms of asthma are more benefited during the attack by pyridin than by morphine or any other palliative treatment, but that in the iodides we have the most efficacious curative means.—*Bulletin Gén. de Ther.*, June 30, 1885.

The Contagion of Mumps.—The Paris correspondent of the *British Medical Journal*, writes that M. Jaccoud, in a recent clinical lecture at the Hôpital de la Pitié, drew attention to a case of mumps presenting infectious symptoms. The patient entered after the first symptoms had abated. The swelling of the parotid glands had diminished; the right testicle was much swollen and very painful. The temperature was very high, at night reaching 104.2° F.; the subsequent evenings it reached 108.8° F. Endocarditis, affecting both the sigmoid and mitral valves, set in. Dr. Jaccoud regarded this complication as an indication of the infectious character of this case of mumps. Gradually the symptoms disappeared; but the cardiac *bruits* remained, though much enfeebled. M. Netter examined the blood of the patient, and found that it contained microbes. Dr. Jaccoud enumerates the three following symptoms as clinical indications of infection: fever, endocarditis, and transient albuminuria. M. Auguste Ollivier, in a communication to the Académie de Médecine on the contagious character of mumps, stated that the contagious character of this affection can be no longer doubted. MM. Capitan and Charrin have made some researches to ascertain the agent of this contagion, and assert that it is a special micro-organism contained in the

blood and saliva. Inoculations made with it furnished negative results. M. Barth, in a recent thesis, published notes of a serious case of parotiditis in Dr. Bouchard's wards. Microbes were present in his urine and saliva. In the urine and saliva of a male child, aged eleven, suffering from mumps, Dr. Ollivier observed epithelial cells, lymphatic corpuscles, short rods, and micrococci, dispersed in couples or in fours. Zoöglœa were also present, but gentian-violet did not stain them. The urine was highly colored, limpid, free from albumen, and contained a considerable quantity of micrococci, arranged in small masses, two together; rods and bacteria were not so abundant as in the saliva. The saliva of children not suffering from mumps, examined by Dr. Ollivier, was free from rods, but contained micrococci and zoöglœa, which were stained by gentian-violet. In their urine there were neither rods nor micrococci. M. Ollivier afterward examined the saliva and urine of children suffering from parotiditis, and detected the presence of micrococci, diplococci, and zoöglœa.

Extemporaneous Examination of Woman's Milk.—Dr. Hélot, in the *Union Médicale de la Seine Inférieure*, recommends a simple method of determining the quality of human milk. He undoubtedly accords superiority to chemical analysis, but as this process is so long and difficult the common practice has been to rely upon the appearance of the milk. Dr. Hélot's method consists in comparing the number of drops in a given volume of distilled water at 60° F. with those of the same volume of milk. Good milk, such as produces a mean increase of an ounce per day in the child's weight, gives thirty-five drops in the same volume which, of water, gives but thirty. If the milk be of superior quality the volume may yield as high as thirty-eight drops. If, on the contrary, but thirty-three or less are obtained, the milk should be mistrusted. Both breasts should be examined while the nursing is going on.

Diaphoretic Treatment of Puerperal Eclampsia by Hot Baths.—Dr. Breus reports (*Archiv für Gynäkolog.*, xxi. i.) eleven cases of puerperal eclampsia treated by the hot bath, with ten recoveries. He had previously treated six cases by this method, losing in this series, likewise, one case. He first places the patient in a bath of 100° F., and gradually increases the temperature from two to four degrees. He then envelops the patient in blankets to excite an abundant diaphoresis. Of these eleven women, four had had convulsions at the commencement of labor, two during gestation, one at the moment of delivery, and four after delivery. The author affirms, from his experience with these seventeen cases, that neither abortions nor hemorrhages are to be feared from the employment of the bath, and that when the presence of albumen in the urine indicates a threatened complication, the bath constitutes an excellent prophylactic means. One of the cases reported was that of a primipara, aged twenty-six, who was attacked with œdema and albuminuria. In the eighth month baths began to be given After taking forty-five, she was successfully delivered of a large and healthy child.

Stammering and Stuttering.—Alex. J. D. D'Orsey writes to the *British Medical Journal*, June 27, 1885, that as much misapprehension exists concerning the above subjects, the following may be of interest: 1. Speech, or articulated voice, depends for its perfect production on vigor of mind, on sound natural organization, and on due training of the vocal and articulating apparatus. 2. Stammering is inability to articulate, marked by slowness, stoppage, hesitation, and indistinctness, but not with repetition; whereas stuttering consists in a painful repetition of the same consonants, often attended by flushing and facial contortions. 3. Stammering and stuttering may sometimes be caused by organic defects, such as cleft palate, harelip, enlarged uvula, inflamed tonsils, etc.; but these impediments are far more frequently due to functional causes, that is, habit, imitation, heredity, etc. Nervousness is often the consequence, or concomitant of stammering, rather than its cause. Organic effects must, of course, be treated medically or surgically, but the subsequent cure belongs to the elocutionist, while functional derangements (wrong action of the voice apparatus) are peculiarly his province. 4. The sooner the curative process begins the greater is the prospect of success. What is easily eradicated at an early age becomes hard to remove at a later period; though at any time of life, alleviation, if not cure, can be assured as the result of perseverance. "He will grow out of it," is a fatal saying. A fair time ought to be given, according to the nature of the case; for "a few lessons" cannot reasonably be expected to undo the mischief of many years; and the teacher is often accused of failure, when the blame is solely attributable to the patient or the parent.

Alkaloids in Urine.—The Paris correspondent of the *Lancet* (July 11, 1885), writes that a short time ago Drs. Bouchard and Poulet, after a series of researches undertaken by them conjointly, announced the existence of alkaloids in normal urine. Dr. A. Villiers has since studied the subject, and, in a paper lately read by him at the Academy of Sciences, has arrived at a different conclusion—that is, that alkaloids exist only in abnormal urine, and that in the normal condition this liquid does not contain any alkaloidic substance; that in the course of a great number of maladies, even those that are slight, alkaloids—the proportions and toxic properties of which are probably very variable—form in certain organs, pass into the current of the circulation, and are eliminated by the kidneys. Between this formation and elimination a struggle takes place; if the elimination is less rapid than the formation, a veritable intoxication supervenes. In this line of argument Dr. Villiers attributes a great number of fatal cases to the existence of lesions of the kidneys, produced either by some extraneous cause or even by the action of the poison on these organs, lesions diminishing their eliminative action. The ingestion of large quantities of water in the organism may, in a great number of cases, facilitate the elimination of alkaloidal substances, and this is probably the real mode of action of the greater part of the ptisans or infusions administered in divers maladies.

Leprosy with Invasion of the Tongue.—Dr. Campana reports the case of a youth, aged fifteen, of leprous parents, who had tubercles and macules of leprosy on the face and legs. The tongue was also involved, the disease there being manifested by little papilliform tumors grouped together in an oval patch the size of a cent, slightly raised and with roughened surface. These little tumors varied in size from that of a lentil to that of a hemp-seed. Some were conical in shape, others rounded, they were red in color, and painless. One of these tumors was removed and examined under the microscope, when numerous bacilli characteristic of leprosy were found.—*Revue Médicale*, June 13, 1885.

Perforating Ulcer of the Hand.—At a recent meeting of the Surgical Society of Paris, M. Terrillon (*Revue Médicale*, June 13, 1885), presented a patient, aged twenty-six, who had on both hands ulcerations surrounded with thickened epidermis resembling exactly perforating ulcer of the foot. The lesions were surrounded with an anæsthetic zone. There could be no doubt of their origin from a central nervous lesion, and the patient also had other symptoms pointing unmistakably to locomotor ataxia. M. Terrillon had also presented a similar case at a previous meeting. M. Trélat recalled an observation previously made by him, of the relation between perforating ulcer and a central nervous lesion, and stated that he has seen the ulcers upon both hands and feet in the same subject, who was ataxic.

Herpes following Operations on the Teeth.—In a paper in the *Journal de Médecine de Paris*, of June 14, 1885, Dr. T. David writes of a form of so-called traumatic herpes which he has observed after operations upon the teeth or with dental caries. The eruption is seen more often in women and young people, and is seated upon the mucous membrane of the gums, lips, or cheek, or upon the skin of the face. It may be confluent or discrete, and may or may not be accompanied with fever. When there is an elevation of temperature, the eruption may be regarded as a local manifestation of hepatic fever determined by the dental irritation. When there is no fever, the herpes is to be regarded as due to nervous troubles excited by the traumatism of pulling or filling a tooth, or by the irritation arising from the carious process. Dental herpes, when accompanied by fever, swelling of the face, and redness of the skin, may lead to a diagnosis of erysipelas. The affection is otherwise of trivial importance, and disappears spontaneously in a few days.

Orchitis following Catheterization.—At a recent meeting of the Société Médico-Pratique, Dr. Barette read an interesting paper upon the different forms of orchitis due to urethral catheterization, of which the following are his conclusions (*Journal de Médecine de Paris*, Nos. 23 and 24, 1885): 1, Patients with stricture or enlarged prostate are the more exposed to inflammation of the testicles after catheterization the older they are and the more vascular is the urethral mucous membrane; 2, the inflammation of testes and epididymus may be simple or suppurative; 3, in all cases the point of departure of the trouble is a lesion at or near the ejaculatory orifices; 4, starting from this point the inflammation seems to advance by way of the lymphatics of the seminal apparatus, and to thus gain the testicle and tunica vaginalis; 5, whether the orchitis shall be simple or suppurating seems to depend in great measure upon the condition, whether normal or otherwise, of the urine, and upon the nature and extent of the pre-existing lesions of the genito-urinary apparatus.

Resorcine in the Treatment of Whooping-cough.—In a recently published monograph, Dr. Moncorvo, of Rio de Janeiro, reaffirms the opinion, advanced by him in a previous work, that pertussis is a local disease and that it is not primarily an inflammation of the bronchial tubes. Bronchitis may coexist, he admits, with whooping-cough, but when it does so it is to be regarded as a complication, and by no means an essential part of the disease. He further maintains that the affection is apyretic in its course, leaving out of consideration the complications which may occur, and cannot therefore be classed, as it is by some writers, among the fevers of childhood. The writer holds to the view, and it is upon this that his treatment is based, that pertussis is a parasitic disease confined to the larynx, essentially local, and to be combated by local measures. His treatment consists in the application of resorcine, in one or two per cent. solution, to the larynx at intervals varying from two to twelve hours, according to the severity of the case. The first application may cause an apparent aggravation, but improvement soon follows, and in a short time the paroxysms cease. The author insists upon the necessity of using pure resorcine, occurring in silvery-white needles, very soluble in water, possessing but a faint taste, and free from any odor of benzine or creosote. The author reports upward of forty cases in which resorcine was used, in every one of which recovery took place in a very short space of time.

Poisoning from the Bite of a Rat.—M. Millot-Carpentier reported to the Paris Academy of Medicine the case of a young boatman on the Saint-Quentin Canal who was bitten on the hand and lip by a rat. The wounds healed promptly, but fifteen days later symptoms of lymphangitis appeared, but soon went away again without suppuration, and then purpuric spots appeared upon the integument. The latter affection was accompanied by acute anæmia, prostration, muscular atony, and irregular febrile attacks. At the same time there were singular nervous troubles, intense dysphagia, congestion of the face, laryngeal whistling, temporary inability to speak, swallow, or breathe, and a frothing at the mouth. These attacks were attended with an increase of fever, and left the patient in a condition of extreme prostration. Sometimes the attacks were preceded by an aura starting from the cicatrix in the hand and passing up to the throat. A cure followed the employment internally of permanganate of potassium and sulphate of quinine with tonics and a nourishing diet. The author of the communication considered the case to be one of poisoning by an animal virus.—*L'Union Médicale*, June 21, 1885.

Euphorbia Pilulifera in Asthma.—Euphorbia pilulifera is a plant quite common in Brazil, and has recently taken rank with other drugs employed in asthma. Dr. Marset reviews its properties and mode of administration in the *Bulletin Général de Thérapeutique*, March, 1885. The active principle of the plant is soluble in water and dilute alcohol, but only slightly soluble in ether and chloroform. In small doses it kills animals, by arresting the respiratory movements and heart-beat, which, however, are first accelerated under its influence. Its effects are not cumulative. It appears to act directly on the respiratory and cardiac centres, leaving all other organs intact, and seems to be eliminated by the liver. Locally it is without action on the skin or mucous membrane, excepting that of the stomach, which is irritated by it. It produces good results in the attacks of dyspnœa caused by asthma, emphysema, or chronic bronchitis. It should be employed in daily doses equal to not more than fifteen grains of the dry plant, and taken largely diluted, preferably at the beginning of a meal.

Bromide of Zinc.—Dr. Testa has recently published an interesting study on the action of bromide of zinc, to which he appends the following conclusions (*Revista Médica de Sevilla*, June 15, 1885): 1. This remedy in small doses diminishes sensation, and in large doses destroys the power of voluntary motion, leading thus by its double action to complete paralysis. 2. These effects, unless the dose has been very large, gradually diminish and disappear spontaneously. 3. Bromide of zinc arrests the frog's heart in extreme diastole, but this is a late symptom. 4. The action of this drug resembles more that of zinc than of bromide of potassium. 5. The action of the zinc is, however, modified by that of the bromine, since somnolence, which is caused by it, is not an effect of zinc. 6. The remedy acts first upon the peripheral extremity of the sensitive nerves and then upon the spinal nervous centre. 7. That it also acts upon the cerebral centres is evidenced by the somnolence caused by it.

Strychnine in Acute Alcoholism.—Dr. Lardier has long employed strychnine in the treatment of delirium tremens, and regards it as the best remedy which we possess for this condition, as, in fact, a veritable specific. He insists upon the necessity of giving the drug in large doses. In one case he had given granules containing each $\frac{1}{13}$ grain every two hours for several days without any appreciable result. He then increased the number of granules and also administered the drug hypodermatically, giving in all $1\frac{3}{4}$ grain in the space of twenty-three hours. The result was a most happy one. The patient soon fell into a refreshing sleep, never exhibiting the slightest symptom of strychnine poisoning.—*Journal de Médecine et de Chirurgie Pratiques*, June, 1885.

Treatment of Nasal Polypi.—The following powder is recommended by a French writer as oftentimes efficacious in the treatment of polypi of the nasal passages: Morphine hydrochlorate, $1\frac{1}{2}$ grain; powdered cubebs, $2\frac{1}{2}$ drachms. A pinch of the powder to be snuffed up five or six times a day.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, August 15, 1885.

THE PHYSIOLOGICAL ACTION OF HYDROCHINON.

THE recent successful use of hydrochinon as an antipyretic, in St. Luke's Hospital[1] and elsewhere, has led to a fuller study of the physiological action of this new drug. A two per cent. aqueous solution of hydrochinon immediately and permanently stops the active movements of fresh- and salt-water amœba, of animalculæ, and of a great variety of bacteria. The common rod-shaped bacteria of urine are to some extent affected, but their movements and reproduction do not cease entirely. Fresh urine to which a two per cent. solution has been added in equal bulk does not ferment so rapidly as it otherwise would. Bacteria do, however, develop in it, and in a few days a bright-green fungus appears upon the surface, while the urine becomes dark-red, owing to oxidation of the hydrochinon. Five minims of a two per cent. solution of hydrochinon injected into the aorta of a decapitated land-tortoise produce in three or four seconds violent convulsive movements and tremors of the entire body. These movements are irregular and very rapid, and they affect different groups of muscles successively.

A piece of fresh muscle moistened with the solution shows increased irritability. The heart beats regularly at first; subsequently the rhythm is disturbed; the force of the systole is increased, and its duration is prolonged.

In the rabbit a few drops of a two per cent. aqueous solution, placed in the eye, causes irritation and hyperæmia, with slight swelling of the conjunctiva. This effect is, however, very transient. A drachm of the two per cent. solution may be swallowed without effect, but .25 gramme, given hypodermatically (in hot water) to a rabbit weighing seven hundred and seventy-five grammes, causes a series of interesting symptoms. In from two to five minutes the animal becomes much excited and restless, its ears, lips, and alæ nasæ twitch violently, the respirations become very rapid, and in eight or ten minutes the fore-legs, and subsequently the hind-legs, exhibit violent clonic spasms. The animal tries to walk, but its efforts end in a sprawl.

The eyelids and lips, and, in fact, all the muscles of the body, are violently affected; the teeth chatter, and the saliva is considerably, the tears slightly, increased; the bowels move frequently, and there may be micturition; priapism also occurs.

[1] Hydrochinon, a New Antipyretic, by Francis P. Kinnicutt, MEDICAL RECORD, May 30, 1885.

No longer able to stand, the animal falls upon the side and vainly kicks in the air. Slight opisthotonos may occur, but the muscles do not pass into tonic spasm until just before death. Cutaneous sensibility is not diminished, and reflexes appear increased. Capillary congestion and heat of the ears is mentioned by Brieger,[1] but is not always observed. The clonic spasms having lasted an hour and a half, the animal suddenly recovers completely, though it is naturally weak for an hour or so longer. No after-effects are noticeable, and no abscess follows the injection. The convulsions are of spinal origin, as they take place in a decapitated animal.

During the active convulsive movements the temperature rises to 104.5° to 105° in the rectum. This is not of much moment in the rabbit, whose normal rectal temperature is about 101° F. Mental excitement, movement, or defecation readily affect this temperature by several degrees. The pulse remains full, regular, and very rapid throughout.

If a larger dose be given, say .5 gramme, to a rabbit weighing nine hundred grammes, the symptoms are the same, but death occurs in a tonic convulsion (opisthotonos) in about ten or twelve minutes. The pupils appear dilated at first, they react normally, and just before death contract somewhat. The heart continues beating for some time after the animal has ceased to breathe, but the action is labored, and when removed from the body it ceases to beat sooner than usual. Rigor mortis occurs at once, and is well marked. The blood coagulates promptly; the cerebral meninges do not appear congested, nor do the lungs; the kidneys are hyperæmic, and the mesentery is congested; peristaltic movement is enhanced, and it persists with greater activity than usual after death in both stomach and intestines. Other organs are normal.

Hydrochinon occurs in grayish-white acicular crystals, having a slightly bitter taste, and a neutral reaction. It is moderately soluble in cold water, readily soluble in hot water, alcohol, ether, and in acid solutions. The usual adult dose, as an antipyretic, is fifteen to twenty grains, best given in alcohol. Forty grains have been taken without disagreeable effects. Hydrochinon is at present somewhat dearer than quinine. Thus far only two writers have reported their clinical experience with the drug, but their results have been so encouraging that much benefit may be expected from its further employment.

Dr. Kinnicutt's cases were fully reported in the RECORD (loc. cit.). The other article, by Seifert, occurs in the *Berl. Klin. Woch.*, No. 29, 1884. Seifert used hydrochinon with benefit in fifteen cases of typhoid fever, and in twenty-three other cases of severe fever of various types.

DANGERS OF MEDICAL SPECIALISM.

UNDER this title, Dr. H. B. Donkin writes, in the *Fortnightly Review* for July, an interesting reply to Dr. Morell Mackenzie's contribution to the preceding number of the same journal. This latter article, it will be recollected, we noticed editorially some time since. The tone of Dr. Donkin's reply is forcible and dignified,

[1] L. Brieger: Dihydroxybenzol; Archiv für Anat. u. Physiol., 1879, supplement-band, p. 67.

though at times sarcastic, and in one or two instances decidedly caustic. He goes all over his opponent's ground, and controverts him at nearly every essential point. He says: "The real object of his (Dr. Mackenzie's) attack is the main body of the medical profession, with the Royal College of Physicians in the fore-front of the opposing ranks," and he denies that there has ever been any overt opposition to specialism in the wide sense of devotion of special attention to certain subjects.

According to Dr. Mackenzie, specialism is the "concentration of a man's best powers on a single object." "He may," says Dr. Donkin, "for object read 'organ,' and if his premises apply to medical practice at large, as well as to the occupations he cites as analogous, it must be shown that the whole territory of medicine can be subdivided, without injury to its cultivation, into small and separate fields; but it is equally clear to those who, without technical knowledge, even for a moment seriously contemplate that territory—the human body—that no such division can take place. . . . The body is an organism, not a mechanism; it cannot be studied piecemeal, . . . and he who has the widest knowledge of that body, and of its diseases and its disorders, is best able to find out what is the matter with his patients, and consequently (with certain exceptions) to tend to help them toward recovery."

Dr. Donkin then proceeds to sketch what would be the state of affairs if such a division of labor should occur as would logically result from the carrying out of his opponent's principles. Suppose, he reasons, all physicians were specialists, all high-minded men, each careful not to intrude upon the province of the other. A patient comes complaining of heart-trouble: now, we know that some of the gravest cardiac maladies often exist without any premonitory symptoms, while a slight physiological disturbance may cause very grave ones; furthermore, that often the brunt of the trouble is borne by some organ remote from the heart: to whom, he asks, are such patients to go? which specialist can claim them as his legitimate clientèle? "Surely," he adds, with a side-thrust at his opponent, "the heart is at least as worthy an 'object' as the larynx," and he drives the blade home by continuing: "Laryngology offers, from the facility it gives of actually seeing a part of the body beyond the patient's own ken, a strong temptation to those who are not immaculate to fabulate when they do not find disease."

Dr. Donkin does not regard popular sentiment in regard to specialism, particularly in America, as either a safe or reliable guide to a true estimate of its worth. Nor does he regard Dr. Mackenzie's analogies between the medical and the other professions as holding. According to him, sanitary engineers and electrical engineers (alluding to one of his opponent's analogies) have simply two things in common—a mere part of a name, and the fact that their respective sciences deal with material things which can be seen, felt, and calculated with generally mathematical exactness. Not so, however, with the human body, that variable factor with which the physician has to deal. The specialist has already branched out from his logically legitimate field, and "'Diseases of the Throat' now include almost every affection, be it local or general, accidental or acquired, which affects a gratuitously limited area between the level of the chin and breastbone."

Diagnosis he regards as the great point of the whole matter. If that is accurate, we shall nearly always harmonize in the matter of treatment. Such accuracy is in direct proportion to the wideness of our knowledge and experience. Finally, he partially begs the whole argument by saying: "It is clear to all who know anything of clinical medicine and pathology, that the men who pay special attention to special organs of the body are not those best qualified to investigate or to treat even those diseases that are assumed to belong to those special organs which but rarely suffer alone, or still less to throw light on indefinite or obscure cases."

There is considerable animus in both the papers above alluded to. Here in America we are not attempting to solve the problem of specialism on purely theoretical grounds, but are letting the matter take care of itself, with, on the whole, fairly creditable results. Specialists have appeared in proportion to the demand for them. We believe that every practitioner should know enough about the pathology of special organs to know when special measures are demanded—in other words, when to invoke the aid of the specialist. Furthermore, we believe, and experience has shown, that the successful specialists of to-day are those who have laid a broad foundation in years of general practice, and who, while speaking one dialect, as it were, of the language of medicine, are yet to a creditable extent conversant with the entire tongue.

ACCURATE TEST-TYPES.

An interesting paper concerning test-types was read by Dr. W. S. Dennett at the Ophthalmological Society, which met at New London, last month. Attention was called to the fact that the test type ordinarily in use was inaccurate for the purpose of testing visual acuteness. Of the ten or dozen letters of equal height composing a line on the test-card in general use, some with an emmetropic eye can be seen clearly at half the distance of others. Oculists up to the present time have been testing eyes at a fixed distance, not understanding the *distance value*, so to speak, of each of the letters. This has been determined by Dr. Dennett after a series of experiments performed in the following manner: The light was excluded from a bowling alley except that given by Edison lamps, whose illumination was so arranged as to give an equivalent of one candle power at a distance of ten centimetres from the type. The letters were made of India ink on white paper. Each letter was properly arranged and the observer slowly advanced to the place where he could distinguish it from one or two of those that it most resembled, and with which it was most likely to be confused. This plan was found to work better than exploring all the letters at once. The result was A, L, U, V, and I were always seen at the greatest distance, and B and S at the least.

As a result of these experiments Dr. Dennett exhibited to the Society a test card on which were displayed letters of a size made in accordance with mathematical laws, to give them all a uniform value.

It is not a little singular that it should have been left until to-day to make the demonstration of the inaccuracies

of a test which has been constantly employed by oculists for twenty years.

It may be remarked that many who make the eye a specialty have recognized the fact that some letters of the same size are much more easily distinguished by patients than others, but Dr. Dennett has discovered the true scientific reason and has placed the matter on a basis of physics and accuracy.

DISPENSARIES—THEIR USE AND THEIR ABUSE.

From time to time there appear in The Record and other medical journals complaints in regard to the abuse of medical charity in New York, and questions as to how it can be regulated. Every physician with a dispensary practice recognizes the fact that many people who could pay a doctor receive medical advice free. It requires but little experience to diagnosticate "the dispensary tramps." They are of every sex and age, and have made the rounds of almost all the dispensaries.

They become connoisseurs of doctors and their methods of treatment. Some of them are very much puffed up with pride if their ailments have been such as to draw the attention to them of distinguished members of the profession, and to have brought them forward in college clinics.

The patients are not the ones to blame for the existing state of free medical services. It is the physicians who attend the clinics, most of whom are professors, instructors, or assistants at clinics held at the colleges or post-graduate institutions. To them patients who will well illustrate diseases dwelt upon by lecturers in the various departments are at a premium. Patients are sought after with eagerness, and devices resorted to to secure them. It is often a matter of how to induce people to come to the clinics rather than how to make them stay away.

Dispensaries, too, are multiplied every year. Once started, the managers desire to make them successful. Success is measured by numbers. Every inducement is offered to the moderately poor in the city to avail themselves of free medical services.

Therefore, if there is to be a reform in this matter, the doctors must give up wishing to hold large clinics—wishing to display to their followings of graduates and undergraduates a variety of cases. Strict inquiry into the circumstances of the patients who apply for aid will do this. Some it will drive away from the clinics to give up all notion of doctoring; others it will send to the physicians who depend upon this class for the small fees which enable them to obtain a foothold among the numerous struggling practitioners of New York.

ANTI-VACCINATION.

The stubbornness of the British character is well shown in the martyr-like spirit with which the anti-vaccination people persist in their determination not to submit to this preventive to contagion from small-pox.

The *Lancet* reports that small-pox is spreading in a very serious way through London and other neighboring cities, and that it is due largely to this unwillingness to be vaccinated.

Occasionally the power of the courts is invoked to compel persons to submit themselves and their families to vaccination, but it frequently happens that the self-opinionated Briton will allow himself to be imprisoned rather than yield. The agitation on the subject goes on vigorously, and there are some educated people who still insist that vaccination is harmful rather than beneficial.

In this country vaccination is generally required, but there is little opposition manifested even when the vaccination has to be done under the direction of the Health officers.

SOME RECENT STATISTICS REGARDING CANCER OF THE TONGUE AND MOUTH.

The report of the Middlesex Hospital, London, for 1883, contains tabulated histories and statistics of 9 cases of cancer of the tongue, 37 cases of cancer of the breast, 41 cases of cancer of the uterus, 2 cases of cancer of the mouth, 8 cases of cancer of the lip, and 6 cases of cancer of rectum and anus, with 18 miscellaneous cancers. This makes a total of 121. Of these the cancers of the tongue (9) and mouth (2) constitute over 12 per cent., a rather larger proportion than the average.

Of the cancers of the tongue eight occurred in men and one in a woman. The cancers of the mouth occurred in men. The age ranged from 35 to 72, eight of the eleven cases being over fifty-one years old.

Very little information is given as to the cause; a history of syphilis was obtained in two cases, and in one of the cases of cancer of the mouth the patient had been a great smoker of a clay pipe. No family history or constitutional taint appears to have existed in any of the cases.

Five of the cases died when in the hospital. In one of these (tongue-cancer) the disease lasted twelve months, there being no operation. A second patient, who had had the disease only four months, died suddenly while under nitrous oxide gas. A third patient, who had been operated on twice, died in thirteen months after the disease first appeared. A fourth patient lived for three years after first noticing some glandular enlargements in the neck. In a fifth case, in which the floor of the mouth, the lower jaw, and the tongue were involved, the patient lived for a little over a year.

Missouri State Board of Health.—Under date of July 25th, the secretary of the Missouri State Board of Health has issued a circular to the public and the local boards of health concerning the use of impure water by the manufacturers of soda and mineral waters. It states that much of the water is obtained from unknown or suspicious sources, and that there is strong probability that disease may be caused by its use. It recommends that dispensers of such liquids ask the manufacturers from whom their stock is obtained to secure a certificate from their local health authorities declaring the sources from which the water used in the manufacture or preparation of their goods are derived to be pure and wholesome.

The services of the members of the New York Pension Board have been dispensed with by orders from the Commissioner of Pensions. The members of the late Board were Drs. S. S. Burt, A. B. Judson, and W. O. McDonald. The new Board has not as yet been formed.

News of the Week.

The Pennsylvania State Board of Health.—The new State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania was organized at Harrisburg, July 2d. Dr. E. W. Gerner, Health Officer of Erie, was elected president, and Dr. Benjamin Lee, of Philadelphia, secretary. The first session was taken up mainly with the discussion and adoption of by-laws. Regular meetings will be held on the Second Wednesdays of May, July, and November. At the July meeting the election of officers will be held. At the November meeting an annual report will be adopted to be presented to the Governor on the first Monday in December, according to law. At the May meeting a public address will be delivered on some sanitary topic. Standing committees were established as follows: Executive Committee, headquarters in Philadelphia, Chairman, Dr. P. Dudley; Committee on Registration and Vital Statistics, Chairman, Dr. J. F. Edwards; Committee on Prevalent Diseases and Supervision of Traffic and Travel, Chairman, Dr. J. F. Edwards; Committee on Water-supply, Drainage, and Topography, Chairman, Rudolph Hering; Committee on Adulteration of Foods, Beverages, and Drugs, Chairman, not named; Committee on Public Institutions and School Hygiene, Chairman, Dr. McClellan; Comittee on Sanitary Legislation, Rules and Regulations, Chairman, Dr. P. Dudley; Committee on Mines, Poisons, Explosives, and other special sources of danger to life or limb, Chairman, Rudolph Herng.

No more Fortunes in Pills.—According to a Philadelphia druggist, within the past three or four years the price of patent medicines has steadily declined, and fortunes are not made so rapidly as formerly out of pills and bitters. This cutting in rates began in Philadelphia, and has gradually extended all over the country. On some medicines the cut was as high as fifty per cent., and the reduction on all patent medicines will average over twenty-five per cent. Formerly a good patent medicine that was properly handled and liberally advertised would make a fortune for its proprietor in a few years. Remedies warranted to cure all the ills that flesh is heir to, and greedily purchased by a credulous public, sold readily at retail at one dollar per bottle and cost little to manufacture. They can now be bought for fifty cents, and the bottom price has not yet been reached. There is no longer any money in patent medicines, either for the druggists or the manufacturers. Prices have been cut so that the margin of profit hardly pays dealers for handling them, and the proprietors complain that the reduction has affected their business also. They claim that their medicines cost to manufacture and put on the market nearly what they are obliged to sell for to the jobbers. There has been a great revolution in the patent medicine business, and no one can tell where it will end.

New York State Board of Health.—This board held a meeting recently at Rochester, Drs. E. M. Moore, J. Savage Delavan, George W. Cooke, Woolsey Johnson, William M. Smith, Alfred Mercer, and A. L. Carroll, the secretary, being present. A financial statement showed an unused balance of $6,750 to the board's credit, an appropriation of $3,000 to carry out the law for the prevention of the adulteration of beer and similar liquors, and an appropriation of $10,000 for the administration of the law to prevent the adulteration of food and drugs, and the use of explosive oils. It was announced that the collection of samples of ales and beers for analysis by the board's chemist had begun. Dr. William Manlius Smith, of the quarantine committee, reported, calling attention to the chances for infection in importing rags. The health officer of the port of New York was directed to make such rules as seemed proper in the emergency, and the board recommended the Federal Government to resume the regulation of such importation. The administration of the law preventing the adulteration of food and drugs was referred to the sanitary committee with power to act. It was recommended that Professors S. A. Lattimore, of Rochester, Willis G. Tucker, of Albany, and E. C. Caldwell, of Ithaca, chemists, be employed as occasion required.

University of Vermont.—Dr. L. M. Bingham, of Burlington, Vt., has been recently appointed Professor of General Surgery in the Medical Department of the University of Vermont.

Mr. Hart Criticised.—The London correspondent of the *Philadelphia Medical Times*, August 8, 1885, expresses his decided dissatisfaction with the behavior of Mr. Ernest Hart, in his double position of editor of the *British Medical Journal*, and Liberal candidate for Parliament. He writes: "They seem to have made up their minds about the Contagious Diseases Acts at the East End. The Mile-End electors have not only made up their own minds, but they have even changed the mind of Mr. Ernest Hart, who pledged himself to vote for the unconditional repeal of the obnoxious measure. For the better understanding of the Contagious Diseases Acts, it may be said briefly that the Contagious Diseases (Human) Act refers to the public women of garrison-towns, who are by its machinery largely prevented from spreading disease by their trading in their persons. Of the good which the Acts have accomplished there is no question, and, next to vaccination, the profession is most solid on the Contagious Diseases Acts. Yet, at the imperative mandate of the radical riff-raff of Mile-End, this prominent member of the medical profession deserts his colors, and goes over to the enemy."

Plymouth's Latest Epidemic.—The people of Plymouth, Kingston, and the west side of the river are becoming alarmed over the prevalence of an epidemic of bloody dysentery, which is just now making itself felt. At Plymouth it is particularly bad, and is very virulent and fatal in its results. It is estimated that in Plymouth alone over one hundred persons are lying sick, and several deaths have occurred within the last week from this disease, and many others are in a critical condition. In Plymouth it is said to attack many who are just recovering from the typhoid fever, and in their weakened condition they fall easy victims. It is supposed to be caused by drinking the river-water, which is now largely used throughout the valley. The relatives of those who fell victims to the Plymouth epidemic are making preparations to commence suit against the water company for damages. The truth of the above has been denied.

The State Board of Medical Examiners of Virginia will meet at the Alleghany Springs (Virginia) on Wednesday, September 16, 1885, at 10 o'clock A.M., for the examination of candidates for the practice of medicine in that State, and for the transaction of such other business as may be brought before it.

Death of Dr. J. Savage Delavan, of Albany.—Dr. J. Savage Delavan, of Albany, a member of the State Board of Health, and one of the owners of the Delavan House, was drowned in Tupper's Lake, in the Adirondacks, on August 7th. Dr. Delavan was a graduate of the Albany Medical College, pursued special studies in Paris, and afterward became a homœopath. During the war he served with distinction as Assistant Surgeon of the First Connecticut Artillery, and was one of the first pension examining surgeons appointed by the Government. While a resident of Geneva, Switzerland, between 1872 and 1876, he was for a year United States Vice-consul. On the organization of the State Board of Health in 1880, Dr. Delavan became a member, being one of the three commissioners appointed by the Governor. In 1884, upon the expiration of his term, he was reappointed.

The Owens College Professorship of Anatomy.—The competition for the Professorship of Anatomy in the Owens College promises to be an animated one, several candidates of considerable reputation being in the field. Apart from local aspirants to the post, the principal competitor is Dr. W. P. Mears, who is at present in possession of the Chair of Anatomy in Durham University School of Medicine, with which his connection has lasted for over seven years. The value of the professorship at Owens is £700, but as the office of Dean of the Medical School would probably be associated with it, the annual income of the holder would be increased by £150.

Histohæmatin.—This is the name given by Dr. MacMunn to a class of pigments, or modifications of the same pigments, which are widely distributed in the animal kingdom, and to which myohæmatin belongs. The histohæmatins are respiratory pigments, as can be proved by oxidizing and reducing them in the solid organs. Their bands occupy almost the same place as those of myohæmatin. In the supra-renals of man, cat, and some other animals, the medulla gives the spectrum of hæmochromogen, while the cortex shows that of histohæmatin. Hæmochromogen in a vertebrate body is probably excretory, and must be so regarded here, hence the function of the adrenals must be (at least in a part) to metamorphose effete hæmoglobin or hæmatin into hæmochromogen. An active metabolic process takes place in the adrenals, and Dr. MacMunn concludes that they have a large share in the downward metamorphosis of effete coloring matter, and that his observations will help to throw some light on Addison's disease.

A New Constituent of the Blood.—Mr. L. C. Wooldridge describes, in the "Proceedings of the Royal Society," his method of obtaining "a new constituent of the blood" which he has lately discovered, and dwells upon its physiological import. The plasma of the blood of a peptonized dog, having been completely freed from all corpuscular elements by means of the centrifuge, is cooled down to zero, when the plasma rapidly becomes turbid, and a decided flocculent precipitate is formed. This is the body which gives rise to the fibrin ferment, and if examined microscopically the precipitate is found to consist of a number of minute transparent bodies, nearly circular in shape, but much smaller than the red corpuscle, and having a great tendency to run together into granular masses. These peculiar bodies may, perhaps, explain the granules, blood-plates, and hæmatoblasts of Osler, Bizzozero, and Hayem.

Death of Milne-Edwards.—Henry Milne-Edwards died at Paris on July 29th. He was born at Bruges in 1800, and studied medicine at Paris. He then devoted himself to natural history, and in 1838 succeeded Cuvier in the Academy of Sciences, and from 1841 he was Professor at the Jardin des Plantes, eventually taking the place of Geoffroy St. Hilaire. He resigned the chair of physiology in 1876, when his son Alphonse was appointed to it. Milne-Edwards was President of the French Scientific Association. The eminent professor was also Grand Officer of the Legion of Honor. His services to science are well known. The "Manual of Zoölogy" is probably the best known of his works in this country, but his most important contributions to scientific literature are contained in the twelve volumes of his "Leçons sur la Physiologie et l'Anatomie Comparée de l'Homme et des Animaux" (1857–1877). He was of English parentage.

The Pall Mall Gazette Endorsed.—The Committee consisting of the Archbishop of Canterbury, Cardinal Manning, the Bishop of London, Mr. Samuel Morley, M.P., and Mr. R. T. Reid, Q.C., M.P., who have undertaken the investigation of the truth of the statements recently published in the *Pall Mall Gazette* on the subject of the treatment of young girls, has concluded its sittings. They report that, after carefully sifting the evidence of witnesses and the materials before them, and without guaranteeing the accuracy of every particular, they are satisfied that, taken as a whole, the statements in the *Pall Mall Gazette* on this question are substantially true.

The Berlin University Institute of Public Medicine is about to be removed to the newly-built morgue. A wing of this building is to be furnished with offices, post-mortem rooms, laboratories, and two lecture-rooms. The Director is Professor Loman, who has held the post since 1864. He is also the town physician and forensic physician of Berlin. His predecessor was Joh. Ludw. Caspar, the well-known medical jurist, who founded the Berlin Institute of Public Medicine.

A Bust of Dr. De Mussy.—The Société Médicale des Hôpitaux has opened a subscription toward providing a bust of Dr. Noël Gueneau de Mussy, recently deceased, which is to be placed in the Hôtel Dieu, to which hospital he had been attached for many years.

A Physician Honored.—Dr. Vintras, Senior Physician of the French Hospital, London, has been appointed an Officer of the Legion of Honor.

A Scientific Centenarian.—The anniversary of M. Chevreul's birthday was celebrated on August 5th. On July 31st he had reached his one hundredth year.

What is Said of the Prospects of the International Medical Congress.—The leading medical journals both at home and abroad continue to speak in unequivocal terms of the deplorable results following the rash action of the new Committee at Chicago. *The New Orleans Medical and Surgical Journal* for August, 1885, says: "Already it is painfully evident that it is simply impossible to organize the American meeting of the International Medical Congress upon the plan adopted by the Chicago committee. Truly, we stand to-day a divided household, and unless some reconciliation can be effected, the failure of the Congress is inevitable. The present situation is deplorable beyond expression. A mighty responsibility rests on the present Committee on Organization. The members must realize the impossibility of organizing the Congress in further pursuance of the policy recently adopted. For the sake of harmony, through which alone the Congress can succeed and the profession escape a national disgrace, the Committee should make concessions to the gentlemen who feel aggrieved by their action; and such concessions to those who have resigned, as well as those who have been displaced, should meet only friendly responses and pledges of harmonious co-operation. We favor the organization of a national committee of peace-makers, composed of representatives from the States and Territories, to be appointed by the presidents of State and Territorial societies; from the District of Columbia, to be appointed by the president of the District society; and from the Army, Navy, and Marine Hospital Service, to be appointed by the ranking medical officer of each service. It is contemplated that a committee, constituted as above suggested, would be very potent in reconciling the differences now existing between the Committee of Arrangements, on the one part, and, on the other, the gentlemen who have been displaced and those who have voluntarily resigned all connection with the organization as now proposed. This committee failing in its purpose, we suggest that it is better to appeal the matter, as it now stands, to the American Medical Association for final adjudication."

The Medical Press, July 29, 1885, writes: "There is something very ludicrous in the attitude of the committee appointed by the American Medical Association, and which on its own authority alone presumed to undo the work already accomplished by the committee specially appointed by the Congress at Copenhagen. The former self-constituted body has deposed the well-known and respected physicians elected by the latter to preside in the various sections, many of whose names are of world-wide renown, and replaced them by a long string of non-entities, scarcely one of whom has ever been heard of outside the village in which he gains a living. The few celebrated physicians who were graciously permitted to retain official posts have naturally and properly shown their disgust by declining to be associated with the strangely mixed representatives of American medical science who are elevated into notoriety by the action of the Association ring; and things are now at such a pass that even the home journals are reckoning up the meeting as certain to be a miserable failure. The more sensible organs, however, are tendering the malcontents a piece of advice which they will do well to act upon; namely, that at their next meeting they should quietly determine their official existence, and resign the organization of the Congress to men of standing in the profession, and who will be able to command confidence and respect on this side the Atlantic. Unless some definite action of this kind is speedily taken, it is a moral certainty that the Congress, if persisted in, will lose every atom of its international character; for no one is going to contribute papers, or be at the expense of reading them to an assembly of mutual admirationists whose meddlesome conceit is scarcely equalled by their obscurity in the world of medicine. We have still, however, sufficient faith in the good sense of our American *confrères* as a whole, to feel assured that the little band of nobodies will speedily be sent to the rightabout, and the direction of the arrangements reassumed by the men who ought never to have resigned the trust reposed in them."

From an editorial in *The Lancet*, August 1, 1885, we quote the following: "We regret to have to inform our readers, that the ill-feeling which has been excited in the United States by the action of the committees appointed to carry out the preliminary arrangements are such as to imperil not only the success of the Congress in 1887, but the very existence of the Congress itself. . . . We cannot discuss the merits of this far from edifying quarrel, but we are too greatly interested in the International Medical Congress not to raise our voice in protest against a state of matters which is both a professional scandal and a serious peril to the continued existence of the Congress. Hitherto it has been considered binding upon all participating in the Congress that medical politics shall be entirely excluded from all its proceedings. But apart from that, we must impress upon our American friends the simple consideration that unless the whole profession in the United States combine cordially in the work of the Congress the meeting in Washington is foredoomed to failure. Party spirit is so alien to the whole spirit of the International Congress, that a large proportion of those who have previously joined in the meetings would certainly, and with justice, refuse to visit the United States to be the guests of a faction. But we have too high an opinion of our Transatlantic friends to believe that this unseemly quarrel, which is disgracing them throughout Europe, will be allowed to continue. We trust that moderating influences will be brought to bear upon both parties, and that, forgetting the past and their own personal predilections, they will cordially unite to promote the success of the meeting in 1887. If, however, the breach now formed is allowed to widen and deepen, it will be the duty of the officers of the Congress in Copenhagen to seek at once an invitation from some country in which the medical profession will not find it impossible to combine for international purposes."

Dr. Leroy M. Bingham, of Burlington, Vt., has been appointed Professor of Surgery in the University of Vermont, as a successor to Dr. J. L. Little, deceased.

Canine Excrements and Peptones.—The *Monthly Journal of Sciences* states, on the authority of a well-informed French contemporary, that the excrements of dogs are now collected in Paris and worked up into peptones and powdered extracts of meat.

Dr. W. W. Jaggard has been elected Professor of Obstetrics in the Chicago Medical College.

Dr. Tilt and Dr. Heywood Smith have been elected Honorary Corresponding Fellows of the Gynecological Society of Boston, U. S. A.

The British General Medical Council a Failure.—Dr. Fothergill writes, in the *Philadelphia Medical Times* of August 8, 1885, that the General Medical Council is a dead failure. Consisting of the representatives of the medical corporations, with a sprinkling of members chosen by the crown, it has disappointed every hope entertained of it, and falsified every prediction of its utility. It is hopeless. It does not even undertake the labor of prosecuting unqualified practitioners, leaving this part of its duty to anyone who will undertake it. The medical corporations do not represent any interests but their own, and no good can come or be expected from them. It is notorious that the much-talked-of Medical Bill has been thwarted by the persistent opposition of the threatened corporations.

The Prize Committee of the Medical Society of the State of New York.—For the information of all interested, the Prize Essay Committee of the Medical Society of the State of New York desires to state that the Society offers a prize of $100, payable out of the Merritt H. Cash Prize Fund, for the best original essay on any medical or surgical subject. The conditions are: That the competitors shall reside in the State of New York; that all essays offered shall be either printed or type-written; that each essay shall be designated by a motto on the title page; that in a sealed envelope attached to the essay shall be placed the name of the writer and the corresponding motto; and that all essays shall be sent to W. W. Potter, Buffalo, N. Y., on or before January 1, 1886.

The Cholera Still Active.—From Marseilles comes the report that at a tumultuous meeting of the municipal authorities there, on August 11th, the sum of one hundred thousand francs was appropriated for sanitary purposes. The cholera panic increases daily. The average of departures from Marseilles by railway alone has already increased 2,000 per day. As an instance of the laxness with which the Marseilles sanitary authorities perform their duties, the case of the captain of an English vessel lying in the port is mentioned. The captain's daughter died of cholera aboard the ship. He at once notified the authorities and requested a disinfection of the vessel. At the time of this report thirty hours had elapsed since the girl's death and yet no official action had been taken concerning the event by the Marseilles authorities. In Spain the cholera mostly prevails in low-lying, damp regions.

Criminal Carelessness.—Some repairs were recently made in the plumbing at Bellevue Hospital. Through the carelessness of one of the workmen, a pipe connecting directly with the sewer was left open in the room of one of the house-surgeons. The latter, unaware of the fact, slept in the room several nights, and was soon stricken down with typhoid fever. He now lies in a critical condition. We think the hospital authorities should institute proceedings against those having the repairs in charge.

Cremation Increasing in Popularity.—The cremation societies are increasing in number, and some of those which are open have their facilities pretty well taxed. The crematory at Lancaster, Penn., is in use very frequently, and there are a large number of bodies lying in vaults awaiting the completion of the one near New York. A society has just been formed at Worcester, Mass., and a bill authorizing the formation of corporations for the purpose of disposing of the dead in this way has passed the Legislature of that State. The recent decision in England that cremation was not illegal has had the effect of creating a number of societies, and one cremation at least has taken place. It certainly appears to be true that this practice is rapidly on the increase, both here and abroad. At a recent sitting of the Corporation of Hamburg, Germany, a motion for permitting cremation in the State of Hamburg, introduced by Dr. Grieschen, was carried unanimously. It is believed that the Senate of the State will give its consent to this resolution.

Reviews and Notices.

Poisons: Their Effects and Detection. A Manual for the Use of Analytical Chemists and Experts. With an Introductory Essay on the Growth of Modern Toxicology. By Alexander Wynter Blyth, M.R.C.S., F.C.S., etc. With Tables and Illustrations. Volume I. New York: William Wood & Co. 1885. Wood's Library of Standard Medical Authors.

The present work, we are informed in the preface, completes an entirely rewritten and greatly enlarged Second Edition of the author's "Practical Chemistry." It constitutes a companion volume to the author's work on Foods. Together they form a noble monument to Mr. Blyth's labor and erudition.

A good many works upon Toxicology have appeared of late years and any new volume must have some especial merit in order to enable it to claim a place among standard works. The present one promises to be the most complete and satisfactory work of its kind which we have yet seen. It should be understood, however, that the author limits his work to poisons alone, and does not take up questions of jurisprudence in connection therewith. The volume before us begins with an extremely interesting chapter on the history of poisons, or rather of the history of the use of poisons, and the gradual development of the science of Toxicology. Part II. takes up the subjects of the definition and classification of poisons, statistics of deaths by poison, and the methods of searching and testing for poisons. The special descriptions begin with Part III., in which the poisonous acids and alkalies are described. Part IV. discusses the volatile poisons, and Part V. concludes the book with descriptions of the alkaloids and other poisonous vegetable principles.

Each particular article is gone over exhaustively, and information is brought down to date. We believe that the general practitioner will find the present work a most valuable one both for reading and reference in the not infrequent emergencies when a thorough toxicological knowledge is needed.

An Excellent Face-Wash consists of a one per cent. solution of boric acid in rose-water, with five per cent. of honey added.

Died of an overdose of reconstruction! A good epitaph for a dead Congress.—*Louisville Medical News.*

Reports of Societies.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.

Twenty-first Annual Session, held at the Pequot House, New London, Conn., Wednesday and Thursday, July 15 and 16, 1885.

DR. WILLIAM F. NORRIS, OF PHILADELPHIA, PRESIDENT, IN THE CHAIR.

(Continued from p. 167.)

WEDNESDAY, JULY 15TH—FIRST DAY—AFTERNOON SESSION.

DR. S. D. RISLEY, of Philadelphia, read a paper on

HYPERMETROPIC REFRACTION PASSING INTO MYOPIC REFRACTION.

The Doctor had on previous occasions called attention to five cases of a similar kind, and the object of his paper to-day was simply to report six additional cases seen within the past year.

DR. W. S. DENNETT, of New York, made a few remarks on the importance of the examination of spectacles. He exhibited a series of drawings showing the effect of different kinds of lenses on straight lines.

He also exhibited an electric light ophthalmoscope, a description of which has been printed in THE MEDICAL RECORD.

DR. LUCIEN HOWE, of Buffalo, N. Y., exhibited

AN ARRANGEMENT FOR THE DEMONSTRATION OF REFRACTION AND ACCOMMODATION.

This consists of two bands of thin metals bent in such a manner as to represent the outlines of a double convex lens, and passing through it two jointed rods representing the rays of light ordinarily figured as passing through such a lens and joining at its focus. The flexible bands were attached to each other above and below, so that by approaching or separating the sides they could be made to show less or greater convexity. The rods representing the rays of light were jointed near the centre in such a way that while the two halves could be placed in such a direction as to show the light as entering parallel to the axis of the lens, the other two portions could be bent to a point to show the convergence of rays at the focus. By alteration in the position of these rods and also in the forms of the bands representing the lens, all the different variations of the laws of refraction and the changes in accommodation can be demonstrated to a class.

DR. E. DYER, of Newport, R. I., demonstrated a perimeter which he had described at the last meeting of the Society.

A paper on

TWO CASES OF UNILATERAL TEMPORAL HEMIANOPIA

was read by DR. C. S. BULL, of New York.

The first case was that of a man aged sixty-six, first seen in 1884. In 1882 he received an injury which rendered him unconscious. When he regained consciousness found that he was blind in the right eye. In 1883 he noticed a central obscuration of vision in the left eye. There was no syphilis, no disease of the heart, and no indication of Bright's disease. He had never used alcohol to excess, but smoked and chewed tobacco in large amounts. There was an irregular central scotoma. The media were transparent and the iris normal. Both optic disks were of a dirty-white color, and in both there was a deep excavation with pulsating veins, and in the left eye there was a large retinal hemorrhage. The tension was normal.

The second case occurred in a man aged sixty. He had been knocked down by a horse, receiving a depressed fracture of the frontal bone above the left eye. The patient was unconscious or delirious for four weeks following the accident. When he regained consciousness he found that the left eye was blind. Examination showed that in the left eye there was somewhat irregular temporal hemianopsia. This may have resulted from fracture of the superior orbital plate, with injury to the fibres of the optic nerve going to the temporal half of the retina.

DR. H. DERBY, of Boston, read a paper on

TWO CASES OF PENETRATION OF THE EYEBALL WITH SCISSORS, IN THE OPERATION FOR STRABISMUS.

The first case was that of a young man on whom an operation for strabismus had been attempted. The surgeon inadvertently picked up a pair of sharp-pointed scissors. The point of the scissors suddenly penetrated the eyeball, and a portion of vitreous equal in size to a cherry-stone escaped. The operation was abandoned, and Dr. Derby was called to see the case. The eye was bandaged and the patient put to bed. Several attacks of inflammation supervened, but the patient was discharged on the forty-first day with V. = $\frac{1}{10}$.

In the second case the scissors also entered the sclerotic, but after a somewhat tedious convalescence the wound was found closed on the twenty-first day with vision as good as before the operation.

DR. KNAPP stated that he had done three thousand squint operations, and in three cases he had punctured the sclerotic. He, however, completed the division of the muscle, and the patients recovered as readily as from an uncomplicated operation.

DR. MITTENDORF stated that he had been present at a strabismus operation where the sclera was opened. He advised the surgeon to complete the operation. This was done and the wound had healed in four or five days. He thought that, in case the accident happened, the division of the muscle should be completed.

DR. E. WILLIAMS, of Cincinnati, reported a case in which he had punctured the eye. The patient recovered without difficulty.

DR. E. E. HOLT, of Portland, Me., read a paper on

STRABISMUS; ITS CORRECTION WHEN EXCESSIVE AND IN HIGH DEGREES OF AMBLYOPIA.

The writer had employed advancement of the weakened attenuated muscle in connection with tenotomy in certain cases of squint, and after tenotomy alone had failed to correct the deviation. He also exhibited an apparatus he had devised for showing the associated and accommodative movements of the eyes and the effects of tenotomy and advancement of the muscle in correcting squint.

DR. KIPP at one time employed advancement, but he had given it up because it was difficult to graduate the result.

A paper on

THE TREATMENT OF STRABISMUS INTERNUS

was read by DR. W. W. SEELY, of Cincinnati, in which the author said that each year with its added experience had strengthened the conviction that early operations (up to the tenth or fifteenth year) are questionable and possibly should be entirely abandoned. He combated the idea that crossed-eyes never become straight without an operation. Nothing is better established than the relation between ametropia and strabismus; and all recognize the necessity for glasses to prevent the recurrence of the squint after tenotomy. Everyone knows that it is possible to correct the squint by setting aside the ametropia by means of glasses.

The author's early conviction that something should be left to time and glasses has long since grown into an absolute law of action, for he had become thoroughly persuaded that immediate perfection meant later in life insufficiency or even divergence. Operative procedures should not be the first consideration, but should be looked

on as an adjuvant to be resorted to later on if necessary. He summed up as follows: 1. That, with our present light, routine operative interference is wrong. 2. That to thoroughly correct the deviation in young children by operative interference is extremely liable to subject them in after life to insufficiency or external squint. 3. That a later period of life if anything favors better results from operative interference.

Dr. Knapp thought advancement a dangerous operation. He had always been able to correct the deviation by two or three tenotomies, and, if necessary, stitching the eye to the commissure.

Dr. Theobald, of Baltimore, endorsed Dr. Knapp's views in reference to advancement. He was surprised at the conclusions of Dr. Seely. Squint operations in his hands had been very satisfactory. If postponed, they are likely to prove unsatisfactory on account of the amblyopia which is liable to develop.

Dr. O. F. Wadsworth had studied the subject for a long time, and had convinced himself that amblyopia from squint did not occur. The ability of the patient to use the vision which he has does seem to be lost by a continuance of the squint, but it may be recovered by practice. If the examination of vision was carefully made, he was certain that it would be found that the vision was not improved after the operation. It, however, is often difficult to get the full amount of vision which a squinting eye possesses.

Dr. R. H. Derby, of New York, read a paper on

ECTROPION OF BOTH LIDS—BLEPHAROPLASTY BY THE ITALIAN METHOD.

The displacement of the lids was the result of cicatricial tissue from a severe and extensive burn of the face. The lids were loosened from these attachments and the new lids formed from flaps raised from the arm. The arm was bound to the head with water-glass plaster, and the pedicle was not divided until union had taken place. Photographs were exhibited showing the appearance of the patient before and after the operation.

Dr. Hasket Derby exhibited a box of trial lenses, made by Nachet, in which the following features were embodied: 1, The doubling of the prisms; 2, the distinguishing of the cylindrical lenses by coloring the positive settings black and the negative red; 3, the adaptation of the trial frames to receive the glasses without removal from the patient's head; 4, the removal of the handles from the prisms and cylindrics.

A paper on

PLASTIC OPERATIONS WITHOUT PEDICLES

was read by Dr. B. Joy Jeffries, of Boston.

The object of the paper was to make one or two suggestions which the author had not yet put in practice, but which he was ready to try when opportunity offered. He suggested the use of the prepuce from the circumcision of Jewish children for operations about the eyes. He also suggested that in plastic operations the desired result might be obtained without the use of a flap by employing carbolized-oil dressings to retard healing, for it is well known that some time after a plastic operation the transplanted tissue has almost entirely disappeared.

Adjourned until evening.

Wednesday, July 15th—First Day—Evening Session.

Dr. Harlan, of Philadelphia, reported

TWO CASES OF CONGENITAL PARESIS OF THE EXTERNAL RECTUS.

Dr. Harlan also exhibited and described Borck's sphero-cylindrical lenses.

THE REMOVAL OF A BIT OF STEEL FROM THE LENS WITH THE ELECTRO-MAGNET

was the title of a paper by Dr. J. L. Minor, of New York.

M. S—— was struck, one week before coming under observation, by a piece of steel. There was a small scar in the cornea, and vision was much reduced. There was clearly a piece of steel in the lens, which the doctor desired to remove at once. After consultation, it was thought advisable to await the development of some symptoms. The patient was, therefore, given atropine, and instructed to return if the eye gave any trouble. Some time later the eye became irritable. There was considerable ciliary injection. There was haziness, and the tension was increased. Cocaine was employed and iridectomy performed. The shank of a strabismus-hook was touched to an electro-magnet, thus making it a magnet. The extremity of the hook was then carried into the lens, and the piece of steel at once attached itself to it and was removed. Thirteen days later the eye had recovered from the operation. The lens has not yet been removed.

Dr. R. H. Derby, of New York, reported a case of

MALFORMATION OF THE UPPER LID.

In this case there was a fissure of the upper lid, from the angle of which a portion of skin projected in a peculiar manner.

REMOVAL OF EPITHELIOMA OF THE EYELID BY APPLICATIONS OF BENZOLE AND CALOMEL,

by Dr. A. Matthewson, of Brooklyn. O. D——, laborer, fifty years of age. was seen October 3, 1881, with tumor on the right lower lid. This first appeared as a warty growth three years previously. Of late it had been rapidly growing, and presented a raw granulation surface. Careful examination by an expert showed it to be undoubted epithelioma, It was treated by frequent dustings of calomel, after brushing the surface with benzole. The tumor entirely diappeared until a few months ago, when a granular spot appeared at one edge of the site of the former growth. This disappeared under a renewal of the same treatment.

Dr. H. S. Schell, of Philadelphia, read a paper on

LIPOMATOUS PTOSIS.

Under this head the speaker reported four cases of ptosis from excessive accumulation of fat in the upper lids. The condition occurred in young women between the ages of eighteen and twenty-five. The deformity was symmetrical, the weight of the lid causing it to cover one-half of the cornea. The excessive fat was removed through a horizontal incision. The smallest amount taken away was thirty-five grains; the largest, seventy-one grains. The levator regained power in from one to four weeks. In one case it was necessary to repeat the operation.

Dr. L. Webster Fox, of Philadelphia, reported some

CLINICAL OBSERVATIONS.

Case I.—*Congenital cataract in both eyes successfully operated on in a patient sixty years of age.*—H. H——, negress, aged sixty, presented herself at the Germantown Hospital, February 4, 1884. Congenital cataract of both eyes was found. The use of a four-grain solution of atropia produced no dilatation of the pupils. There was simply light-perception. Shortly afterward the right lens was removed, and the wound rapidly healed. At the end of eight days the patient could see, but could not name objects without touching them. The lens of the left eye was subsequently removed. The effect of the acquisition of sight after sixty years' blindness was carefully described by the doctor. The lenses when removed were found to be of a spheroidal shape. The optic nerve presented an oval outline.

Case II.—*Recovery of useful vision after eighteen years' blindness.*—R. L——, aged thirty-seven years, was injured in the left eye when three years of age. Two years subsequently sympathetic ophthalmia developed in the right eye, resulting in qualitative perception of light only. An iridectomy was done at the Germantown Hospital in June, 1884. The media were found to be clear. When admitted to daylight com-

plained of erythropsia to such an extent that dark glasses were ordered. This disappeared in the course of three months. A + 10 D. spherical glass was ordered for distant use, and a + 14 rendered near objects visible. Subsequent examination showed that better vision was obtained by a combination of spherical and cylindrical lenses.

He also related the history and treatment of five cases of retinitis pigmentosa by electricity (constant current). There was marked improvement, which, in one case, remained nine months after discontinuance of the treatment. Five cells are usually employed, the positive pole being placed over the closed eyelid, and the negative pole at the nape of the neck.

Dr. Lucien Howe, of Buffalo, N. Y., read a paper on

THE PULSATING VARIATIONS OF INTRA-OCULAR TENSION AS MEASURED BY THE MANOMETER.

In calling attention to the variations of intra-ocular tension some attention also was given to various forms of manometer, or instruments for its measurement. The earlier forms consisted simply in a U-shaped tube of glass connected by a flexible tube to a trocar. When the trocar was introduced into the anterior chamber of the eye the intra ocular pressure would tend to force the fluid through the tube and show the degree of pressure by a rise in the opposite column of the U-shaped tube. This was imperfect, for the reason that when the aqueous humor escaped from the eye it was at once in an abnormal condition. The double manometer described by Grasser and Holzke obviated this difficulty. In this, however, there was an imperfection in the trocar, which was rather complicated and liable to get out of order. An improvement was accordingly suggested in having a stopcock attached to a needle of the hypodermic syringe and this the writer found to serve the purpose much better than any other. The animal best adapted to this class of experiments is the cat, on account of the deep anterior chamber.

In the earlier experiments with the manometer, it was noticed that the intra-ocular tension varied with the heart's action. In addition to this the writer called attention to the fact that these variations in the pressure, as indicated by the manometer correspond to pulsations which can be seen with the ophthalmoscope in the vessels in the interior of the animal's eye. In other words, if the same thing holds in the human subject we must infer that when pulsation is seen in the interior of the eye there is also a variation of intra-ocular tension, although not enough to be detected by the touch or by an ordinary instrument. This connection between pulsation and pressure is a demonstration of the cause of venous pulse in the eye as explained by Donders. It was also observed that after the introduction of the needle there was at first considerable pulsation, but after a short time this ceased, the eye evidently adjusting itself to the unusual condition. The experiments referred to were made in the laboratory of Professor Zunt, of Berlin.

Dr. H. Knapp, of New York, reported nine successive cases in which the electro-magnet was used for the extraction of chips of iron from the interior of the eye. These cases were operated on during the past three and a half years. In two the chip of iron was located in the iris, in one for two days, causing inflammation, and in the other for seventeen years, remaining quiet until recently. Both were successfully removed without deterioration of the eye.

In the seven remaining cases the foreign body was in the vitreous, had produced cataract and could not be seen. In three cases the atttempt to extract them with the magnet failed and the eyes had to be enucleated. In four cases the chips of iron were brought forth at the first, second, or third introduction of the tip of the magnet. In all these four cases, the recovery was smooth. All four are still cataractous. In two the form, size, and tension of the globe is not changed and the perception of light is good over the whole field. In the two others the globe is slightly smaller and softer and the field of vision defective, corresponding to the wound made for the extraction of the foreign body. There was no irritation in any of the four eyes as long as they were under observation.

Dr. H. Knapp, of New York, also read a paper on

THE ACTUAL CAUTERY IN DESTRUCTIVE CORNEAL PROCESSES.

The Doctor cited a number of cases in which its use had been of service and considered it a valuable measure.

Dr. Howe had employed this measure in three cases and the corneal ulcer had been somewhat lessened.

Dr. E. Williams, of Cincinnati, had for the past fifteen years been in the habit of treating phlyctenular ulcers of the cornea by the application of pure carbolic acid and had found it to act admirably.

Dr. O. F. Wadsworth, had for several years been in the habit of using carbolic acid for ulcus cornea serpens and for sluggish, painful infiltrations of the cornea. In sluggish infiltration the application is preceded by scraping and in some cases the simple scraping had been sufficient. When the ulcus cornea serpens had been severe, he did not recall that it had entirely stopped the process. In a recent case in which the acid was applied at the beginning of the affection, three applications checked the disease.

Adjourned to Thursday morning.

Thursday, July 16th—Second Day—Morning Session.

Dr. W. F. Mittendorf, of New York, read a paper on

PNEUMOPHTHALMOS, OR AIR IN THE VITREOUS HUMOR.

The entrance of air into the interior of the eye will occur at times during an operation, as, for instance, a cataract extraction. In such cases the air may get into the anterior chamber, whence it can be removed with ease. It is, however, entirely different when air gets into the vitreous chamber. Fortunately this accident is of such rare occurrence that so far no description of it has been given. The writer had seen two cases of this kind within the last two years. Both occurred in connection with injuries caused by the entrance of foreign bodies into the interior of the eye. Such accidents are usually so serious that any complication of them becomes a matter of great interest. The first case was that of a young blacksmith who was wounded by a piece of iron penetrating the sclera and lodging in the vitreous humor. The foreign body, surrounded by a clot of blood, was found at the bottom of the eye. Behind the lens and a little above it three air-bubbles were seen by means of the ophthalmoscope. These appeared to be of the size of a small pea, the smallest about as large as a rape-seed. They closely resembled the air-bubble as seen under the microscope, their centres being bright and the outlines well defined and surrounded by a sharp black border. Their recognition was not difficult. The foreign body could not be removed with the magnet, and it was decided to allow it to remain. The eye was carefully bandaged and the day following it was found that the air-bubbles had united and located at the posterior pole of the lens, the patient having remained quietly on his back some time before the examination. While he was in the upright position the air began to rise slowly until it reached the upper part of the vitreous chamber. During this trip the bubble looked oval and decidedly pointed at its lower portion, resembling oil-globules as they are seen ascending in water. Forty-eight hours after the accident every trace of the air-bubbles had disappeared.

The second case reported was the result of a drilling accident. A pretty large piece of stone or iron had perforated the sclera at the lower and outer part of the

eye. In the semi-transparent vitreous an air-bubble of the size of a hemp-seed could be seen distinctly.

In order to determine the exact appearance of air in the vitreous, the writer experimented upon rabbits' eyes. Four of them had air introduced into the vitreous humor by means of a hypodermic syringe, and four were subjected to the introduction of oil, also by means of the hypodermic syringe. Nearly all these experiments were successful. The difference between the air- and the oil-bubble was so marked that they could be readily diagnosed by means of the ophthalmoscope. The latter were more highly refractive, heavier in appearance, and the contour decidedly darker than the air-bubbles, which were entirely colorless.

The conclusions reached by the author were as follows: 1. The entrance of air into the vitreous body can occur only after a part of the contents of the vitreous chamber has escaped. 2. It is favored by the entrance of a foreign body which makes a large, gaping, irregular wound of the sclera. 3. In order to allow air to enter the vitreous humor, this must either be quite fluid or its anatomical arrangement must have been disturbed by the entrance of a foreign body, or the air must have been attached to the foreign body and be thus carried with it into the eye. 4. The air in the vitreous humor appears like an air-bubble as seen under the microscope, it is more or less round, highly refractive in the centre, and has a sharply defined black outline. 5. Oil-globules in the vitreous present a similar appearance, but they look heavier, are not perfectly colorless, and their outlines are darker; they are also more glittering in the centre. 6. Air-bubbles will be completely absorbed within two or three days. Their presence is not a source of great danger to the eye. Oil-globules last longer, but they are likewise non-irritating.

Dr. Myles Standish, of Boston, reported

A CASE OF TUBERCLE OF THE IRIS.

The history was as follows: A girl, fourteen years of age, both of whose parents were living and had never presented any evidences of syphilitic or tuberculous disease. There was no suspicion of specific taint. During the past winter intense pain in the epigastrium and ascites had been noted. Acute hepatitis was the diagnosis reached by the family physician. No pulmonary lesion was detected.

The eye trouble had existed for four weeks when seen by the speaker. There had not been much pain or photophobia. The iris was attached by its pupillary margin to the capsule, and on it there was a growth, two millimetres in diameter, pink in color. This projected from the iris near its ciliary border.

In the course of a month the eye was enucleated on account of increase in size of the growth and the appearance of other growths.

The vitreous, retina, and choroid were found to be normal. The lens was somewhat opaque. The iris was very adherent to the capsule of the lens along its pupillary border and also beneath the entire area of the principal growth. The largest mass sprang from the surface of the iris near its ciliary border, and at its base was 2.5 mm. in diameter and it was 2 mm. in height. At the top its diameter was 4 mm. This was apparently due to the pressure of the growth against the cornea. There were three other growths, but none of them involved the ciliary body or even the ciliary border of the iris.

Under the microscope the evidences of tubercle were quite distinct, giant cells and bacilli tuberculosis being found.

Dr. Knapp had seen growths presenting exactly the same appearance which had disappeared under the use of specific treatment with mercury even where there was no evidence of syphilis. He had never felt warranted in making the diagnosis of tubercle in such cases, although the presence of the tubercle bacilli in this case would seem to confirm the diagnosis.

A CASE OF CONGENITAL COLOBOMA OF THE IRIS, CHOROID, ETC.,

was reported by Dr. C. J. Kipp, of Newark.

The patient was a woman, sixty-nine years of age. She was first seen four years ago. There was at that time no inflammatory symptoms, but a small triangular coloboma of the iris was found exactly in the vertical meridian. The tension was above normal. The patient had never seen with this eye, but it had never given pain. Four years later the patient was again seen, and the eye presented the signs of inflammatory glaucoma. The pain had prevented sleep for many weeks. The eye was enucleated and healed promptly. There was also found a large ectasia of the sclerotic, and over this the choroid and retina were wanting. The ectasia extended close to the optic papule. There was also a deep kettle-shaped excavation of the optic nerve.

A paper on

COLOBOMA OF THE CHOROID ON THE TEMPORAL SIDE

was read by Dr. S. D. Risley, of Philadelphia.

A young physician consulted Dr. Risley for asthenopia. There was a considerable degree of myopia in the left eye. In the right eye vision was much diminished, $\frac{20}{70}$. The ophthalmoscope showed a large hiatus in the choroid on the temporal side, the depth of which was 3 D. There had been no pain. The speaker thought that these cases were comparatively rare.

Dr. Mittendorf had seen several of these excavations in the outward direction. Where the coloboma was so deep he thought that it was probably a coloboma of the optic nerve-sheath with excavation of the nerve. A difference of 4 D. would indicate a greater defect than would correspond to absence of choroid and retina alone.

SEROUS EFFUSION IN THE VITREOUS DUE TO MALARIA.

In a paper on this subject Dr. W. W. Seely, of Cincinnati, considered the occurrence of this complication not infrequent and he reported one case of this affection.

Dr. William F. Norris read a paper entitled

GRAY DEGENERATION OF THE OPTIC NERVE WITH ABNORMAL PATELLAR REFLEX.

After an elaborate review of the literature of the subject the speaker gave the results of his observations in cases where the patellar reflex was increased or diminished. He described three cases of gray degeneration associated with tabes dorsalis which had come under his observation. While he did not hold that this symptom indicated beginning tabes dorsalis, yet it was a danger-signal calling for rest of the brain and cord with attention to improvement of the general condition.

Dr. O. F. Wadsworth, of Boston, reported

A CASE OF DOUBLE OPTIC NEURITIS AND OPHTHALMOPLEGIA FROM LEAD-POISONING COMPLICATED WITH TYPHOID FEVER.

A boy nine years of age had suffered from obscure febrile symptoms for several weeks and movements of the left eye had been observed to be imperfect. When first seen by Dr. Wadsworth there was pronounced optic neuritis in both eyes. The rest of the fundus normal. Vision was much diminished. No lateral movements of left eye could be made and movement downward was impaired. The outward movement of right eye was defective. The probable diagnosis was tumor in the region of the pons. The movements of the eyes became still more impaired and vision sank. The boy developed pretty distinct symptoms of typhoid fever. The spleen and liver were both enlarged. Lead was found in the urine and the diagnosis of tumor was then abandoned. The treatment was with iodide of potassium. The general condition gradually improved. The neuritis passed into atrophy, leaving too little vision to count fingers. The move-

ments of the eyes were completely restored and the lead disappeared from the urine. The cause of the lead-poisoning was found to be the presence of a piece of lead-pipe in the cistern from which the drinking-water was obtained.

Dr. Joseph A. Andrews, of New York, read a paper on

OLIVE OIL AS A MENSTRUUM FOR DISSOLVING COCAINE FOR APPLICATION TO THE EYE.

In addition to the occasional benefit from the use of oil, dropped into the eye in recent abrasions from burns and in other painful affections of the cornea in which atropia is indicated, cocaine may likewise be serviceable. The plan of dissolving the cocaine in oil seems to insure a longer contact of the remedy and a smaller quantity is required to effect anæsthesia, two qualities of especial advantage in operations on the eye.

Neither the salt of cocaine nor of atropia is soluble in olive oil, but the alkaloid of both dissolves readily in the menstruum without the addition of an acid, it being only necessary to expose the solution for a few minutes to a gentle heat in a water-bath. Castor oil is not a desirable menstruum on account of its irritating qualities, and the oleate of cocaine, for the same reason, is still more objectionable as an application to the eye.

A CASE IN WHICH ENUCLEATION OF THE EYE FOR GLAUCOMA HAD PRECIPITATED GLAUCOMA IN THE OTHER EYE

was reported by Dr. David Webster, of New York. The patient was a man aged fifty-four, the subject of glaucoma absolutum. He complained of periodical obscurations of vision in the good eye. V. = $\frac{20}{15}$ and there was no limitation in the visual field. As he was of dissipated habits he was advised to live properly. A week or two later returned, stating that he had had a worse attack. There was an excavation of the nerve in the good eye detected. The glaucomatous eye was now removed. Two days later acute glaucoma appeared. An iridectomy was performed and he recovered in a week or two with V. = $\frac{20}{40}$, with no cupping of the disk and no limitation of the field. This was the only case he knew of in which enucleation had precipitated an attack of acute glaucoma in an eye already predisposed to it. He had, however, reported cases in which iridectomy had produced the same effect.

Dr. E. Williams, of Cincinnati, reported

TWO CASES OF QUININE AMAUROSIS.

In the first case a man took about one ounce in the course of four days. This produced total blindness and deafness, but in six weeks he could see as well as ever; the hearing had never completly returned, although the quinine was taken eight years ago. The field of vision was concentrically contracted in both eyes. The optic disks were very white, the calibre of the arteries and veins was reduced, and the smaller capillaries could not be seen.

The second case was that of a boy, aged fourteen, who had received large doses of quinine, the exact amount not being known. He was totally blind for four days. When examined, the sight was much diminished, and the atrophy of the optic disks was extreme and there was great contraction of the field of vision.

A MEANS OF MEASUREMENT OF THE AMOUNT OF ANÆSTHESIA FROM COCAINE.

Dr. Lucien Howe, of Buffalo, exhibited the drawing of a kymograph which he had used for this purpose. The use of the instrument was based on the fact that irritation of a sensory nerve is followed by a rise of blood-pressure. The instrument is connected with an artery and the conjunctiva is irritated. Cocaine may then be applied and the results on the blood-pressure compared.

Dr. Harlan, of Philadelphia, presented a modified ophthalmoscope which had been devised by Dr. Jackson, of Philadelphia. In it the lenses moved vertically instead of circularly.

Dr. Dennett, of New York, exhibited an arrangement for using Stokes' lens for measuring astigmatism, and to avoid the inconvenience of constantly removing the frame from the patient's nose. The lens was mounted on a stand and could thus be placed in front of the patient.

The Society then went into executive session.

The officers for the following year are:

President—Dr. Wm. F. Norris, of Philadelphia.

Vice-President—Dr. Hasket Derby, of Boston.

Secretary and Treasurer—Dr. O. F. Wadsworth, of Boston.

Corresponding Secretary—Dr. J. S. Prout, of Brooklyn.

New members were elected as follows: Drs. Chas. A. Oliver, of Philadelphia; Edward Jackson, of Philadelphia; B. Alexander Randall, of Philadelphia; D. Pope Walker, of New York; William O. Moore, of New York; Frank G. Capron, of Providence; S. M. Burnett, of Washington; Wm. T. Bacon, of Hartford.

The next meeting will be held at New London, the third Wednesday in July, 1886.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

CLOSE OF THE ACADEMICAL YEAR—CHANGES IN THE CURRICULUM—THE TEACHING OF MATERIA MEDICA—PROFESSORS AND TEXT-BOOKS—MEDICAL CANDIDATES FOR PARLIAMENT—MR. WHARTON JONES AND THE PHYSIOLOGISTS.

London, July 25, 1885.

The academical year now closing has witnessed great changes in medical education in London. The entire curriculum has virtually been revolutionized by the establishment of the Conjoint Examining Board for England and Wales. The first step toward sessional examinations has been taken by the establishment of what has long been talked of, viz., a compulsory examination for students at the end of the first year. The first summer examinations under the new scheme are now being held. The wisdom of the new scheme is at any rate open to question, as regards one of the summer subjects, Materia Medica. This subject—using the word in its widest sense—has been cut in two. The therapeutical division of the subject has been relegated to the final examination, leaving the pharmaceutical, chemical, and botanical parts to be digested as best they may A fraction of the paper is devoted to the physiological action of drugs, but the actions and uses of medicines are regarded as being beyond the comprehension of first year's students, who are expected to enliven as best they can the hours devoted literally to the study of the dry leaves of the subject. I am not exaggerating. At the College of Physicians a question has actually been asked about the "Leaves" of the Pharmacopœia.

Under the new arrangement the London teachers of Materia Medica are somewhat in a quandary. One of them, Dr. F. T. Roberts, has boldly announced his intention of devoting his lectures entirely to therapeutics, and has issued a small text-book, devoted entirely to the other divisions of the subject. It is accurate, but dry as the specimens which it describes. Such a book may sell because Dr. Roberts is an examiner, but cannot enhance his reputation. Moreover, there cannot have been a real want for such a book, as Dr. Isambord Owen's little work, issued a year before, covers the same ground, and is more readable.

Another gentleman, who is also an examiner—Dr. Lauder Brunton—meets the difficulty by including all pharmaceutical, botanical, and chemical details in his recently issued book, and protesting in his preface against the importance attached to their study. He quotes with approval the *reductio ad absurdum* suggested by

the late Professor Sharpey—that we might as well require a knowledge of the whole art of cutlery before setting a student to dissect. Dr. Brunton follows this up by remarking that we now oblige a student to learn the physiological action of drugs, a subject about which little was known until recently, and that to require all this *in addition*, is to treat them as Pharaoh treated the Israelites. Coming from an examiner who sets such questions as those now given, this remark is, to say the least, rather unfortunate.

An examination of Dr. Brunton's elaborate work suggests some reflections not wholly favorable. Nearly half of it is devoted to what the author terms "General Pharmacology and Therapeutics," in which the actions of drugs on the various tissues and organs of the body are treated of at great length, and, it must be added, with great learning and ability. The multiplicity of details given throughout the work is bewildering; so are the numerous references to German authorities. The practical doctor who refers to its pages will often, however, be disappointed. He will remember it as a treatise in which nearly a page is devoted to an explanation of the probable mode of action of arsenic in phthisis, but in which, although arsenic is mentioned as useful in diseases of the skin, no one cutaneous affection is named for which it may be given; as one in which the use of sulphur ointment as a remedy for scabies is given, but no details as to how to use it; as one in which the old error of describing citrate of lithia as amorphous and deliquescent is perpetuated; and as one in which it is suggested that iodoform may be employed as a vapor. There are numerous references, but those to British writers are very few and far between, and not always given where they should be in justice. Koch's remarks as to the comparative inertness of carbolized oil are given, but the much earlier original observations of Dr. Sansom are ignored. Similarly, the method of giving aconite in hourly drop doses is incorrectly ascribed to Dr. Ringer, instead of to Dr. Prosser James, who introduced it to the profession before Dr. Ringer was in practice. Dr. John Harley's observations and experiments are not even mentioned under conium, and Dr. Garrod's observations on lithia salts are completely passed over. On the other hand, the book is burdened with the details of the effects of some drugs on birds and mammals, and no inconsiderable amount of toxicology is introduced. Such is our last work on Materia Medica—a book more for the physiologist and the laboratory than for the busy practitioner in daily practice. Much of our vaunted modern medical teaching has the same tendency.

Two more medical men have come forward as parliamentary candidates. Mr. Ernest Hart, the editor of the *British Medical Journal*, has come forward for a constituency in East London. Mr. Erichsen, late President of the English College of Surgeons, has appeared as a candidate for the Universities of Edinburgh and St. Andrew's. Mr. Erichsen has already received considerable support, though he has not the advantage of being an alumnus of either university. He is, though, an honorary graduate of the former university.

Mr. Wharton Jones, F.R.S., late Professor of Ophthalmic Medicine and Surgery in University College, London, has been busying himself in his retirement at Ventnor by penning a series of articles which are calculated to make some of our physiologists rub their eyes and ask themselves whether they are asleep or awake. The emigration of leucocytes is now taught as a well-established incontrovertible phenomenon. Mr. Wharton Jones believes that there is no such thing, and says that he has not yet been fortunate enough to meet with any professor who could satisfy his doubts from experience of his own, or demonstrate the fact to him. The suggestion is made that the belief of "hundreds of trained workers" in the phenomenon may be a mere parrot utterance. Those, he says, of whom he has made inquiry acknowledged that they had not observed the phenomenon. Mr. Wharton Jones similarly criticises unsparingly many other articles of faith in vascular physiology and pathology, and challenges the production of proofs. The physiologists meanwhile seem in no hurry to take up the gage he has thrown down. Is it because they are conscious of their own weakness, and that, in fact, many of them have not sufficient practical experimental knowledge of the points at issue to contradict Mr. Wharton Jones?

"A MEDICAL VIEW OF ARMY MORALS."

To the Editor of The Medical Record.

Sir: In a communication published in The Medical Record July 11, 1885, exception is taken to a remark attributed to Professor Gross. That this venerable surgeon may have been mistaken in ascribing a specific taint to the scrofulous children of all soldiers is possible, but I do not think it has been shown that he was. Your correspondent supplied facts and figures to repudiate the insinuation, which he declares to be untrue. Let us see with what result. He cites "three hundred and eighty careful and prolonged examinations of soldiers made during the last year," etc.; in only one was positive evidence of "syphilis found, and in five only was there presumptive evidence." The medical statistics of the Provost-Marshal-General's Bureau give the ratio of soldiers examined and rejected for syphilis as 12.8 per thousand, which corresponds very closely with that above, provided the five presumptive cases be included.

Assuming the correctness of this ratio for the present as well as the past, let us take the assertions in the order stated in the communication and see if they are corroborated by the statistics given in those reports. Your correspondent asserts that "the young men today between twenty and thirty-five years of age" will show a much larger proportion with evidences of acquired syphilis. In the words of your correspondent "this is untrue." The reports show for those between twenty and thirty-five years of age a ratio of ten per thousand, the average for soldiers being twelve per thousand. He challenges "any profession in America, not excepting the clergy, college professors, and editors." Even the sanctuary is invaded. *O tempora! O mores!*

But here again the figures show the doctor to be in error. Referring to the same authority, which, be it remembered, was compiled by military officers, we fail to find *any* one profession in which the ratio is so large as in that of the soldier, the ratios being for those professions particularly alluded to in the communication as follows: Editors, 0; teachers, 3; clergymen, 7; and soldiers, 12 per thousand.

The doctor thinks "that American soldiers deserve better treatment at the hands of physicians." How is it with the clergy, college professors, editors, and young men? But I see no ground for assuming the treatment to have been bad. Prophylactic measures might result in some good, but the laws of our land have placed no such powers in the hands of the profession. If "a careful examination of soldiers now living" should give a less proportion affected (?), however gratifying such a result might be, it would not affect the remark made by Professor Gross, which had reference to the past and not the present.

Would it not be better to divest such questions of sentiment and deal with them in the light of modern physiological and sociological laws, recognizing the causes and results, hoping for some improvement in the future, and not forgetting the injunction of that intrepid old lecturer, who was wont to turn upon his hearers, whose faces depicted horror and disgust at these unfortunate patients, and remind them that they should not show their disgust, but rather pity, for if they were fortunate enough to have escaped themselves, it was due more to good luck than any credit on their part?

Yours, Medicus.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 2, 1885, to August 7, 1885.

BILL, JOS. H., Major and Surgeon, U.S.A. Died, at Yonkers, N. Y., July 21, 1885.

MCDOUGALL, CHARLES, Lieutenant-Colonel, U.S.A. (retired). Died, at Fairfield, Va., July 25, 1885.

DEWITT, CALVIN, Captain and Assistant Surgeon. Promoted to Major and Surgeon, vice Bill, deceased, to take effect from July 21, 1885.

IVES, FRANCIS J. Appointed Assistant Surgeon, with rank of First Lieutenant, to rank as such from July 25, 1885.

GIRARD, A. C., Captain and Assistant Surgeon. From the Department of the East to the Department of Columbia. S. O. 170, A. G. O., July 27, 1885.

EBERT, R. G., Captain and Assistant Surgeon. From the Department of Columbia to the Department of the East. S. O. 170, A. G. O., July 27, 1885.

TESSON, L. S., Captain and Assistant Surgeon. Ordered from Fort Stockton, Tex., to Fort Davis, Tex. S. O. 90, Department of Texas, July 27, 1885.

CARTER, W. F., Captain and Assistant Surgeon. Ordered for duty as Post Surgeon, Fort Stockton, Tex. S. O. 90, Department of Texas, July 27, 1885.

APPEL, A. H., Captain and Assistant Surgeon. Ordered for duty with the United States troops forming portion of guard of honor over remains of ex-President General Grant, at Mount McGregor, N. Y. S. O. 36, Division of the Atlantic, July 29, 1885.

GORGAS, WILLIAM C., Captain and Assistant Surgeon. Granted leave of absence for two months, to take effect about August 10, 1885. S. O. 169, A. G. O., July 25, 1885.

BROWN, J. M., Surgeon; EWEN, CLARENCE, and TAYLOR, A. W., Assistant Surgeons. Ordered to rejoin their proper stations in Department of the Platte. G. O. No. 7, Division of the Missouri, August 1, 1885.

EDIE, G. L., and BLACK, C. S., Assistant Surgeons. Ordered to rejoin their proper stations in the Department of Texas. G. O. No. 7, Division of the Missouri, August 1, 1885.

POWELL, J. L., Captain and Assistant Surgeon. Assigned to temporary duty at Fort Leavenworth, Kas. S. O. 110, Department of the Missouri, July 30, 1885.

DIETZ, WM. D., First Lieutenant and Assistant Surgeon. Ordered from Fort Selden to Fort Stanton, N. M. S. O. 111, Department of the Missouri, July 31, 1885.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, for the week ending August 1, 1885.

FESSENDEN, C. S. D., Surgeon. Leave extended ten days on account of sickness. July 27, 1885.

GODFREY, JOHN, Surgeon. Granted leave of absence for thirty days. July 29, 1885.

IRWIN, FAIRFAX, Passed Assistant Surgeon. To proceed to Richmond, Va., and Wilmington, N. C., as inspector. July 28, 1885.

AMES, R. P. M., Passed Assistant Surgeon. Granted leave of absence for thirty days. July 27, 1885.

THE RELATIVE ESTIMATION OF DOGS AND DOCTORS.—In Michigan they assess a dog $1 for being a dog. In Tennessee they assess a man 50 cents to become a doctor. It costs half a dollar more to be a dog in Michigan than a doctor in Tennessee. Don't be a dog.—*Battle Creek (Mich.) Moon.*

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 25, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
Aug. 1, 1885.....	0	12	46	1	109	70	0	0
Aug. 8, 1885.....	0	11	31	4	69	50	3	0
Deaths.								
Aug. 1, 1885	0	3	9	1	21	34	0	0
Aug. 8, 1885	0	3	3	4	18	18	0	0

A "FAITH CURE."—At a recent meeting of the Philadelphia Clinical Society, Dr. D. M. Barr related a case of so-called faith-cure which had come under his personal observation. He had first seen the patient, a lady, forty-nine years of age, in January, 1879. She had then been suffering at intervals for several months from severe uterine hemorrhages. Examination revealed a cauliflower excrescence involving the posterior and part of the anterior lip of the os uteri. This was removed by the écraseur, the wound healed kindly, and for two years and a half the patient enjoyed excellent health. At the end of this time she again had uterine hemorrhage, and examination showed the presence of specific granulations covering the entire endometrium. These were destroyed by Vienna paste, and the patient passed another year of apparent health. Hemorrhage recurring again, another examination was made, and the epitheliomatous growth was seen to involve the vagina and the body of the uterus. The patient was greatly alarmed, refused all nourishment, and seemed to be rapidly approaching dissolution. At this juncture she was persuaded to try the faith cure, and after being prayed over and anointed she declared herself cured. And so she was to external appearances; she felt well and strong and was able to endure almost any exertion, and she looked so much better that Dr. Barr did not recognize her when he saw her three months later. She remained in this condition about a year when she began again to fail. She was again examined and the cancer was found to have been increasing steadily; it now filled the pelvic cavity, and the enlarged uterus extended as high as the umbilicus. She died a short time after this. In the discussion which followed this report, Dr. Montgomery related the case of a lady suffering from an organic heart affection who was desirous of trying the faith cure; but the examining physician told her that such cases were not benefited by that method of treatment.

PROLONGED GESTATION.—Dr. A. H. Crawford, of Buffalo, N. Y., relates the following case as one of presumably prolonged gestation: "Mrs. G——, married six years and the mother of two children, had always, except during pregnancy and lactation, been perfectly regular in her menstruation, the periods extending over a week in each calendar month. She menstruated the last time on June 15, 1884, and from that date considered herself to be pregnant. She first felt motion in December, if she remembers correctly, but is certain of having noticed it early in January. The child was not born until June 27, 1885, one year and twelve days from the last menstrual period. The infant was a girl of medium size, with an abundance of hair, but with no other signs of increased development. The mother was a perfectly healthy woman and had no uterine trouble or other condition than pregnancy to account for the cessation of the menses."

A Contribution to Hepatic Surgery.— Dr. C. G. Roehr, of Milwaukee, has been experimenting upon dogs and cats with a view of determining how well they would bear the removal of portions of the liver or gall-bladder. After opening the abdominal cavity he ligated a portion of the liver by a continuous double catgut suture drawn so tight as to cut through the hepatic substance while only compressing, but not dividing, the vessels. He then excised the portion lying on the distal side of this suture and closed the external wound antiseptically. The animals survived the operation, and subsequent examination showed the wounded surface of the liver adherent to the omentum and peritoneum. The catgut ligatures had been absorbed. In two cats he operated in a similar manner, excising a portion of the gall-bladder, having previously drawn off the bile. The cats were afterward killed, and the wound in the gall-bladder was found cicatrized, no adhesions being found with the neighboring parts.

Acute Inflammation of the Thyroid Gland.— Dr. E. B. Ward, of Greensboro, Ala., writes: "I see reported in the last Record a case of acute inflammation of the thyroid gland in a Bohemian woman. I would be glad if you will give space in your valuable paper to a report of a similar case occurring in an American woman. The lady had no goitre at all, no enlargement of the neck of any kind previous to this acute swelling; she was over fifty years of age, mother of a large family. She told me when I was called to see her that I was the first doctor she had ever had attend her. Stature was short and full, resembling very much the Swiss or Bohemian. The enlargement when I saw it had attained to considerable size, fully as large as a good-sized cocoanut. She suffered considerable pain at night from it. It did not interfere with deglutition or respiration. Iodine was injected into the tumor, suppuration came on, and when the knife was used to open it the pus shot out like water from an artesian well; at least a teacupful of pus was discharged. The patient convalesced without any more trouble."

Cold Hands and Feet.—Many people suffer from this trouble all their lives. They have difficulty in keeping the feet or hands warm in winter, and slight exposure to cold or mental excitement at once asphyxiates the extremities. These people generally suffer also from a palmar and plantar hyperidrosis. They constitute the class out of which the different forms of Raynaud's disease are drawn. Local and general exercise daily, hot pediluvia containing tr. capsici, general tonics, warm absorbing covering to hands and feet, are the therapeutic measures indicated.

Rhus Toxicodendron and Rhus Aromatica.—A correspondent from Boston writes: "Permit me to call your attention to a paragraph in your issue of July 25th, which you entitle, 'Rhus Toxicodendron in the Treatment of Enuresis.' The text says, 'rhus *aromatica*.' The distinction is not unimportant, as rhus toxicodendron is, as its name implies, poisonous, being the 'poison ivy,' while rhus aromatica is not so. If Dr. Willeford knows anything in favor of rhus toxicodendron (which is officinal), I wish he would say so."

Some Notes on the Dosage and Therapeutic Value of Convallaria.—Dr. Z. P. Dellenbaugh, of Cleveland, O., writes: "In The Medical Record for June 27, 1885, p. 706, Germain Sée is quoted as giving convallamarine to children in one-third to two-third grain doses. About one year ago McKesson & Robins supplied convallamarine in $\frac{1}{100}$ gr. pills, and cautioned the profession to only gradually increase the dose of one pill. As the discrepancy is very great, would you be kind enough to note in your next issue whether the translator has not confounded the extract of the drug with the alkaloid." Doubtless the aqueous extract was meant instead of the glucoside convallamarine. The alkaloid convallarin is inert. The dose of the aqueous extract of the whole plant is from gr. v. to gr. viij. t. i. d. Dr. Dellenbaugh adds: "I have used convallaria quite freely since its introduction to modern practice, and find the infusion, if anything, more efficient as a diuretic in feeble heart cases than digitalis. Though not as pronounced as digitalis in increasing the length of cardiac systole (not diminishing the number of contractions so well as digitalis), convallaria, being so much safer, I have relied on it to maintain the energy obtained by the digitalis, and am quite well pleased with the results."

The International Medical Congress, which is to convene in Washington, D. C., in 1887, it is to be feared will be a flat failure, on account of the questions of medical politics and geography which have been raised by a few gentlemen who are anxious to play the rôle of Atlas to the medical world. Since the action of the committee at Chicago, scores of eminent physicians, whose names shed the brightest lustre on American medicine, living in Philadelphia, Boston, Baltimore, Louisville, and other large cities, have withdrawn and positively refuse to have anything to do with the matter. It now looks as though the Medical Congress will be like the play of Hamlet with Hamlet left out.—*Indiana Medical Journal.*

Demagogues of Medicine.—One more extract in regard to medical demagogues—a very true picture: On no profession does the demagogue, in the English, not the Greek, sense of the word, inflict more damage than on the medical. Yet in no profession, be the truth plainly spoken, will you find a larger proportion of demagogues. I do not refer to unmatriculated or unlicensed or unregistered malpractitioners. They are an odious class apart. I refer to those in regular though not in good standing. You will find them boasting of their cures. You will find them organizing Cheap John dispensaries. You will find them exaggerating ailments in order to magnify recoveries which Nature would have made more quickly had they been out of the way. You will find them declaring that old and disproved remedies are new and infallible cure-alls. You will find them proclaiming to wide-eared laymen their works of wonder. You will find them with a noisy constituency of half-educated men and wholly silly women championing them as if they were a national issue or an evangel of deliverance. . . . This sort of lying is a form of demagogy. It passes for miracle and gospel among the credulous. It limits a man for his audience to the low associations to which you will be tempted and against which I warn you. It is a compound of Munchausen and Mumbo Jumbo. It works on its claque or victims the awe the German explorer worked on the African savages—who worshiped him, gave him provisions, and free and safe passage, because he could wag his ears and had a startling trick of removing his false teeth.—Mr. St. Clair McKelway, in *Gaillard's Medical Journal.*

A Very Young Case of Gonorrhœa.—Dr. E. B. Ward, of Greensboro, Ala., writes: "I would like to ask if any of your many readers can report as young a case of gonorrhœa as this: Patient a negro boy, seven years old, with a specific discharge from the urethra. The patient had contracted the disease from an older girl, who used him for her vile enjoyment. I had another youthful patient, aged nine, last year, but this one 'takes the cake.'"

An Antiseptic Ointment.—Dr. E. B. Ward, of Greensboro, Ala., writes: "The antiseptic ointment mentioned in your last paper by Dr. M. B. Ward is very much like the one I have been using for some time in my practice. The one I use, and which has given splendid results in wounds and sores, is composed of iodoform, subnitrate bismuth, and vaseline. For chronic ulcers I add calomel to this. I have had wounds heal very readily with this ointment."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 8 NEW YORK, AUGUST 22, 1885 Whole No. 772

Original Articles.

PULMONARY PHTHISIS.

By J. MILNER FOTHERGILL, M.D. EDIN., HON. M. D. RUSH. MED. COLL., ILL.

PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST (VICTORIA PARK).

PULMONARY phthisis is a very common malady, killing a perfect array of victims annually. Yet my experience, covering a period of nearly ten years, at a chest hospital, tells me that it is a malady which is far from being necessarily fatal. Indeed, in the large bulk of cases a rally is made which may lead to recovery. Where the patient is living under fairly favorable circumstances, such, indeed, is quite commonly the case. Unfortunately for hospital patients, they cannot live under favorable circumstances.

It may be well to start with the less grave cases—or where the disease is in an early stage—first. A patient presents himself, or herself, complaining of cough, and looking ill. Perhaps not very ill, but there is something which tells the trained eye that mischief is on foot. There is a certain pallor, with a dirty hue of the skin. Sometimes the skin is distinctly greasy, and then the outlook is darker. On inquiry, the story is pretty much as follows: cough, night-sweats, losing flesh, and a defective appetite. Physical examination tells of a consolidated lung-apex as far as the third rib. Such is the most common out-patient with commencing phthisis. As to the prospect of each patient, much will depend upon the family history. If that be good, there is usually little ground for apprehension. If it be bad, then the case demands watchful care, and even then the result is doubtful.

As to how that lung-consolidation has been brought about, is a matter upon which it is difficult to say anything positive. It is there, and we know it to be due to a development of lowly connective-tissue corpuscles along the tiny blood-vessels. The fewer the corpuscles and the better their quality, the more favorable the prospect; the more profuse the production of them, the lower their quality, the more they crowd on each other, and the more likely is subsequent softening. How are we to distinguish these cases? Largely by the family history and the history of the patient. If it were practicable to take the temperature night and morning—which is not the case with hospital out-patients—light would be thrown on the difficulty. If the temperature keeps pretty even, the outlook is good. If the evening rise is marked, then a less hopeful outlook exists.

How is such a case to be treated? In one hospital of repute the routine treatment is quinine and cod-liver oil; not a bad line to take, but scarcely elastic enough for a malady which has such a variety of aspects. What is it we wish to achieve in such a case? That is the first question. We wish to procure absorption of the neoplasm, if possible. Failing that, we wish to save it from molecular necrosis—softening tubercle. Under favorable circumstances the lung may clear up. Our object is to raise the quality of the new growth, and that cannot be done directly, but only by improving the general nutrition. If we cannot achieve absorption, can we keep the new cell-growth from death? Even if some portion do soften and break down, can we save the rest, or build up healthy tissue around the perishing areas?

Our line of attack, then, is to improve the general condition, in which improvement the new growth will have its share. To check the body-expenditure and to increase the body-income are our aims. All outgoings must be stopped. That is the first step—to my mind. If a woman, attend to any leucorrhœa at once. Many a good line of attack has failed, many a woman sunk into her grave who might have been rescued, if only that outgoing had been attended to. If the catamenial loss be heavy, put an arresting finger upon it by some ergot, sulphuric acid, and sulphate of magnesia, commencing with this two days before the appearance of the flux, and continuing it during the flow, reverting to the usual treatment on its completion. "A penny saved is a penny gained;" and this is true of phthisis, almost more than anything else. Then, is there diarrhœa? If so, attend to it. Milk and farinaceous matters are indicated (no meat-broths, no beef-tea—"giving the patient a stone when he asks for bread"—unless some farina be added). Then for medicine some astringent preparation of iron may be given in the day, and a pill of sulphate of copper (gr. $\frac{1}{4}-\frac{1}{2}$) with opium (gr. $1-1\frac{1}{2}$) at bed-time. If there be both diarrhœa and night-sweats this pill will often "kill two birds with one stone."

If there be night-sweats, arrest them at once, or as soon as may be. Sweat is an excretion, and is highly charged with blood-salts. Consequently, profuse sweats are most exhausting. Check them, and the appetite returns, and between the two the patient does well. To my mind, Professor Sidney Ringer, F. R. S., has laid the phthisical world under a deep debt of gratitude by pointing out the potency of belladonna in the matter of hydrosis. The best preparation is atropia, not only because it is tasteless, but because we know exactly what we are doing when using it. But to secure its good effects it must be pushed. Its effect upon the pupil is nothing. Indeed, in a very extensive experience of belladonna the pupil has rarely been affected. (The effect upon the pupil is a bugbear which ought to be buried). Dry throat and dim eyesight are discomforts, but unless severe they need not disturb the treatment. There is a wide gulf between these and any real danger. The very lowest dose is $\frac{1}{75}$ of a grain. If this does not achieve the desired end, then $\frac{1}{50}$. If that is insufficient, then $\frac{1}{25}$. If that fails—which it rarely does—I begin to look seriously at the case. (And here I must do an ungracious act. No one knows better the high claims Dr. Lauder Brunton, F.R.S., has upon therapeutists than the writer. Personal knowledge is added to knowledge of his writings. But, admitting all this, I cannot but regard his commencing dose of atropia ($\frac{1}{100}$ of a grain) as far too small. It is given in his new work on "Materia Medica and Therapeutics," a work of which the profession may justly be proud, and which must be a guide to all. But in this matter it trips). One patient passed a comfortable night with two pills of $\frac{1}{25}$ of a grain in her stomach. When this dose is reached, and yet the sweats continue, I adopt the plan of an old New York quack, of which Lewis Sayre told me, viz., to sponge the patient over with hot vinegar ($\frac{1}{2}$ pint) with a teaspoonful of cayenne in it. This is not at all disagreeable, and is effective. If the combined measures fail, the patient's case is hopeless, but his physician's conscience is clear.

Perhaps the patient's rest is broken by cough. All familiar with consumption know that if the patient fall into a deep sleep hydrosis comes on. If he keep awake he

either does not sweat or the sweat is moderate in amount. The first effect of an accumulation of carbonic acid in the blood is to rouse the respiratory centre to greater respiratory efforts. If that is not sufficient, then the sweat-glands are brought into operation. Unfortunately, the sweat has other constituents than CO_2. It is well to keep this bit of physiology in mind. Belladonna is a potent stimulant to the respiratory centre; it also exercises a profound influence upon the sudoriparous glands. Consequently, it is of the highest value in the matter of night-sweats. By the combination of atropia and opium night-sweats can usually be kept in check. Morphia (gr. $\frac{1}{8}$), atropine (gr. $\frac{1}{100}$), with pil. galban. co. or "pil. al. et myrrh.," as the case may require, is a pill which has done me yeoman service in my warfare with phthisis. It has found its way into the Brompton Hospital, and more recently into Squire's "Companion to the Pharmacopœia." It will find its way before long into every consumption hospital in the world. This action of carbonic acid upon the sweat-glands has led Dr. Lauder Brunton to advocate strychnine (a potent stimulant to the respiratory centre) in the night-sweats of phthisis. No doubt it is useful. My practice is to give it in the day-medicine. My favorite mixture at the hospital consists of liquor strychnine (♏iv.), acid. phosph. dil. (♏xv.), tinct. capsici (♏ iv.), in infus. gent. (℥ j.), *ter in die*. This forms a capital tonic. Some quinine or sulphate of magnesia (or soda) may be added as required.

One of the rules which have formed themselves in my mind is to give acids when the tongue is clean or coated. When the tongue is bare, raw, or irritable, then alkalies are indicated, as am. carb. (gr. ij.–iv.), tinct. nuc. vom. (♏x.), inf. gent. (℥ j.), *ter in die*.

On such a line of treatment the patient usually improves. The night-sweats cease, the appetite returns, the cachectic look departs, and the patient feels much better. The improvement is maintained, and soon iron and arsenic can be added to the strychnine, and cod-liver oil to the dietary (but cod-liver oil is not the best form of fat, nor yet the most palatable, though it is the most digestible. Some forms of fat in an emulsionized state are now on the market which possess many advantages over cod-liver oil). Iron is a good hæmatinic.

Arsenic is an alterative and a tonic greatly believed in by many good observers in lung-consolidation. If the patient can be induced to take fat in any form, the healthy tissues can be built up. Very commonly the affected area is found to shrink, and air to pass into it. In a few months, in many cases, it is scarcely possible to detect any change in the lung. The threatened danger has passed away!

How far external applications of iodine are of service, I cannot say, knowing little about them. Some good men think highly of them.

All along in the treatment advocated the matter of improving the general condition has never been lost sight of for a moment. If the patient can get away to a dry soil and a bracing locality, all the better for him or her.

Another common patient is the person who has chronic phthisis with cavities. Such patient is always spare and badly nourished at the best; and when any intercurrent ailment still further lowers the general condition the lung trouble is aggravated. (And one matter has forced itself upon my attention, viz., that wherever there is old lung-consolidation any disturbance in the liver sets up irritation in this consolidated patch with resultant cough. And this cough, which is intractable to ordinary cough-medicines, is relieved by acting upon the liver.) The appetite has fallen off and the nutrition is impaired; and then the special danger in phthisis is set up. Very often the tongue is raw, or beefsteaky, or patchy. Here attention to the *primæ viæ* (as our grandfathers phrased it), is imperative. The patient must be sent to bed, to reduce the body expenditure to the minimum. The medicine must be bismuth, with alkalies; and the food, milk with malt-extract, or a malt preparation like Mellin's food, in small quantities at a time, oft-repeated. Any bulk of food is rejected by the irritable stomach (which remembers the offence), and so the dietary must be arranged accordingly. Even a blister over the stomach, with some powdered opium or morphia dusted over the raw surface, may be indicated. In young patients there is another reason for such food, and that is the danger of starting up tubercular ulceration in the bowels. It frequently happens that a poor patient when taken into the hospital is put upon the usual dietary, with the result of disturbance being at once set up in the alimentary canal. The bowels have not been accustomed to such food, however simple it may seem to well-fed persons. Again and again has this occurred in my experience; indeed, with almost every new clinical assistant, who has to learn—as I did myself by painful experience—what a very poor pasture these hospital patients come from. Some fish and potato—which the patient enjoys, doubtless—are enough to start up a diarrhœa which is troublesome, and sometimes, despite all we can do, passes on to tubercular ulceration and death. The food should consist of milk and malt, or meat-broth with biscuit-powder in it. No solid particle in it to vex and irritate the sensitive (because ill-fed) mucous membrane. Even an alkali—like carbonate of magnesia—may be required to neutralize acidity and prevent too firm curdling of the milk; as much as will lie on a sixpence to the half-pint of milk is usually sufficient. Having got the assimilating processes into good working order, the tonics may be given. "The more haste the less speed" is specially true of the treatment of phthisis; and the desire to push on with tonics and good food sadly too often defeats its own end. Sometimes a masterly inactivity is the wisest practice. A clear head and a firm will are often required to curb the desire of the patient (and still more the patient's friends) to be getting on. Back-cast after back-cast teach a painful lesson to the medical man, and involve the patient in acute danger. If the pressure put on a young medical attendant is becoming more than he can bear, let him call in an older head to help him.

And now as to what must *not* be done. The chief thing to avoid is morphia linctures for the cough. An opiate to procure sleep may be essential and unavoidable; but sedatives in the day are dangerous. They give relief from the cough—granted; and too commonly they give permanent relief by death. Opium lays its palsying hand upon the assimilative organs, and destroys the appetite. Its evil effects seem most distinctly felt by the liver. When an opiate is indicated at night it should be combined with ipecac to antagonize its effect upon the liver, and with aloes and myrrh pill to correct its action upon the bowels. The morphia linctures is unknown in my wards except under the most peculiar circumstances, or until all hope has been abandoned and the treatment is a matter of euthanasia. Opium strikes directly at that assimilation which is to my mind the cardinal matter in the treatment of phthisis. I would rather have to deal with a large area of disease in the lungs where the assimilation is good, than a smaller patch if the appetite is bad and the nutrition defective. The patient most certain to die, the case least amenable to any treatment, is that one whose wasting progresses steadily, and where the lungs are only affected quite late on—indeed, a brief while before the final change sets in.

As to other means of allaying the cough than opiates, inhalations of steam are often serviceable. Friar's balsam, iodine, carbolic acid, terebene, eucalyptus, all are good as additions to the steam. Where there is a cavity with ragged walls smelling offensively, a respirator with cotton wool charged with carbolic acid is indicated. (Of treatment specially directed to the extinction of bacilli I know nothing personally).

Then, as to other means of feeding the patient, there are inunctions of oil, often of service, especially with young subjects. Nutritious enemata have only lately suggested themselves; but in one case of a medical man steadily

wasting, an enema of cod-liver oil (emulsionized by a drop of bile) and milk in equal quantities is being tried. In appropriate cases in the hospital the plan is about to be tried. Such enema night and morning, while in the recumbent posture, would be readily retained. When the temperature mounts up, and especially when the skin is also moist (the usual state in hectic fever connected with phthisis), my plan is to give quinine (gr. ij.–v.), with tincture of digitalis (♏. x.–xv.) and dilute phosphoric acid (♏. xv.), thrice daily. The effect is very satisfactory usually. Where a severe racking cough is present, shaking the poor sufferer terribly, it may be necessary to give opiates; but, in my experience, such cough is very rarely found with pulmonary phthisis.

Hæmoptysis has so far escaped notice. The treatment of hæmoptysis is quiet; no movement, no talking. When it arises from the bursting of an aneurismal sac in a cavity, or from an ulcerating process eating into a blood-vessel and opening a communication between the vessel and an open air-tube, syncope alone is likely to arrest it. In congestion of the lung it is often an excellent form of local bleeding. Men of old bled for its relief; now free purgation with mineral salts is in vogue. For small recurrent hæmoptyses the best treatment is to keep the bowels open. Ice, ergot, and dilute sulphuric acid may also be tried; probably they will do no harm. It is a bad plan to feed up a case of recurrent hemorrhage; it only fills the vessels rapidly, to end in more bleeding.

Finally, the management of phthisis pulmonalis, whether the less grave or the more serious conditions, is a good test of the knowledge, skill, and tact of the practitioner, who must, like a competent soldier, be able alike to plan a campaign or execute a sudden change of front in an emergency. That is, he must be able to lay down a persisting plan of treatment, and promptly change his plan to meet some intercurrent condition, as hæmoptysis or acute gastric disturbance.

HEADACHE AND OTHER REFLEX-NERVOUS TROUBLES AS THE RESULT OF EYE-STRAIN—WITH SIX ILLUSTRATIVE CASES.

By A. R. BAKER, M.D.,

PROFESSOR OF DISEASES OF THE EYE AND EAR IN THE CLEVELAND POLYCLINIC AND POST-GRADUATE MEDICAL SCHOOL.

Case I.—Miss B——, aged twenty, was not able to read at night for several years. Left school on account of "weak" eyes. Never had any pain in the eyes, but had been an almost constant sufferer from frontal headache. Could not sew on striped goods, and walking behind a person with a striped dress always made her dizzy; and several times, when ironing striped material, she became so sick as to produce vomiting. She compared her feeling at such times to being sea-sick. She had compound hypermetropic astigmatism, and when corrected was entirely free from all her unpleasant sensations, and could read all night, as she expressed herself a year afterward.

Case II.—Mr. E——, aged twenty-nine, principal, public schools, has been a sufferer from periodical headaches for ten or fifteen years, returning regularly two or three times a month. During vacations he was free from headaches, unless he attempted to read, which he avoided as much as possible. Attacks were so severe as to incapacitate him from work for two or three days, and he would have been compelled to resign his position if it were not that his headaches usually commenced on Fridays and he was able to return to work on Mondays. The only way in which he could get relief from the intolerable pain was from the hypodermic use of morphia. The quantity had gradually been increased, until several grains were required, and as the result his bowels and digestive apparatus were always in a bad condition. Since being corrected for a high degree of compound hypermetropic astigmatism he has not had a single attack of headache, a period of almost two years.

Case III.—Fred. A——, aged nine, never had any trouble with his eyes, until, after an attack of measles, he was suddenly taken with what he was pleased to call "blinking," and was not able to read and compelled to leave school. Upon every effort to read there was a spasmodic opening and closing of the lids almost choreic in character. Eyes water, and feel weak and somewhat sensitive to light, but no pain in head or eyes. There was about 1 D. of hypermetropia, and when corrected he was able to return to school and do his work with no further trouble. Several attempts have been made to get along without the use of the spectacles, each time with a return of the "blinking."

Case IV.—Frank W——, aged twelve, ever since he had measles, six or eight years ago, has had trouble with lid margins. They are red, lashes gone in places, at others matted together in pencils. Margins of lids scaly, with small scabs scattered irregularly, covering small ulcers; lids slightly everted, showing a little of the conjunctiva, giving the eyes a red unpleasant appearance. The boy has been under almost constant treatment for years, sometimes better, sometimes worse, but never any permanent improvement. I suspected hypermetropia at once, but from a hasty examination without atropia I failed to discover any. After treating the case unsuccessfully for some time, I paralyzed the accommodation thoroughly with atropia and unmasked 1 D. of latent hypermetropia. I gave him a pair of spectacles, with instructions to wear them constantly. At the end of one month, with no other treatment, the lids were looking quite well, and in two months they were perfectly well.

Case V.—Master Willie P——, aged six, brought to me two years ago with convergent strabismus. I corrected his hypermetropia fully, with suitable spectacles; in a few days his eyes became straight and have continued so up to the present time.

Case VI.—Miss Alice K——, aged fourteen; since a child the hair on top of her head has never grown over half an inch in length. It is coarse, hard, and curly, ends broken and split; looks very much like the hair of a negro. On the back part of the head the hair is fine and glossy, and would grow several feet in length. Family history good; general condition good. The skin is apparently healthy, and no cause could be assigned for the condition of her hair. She had consulted leading dermatologists, both at home and abroad, and undergone treatment, externally and internally, from physicians regular, irregular, and defective. She has suffered at times severely from headaches, but in other respects has always been healthy. I was consulted on account of her eyes giving her some trouble in school during the winter. Eyes tired easily and suffered more than usual from headache. I found she was hypermetropic and prescribed glasses accordingly. As I expected, she was freed from headache, but I was somewhat surprised to learn that her hair commenced growing at once; at present it is fine and glossy, reaching to her waist, and no difference is to be noted between that on the top of her head and elsewhere.

Whatever theory we may maintain with regard to the relation of the sympathetic to the cerebro-spinal nervous system, and the influence one exerts upon the other, the well-known experiments of Claude Bernard, of dividing a branch of the sympathetic, is known to exert a very decided influence upon the circulation, calorification, secretion, and nutrition of the parts to which it is distributed; while exciting the same nerve by the galvanic current or otherwise, produces a series of phenomena exactly the opposite. From these well-known considerations, as well as from the clinical observation of reflex nervous troubles in various organs distant from the source of irritation, such as the vomiting of pregnancy, pain in the knee from morbus coxarius, pain in the penis from the irritation of stone, supraorbital neuralgia as the result of dental irritation, cough as the result of a plug of wax in the ear, etc., it can be easily understood how the constant irritation produced by the incessant eye-strain,

as the result of hypermetropia or astigmatism, might cause the intense headaches, the dizziness and sickness of the stomach, the reflex nervous disturbances of almost every organ, and even the disturbance of nutrition which prevented the growth of hair, as in Case VI.

The sickness at the stomach and dizziness I have found quite a frequent complaint in astigmatism, usually accompanied with more or less headache. One case I remember fitting with spectacles some years since said that even the mention of a barber's pole made him feel uncomfortable about the pit of his stomach. The patient's comparison of her sensation with that of sea-sickness is very *apropos*, as the cause in both cases is similar. One of the principal causes of sea-sickness is the constant effort required to accommodate the eye to constantly changing distances; the same is true of riding on the railroad, swinging, etc.

In cases of refractive error the pain very frequently is not referred to the eye itself. In fact I think it is rather exceptional where such is the case. Pain is usually complained of either in the frontal region, temples, or back of the neck. Dr. S. Weir Mitchell, in an article in the *American Medical Journal*, 1874, says, "that while there may be no pain or sense of fatigue in the eye the strain is interpreted solely by the occipital or frontal headache." The patient, when interrogated, will usually say that the eyes are "weak," and "blur," and get "tired" easily, but seldom associate their headache with their eyes. It is not to be imagined that every headache is the result of error of refraction, no more than that every case of infantile convulsions is due to an elongated prepuce. But when no other cause can be discovered, *every case of headache should be examined carefully for errors of refraction.* The accommodation should be thoroughly paralyzed with atropia, as the hypermetropia may be latent, as in Case IV., and not be discovered by the use of test-types. It is not unusual to meet hypermetropes wearing concave lenses fitted by opticians.

Cases of blepharitis marginalis are met with daily as the result of refractive troubles in ophthalmic practice. I usually recognize cases of hypermetropia in children as soon as they enter the consultation-room, from the condition of the margins of the lids, especially in dispensary practice, where strict attention to washing off the scales is not observed. If this constant eye-strain produces such marked changes on the lids, what must be the result on the eye itself?

Convergent strabismus is the result of hypermetropia, and could be prevented if glasses were fitted and worn early enough. Children four years of age will wear spectacles without trouble. The benefit to be gained from wearing spectacles early is not only the avoidance of an operation, which is a secondary matter, but it preserves binocular vision, which is of very great importance.

Damiana and the Mormon Elders.—Dr. W. B. Parkinson, of Utah, writes to the *Medical Age:* "I notice that in your issue of April 10th, you copy an article from the *Keystone Medical Journal*, by F. A. Evans, M.D., on the use of damiana, in which he accredits the Mormon elders with using the drug extensively to keep up 'their wasted energies.' I simply wish to state, in behalf of a much-abused people, that I have practised medicine among them for three or four years, extensively, and have never had one single case of impotence. Have only had one case of syphilis and one of gonorrhœa, and they occurred in 'black sheep.' Have known the benefits and uses of damiana, and I, with many other physicians, can testify that the Mormon elders do not use the drug as our worthy brother gives them credit for doing. The object they have in marrying more than one woman is to rear a stronger progeny. When a woman becomes pregnant, they *let her alone* and cohabit with another. I say *fair play*—'Give the devil his due.' The Mormons are often misrepresented."

SCIENTIFIC VALUE OF THE MORTALITY CENSUS.

By WILLIAM GILMAN THOMPSON, M.D.,

NEW YORK.

Probably no branch of the census indicates an expenditure of greater labor with less actual benefit to anyone than the "Mortality and Vital Statistics of the Census of 1880,"[1] just published after five years' work. Not that Dr. Billings has not done all that was possible to tabulate the returns in scientific and practical form, but the liability for error is so great, amounting in the aggregate to thirty per cent., and in special cases to much more, that any reasoning based upon the tables must be conducted with great caution. The errors are due to the vast size and wide distribution of our population, to the constant immigration and migration, and more than all to the absence of systematic local records of vital statistics. Had we a paternal government, like, for example, that of Germany, where a policeman or some official with a note-book follows your every move, our statistics might be worthy of more credence; but with our happy independence, and the total absence in many parts of the country of requirements for registration of vital statistics, and absence of any guarantee of the respectability of those calling themselves physicians, scientific accuracy is wholly impossible. A vigorous attempt was made to secure a nearer approach to accuracy in the present census than has been obtained heretofore. Blanks were sent in advance to physicians in all parts of the country, excepting in a few large cities where careful mortality records are kept. These blanks were to be filled with vital statistics for the year and returned. Only thirty-seven per cent. of the physicians addressed returned their blanks, on which 166,896 deaths were reported. (The total number of deaths for 1880 was 756,893.) The census enumerators, meanwhile, covered the same ground, and failed to report 61,020 of the deaths reported by physicians (!), although they of course reported a great number of additional deaths. (A similar discrepancy existed between enumerators' returns and the regular city records, where they overlapped.) This seems an incredible error, but it is made even more confusing by some of the diagnoses returned upon the "physicians'" blanks. Dr. Billings cites a few of these: "Struck in on the Aire Sells." "Yaller Ganders of the Liver," "New Money Fever," "Colory in Phantum," "Tecis" (!). Autopsies were obtained in 21 cases in every 1,000, and 49 cases in every 1,000 of all ages could not be diagnosed. A number of improvements have been made in the census of 1880 over that of 1870. Thus, in more or less chronic cases the place where the disease was contracted was ascertained, and the place of birth of parents of decedents, and names of their attending physicians were recorded. In former censuses the unit of locality employed was the State or Territory. This, being an arbitrary political division, was of little value. It was also too large, for the interest of a census depends upon how near home it is brought to individuals. So in 1880, in addition to the previous form of tables, which was retained for comparison, such counties as have a population of 10,000 and over were separated and arranged geographically in twenty-one grand groups, an attempt being thus made to compare the death-rate with the topography of the country. Such groups, *e.g.*, are "heavily timbered region of the Northwest," "prairie region," etc. In addition, the vital statistics of fifty large cities have been separately tabulated. In most of these cities the records have been obtained directly from the local health boards, etc., and this constitutes by far the most accurate part of the census. The race statistics have been extended to include, in addition to the whites and negroes, Indians, Chinese, and children of Irish and of German parentage. There is much in a mortality census which might be of value in a coun-

[1] Report on the Mortality and Vital Statistics of the United States, Tenth Census, Part I., June 1, 1880, by John S. Billings, LL.D., Surgeon, U. S. A. May 1, 1885.

try of a fixed population which is of very little use to us. What shall it profit physicians or anyone, to learn that in 1880 only one child died of measles in Wyoming, while eight children died of measles in New Jersey? Yet it has cost a great deal of time and of money to ascertain such facts. Dr. Billings himself admits the futility of the census in many respects, and calls attention to the fact that many of its tables which are of no value at present may serve as guides for future statisticians.

This is the fourth of the great mortality censuses of the United States. The first was taken in 1850. It is useless for the comparison of total mortality with previous censuses, and can be compared with them only for the proportion of deaths from different diseases and at different ages—and even in these respects it is valueless in many details; and it affords a pointed moral for our need of more harmony and common-sense in the nomenclature of disease. Thus among the causes of death in 1870, deaths from "alcohol" are classed under "Poisons," while in 1880 they are classed under "Alcoholism" in Group B of "General Diseases."

Addison's disease appears in 1870 as a disease of the "Integumentary System;" in 1880 as a disease of the "Absorbent System." In 1870 sunstroke is classed under "Nervous Diseases;" in 1880 it is cautiously placed among "Accidents and Injuries."

In 1870, "Old Age," "Still-born," and "Debility" are causes classed separately as "Conditions not necessarily Associated with General or Local Diseases," while in 1880 they appear under "General Diseases, Group C." In 1870, typho-malarial fever, hydrothorax, pyæmia, yellow fever, and typhus fever are all separately mentioned, but in 1880 they do not receive any notice, their place being absorbed by the non-committal division, "Fever."

Septicæmia and angina pectoris appear for the first time in 1880.

In 1870, "Worms" constituted a separate class. In 1880 they are placed under "General Diseases." The "Diabetes" of 1870 appears as "Glycosuria" in 1880, and, in brief, the old classification of 1870, which numbered one hundred and forty-nine divisions, has been reduced to one hundred and eight in the new census.

A handsome tribute to our advancing civilization is found in the facts that the deaths due to railroad accidents in 1870 numbered 1,461, and in 1880, 2,349; and the deaths referred to "Diseases of the Nervous System" in 1870 numbered 33,550, which increased in 1880 to 81,905 (!). "Consumption" seems to have progressed with utter disregard for the rate of increase in population. The deaths from this cause in 1870 were 33,971; in 1880, 91,270 (!).

The usual infantile mortality continues to be more than twice as great in the cities as in the rural districts, and more than two and a half times as many infant deaths occur from diarrhœal diseases as from any other single cause; next rank (2) convulsions, (3) diphtheria and croup together, (4) pneumonia. Whooping-cough is also very fatal; 36.3 deaths among every 1,000 deaths among infants under one year are due to it. The colored mortality continues much greater (2.54 per 1,000) than the whites, and it is enormous among infants under one month. The mortality of infants born of German parents is proportionally decidedly greater than among those born of Irish parents, but as a whole the Germans and Irish appear to lose their peculiarities regarding mortality after continued residence among us.

The proportion of deaths of females to males is as 931 to 1,000.

Far more Indians die of consumption than of any other disease, and as compared with white people, relatively more Indians die of measles, diarrhœa, malarial fever, and venereal diseases. The total death-rate for the country for 1880 was 15.09 per 1,000 of the population, according to the census, or 2.32 per 1,000 greater than in any previous census year; but Dr. Billings gives excellent reasons for not accepting these figures, owing to numerous unavoidable errors, and he estimates it at 18 per 1,000. This rate is slightly lower than that of any other civilized country, and thirty-three per cent. lower than that of many countries.

The last mortality census is quite an advance upon its predecessors, and praise is due to Dr. Billings for the indefatigable labor and skill he has bestowed upon it.

Reports of Hospitals.

HÔPITAL DE LA PITIÉ, PARIS.

CLINIC OF PROFESSOR VERNEUIL.

SPONTANEOUS FRACTURES—ECTOPY OF THE TESTICLE COMPLICATED WITH INGUINAL HERNIA; OPERATION.

(Reported by W. W. SKINNER, Externe des Hôpitaux.)

GENTLEMEN: We have in our wards a patient at whose bedside we stopped during a few moments this morning. This patient, a woman, aged sixty-five, is far from being vigorous for her age, and presents a very slight appearance of cachexia, but so feebly pronounced that it is impossible to determine its nature. Her personal antecedents are excellent. She has never been seriously ill in her life. Several years ago, however, she fell upon the palm of her right hand, causing a fracture of the forearm at its lower third. The fracture healed in a favorable manner and has remained consolidated. The patient is the mother of four children.

To-day we find her in the hospital on account of an accident which happened to her two days ago. It occurred in the following manner: She was about to climb into an omnibus, and seizing hold of the iron railing to aid herself, she took her place without having made any violent effort and without experiencing at that time any pain or any sensation of fracture or crepitation. But from that moment the left arm became powerless, for she could not raise it from its pendant position. The examination of the arm which you have seen me make immediately revealed abnormal mobility, having for its centre the middle third of the humerus. This sign of fracture was sufficient for the diagnosis, and others were not sought. It is evidently a case of fracture of the humerus by muscular effort.

It is worthy of remark that while the present fracture was unaccompanied by pain at the moment of its occurrence, so much so that the patient ignored the exact moment of its production, the first fracture, that happened several years ago, was accompanied with the usual severe functional signs.

Searching still for further the cause of this unusual fragility of her humerus, we do not find any symptoms of diabetes, neither by examination of the skin, nor by that of her urine, nor yet by interrogating her as to functional disorders; for the skin presents no eruption, the urine no precipitate by Fehling's solution, and there exists no polydipsia nor polyuria. Nor is there any sign of cancer, for the careful exploration both of the broken bone and of the viscera exclude that cause of fracture. There is, however, a hiatus in the analysis of the urine, for it has not been tested for excess of phosphates, and I am inclined, until a complete analysis shall prove me to be in error, to regard this fracture as caused by an abnormal fragility of the bones coinciding with *phosphaturia*. Should this prove to be the case it will increase the already accumulating records showing a relation between the production of spontaneous fractures and this alteration of the urine.

You have heard me speak of two patients reproducing this variety of fracture, one at the hospital, the other in my private practice. I will relate to you a *résumé* of this latter's history. The patient was also a woman, aged fifty-eight, robust, *gaillarde*, apparently in excellent health, with nothing of cachexia about her. Her arm was broken about a year ago and was properly treated so

that a good consolidation was believed to have been obtained. Six weeks ago an insignificant fall occasioned a sudden loss of power and voluntary mobility in the member formerly broken. Her physician examined the arm and sent the patient to me.

I found the humerus fractured; but when the lady came under my observation I suspected that she had diabetes, for this disease predisposes to fractures and to imperfect consolidation of fractures. Upon my suggestion she caused her urine to be carefully analyzed, and the principal results obtained are as follows: Absence of glucose; density, 1.027, which is high; urea, 41 grammes per litre (a figure not very astonishing considering the large amount of nitrogenous aliments the lady was in the habit of ingesting, as she was well-nourished); 4 grammes of *phosphoric acid*, which is nearly double the normal proportion; and very much uric acid and urates.

Thus it sometimes happens that fractures are caused by a very slight traumatism. You know that for their production there are two general predisposing *causes:* first, a *local disease* of the bone; second, a *dyscrasia* or modification of the general nutrition. There is no need to tell you that tuberculous or cancerous bones are broken with the greatest facility. You know that at the Salpêtrière, at Bicêtre, in asylums for the aged generally, but especially in cases of old women, fractures are often produced by the most insignificant causes; even the changing of the patients from one bed to another produces them.

Syphilis predisposes to these fractures. But when a syphilitic breaks a bone we know that there exists quite severe pain at the seat of fracture. There are, moreover, cases of fractures without tubercle, without cancer, without syphilis or cachexia whatever, in which no pain is felt either at the instant of the production of the solution of continuity, or subsequently. There exists, therefore, some other disease which coincides with this anomaly; that disease was formerly unknown, but is studied to day under the name of *phosphaturia*.

With your permission I will cite another instance of this dyscrasia. A fine lad of fourteen, apparently strong and healthy, was employed in serving masons. His work consisted in taking four bricks in his hands and throwing them to the man next to him, as is the custom here among bricklayers. On one occasion, while in the act of tossing them, the humerus on one side suddenly broke, to the great amazement of himself and of those who observed him. We sought, in explanation of this phenomenon, a dyscrasia, and found that his urine contained a great quantity of phosphorus.

You observe that we find a striking coincidence between fractures too easily produced and an exaggerated elimination of phosphates. This disease, phosphaturia, in its relation to fractures, is not yet thoroughly investigated, and we have only a few phases of its history in our scientific archives.

I am about to perform an operation of great interest, one which has not been frequently practised, and about which little has been published. It would be very desirable for some one to launch a monograph, or at least an essay, having for title something like this: "On the Coincidence of Affections of the Scrotum with Hernia from the Operating Point of View." Such a work would greatly help to determine whether an operation ought to be practised upon the testicle when the scrotum is occupied by a hernia. For my part, I have already operated twice in these conditions. The first patient narrowly escaped death from the operation; the second died. We will speak again of these cases a little further on. To-day I operate on a third, which will, I hope, prove a success.

That which is most interesting in the present case is the situation of the testicle to be removed. The patient is an adult, robust, vigorous, in the most favorable condition of health, but whose right testicle occupies the external ring of the inguinal canal, in which position it has remained since birth. Three months ago the patient made a violent effort which probably caused or confirmed the existence of the hernia, and since that moment the testicle has become swollen and painful. The progress of these symptoms has been so rapid that to-day we have decided to perform the operation of castration on the diseased organ.

Many similar facts have brought an *eclatante* confirmation, accepted by all, of the gravity of operation in cases of testicular ectopia. On the other hand, testicles in ectopia are greatly predisposed to *cancer*. The coincidence is strking. The surgeon is thus often called upon to treat a degenerated testicle in this position, and the ablation of the diseased organ is the only chance of success. But he is obliged to open the abdominal cavity if the hernia has closely followed the testicle. The inguinal canal is large and gaping; and he almost constantly makes a penetrating wound of the abdomen in seeking to isolate the testicle from the surrounding tissues. The degeneration of the testicle in the external abdominal ring is so much to be feared that it has been proposed to practise the ablation of the *healthy* testicle when arrested in that position, in order to avoid its subsequent cancerous degeneration. I have an observation of a case of this nature concerning a man twenty-seven years of age. The testicle in ectopia moved easily in and out of the abdominal ring. I advised the ablation of the organ, which was in no way diseased, and the operation was successfully performed by my colleague, Monsieur Terrier.

These several observations are extremely rich in pathological deductions. Many writers have contested the influence of traumatisms, irritation, accidental and oft-repeated rubbing or pressure of the testicle, upon the production of neoplasms of this organ. The influence of these causes, however, is strikingly evident when we consider the testicle in three different positions—in the abdominal ring, in the scrotum, and in the abdomen. When permanently occupying the subcutaneous abdominal ring, cancerous degeneration of the testicle is comparatively frequent, occurring in about one-fortieth of the cases; when in the scrotum it is far more *rarely* the seat of cancer, and when in the abdomen it is *never* cancerous. You easily perceive from this statement the influence of the position of the organ upon the production of degeneration, and I am disposed to account for it by invoking the specific causes above mentioned.

Returning now to the operation practised in my two cases, I will explain to you their particularities. The first was a hæmatocele, which I operated upon with the bistoury. At the moment of making the incision I saw a thin sheet of omentum placed before the hematocele between my instrument and the tumor. I resected the omentum. In spite of my multiplied efforts to produce perfect hæmostasis there was a very disquieting hemorrhage from the omentum and the severed arterioles of the sheath, which nearly cost the patient his life, and I feared for the success of the operation, but to-day the cure is established.

My second case was still more complicated. The patient was a gentleman of robust health, vigorous, and of excellent constitution, but afflicted with a sarcocele, a varicocele, and a large hernia, all on the same side. I operated in company with Monsieur Cazin, of Berck-sur-mer. The testicle was first taken away, but by so doing the hernial sac was largely opened. The breach made into the peritoneal cavity was quite vast, and was closed by sutures. But during the same day there occurred incoercible vomiting, and soon other signs of superacute peritonitis manifested themselves. Death occurred on the third or fourth day after the operation, as in cases of penetrating wounds of the abdomen.

To-day I operate on my third case in your presence. We shall take every precaution to avoid a fatal issue. After the ablation of the testicle we shall suture the peritoneum, if opened, just as in ordinary laparotomy, and to this end I have caused to be prepared some silver

wire for sutures, and a straight *chassefil* with which to place them, for we are probably going to cause a loss of substance of the peritoneum.

[After the patient was chloroformed the Professor made a nearly longitudinal incision of eight centimetres in length in the region of the testicle in ectopy, incising the superposed layers until coming upon the testicle itself. He then isolated the testicle and the penis for a distance of two or three centimetres, placing hæmostatic forceps upon bleeding vessels and tying these with catgut, after which the spermatic cord was divided. The hernial sac was not opened, and no sutures were made. The wound was dressed with iodoform, over which was placed a large thick layer of cotton, held in place by an appropriate bandage. The macroscopic examination of the diseased testicle showed a commencing sarcocele.]

Clinical Department

THE CHLOROFORM TREATMENT FOR TAPE-WORM.

Dr. Alfred W. Perry, of San Francisco, reports an obstinate case of tænia lata, successfully treated by the exhibition of chloroform. The patient, a stout man, aged forty, had had a tape-worm for eight years, on which he had tried all the hitherto known remedies. He always vomited the remedy used within half an hour, retaining longest the French capsules of male fern extract. Dr. Perry had made two attempts to dislodge the worm, without success, when he saw the chloroform treatment noticed in The Medical Record. He used it in the following manner, with entire success: The patient was made to fast from 12 M. of the previous day, and only allowed to drink lemonade. At 7 A.M. he took one drachm chloroform in one ounce of mucilage; at 8 A.M. one ounce of ol. ricini. The entire worm passed about 10.30 A.M. The patient was in considerable stupor shortly after taking the chloroform, which stupor lasted three or four hours. He was a large man, weighing one hundred and eighty pounds. Dr. Perry thinks that one drachm of chloroform should not be exceeded as a dose.

ACUTE ATROPHY OF THE LIVER.

Dr. E. Frank Marsh, of Oswego Falls, N. Y., reports a case of the above. On July 25, 1885, he was called to see J. C. M——, a young woman, twenty-one years of age. She is said to have had syphilis, contracted about two years ago.

She complained of nausea, and the vomited matters were very acid and bitter. Bowels flaccid, and no pain or tenderness could be made out. Pulse slightly elevated, and temperature normal. Tongue covered with a white fur. Bowels had not moved in three or four days. Prescribed a cathartic.

The next day she felt so much better that she rode out. About this time her menses came on, and were about normal as to quantity and duration.

July 27th.—Saw patient again; no particular change. Bowels had moved, but not freely. Conjunctiva began to assume a yellow tinge. Prescribed ten grains hydrarg. chlorid. mit. in one-grain doses, one powder to be taken every hour.

July 28th.—Jaundice more marked. Temperature normal, and pulse 85. No tenderness or pain, except a slight headache. There is some desire for food, but it is not well retained. Bowels have not responded to the calomel. Prescribed five improved comp. cath. pills, and five more to be taken the following A.M., if the bowels do not move freely.

July 29th.—Bowels have moved twice slightly. Stools clay-colored. Urine normal in quantity, but very high-colored. Skin decidedly yellow. Patient somewhat weaker; but the desire for food continues. The hands are slightly swollen, but the mother states that such has been the case for two years. Pulse, 90; temperature, 98⅘° F. Prescribed one-half grain podophyllin every three hours.

July 30th.—Jaundice more marked; tongue continues furred, and there is almost constant nausea; the vomited fluid at times stains the clothing green. Prescribed a mixture of chloroform and bismuth.

July 31st.—11 A.M.: There is considerable hebetude; she protrudes her tongue only after being told two or three times, and lets it remain until repeatedly told to put it back. Examined abdomen carefully. No tympanites or tenderness can be made out. Says she is in no pain. Area of hepatic dulness less than normal. Pulse higher, temperature normal, and jaundice intense. 8 P.M.: Patient has been delirious since noon; has not called for any food or drink during the day; but has taken some when offered her. Vomits some. Pulse, 108; temperature normal, and pupils somewhat dilated. Sinapism applied to back of neck.

August 1st.—8 A.M.: The mother says the patient slept quite well from 9 P.M. till 3 A.M. Passed her urine unconsciously. About 7 A.M. she became so wildly delirious that she threw herself from the bed, and at times screamed so loudly as to be heard two blocks distant. Pupils dilated, but respond somewhat to the light. Temperature normal, and pulse 110; respirations, 7, and somewhat sighing in character. By advice of a brother physician Dr. Marsh gave her one ounce of sulphate of soda in solution, part of which was rejected by vomiting. Condition, active delirium alternating with periods of stupor. Pulse, 110; temperature, 98¾°; respirations, 7, and very deep. She takes a little milk. Dr. Marsh was called out of town that evening, and at his request she was seen by Dr. Wells, who found pulse 108; temperature, 98°; respirations, 9. A profuse bilious evacuation has just taken place.

August 2d.—8 A.M.: Respirations, 18; pulse, 90, and irregular; temperature normal. Eyes partly closed; tongue dry, and there is much difficulty in swallowing, which is entirely mechanical. Bowels have moved a number of times during the night, and the discharges were watery and dark. The mother said she had a number of convulsions, after which she passed into a deep stupor. Two hours later: Pulse, 115; respirations, 25. The extremities are warm. 1 P.M.: Pulse, 130; respirations, 43; temperature, 102½°. She gradually sank after this and died about 10 P.M.

Autopsy twelve hours after death. Body appears well nourished. Rigor mortis well marked. Jaundice intense, with marked discoloration of skin in patches over chest, neck, sides, and legs. Liver shrunken, and weighs less than two pounds. Is somewhat mottled in appearance. On section there is a loss of definite structure, and it is ochre-colored in spots, some of them quite large. The cut surface appears granular, and the whole organ is decidedly flaccid. The left lobe is especially small. Gall-bladder partly filled with a dark green gelatinous fluid. Mucous membrane appears normal. The cystic duct, hepatic duct, and common choledoch duct are all open and apparently healthy. The other organs presented no noteworthy lesions.

WORMS IN THE FRONTAL SINUS.

Dr. Albert S. Adler, of Solomonville, A. T., writes that he was called to see an aged Mexican who was suffering from a high fever, pains in the bones, and a very intense pain extending from the hard palate to the forehead, feeling "as if a piece of wood had been forced through." There was hemorrhage from the nose, accompanied with a serous discharge, and lachrymation. These symptoms had come on only a few hours before the man was seen. The axillary temperature was 102° F. The case being supposed to be one of intermittent fever, quinine in full

dose was given. The next morning the temperature had fallen about two degrees, but the pains continued as before. Upon looking closely at him it was seen that the face on either side of the nose was puffy, and this suggested inflammation in the antrum of Highmore. The teeth were sound. The same treatment was continued, cold cloths being applied to the forehead. During the following night from sixty to seventy worms were passed from the nose, and the pain was in consequence much less, being confined now to the frontal region. The worms were about one-half inch in length. Irrigation was then made with solutions of salicylic acid, permanganate of potassium, and corrosive sublimate. No worms escaped while the irrigations were being made, but some came away later. Trephining of the frontal sinus was advised, but the patient would not consent. He later consulted a woman, who gave him a powder to snuff up. Up to the present time he has passed upward of one hundred and fifty worms from the nose; they have now ceased to come away, but there is a constant purulent discharge.

A LARGE NEEDLE SWALLOWED AND PASSED BY AN INFANT.

Dr. Dugan, of Springfield, O., writes that he was recently called to see Carrie F——, aged twenty-two months, whose mother saw her swallow a needle. The mother was sewing, and had placed the threaded needle in the bosom of her dress to use the scissors. Presently she noticed the baby coughing, and turning to discover the cause she saw the thread protruding from the baby's mouth. She made traction on the cord only to let the needle go down. The baby suffered in no way during or since the occurrence. The doctor directed solid food to be given, with the view of conveying the needle through without coming in contact with the intestinal walls. Two days after the accident the child passed a large-sized needle, one and three-eighths inch in length, with sharp point and black in color. It was corroded.

GUN SHOT WOUND OF THE BRAIN—RECOVERY.

Dr. Willis Butterfield, of Belvidere, Ill., reports an interesting case of a little girl, Gertie M——, ten years of age, who was standing talking to a companion, and suddenly sank down to the ground apparently lifeless. Her playmate heard a queer noise, which was the "spud" of the bullet, which struck the girl's head an inch above and behind the right ear. When Dr. Butterfield saw her, a few minutes later, she was wholly unconscious, and on the walk where she fell was a pool of blood containing about a teaspoonful of brain substance. Within half-an-hour an ecchymotic swelling appeared above the eyeball in the outer part of the right orbit. Blood had flowed from the nose immediately after the injury was received. Dr. John Best, of Arlington Heights, was called in consultation. The opening in the skull was round and clean cut on the outside, but splinters of bone could be felt projecting from the inner table. An elastic catheter about the size of the external wound was used for purposes of exploration, as being less likely to injure the sound tissue. This passed about two and a half inches into the brain and pointed in the direction of the right orbit, but the ball could not be detected. On account of the swelling and discoloration about the eye it was thought that the ball had fractured the orbital plate, though no foreign body could be felt in the orbit. The wound was carefully dressed antiseptically, all spiculæ of bone projecting from the inner edge of the cranial wound being removed. The probing and removal of bone fragments caused no pain, but the patient moaned whenever the scalp wound was touched. Two or three hours later the child spoke a few rational words, and the mental faculties were gradually restored during the next few days. The temperature did not at any time rise above 101° F. There was no paralysis, and slight headache was complained of during the first few days only. In three weeks the child was out-doors at play. The right eye remained more prominent than the other, and at times there was double vision. After having made a number of examinations without result, Dr. Butterfield at length discovered the ball in the right orbit, between the inner wall and the globe of the eye. The patient being anæsthetized, an incision was made in the conjunctiva, and a thirty-two calibre ball extracted. The eyesight soon became normal, and the little girl attended school the following autumn with all her mental faculties unimpaired.

SCUTELLARIA LATERIFLORA IN THE TREATMENT OF ENURESIS.

Dr. A. H. Wimermark, of Cambridge, Ill., writes "Having read the excellent article on enuresis, by Dr. Stein, and the remarks of Dr. Willeford upon its treatment by rhus aromatica, I wish to contribute from my store of experience in the treatment of the same difficulty. Some two years ago I was advised by an old practitioner to use fluid extract of skullcap in a case in my own family, and the result was most gratifying. I have since employed it in several cases dependent upon nervous conditions only, and must say that results obtained have always been most satisfactory. A lad, twelve years of age, who would urinate from three to six times every night during his sleep, and had done so for several years, received ʒj. t.i.d. for two weeks, and was speedily and permanently cured. All the cases occurred in children."

Dr. Wimermark advises a trial, at least, of scutellaria when other remedies have failed. He disclaims any credit for originality in the use of the drug, as he says that it was recommended to him by another.

Progress of Medical Science.

Passage of Bacteria from Mother to Fœtus.—An experimental inquiry which may throw light on the relations of the fœtus to the mother in infectious diseases, has been communicated to the Académie des Sciences, by M. Pasteur for M. Koubassoff. The mode of procedure was to inject various cultivations of the bacillus anthracis under the skin of a pregnant guinea-pig. A careful examination of the fœtus was made after the death of the mother. It was found that the bacilli of charbon always pass from the mother to the fœtus; that the longer the time that elapsed between the inoculation of the pregnant mother and her death, the more numerous were the microbes in the fœtus; that more bacilli from virulent cultivations pass over than from an attenuated virus; that pathological conditions of the membranes of the placenta and fœtus hindered the passage of the bacilli from the mother to the fœtus; that inoculation of pregnant females with a too powerful vaccine nearly always caused the death of the fœtus; that inoculation with a virulent virus after the mother had been protected by satisfactory vaccination nearly always killed the fœtus—in other words, the fœtus cannot be protected by maternal vaccination.—*Lancet*, August 1, 1885.

Nasal Polypi and Epilepsy.—To the cases already cited of different forms of reflex epilepsy cured by removal of the exciting cause the following one of Fincke may be added (*Moniteur de la Policlinique*, June 7, 1885). A man, sixty-four years of age, was suddenly seized with numerous and repeated attacks of epilepsy, for which no other possible cause could be found than obstruction of the right nasal fossa by a mass of polypi resembling a bunch of grapes. These polypi were extirpated, and the convulsive attacks at once ceased, and had not returned at the time of the report, two years after the operation.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, August 22, 1885.

PRESCRIPTION ACCIDENTS.

WHEN we consider the immense number of prescriptions that are daily written, it seems remarkable that mistakes occur so seldom. It is certainly to the credit of physicians that poisoning by the accidental misapplication of drugs at their hands is so rare. Continual carefulness is, nevertheless, obligatory on every one, as it is not only the novice who is liable to a chance mistake. There are not a few ways by which a prescription may fail in its mission before or after leaving the druggist. The chirography of professional men is frequently peculiar. We remember once, at a commencement, hearing a learned editor remark encouragingly to the graduating class that he hoped they had learned to read and write. He stated that much of his valuable time was given to deciphering the hieroglyphics of his correspondents, and further commented on the fact that while plain, legible handwriting was a possibility within reach of all, it was actually possessed by comparatively few. In connection with prescriptions the handwriting should be particularly distinct, but we fear that druggists may often have occasion to sympathize with the lament of the editor. It is especially in the writing of symbols that mistakes are liable to occur. A hastily written scruple and drachm may bear such a close resemblance as to escape the commission of a blunder only by chance. An inexcusable source of error is in a lack of sufficient explicitness in the written directions on a prescription. Such vague expressions as "use as directed," "a teaspoonful when required," etc., are direct challenges to accident. Patients find it very difficult to remember directions, and easily become confused in the matter of taking drugs. The metric system is a possible source of accident in the hands of those not thoroughly familiar with its use. A patient in a neighboring city lost his life through an error of punctuation in a prescription written in the metric system. Every physician should acquire the habit of carefully reviewing the prescription after it has been written and before allowing it to leave his hands. It is probably not unjust to state that more mistakes in connection with prescriptions are made by druggists than by physicians. With the more careful training that is now being given to graduates in pharmacy, this source of error will be reduced to a minimum. In this connection we cannot fail to notice the custom of counter-prescribing that is more extensively carried on than is supposed by many physicians, and is a fruitful source, not only of serious accidents, but of lesser grades of malpractice. A promising young man in this city lost his life, not many months ago, from a druggist's clerk dispensing morphine by mistake for quinine. The number of deaths in young children from the opium contained in soothing syrups and like nostrums, so often given over druggists' counters, will never be known. Indeed, whenever any drug or combination of drugs is dispensed, there should be a written memorandum made of it by some responsible party. The formula of any mixture used by a physician can be seen at the drug-store where it has been compounded. There should likewise be a law compelling the owners of quack remedies and nostrums to publish the formula on each bottle. This would not only deprive many temperance people of their toddy, but likewise succeed in driving these charlatans from the field. We think it would be to the advantage of physicians, particularly in office-practice, to dispense the pills, triturates, and globules now made in such perfection by many reputable chemists. It is high time for many physicians, as well as the laity, to appreciate the fact that sugar of milk does not mean homœopathy, and that a globule may contain a physiological and yet decidedly effectual dose of a drug.

ANTIPYRESIS.

IT is only within the last quarter of a century and since the introduction of self-registering thermometers, that any precise observations upon the temperature in disease have been possible; and the science of medical thermometry has, therefore, only within comparatively recent times assumed the rank to which it is entitled by reason of its importance clinically, and as an indication for rational therapeutics. The last decade has seen wonderful advances in this direction, and hand in hand with these has proceeded the discovery of many new, and oftentimes most efficacious, antipyretic remedies. Many of these latter are at the same time so-called specifics, not only reducing the temperature, but also curing the disease of which the fever is but one of the manifestations. Quinine and salicylic acid are examples of remedies possessing this double action. Among the latest of the antipyretics which have been used sufficiently to demonstrate their practical utility are kairin, antipyrin, and thallin.

At the fourth German Congress for Internal Medicine, held at Wiesbaden, in April of the present year, a very interesting discussion arose upon this subject, and was participated in by Filehne, Liebermeister, Jacksch, Strümpell, Rossbach, Stintzing, Heubner and others. The general consensus of opinion was in favor of cold bathing as a means of reducing excessively high temperatures, in preference to the exhibition of internal antipyretic agents. It was argued that it was not simply and solely in the elevation of body heat that the danger of fever lay, but that there were many other complications which were equally, or even more, prejudicial to the patient's safety. In typhoid fever, for example, by far the greatest number of deaths resulted from the anatomical changes incident to the disease itself, or from secondary complications not immediately dependent upon the primary cause of the disease, and but comparatively few were directly attributable to hyperpyrexia. Somewhat in the same way as the antiseptic treatment of wounds has for its object the

warding off of complications rather than the acceleration of the reparative process, so the treatment of a continued fever is to be directed chiefly to the prevention of secondary evils rather than to the reduction of temperature alone. From this point of view the internal antipyretics are of little value. They reduce the temperature, it was argued, but they do not always exert a beneficial influence upon the mental condition; indeed, delirium is often increased, the appetite is frequently destroyed, respiration does not become more free, etc. But very different is the action of cool baths; they are truly prophylactic in their effects. But an elevated temperature is not the chief or the only indication for baths. The principal advantage of this mode of treatment is indicated by the effects of the baths upon the nervous system, respiration, the skin, the kidneys, etc. That at the same time the temperature is lowered is perhaps to be regarded as adding to the value of baths, but it is not in this that their chief value consists.

In certain cases, it was acknowledged, there is a very great danger from the excessively high fever, a danger that must be met promptly if death is to be averted. But here, Liebermeister and others contended, recourse should be had at once to baths, for internal antipyretics required time for their action, and if they were first tried and found wanting it might then be too late to derive any benefit from the direct abstraction of heat by cool or cold water.

But the antipyretic drugs were not without their supporters. Antipyrin and thallin were the most favored, kairin being pretty generally discredited by reason of its occasional violent action. Stintzing, of Münich, was among those who spoke most favorably of these remedies. He said that in Münich, antipyrin had been used very extensively in every form of febrile disease, and often with the most strikingly beneficial results. The course of typhoid fever when antipyrin was used was in striking contrast to that under the former methods of treatment. There was no headache, the mind was clear, the patient made no complaint, and his appearance was almost that of a man in perfect health. He thought the reason that some of the other speakers had not seen such favorable results was that they did not exhibit the medicament in sufficiently large doses. In Münich antipyrin was given sometimes in doses of as much as four and one-half drachms per diem, and in general the rule was to give fifteen to thirty grains when the temperature was from 100° F. to 102° F., and when it exceeded 102° F. a dose of thirty to forty-five grains or over was administered. With such doses he often obtained almost complete apyrexia, lasting for a considerable period. Unpleasant effects, such as chills, vomiting, exanthemata, etc., were observed only in a very few instances.

Thallin, also, had lately been extensively employed in the Münich clinic. In doses of four grains it caused a very prompt lowering of temperature, but its effects were not lasting, and within three or four hours the fever had usually attained, or even exceeded, its previous height. Thallin was not so well borne as antipyrin, and as it excited profuse sweating the patients were often considerably weakened.

While it may be true that the most certain and the safest antipyretic is the cool or cold bath, it is not always the most practicable. It necessitates more or less disturbance of the patient, and it is furthermore not always safe, being sometimes followed, even in experienced hands, by most alarming depression. It is also oftentimes impossible, in private practice, to carry out this mode of treatment as it should be carried out in order to be of much value, and we cannot, therefore, afford to discard antipyrin and other internal antipyretics, which, despite their occasional unpleasant effects, are often of inestimable benefit and not to be replaced by any other modes of reducing temperature as yet known to us.

MEDICAL TREATMENT OF UTERINE FIBROIDS.

Dr. Thomas More Madden, in an address delivered recently before the British Gynecological Society, calls attention in a striking and pertinent way to the value of expectancy or of positive medical treatment in dealing with uterine fibro-myomata. Uterine fibroids do not necessarily impair health seriously or cause death; they sometimes spontaneously disappear, are often arrested in their growth, and appear in some instances to respond to medical treatment. Bearing this in mind, there should undoubtedly be a greater conservatism as regards surgical procedures than at present exists.

As illustrating the large view taken by the advocates of oöphorectomy and hysterectomy, we find in Mr. Lawson Tait's "Address on One Thousand Abdominal Sections" a list of 99 cases of removal of uterine appendages for myoma, with 7 deaths; hysterectomy in 54 cases, with 19 deaths; and one enucleation of a myoma, which proved fatal. Thus we have in all 124 completed abdominal operations bearing immediately on our present subject. From the same statistics it may be gathered that Mr. Tait has, moreover, had no less than 30 incomplete operations of this kind, 17 of which were in cases of uterine, or unspecified, but non-ovarian tumors, in which, after the opening of the abdominal cavity, further procedures had to be abandoned. Of these incompleted operations, Mr. Lawson Tait thinks that he "may speak with a certain amount of satisfaction," though from what he derives this contentment we are, with Dr. Madden, at a loss to understand, as his mortality in them was fifty per cent.

As further illustrating the *cacoëthes operandi* prevalent among abdominal sectionists anxious to reach their hundredth or thousandth case, Dr. Madden cites Dr. Savage, who, in reporting upward of a hundred cases of abdominal section undertaken within a year, boasts that he performs this operation in every case which he has "the opportunity of operating on," without "the slightest attempt at the selection of cases, such as choosing the most suitable and rejecting those which did not seem to promise to be successful."

Dr. Keith has recently recorded 38 cases of hysterectomy, with only 3 deaths. In the *American Journal of Obstetrics* Dr. Bigelow has collected, from all available sources, records of 359 similar operations, of which 227 resulted successfully while 132 patients died. With regard to this mortality, greater than one in every three operated on, we may well, says our writer, ask the question, which was suggested to Dr. Keith by his own more successful practice, viz., does a mortality of eight per cent. justify an operation for a disease that, as a rule, has

only a limited active life, that torments simply, and that only for a time, though of itself it rarely kills?

According to Professor Schroeder, any uterine fibromyoma, however extensive or wherever situated, may be removed by laparotomy or partial hysterectomy with the aid of the elastic ligature. Of those on whom Schroeder thus operated, he lost in his first series of cases thirty per cent., and in his second series twenty-two per cent. These numbers are significant and carry their own lesson with them.

As regards oöphorectomy for fibroids, it is certainly true that the exact measure of its usefulness and the proper indications for its employment are far from being satisfactorily established. In actively growing tumors occurring in comparatively young subjects, with profuse hemorrhage, the operation is probably justifiable. But the removal of the ovaries merely for the arrest of hemorrhage consequent on fibromata is not to be countenanced until other and safer methods of checking metrorrhagia have been fully and unsuccessfully employed. Again, Dr. Madden asserts that this operation is not generally advisable in the case of quiescent fibroids largely occupying the abdominal cavity in older patients.

Turning from the subject of hysterectomy, Dr. Madden first discusses other operations, and recommends highly the substitution of enucleation both for sub-mucous and intramural fibroids, or indeed for all fibro-myomata. We are inclined to think that Dr. Madden is very much behind the times, at least so far as American gynecology is concerned, in thus urging the wider adoption of enucleation for fibro-myomata.

As for the medical treatment, Dr. Madden is on the whole disappointing. He believes that by drugs the size of the tumor can often be reduced or its progress in growth arrested, but he evidently is not familiar with all the measures utilized for this purpose by American practitioners. The use of ergot and sulphuric acid, of Dover's powder and gallic acid, the systematic administration of iodide of potassium and hot-water irrigations, in this country the drinking of hot water, combined with a meat diet, the use of clay applications, and of electrolysis are known to the profession, and have been endorsed by good authority as efficacious.

MASSAGE OF THE THORACIC ORGANS.

Mechanical therapeutics has acquired for itself in recent years a settled place in medicine, and its advocates are constantly endeavoring to enlarge its scope and widen the field of its usefulness. In the *Allgemeine Medicinische Central-Zeitung*, No. 20, 1885, Dr. Emil Schlegel reports some cases of pleuritic effusion, in which absorption of the fluid would appear to have been induced or accelerated by repeated blows upon the chest-walls. The closed fist was used, the blows being struck by a motion of ulnar flexion at the wrist-joint, combined with supination of the hand. The ball of the little finger came in contact sharply with the ribs and rebounded, the hand turning back into radial flexion and pronation. About two blows were made in a second, or six hundred in the space of five minutes. Two sittings were had each day. Under this mode of treatment a successful result was obtained, in some cases in a much shorter period than usual. The author has tried "concussion strokes" (*Erschütterungsschläge*) only in the case of pleuritic effusions, but he believes that it might be equally useful in promoting absorptions in other portions of the body, as the intracranial cavity, spinal canal, etc., which are inaccessible to the ordinary manipulations of massage.

MEDICAL WIT AND HUMOR.

The traditions of medicine are of a grave and sober kind. In the history of our art there is no jest, and in the lives of great physicians of the past there is only a record of serious work. We cannot fancy a smiling Hippocrates—we know that his aphorisms are no "joke;" no one can think of Galen "holding both his sides," and did any great physician from Aracætus to Sydenham leave us a *bon mot*? There have been some things, it is true, handed down to us as great jests. It is recorded as amusing that Dr. Caius in his old age sustained life by suckling a wet nurse! There is a touch of humor in the story of how Erisistratus cured the Prince Antiochus of a wasting passion for his mother-in-law—a type of disease which has now disappeared.

We read in ancient records of a physician, Dr. Hartley, who procured a grant of $25,000 for the secret of a cure for vesical calculus. He took this cure himself until he had consumed therewith two hundred pounds of soap—after and despite which he died of stone in the bladder! In the two hundred years since this record no one till now has thought to ask if the doctor did not have a soap-stone. It was a great philosopher, and a man, we confess, with a large sense of humor, who proposed a "Plan for Extirpating Venereal Disease" which consisted in nothing more or less than in "mercurializing the whole world!"

It may be questioned whether the statue of Taliacotius, nose in hand, may not be classed as a mediæval joke of a permanent and solid character. But the only physician of olden times who has left a record for humor as well as medical skill is Dr. William Butler, who was styled the Æsculapius of his age. It was Butler who ordered a lethargic parson to be put into the warm carcass of a newly-killed cow. One of the choicest specimens of this doctor's old-time humor is recorded in letters from the Bodleian. "A Frenchman came one time from London to Cambridge purposely to see him, whom he made stay two houres for him in his gallery, and then he came out in an old blue gowne. The French gentleman makes him two or three very low bowes downe to the ground; Dr. Butler whippes his legge over his head, and away goes into his chamber, and did not speak with him." Again, "A gent. with a red, ugly, pimpled face came to him for cure. Said the Dr.: 'I must hang you.' So presently he had a device made ready to hang him from a beam in the roome; and when he was e'en almost dead he cuts the veins that fed these pimples, and lett out the ugly black blood, and cured him."

It will probably not be denied that the sense of humor of our medical forefathers was not particularly keen or over-cultivated, though we would not doubt that they cracked their jokes and lived as happily as most people.

But now, forsooth, the sombre mask is being often put aside, and in the place of the staid and learned Hippocrates, we see a smiling philosopher. Of late years there has come to us from Paris and the West a

perennial flow of "Anecdotes Médicales" and works of medical poetry or medical jests. We think that perhaps the matter is being a little over-done. There is no doubt a large craving for the amusing, but the taste still needs a little cultivating. It is surprising to observe the extensive travels of some feeble and rachitic little jest through the pages of medical periodicals. And, like the body, it renews itself every seven years. We have been criticised for intimating that there is no wit in medicine. This is putting it more comprehensively than we intended; but certainly the popular and persistent itineracy of medical Joe Millerism, and the dreary average of works illustrating medical humor, justify in large measure our estimate.

News of the Week.

History of the Vermont Medical College.—Mr. Henry S. Dana, Woodstock, Vt., who is writing a history of the Vermont Medical College, or "Clinical School of Medicine," as it was first called, would like to borrow a copy of any of the catalogues of the Clinical School of Medicine, or Vermont Medical College, from 1830 to 1839; also, a copy of Rev. Mr. Parker's "Sketch of the Life of Dr. David Palmer," delivered in lecture term, 1841.

The Lehigh Valley Medical Association.—The fifth annual meeting of this society took place at Quakertown, Pa., on Wednesday, August 19th.

Texas Physicians and the International Congress.—At a special meeting of the Dallas County Medical Society, on July 25, 1885, the following preamble and resolutions were unanimously adopted with reference to the recent action of the American Medical Association at New Orleans.

Whereas, The American Medical Association at its meeting in Washington City, in May, 1884, recognized a general desire of the medical profession of the United States, by adopting a resolution under which a committee was appointed, whose duty it should be to extend an invitation to the International Medical Congress, shortly to assemble at Copenhagen, to hold its next meeting in 1887 at Washington City; and

Whereas, The said committee, by the letter and spirit of this resolution, was fully empowered to act, not only as a committee of invitation, but as an executive committee as well; and

Whereas, The said committee, in pursuance of the objects of the above-mentioned resolution, and duly exercising the unlimited authority delegated to it, enlarged its membership and otherwise provided for the successful holding of an International Medical Congress at Washington City in 1887, all of which arrangements were considered by us as judicious and, contrary to what has been charged by some, wholly disinterested as to personal or local aggrandizement; and

Whereas, The American Medical Association, at its last meeting at New Orleans, did, in our judgment unwisely and untimely, virtually rescind its former action, which reactionary movement has deranged, if not indefinitely suspended, the work of the original committee, which was satisfactorily progressing, and created an indifference to the Congress among the recognized leaders of medical thought and interest throughout the country; and

Whereas, There are those who persist in urging the so-called justice of their claims for an organization of the International Medical Congress on a territorial basis, which unfortunate idea has been unwisely further extended by some members of the profession in Texas, in a manner calculated to arouse a sectional prejudice, which has little, if any, existence in our State; therefore,

Be it resolved, That the Dallas County Medical Society deplores what must be considered the present interregnum in the affairs of the contemplated International Medical Congress, brought about, as we believe, by an ill-considered and hasty action of the American Medical Association, at the New Orleans meeting before mentioned: that this Society was fully satisfied with the work of the original committee, which was composed of able, eminent, and conscientious members of the profession; that this Society repudiates any attempt to inject a sectional feeling into a purely professional matter, which has reference to scientific investigations only, and that said attempt, if offered in behalf of the medical profession of Texas, is, in the opinion of this Society, both unauthorized and gratuitous, and that, looking beyond a narrow-minded policy of personal aggrandizement and sectional interest, we heartily commend the recent action of Philadelphia and New York brethren, as well as those elsewhere, who have retired from the Congress until a more dignified and unselfish view of the arrangements can be had; and we pledge them our hearty support and good will in their efforts to advance the interests of the American medical profession in future meetings of International Medical Congresses, where the truly representative medical abilities of our country shall be enlisted, uncontrolled by geographical lines or personal preference.

Goodwin E. Peters, M.D.,
Secretary.

Pessaries.—Dr. Samuel W. Francis says that pessary came originally from the Latin *malus—pejor—pessimus!*

The Patient not Dead when Dr. Dudley left Him.—Dr. A. Palmer Dudley, of this city, writes: "In The Medical Record of August 8th, page 163, Dr. John F. Ridlon, in the report of a case of thrombosis of the left coronary artery, makes use of these words: 'At about 3 P.M. the patient's heart stopped, and Dr. Dudley, believing him dead, left him. A few moments later, however, he revived, and was seen by another physician.' This is not correct. The simple facts in the case are these: I did conduct the man to his home and placed him in bed. I stepped from the room for a few moments, and on my return found him with heart and respiration ceased and features cyanotic; by artificial respiration I succeeded in resuscitating him, and half an hour after, under a hypodermic injection of morphia, left him very comfortable."

Medical Congress at Anvers.—The sixth annual reunion of Belgian physicians will take place this month at Anvers, on the occasion of the industrial exposition to be held there. The following question is the one which will form the chief subject of deliberation: "What

are, in the present state of epidemiology, the most practical measures of international prophylaxis which can be adopted, especially in Belgium, against pestilential diseases?"

In Memory of Dr. Panum.—A committee has been organized in Copenhagen to solicit subscriptions for the foundation of a memorial to the late Dr. Panum, whose death occurred on May 2d of the present year. It is proposed by the committee to obtain a bust of the deceased professor, to be placed in the lecture-room of the physiological laboratory. In the committee's appeal, published in the *Hospitals-Tidende*, it is stated that subscriptions may be sent to any of the members, or to Jacob Lund, Kronprinsensgade, No. 7 K, Copenhagen, Denmark.

A Bust of Thullier, the member of the French cholera mission to Egypt in 1883, who died of the disease, contracted while in the discharge of his duties, has been placed in the hall of the superior *école normale*.

Correction.—Dr. Wm. Manlius Smith, of Syracuse, N. Y., writes that he was not the author of the report on infection from imported rags, made at the recent meeting of the New York State Board of Health (The Medical Record, August 15th, page 185). The Health Officer of the port of New York, Dr. Wm. M. Smith, formerly of Angelica, Alleghany County, is the gentleman who made the report.

The Sanitary Condition of the Isthmus.—It appears that Colon is in a terrible way, and a perfect plague seems to have stricken the place. There are sometimes as many as twenty-five deaths per day. The population is less than ten thousand. Mr. Ackerly, the roadmaster of the Panama Railroad, died on July 23d, of hemorrhagic malarial fever. He was ill but forty-eight hours. The French consul, Mr. Paul Savelli, died of yellow fever. Several canal employees died from yellow fever, and about fifty deaths from this disease have been recorded during one month. It must be borne in mind that the terrible condition of the Isthmus just now is directly traceable to the absolute neglect of all the principles of sanitation.

The Congo Dangerous for Europeans.—An interview with a member of the International Congo Commission confirms the statement that fifty per cent. of the European employees in the Congo region have died.

In Favor of Cremation.—Nearly one hundred citizens of Los Angeles have given their names to a committee favoring the organization of a cremation association there, and the immediate erection of a crematory. Sacramento, more than Los Angeles, needs such sanitary reform. Her situation is such that cremation should be specially favored by her people, and burial discarded. From Paris comes the report that the Prefect of Police concurs with the decision of the municipal authorities favoring the cremation of dissected bodies from the hospitals, on the ground not only of economy, but that such a course will relieve the crowded cemeteries.

A Fever Hospital for Sydney, Australia.—The epidemic of typhoid fever in Sydney and the suburbs is on the increase, and is causing a good deal of uneasiness. At a recent meeting of the Directors of the Prince Alfred Hospital, Sydney, a letter was read from the secretary of the medical board, giving reasons for considering it necessary that the admission of typhoid cases should not exceed one-quarter of the number of patients in the medical wards of the institution. The proceedings that have arisen out of this question are to be brought under the notice of the Government, with a strong recommendation from the board as to the establishment of a fever hospital.

Koch's Successor in the Imperial Board of Health.—On assuming the chair of hygiene at the University of Berlin, Koch resigned as active member of the German Imperial Board of Health. He remains an "extraordinary" member of the board, however. Dr. Gaffky has been appointed in his place, and assumes charge of the department devoted to bacteriology.

Physicians on Russian Railways.—The *Vratch* states that the Orel-Vitebski railway has arranged that one of the guards of each train shall be a *Feldsher* (hospital sergeant), and shall wear a badge indicating his profession.

The Bradshawe Lecture was delivered by Dr. Goodhart at the Royal College of Physicians on August 18th. The subject was "Morbid Arterial Tension: a Review."

A Medical Squabble in New Zealand.—The Colonial Secretary having issued a new regulation, the object of which is stated to be to prevent a certain hospital being filled up with cases which should not be sent to it, the medical men connected with the institution consider themselves insulted, and demand the withdrawal of the insinuation.

Deaths of German and Austrian Professors.—Dr. Hermann V. Boeck, Professor of Pharmacology in Munich, has died at the age of forty-two. From Vienna the death is announced of Professor H. W. Reichardt. It is stated that he committed suicide by hanging himself in a fit of temporary insanity. He was fifty years old. Dr. Faludy, the well-known physician for children's diseases, died at Buda-Pesth, aged forty-six.

A Memorial to Pacini.—We learn from the *British Medical Journal*, August 8, 1885, that a committee has been formed at Florence for the purpose of collecting funds for a memorial to the late Professor Pacini. It has issued a circular which contains the following statement: "Honor to the memory of a great citizen, destined to remind posterity of his virtues and his labors, is a duty which the nation that gave him birth is bound to discharge. From such men proceeds an example which acts as a noble oration, preaching great deeds to future generations. Italy has such a duty to perform in memory of Philip Pacini, who discovered the tactile corpuscles, who, since 1854, has devoted himself to profound and original researches on the specific nature of Asiatic cholera, and who has introduced a method of artificial respiration which repeated experiments have proved to be the best for saving life. It is for Italians, then, to perpetuate the fame of this man, who, springing from a humble origin, has succeeded, by force of will, in gaining universal renown in anatomy and biology; who, after a life of exemplary activity, in the course of which he never

thought of his own interests, but rather considered the welfare of humanity, died poor, leaving to his successors nought but certain precious documents of high merit, such as the 'Structure of the Retina,' 'The Electrical Organ of the Gymnotus,' and 'The Extra-vascular Circulation of the Blood.'" The subscribers to the memorial will be informed of its nature, which will be decided upon when the entire subscriptions are received. The Committee consists of Professor G. Pellizzari, President; Dr. Aurelio Bianchi, Cavalier Dr. Luigi Billi, Cavalier Antonio Civelli, Cavalier Dr. P. Cresci-Carbonai, Cavalier Dr. Cosimo Franceschi, Cavalier Dr. C. Frascani, Dr. L. Giuntoli, Dr. G. Marcacci, Dr. F. Settimelli, Professor A. Tafani, Professor A. Targioni-Tozzetti, Professor Pasquale Villari, Senator; Dr. Carlo Stacchini, Signor Olinto Squarcialupi, Secretaries.

The Hospital at Port Said.—The Gordon Memorial Hospital has been abandoned, but the Port Said Hospital has been materially improved; it has been retiled, whitewashed, ventilated, and otherwise rendered cleaner and more habitable. Latrines will be erected so soon as it is determined whether the dry-earth system or the pneumatic cart should be adopted.

The Cholera.—There appears to be little or no abatement in the ravages of the cholera in Spain. It is impossible to obtain accurate figures, but its daily mortality is little short of 1,800, with an average of new cases amounting to over 4,000.

In Marseilles the epidemic appears to be still on the increase. Twenty-seven deaths from cholera were reported on August 18th. Since the 10th inst. 130 patients have been admitted to the Pharo Hospital, 55 have died, and 10 have been dismissed; 65 remain in the hospital. Twelve deaths occurred in Salon, one in Aubagne on the 18th inst. Several fatal cases have also occurred at Toulon. A letter from Saignon reports that 600 French soldiers have died of cholera in Formosa and the Pescadores; that the hospitals are overflowing with sufferers, and that the epidemic is increasing. In Paris active preparations are on foot to exclude the dreaded scourge.

Dr. Reichard the Explorer Reported Dead.—Advices from Zanzibar state that Dr. Reichard, the sole survivor of the German international exploring expedition, is reported to have been killed while fighting the natives during the progress of the Ugogo expedition.

An International Pharmacopœia.—The German, French, and American Pharmacopœias have all been recently issued in a thoroughly revised form. The Belgian Pharmacopœia is just out, and the British Dispensatory is soon to follow. It is hoped that it will appear before the International Convention, called to consider the feasibility of establishing a universal Dispensatory, will have been held.

Professor Gussenbauer's Act of Charity.—The well-known Professor of Surgery at Prague, Dr. Gussenbauer, casually met a medical student about to enter his lecture-room. The professor was struck with the pallid appearance of the student. Questioned if he were ill, the student gave no definite reply. Gussenbauer asked him to step into an adjoining room, and having ascertained that one of his lungs was considerably damaged, advised the student to proceed without delay to some Alpine health resort. The student sadly answered that this would be an impossibility, since he was constrained to support himself by teaching. The professor then told him to call at his house on the following day. There he was handed an envelope containing a one-thousand "gulden" note, and a "bon voyage" from the generous professor.

The Sixteenth Annual Meeting of the German Anthropological Society was held at Carlsruhe, from August 6th to 8th. Wagner, Ranke, Virchow, Waldeyer, Rüdinger, Bissenger, V. Torök, and Mr. Henry Schliemann participated in the proceedings.

Death of Dr. Bowling.—Dr. W. K. Bowling, one of the ex-Presidents of the American Medical Association, and one of the most eminent members of the profession in the Mississippi Valley, died at his residence on Cumberland Mountain, near Nashville, Tenn., on August 6, 1885. He was seventy-seven years of age.

A Hopeful View of the Congress.—The *Journal of the American Medical Association* enjoys the prerogative of being almost alone in its optimistic forecast of the prospects of the International Medical Congress. In its issue of August 15th, it says editorially: "Evidences are not wanting that the principal performers in the great comic play of "Much Ado About Nothing," which was commenced so brilliantly on June 29th by twenty-eight members of the profession in Philadelphia, are becoming weary of their work. Some who were induced to join in the play from the first impulse have already withdrawn, and others are evidently preparing to follow. Dr. John H. Packard, who was appointed Secretary-General of the Congress by the Committee of Arrangements at the meeting in Chicago, and whose name was published as one of the twenty-eight who declined to accept any place in the revised organization, has recently withdrawn his declination and accepted the position. As an offset to the other twenty-seven who started the scheme of obstruction and factious opposition in that city, we have the names of seventy prominent members of the profession in the same city who have freely endorsed the action of the American Medical Association, and pledged their support to the organization of the International Medical Congress of 1887. Among them are the names of teachers and authors as eminent and as well-known both in this country and in Europe, as any of those who so hastily declined. To the same endorsement and pledge are appended the names of several hundred prominent and well-known members of the profession in other parts of the State of Pennsylvania. . . . The idea that the Committee of Arrangements will not be able to complete the work of preliminary organization at its coming meeting on September 3d, or that the vacancies in the several sections cannot be filled with men of the highest standing and ability, is simply absurd." *Nous verrons*, is the only comment we can offer on the above.

Dr. John Ten Brook, of Paris, Edgar County, Ill., one of the oldest practitioners in the State, died at his residence, on August, 8, 1885, aged seventy-seven years.

Death of Dr. William Gaston Bulloch.—Dr. Bulloch died recently in Savannah, Ga., in the seventy-first

year of his age. He was the son of John Irvine Bulloch, and great-grandson of Governor Archibald Bulloch, of Revolutionary fame. After obtaining his degree he went to Europe to further prosecute his professional studies, the greater part of his time being spent in the hospitals of Paris. He then returned to the United States, and settled in practice in his native city. He was President of the Medical Association of Savannah, and also, at one time, of the Georgia State Medical Association. He became a member of the American Medical Association in 1851. He was one of the founders of the Savannah Medical College. He was a surgeon in the Confederate army during the late civil war, was alderman of Savannah for two years, and was physician to the city jail from 1877 to the time of his death.

The Baly Medal, presented by the Royal College of Physicians of London, has been awarded to Mr. W. Kitchen Parker, F.R.S.

Vivisection in Austria.—A movement is on foot in Austria to abolish or restrict vivisection through a governmental decree. The chances do not appear to favor the sentimental anti-vivisectionists.

Professor Huxley.—It is announced that Professor Huxley, F.R.S., has agreed, at the request of the Committee of Council on Education, to continue to act as Dean of the Normal School of Science and Royal School of Mines at South Kensington, and also to be responsible for the general direction of the biological instruction therein.

A New Mydriatic Alkaloid.—M. Crouzel has isolated a body having all the properties of an alkaloid from the mandrake (Mandragora officinalis). This body forms a sulphate which is crystalline. A solution of this salt was found to have marked mydriatic effects on the eye of a rabbit.

Death of Professor Schlager.—Professor Ludwig Schlager, Director of the Wiener Landes-Irrenanstalt, one of the most distinguished alienists in Austria, died at Gastein on the 24th ult. He was fifty-seven years of age.

Calves' Vaccine not Liable to Communicate Tuberculosis.—M. Straus finds that the proportion of tuberculous calves does not reach 1 in 100,000. So the danger of tuberculosis in obtaining vaccine from these animals is practically nil.

A Tape-worm in a Lamb.—An Oregon farmer recently killed a lamb. Through an accident he cut a hole in the intestines, when he saw a tape-worm protruding. He extracted it and found it over thirty feet in length. It must be quite exceptional for a tænia to find a lamb a congenial host.

For the Cure of Corns.—M. Vigier recommends the following: Salicylic acid, 15 grains; alcoholic extract of cannabis indica, 7½ grains; alcohol (90°), 15 minims; ether (62°), 37½ minims; flexible collodion, 75 minims. Mix and preserve in a closely corked vial. The corn is to be painted thoroughly with this mixture every second day for a week. At the end of this time, it is said, the corn can be readily expressed by pressure of the fingers.

Reviews and Notices.

A Text-book of Medical Physics for the Use of Students and Practitioners of Medicine. By John C. Draper, M.D., LL.D., Professor of Physics and Chemistry in the Medical Department of the University of New York. Pp. 733. Philadelphia: Lea Brothers & Co., 1885.

The author regrets in his preface that the study of physics has been regarded in this country as of so little importance in the curriculum of medical study. He regards our educational literature as sadly deficient in this respect. Hence he has been led to place before the public the substance of his lectures in this department of science, delivered during many years at the University of the City of New York.

That this work will greatly facilitate the study of medical physics is apparent upon even a mere cursory examination. It is marked by that scientific accuracy which always characterizes Dr. Draper's writings.

Its peculiar value lies in the fact that it is written from the standpoint of the medical man. Hence much is omitted that appears in a mere treatise on physical science, while much is inserted of peculiar value to the physician. Of special value are the chapters on Physiological and Therapeutical Effects of Variations in Density of Air, and Electro-biology. An interesting section is inserted on Ultra-gaseous or Radiant Matter. Included in the section on the Microscope are full directions for hardening tissues, cutting sections, staining, injecting, etc.

On the Wasting Diseases of Infants and Children. By Eustace Smith, M.D., London. Fourth Edition. New York: William Wood & Co. 1885. Wood's Library of Standard Medical Authors.

The fourth edition of Dr. Smith's work is but little changed from the third, which latter, however, was, at the time of its publication, largely recast and rewritten. The wasting diseases of children described by our author are simple atrophy, chronic diarrhœa, chronic vomiting, rickets, inherited syphilis, mucous disease, worms, chronic pulmonary phthisis, and caseation of lymphatic glands. The separation of these conditions into special classes is necessarily somewhat arbitrary, but we feel no desire to complain since it has some practical value. Dr. Smith prefaces his work with the usual discourse upon infant hygiene and infant feeding. His remarks are sensible and judicious, though he perhaps lays less stress upon artificial feeding than its widespread practice demands. At the close of his work is a chapter on the diet of children in health and disease. This contains many tables, and will be found very useful for reference. These tables, however, might very well be improved by the addition of articles in use in this country. The "Mucous Disease," to which a chapter is devoted, is a new thing in nosology, and is, we believe, the child of Dr. Smith. It is a hypersecretion of mucus from the alimentary tract, occurring especially after whooping-cough and at the second dentition. Unquestionably it is a clinical entity, and our author's description of it deserves attention. The chapters on the other wasting diseases, of which we have given a list, are all profitable reading, and we can heartily commend the book as a most useful one, and as having the virtue also of not being voluminous or dry.

Comforting News for the Small Boy.—Dr. Zulinski, of Warsaw, has been conducting a series of experiments on men and the lower animals to determine the effects of tobacco-smoke upon the system. He found that it was poisonous when inhaled in sufficient quantity, but states that cigarette smokers absorb less of the injurious principles than do cigar-smokers, and pipe-smokers least of all.

Reports of Societies.

British Medical Association.

FIFTY-THIRD ANNUAL MEETING.

Held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1885.

REPORTS OF SECTIONS.

SECTION OF OBSTETRIC MEDICINE.

WEDNESDAY, JULY 29TH—FIRST DAY.

DR. GERVIS, President, in the Chair.

This Section has been of even greater interest than usual. Several important subjects have been discussed, great interest has been manifested in the discussions, and a larger proportion than usual of leaders in obstetric science and practice have been present.

After the delivery of the Presidential address the first paper taken was

ON THE OCCASIONAL LATENCY AND INSIDIOUSNESS OF GRAVE SYMPTOMS IN CONNECTION WITH THE PUERPERAL STATE,

by DR. W. O. PRIESTLEY, of London. Dr. Priestley said serious disease, when occurring after delivery usually showed itself within ten days after the day of confinement. Relying on this, in maternity hospitals, women were allowed to leave in ten or fourteen days. But more tedious cases occurred. He related a case in which in a young wife the uterus did not contract well after delivery. The patient, however, appeared to progress favorably and was on the sofa by the eleventh day. Soon after she was allowed to leave the room and go into the adjoining one. On the twentieth day vomiting came on, and by the third week she was unable to put her feet to the ground. There were pains in the limbs, swelling of the joints, and general symptoms of acute rheumatism. There was nausea, indigestion, and the breasts swelled. The temperature was high and the pulse accelerated. The abdomen was tympanitic. This case occured some years ago. Several other physicians saw the case, among these were Dr. Playfair, and the late Sir James Simpson, who came from Edinburgh for the purpose. The patient died thirty-eight days after delivery. In a second case, Dr. Priestley attended and took leave of the patient at the end of the month, convalescence being apparently complete. In a few days he was called in again, and finding the patient not so well advised her to go out of town. Serious eye mischief came on and one eyeball suppurated and burst, with, of course, total loss of sight in that eye. The patient slowly recovered. A third case was that of a young married lady, aged twenty-three, whom he attended in October, 1875, when she was delivered of her second child; forceps were used; the uterus contracted well and it was observed that there was but little hemorrhage. In a few days, however, it was observed that the womb was again large. There was no tenderness on pressure, and no fever or general symptoms. In a few days the patient complained of pain, and one day a sharp pain suddenly came on in the calf of one leg. A phlegmonous swelling formed, in which fluctuation could after a time be distinguished. The late Mr. Campbell de Morgan saw the patient in consultation with Dr. Priestley. When the presence of pus was established, Mr. Morgan incised the swelling and a considerable quantity of pus escaped. In a fourth case the patient was, at the time of her confinement, in rather a poor state of health. She had sustained a great grief a few months previously by the death of her mother. This had made her melancholy and indisposed to take exercise. The labor lasted forty-eight hours. There was fair contraction of the uterus, but dilatation followed. The patient complained of a sharp pain in the chest and pains down one thigh. A poultice was applied to the chest, and quinine given internally. These symptoms were relieved, but three weeks after delivery the uterus was, on palpation, found to be still larger. At the end of the month, the only symptom of which the patient complained was recurring neuralgia. At the end of the fifth week she suddenly felt very faint one day. This passed off, but in a few days she was out and got her feet wet. In the seventh week the patient was attacked with agonizing pain in the right groin. On examination, a swelling was found in the right iliac region. The pulse was 120, temperature 103° F., and the urine was loaded with urates. Pains in the ankles followed; then the wrists became involved. The hands and wrists were kept wrapped up in cotton-wool; there was a curious metastasis from one to the other; sometimes one hand could be moved and sometimes the other. This condition lasted a week; the patient then complained of a pain in the left side of the chest; she was then seen by Sir William Jenner. Pleurisy came on; in the left chest there was complete dulness and absence of breath-sounds; opium was given and adequate doses of bark and nitro-hydrochloric acid were also given; stimulants were also administered; the pelvic swelling receded somewhat; the temperature varied between 104° and 105° F.; the pulse was extremely rapid, being in fact uncountable. Dr. Priestley said Sir William Jenner said it was "an awful pulse." The abscess finally burst spontaneously. Commenting on these four cases which he had narrated as examples, Dr. Priestley said the form of the disease varied much in different cases. Thrombosis and embolism were, he said, especially dangerous. Often only "rheumatic" symptoms were complained of, and in cases where general symptoms occurred they had often been put down as hysterical. The danger to the patient was obvious. Passing on to discuss the nature of the disease, Dr. Priestley said the question was whether there was more than one poison, or whether there was but one, and the varying effects in different cases depended upon the dose. He referred to Pasteur's view of a puerperal germ. Passing on to the question of treatment, he said, the practical point was to recognize the nature of these obscure cases. An important point was to secure due contraction of the uterus, as in many of these cases the uterus had been observed to be large; clots should be removed as they form by pressure or other means; a rigor should never be disregarded; the occurrence of any, even flitting or transient rheumatic pains in the bones or joints should be carefully noted; if no other organ be affected the heart should be carefully examined, as the occurrence of a valvular murmur may be of the greatest significance; any rise of temperature should be carefully watched. Dr. Priestley said that patients who lead inactive lives during pregnancy are more prone to puerperal affections. As germs only find an easy entrance into the system when the latter is in an unhealthy state, we can prevent bad effects from them by improving the general health and thus rendering them less active.

DR. GERVIS, of London, President of the Section, said he had seen similar cases to those related by Dr. Priestley; he had also seen less severe ones. He had often seen patients two or three weeks after delivery in whom there was no abdominal tenderness, but often simply dyspepsia and disinclination for food. On vaginal examination—and one should always be made in such cases—a considerable amount of parametric swelling was often found.

DR. EDIS, of London, said patients should be more carefully watched during the puerperal period. The practitioner should not rush hastily into the room, ask the patient how she is and how the baby is, and go away. A temperature-chart should be taken to the house, and systematic observations made and recorded. We might, he said, save many patients by attention to trivial details. A rigor should be noted, but we must remember that in a weakly patient it might be simply the expression of severe nervous shock. He had seen

similar cases to those of Dr. Priestley, who, he remarked, had travelled over a wide field in his paper.

Dr. Grigg, of London, referred to the former unsanitary condition of Queen Charlotte's Lying-in Hospital, to which he is physician. Formerly the windows were kept closed, and the patients were always afraid of catching cold, and often complained of pains. The ventilation is now much improved, as are also the general sanitary arrangements of the building. Referring to Dr. Priestley's remark, that patients who will not take sufficient exercise during their pregnancy are more liable to be attacked with puerperal disease, he made the suggestion whether this condition might not be due to want of air. He referred to a case in which the temperature rose and fell, and in which exacerbations of temperature were always accompanied by hysterical emotion.

Dr. Wilson, of Baltimore, said that when all went on well for ten days, and then the patient languishes, we have, in a large proportion of cases, one of two conditions present, viz.: 1, relaxed uterus; 2, pelvic cellulitis. Nothing was so important as to watch the condition of the uterus. Ergot and quinine were useful to secure its contraction. Injections could be employed if necessary, and if there was any offensive smell. Opium and hot injections might be employed in cellulitis.

Dr. Chalmers, of London, said this condition was not so much due to a poison from without as to the state of the mother herself. There was no need to go to bacteria. The involution of the uterus itself and the giving off into the general system of a large amount of waste material was sufficient. It was known that the lochia when inserted into an animal caused severe symptoms. Provision was made for getting rid of the lochia, and thus normally no bad effects resulted from them.

Dr. Steel, of Abergavenny, considered that sufficient stress had not been laid upon embolism as a cause of puerperal affections, and referred to the experiments of Cruveilhier which, he said, he had repeated some years ago.

Dr. Priestley, in reply, thanked the members present for the attention with which they had listened to his paper. His object, he said, had been attained if he had secured more attention being paid to minute details. Progress in science showed that no ferments were formed in the blood, but that they were wafted in from without. The more we knew the less were we inclined to believe in autogenetic infection. It did not follow that the germs entered at the time of the illness. They might have been wafted in before, and not developed until the health of the patient became enfeebled. Hence the importance of maintaining a good state of the general health.

The next paper was

ON ANTISEPTIC MIDWIFERY AS CONDUCTED IN A LYING-IN HOSPITAL,

by Dr. W. C. Grigg, of London. The hospital to which the paper referred was Queen Charlotte's Lying-in Hospital. Dr. Grigg said that the result of the introduction of antiseptics into that hospital had been that as low a mortality had been attained as in private practice. Antiseptics were therefore as efficient in obstetric as in surgical practice. Maternity hospitals had been decried and called slaughter-houses. It had, however, been shown that they could be maintained and midwives and medical students trained in them. Maternity hospitals were really the pioneers of hospital sanitation. Queen Charlotte's Hospital was built in 1752, rebuilt in 1856, and the new building opened in 1857. About five hundred patients were admitted annually, being an average of forty-two per month. The wards were sixteen feet square and twelve feet high. There was no cross ventilation. The air-space for each patient was about seven hundred cubic feet. The floors were only of deal, but they had lately received a coat of lacquer. In 1879 an outbreak of puerperal fever occurred, and the hospital was closed for five months, being reopened very curiously on the same date at which two other maternity hospitals which had been closed were also reopened. The hospital has never been closed since. Formerly it was always closed one month every year for the purpose of being cleaned. Before being reopened many sanitary improvements had been effected. The water-closets and drain-pipes were now outside and were thoroughly ventilated.

Since the rebuilding of the hospital in 1856 there had been 12,500 women delivered in it. Of these, 5,000 were married or widows, 7,500 were single. Of these, 276 had died, and 200 of these were single women. Since the introduction of antiseptics (within the last few years), this mortality had been much lessened. Wood-wool pads and the use of corrosive sublimate as a lotion and injection were introduced in 1884. Dr. Grigg gave some particulars respecting 1,100 cases which had been treated since the introduction of antiseptics. They included many severe cases; sixty might be regarded as serious. Nevertheless, no single case died within the month, and within the year they had had nine hundred cases without a death and without there having been any periodical closure of the hospital for cleansing. Dr. Grigg enumerated the various antiseptic measures employed. The linen was carefully disinfected. In each ward, after it had been used, the following measures were adopted before another patient was brought into it: Four pounds of sulphur were burnt in the ward, the floors were washed with a solution of carbolic acid, and the bedding stoved at a temperature of 250° F. While occupied by patients the wards were wiped out daily with turpentine, washing with water being avoided. The wards were heated in winter by coils of hot-water pipes, but fires in open grates were also kept going. The wards were kept at a temperature of from 52° to 54° F. Carbolized oil (1 in 60) was applied to the fingers before making any examination. The patients were douched with a solution of corrosive sublimate—1 in 2,000—after delivery. (Dr. Grigg said this was the strength of solution he employed himself; his colleague used one double this strength, viz., 1 in 1,000.) After delivery, the patients had administered to them either a wineglassful of vinegar with a drachm or so of tincture of opium added, or else some ergot. He preferred the vinegar and opium to induce uterine contraction; the action of the ergot was less persistent and was gone in twenty minutes. The patient was not removed from the ward in which she was delivered until the uterus was firmly contracted. The perineum was examined, and any lacerations were stitched up at once with a catgut suture and boracic dressing applied. Chloroform was not used except in instrumental labors. The vulva was washed with a solution of corrosive sublimate. A five per cent. solution of carbolic acid was used for washing out all vessels, catheters, etc. The same vaginal tube was never used for two patients. The patients were douched twice a day when the lochia were offensive, but as a rule they were not douched at all unless the temperature was high or abdominal tenderness present. The douche was always left off when the complication ceased. The use of the syringe was avoided; it was dangerous and painful. Dr. Grigg said vaginal or intra-uterine tubes should be of glass, and exhibited a specimen of one he thought suitable for intra uterine medication. They were always kept in a five per cent solution of carbolic acid. When done with in any case, they were boiled and then kept in strong sulphuric acid until again wanted. He thought the action of corrosive sublimate was twofold, viz., 1, that it destroyed germs; 2, that it arrested bleeding from small vessels. He believed it was the only antiseptic which could, without danger, be introduced into the genital tract of sufficient strength to destroy germs.

Dr. Gervis remarked on the value of iodoform pessaries as antiseptic agents. He was not aware who had originated them; he had heard of them from Dr. Champ-

neys. They consisted of one drachm of iodoform made into a pessary with gelatine and starch. They dissolved very slowly, and thus lasted for days. After making an examination, one of these might be left in the vagina, where it would slowly dissolve and give a very good account of any germs which might be present. One might be placed in the uterus also, if wished.

The next paper was

ON THE SEPTIC ORIGIN OF PELVIC INFLAMMATIONS,

by DR. A. E. LAWRENCE, of Bristol. Dr. Lawrence said he was convinced that a large number of pelvic inflammations were due to the absorption of septic material. Why should not the antiseptic resources available for general surgeons be used by him? Out of three thousand cases seen by him, sixty cases of pelvic inflammation had occurred in which there was a definite history of septic absorption having taken place; of these, forty terminated in abscess. He said he used the word pelvic inflammation in its widest sense; it tended to spread and involve various parts. When effusion occurred, the question was whether it was going to be absorbed or break down into pus. The latter usually occurred when the condition was due to septic absorption. Old pelvic inflammations were a frequent cause of adhesions, which prevented the normal movements of the organs. This caused the woman to be conscious that she possessed pelvic organs—a consciousness she was better without. He considered fully one-third of the aches and pains met with in women were due to old pelvic inflammation. We should, he said, try to secure two points after delivery, viz.: 1, cleanness; 2, contraction of the uterus. Dr. Lawrence said he now employed the plan made use of by Dr. Macan, Master of the Rotunda Lying-in Hospital, Dublin. This was the use of pessaries made with cacao butter, and each containing twenty grains of iodoform. This method could be carried out by the nurse, one being inserted after delivery. If any smell persisted in spite of this, he washed out the uterus himself with tincture of iodine and water. He did not approve of leaving the pessary in, and had lately met with a case of pelvic abscess due to the nurse having neglected his instructions on this point. The evening temperature of the patient was 101° for four months, the morning temperature remaining normal. Referring to the practice of dilating the cervix with tents, he said he believed that the deaths which occurred were due to septicæmia. No wonder. After dilatation had been procured, the stinking tent was removed, and the examination then usually made at once. The finger passing up into the uterus carried the septic matter with it. Before examining we should wash out well with iodized water, and thus remove all offensive matter. He preferred sea-tangle or tupelo to sponge tents. Where the latter were made use of they should never be inserted by means of the tent-introducer, but the duck-bill speculum should be used; we could then both see and feel what we were doing, and the tent need not touch any part until it reached the cervix.

The next paper was on

THE DUTY OF CONSULTANT AND PRACTITIONER IN RELATION TO PUERPERAL FEVER,

by DR. W. L. REID, of Glasgow. Dr. Reid said it was a question of what we should do in the matter of antiseptic precautions. Some felt that too much was done; some that too little was attempted. In private practice we could not deliver every woman under the spray and have everything either new or fresh from being disinfected. General practitioners who were in attendance on puerperal women *must* see fever cases. There were three matters to be attended to. These, in the order of importance, were: 1, The hands of the practitioner; 2, his clothes; 3, the hair and body generally. Instruments, etc., must of course be carefully attended to. When he had visited a septic patient what he did was to enter a small room, set the antiseptic spray going, sit down, and read. In about twenty minutes he was saturated. He then put on a fresh suit of clothes, everything being fresh, even to the necktie. The others were hung up out-of-doors for several days. Mere washing the hands was not enough, but an antiseptic should be employed. A good plan before examining was to anoint the hands with a mixture of glycerine and soft soap, containing five per cent. of carbolic acid. This defends the doctor from outside influences and also protected the patient from him. If the patient had to be seen three or four times daily then other midwifery work must be abandoned.

A discussion then took place on the three last papers.

DR. GERVIS spoke of the use of tents. He said he had entirely given up the use of sponge-tents and almost entirely that of sea-tangle ones. It was two years since he had even used one of the latter. He used Hegar's dilators now, which he considered preferable in every way. He kept the patient in bed on her back and washed out the genital tract thoroughly. Iodine vaporized by heat was, he said, a powerful disinfectant.

DR. HAMMOND, of Glasgow, referred to his own experience in Glasgow dispensary work. Among even the very poor a good deal might be done by free ventilation and the use of Calvert's carbolic soap (that containing twenty per cent. of carbolic acid). Good ventilation might be secured by covering the patient up for a few minutes every three or four hours and then opening the doors and windows. Cases will, however, occur such as those described by Dr. Priestley, in which the patient goes on improving, then a rigor occurs, the patient sinks into a weak state, and it is only by the greatest care that she can be brought round. Dr. Hammond said he could only remember one or two cases going on to suppuration. He referred to a septic case in which he was called in consultation and refused to make an examination. The patient was evidently moribund, and he told the friends that to examine could do no good and might lead to his infecting other patients. He saw the local practitioner a few days afterward and told the latter he was not to take offence because he did not examine. The practitioner replied that he wished he had been nervous as well as Dr. Hammond; he had himself examined and had infected the next three patients he attended.

DR. LAWRENCE said he kept a light suit of washable material for use in such cases. After visiting a case he considered septic he went direct to the Turkish bath. He there had a bath and put on the washable suit which he had had sent from home to the baths, and the clothes he had taken off were placed in a bag kept aseptic by means of carbolic acid, taken home, and then disinfected. If he had to attend the patient for three or four days he did not see other cases. If three or four cases were attended very close together in point of time, and one became infectious, it was most unfortunate, as the practitioner had often attended all before hearing of that one's illness. He referred to the danger of dirty hands—one he had seen exemplified. In making an examination it was better to take off the coat and roll up the shirt-sleeves than have a towel pinned round the arm in the elaborate manner in which nurses did it. He remarked that we must distinguish mere local inflammation from septic states; the former did not necessarily prohibit attendance on other patients.

DR. EDIS, of London, spoke of the over-precautions which were thought to be necessary in ordinary cases. He thought it was "antiseptics run mad." We should next hear of "antiseptic conception." In private practice thousands of midwifery cases were attended without any deaths and without the use of antiseptics. Several gentlemen had published in the *British Medical Journal* a roll of more than a thousand cases. He believed, of course, in the use of antiseptics in cases of puerperal fever. The essence of antisepsis was strict cleanliness; you could, he admitted, augment this cleanliness by using antiseptics, but he did not believe that in every case

attended it was necessary to leave an iodoform pessary in the uterus, another in the vagina, apply a wood-wool pad, and envelope the patient in antiseptic gauze.

Dr. Grigg said that any one connected with a maternity hospital must be prepared to forego a considerable amount of private practice. Practitioners would not call such physicians in consultation for fear of infection being conveyed to their patients. His experience, however, had shown that a maternity hospital could be safely conducted. As to infection, he had repeatedly seen the house-surgeon go from case to case, simply rinsing his hands in carbolized water, and with impunity. Precautions were, however, desirable. There was no doubt that the hand might be infected with a poison—whatever it was. He had a large correspondence some time since on this subject with various members of the Association. A very useful recommendation, made by one gentleman who wrote him, was to take to gardening when the hands were infected. A week or two's gardening, by bringing the hands into intimate contact with the earth, would remove all danger of infection from the hands.

Thursday, July 30th—Second Day.

Dr. Gervis, President of the Section, in the Chair.

The work of the Section was commenced on this day by the reading of two papers in French by Professor Lesshaft, of St. Petersburg. The first paper was

on the structure of the pelvis.

The second was

on the influence of mechanical violence on the form of the skull in young animals.

Fresh specimens were exhibited illustrating these two papers. Numerous skeletons of young animals were also shown, showing the modifications caused by exclusive animal and exclusive vegetable diets.

Dr. W. S. Playfair, of London, then introduced a discussion on

the proper sphere of constitutional and topical treatment in certain forms of uterine disease.

This discussion was really inaugurated as a reply to the statements advanced by Dr. Clifford Allbutt in his Gulstonian lectures at the College of Physicians, which have been rankling in the breasts of the gynecologists ever since. Dr. Playfair referred to Dr. Routh's reply to Dr. Playfair, and said that Dr. Routh overstated his case. He then alluded to some of Dr. Allbutt's original statements. Dr. Allbutt, he said, had talked of women becoming entangled in the net of gynecology, had said their uterus was somewhat like their nose, and like that organ was sometimes a little on one side and sometimes ran a little. If the former, it was impaled on a prop; if the latter, it was painted daily with iodine or other caustic, until the fatal arrow of hypochondriasis was at length implanted in the woman. Referring to these phrases, Dr. Playfair said he would repeat what he had stated in Dr. Allbutt's presence, viz., that Dr. Allbutt's admirable mastery of English had led him away into epigrammatic statements. He had partially made the "amende honorable" by saying that he did not apply these remarks to scientific physicians, and had done him (Dr. Playfair) the honor of saying that he excepted him from those whom he accused. It was true, said Dr. Playfair, that he had himself paid great attention to the neurotic element in gynecology, but no one who knew him could accuse him of want of attention to true gynecological work. We had of late years made great advances in diagnosis, pathology, and treatment, *e.g.*, in hæmatocele, cellulitis, etc. Still some diseases were less easily determined than others, and mistakes were common, but he denied that they were due to other causes than want of knowledge and error in judgment. Moreover, there was a danger in underestimating the condition. The pendulum tended to swing to the opposite direction. Some doctors went so far as to tell a woman that she had nothing the matter with her, and send her away for a change and tell her to have nothing to do with the doctors, and this, too, in a plain case susceptible of relief. Errors as to treatment were most frequent in three classes of cases, viz., deviations in the axis of the uterus, endometritis, and (so-called) ulcerations of the cervix. We could not lay down definite rules as to treatment. It was impossible to exaggerate the value of constitutional treatment in uterine diseases. It was not surprising that the general health suffered, and often overshadowed the original disease. It was difficult to combine local treatment with general rest and hygiene. He differed from Dr. Graily Hewitt on the question of deviations of the uterine axis, but he quite agreed with him as to their effect on the general health. We were now passing through an era of flexions. A patient now often asked, "Am I displaced?" They had often been told they were slightly displaced, when in point of fact no diagnosis had been made. It was difficult to imagine how any student of uterine diseases could think flexions were of no importance, as a well-fitting pessary often gave relief. Many cases, though, needed no treatment. When a pessary gave relief, there was no need to make repeated local applications. When such were made it was a great abuse. When a pessary had been applied, two or three subsequent visits were ample, and then there was no need of further treatment for months. What was called ulceration of the cervix was merely abrasion, and when the speculum was first brought in the importance of this affection was exaggerated, and repeated caustic applications were made to the cervix, which could, at the best, have but a temporary effect. In itself this affection was of no importance, and frequent cauterizations were not legitimate under any conditions. Even in endometritis a few applications made within the first few days immediately succeeding one or two menstrual periods were generally sufficient. The gynecologist could not be accused of over-treatment in any other local diseases. *In via media tutissimus ibis* was the safest motto. We must not overestimate the local lesion on the one hand, or the disturbance to the general health on the other. There might be a danger of provoking a neurotic taint. Patients differed very much.

A letter from Dr. Clifford Allbutt was then read. (Dr. Playfair had previously to the meeting submitted his paper to Dr. Allbutt, so that the latter might be prepared to criticise. Dr. Allbutt did not come, but wrote a letter.) Dr. Allbutt said Dr. Playfair had quoted one or two passages from his lectures without taking the context. He had only stated what country practitioners had been muttering for years. He had known cases in which the treatment was co-extensive with the duration of the London season, or with the session at the medical schools. In what works, he asked, were the limitations laid down of which Dr. Playfair approved?

Dr. Gervis said he utterly repudiated the charges made by Dr. Allbutt. As for what the country practitioners were said to have stated, why, he said, in most cases where local treatment was employed it was carried out in conjunction with the local practitioner.

Dr. Edis said Dr. Allbutt had done harm in one way and good in another by saying something to create amusement. The position of the uterus was not the only thing to observe in making a vaginal examination. He thought Dr. Clifford Allbutt had done a mean trick; as a specialist himself he had fouled his own nest. But it was not a personal question. It was a question of our art. A combination of local and constitutional treatment was best.

Dr. Lawrence said that what Dr. Allbutt had stated was true as regards dishonest practitioners. The more we knew of our patients the less local treatment did we employ. He himself made many more local applications to his out-patients than he did to his in-patients, whose

condition he knew better. He said he went further than Dr. Edis as regards vaginal examinations. Dr. Barnes said in his work that we ought to ask ourselves, What are the groups of symptoms calling for a genital examination? He agreed with Dr. Barnes in this. We ought to know what to expect before we examine. There were some cases in which we should never think of sending away the patient without making an examination. In a case, for instance, of hemorrhage in a woman in whom the menses have entirely ceased, we should examine and should expect to find cancer or some other grave lesion.

Dr. Meredith, of Wellington, Somerset, referred to defective sanitary arrangements as a cause of uterine affections. Even a slight leakage of gas in a bedroom had been known by him to cause uterine trouble.

Dr. Imlach, of Liverpool, said if we could not cure by local treatment in fourteen days we had better give up the case. In many cases of flexions there was often disease of the tubes and ovaries as well. It was of no use to treat the flexion in such cases; it was not the real disease.

Dr. Berry Hart, of Edinburgh, said that what we wanted was more exact knowledge of many of these affections.

Dr. Steel, of Abergavenny, said it was no wonder that local treatment was overdone.

Dr. Wilson, of Baltimore, said he endorsed every word that Dr. Playfair had said. He was glad to find British views were in accord with those held on his side of the Atlantic. He urged the importance of exercise. One or two months of local treatment was enough at a time. If patients did not improve in that time he sent them away for a change, or, if they did not go away, he told them to stop away from him for a time.

Dr. Gervis advised the judicious combination of local and constitutional treatment.

Dr. Playfair briefly replied, and the discussion then terminated.

(To be continued.)

SURGICAL SECTION.

Wednesday, July 29th—First Day.

Mr. Harrison, of Liverpool, read a paper (see page 113)

ON BLADDER TUMORS.

Dr. Stein, of New York, recommended bilateral incision of the prostate as a means of exploration of the bladder. He also exhibited an instrument for uniformly dilating the female urethra, in order to remove tumors in the bladder.

Mr. Carr had recently had a very interesting case, which showed the value of operating in tumors of the bladder. A woman had been suffering from hæmorrhage, and was found to have a mass of cauliflower-excrescence in the bladder. This was removed, and the woman made a rapid recovery, which lasted for some years. This Spring, 1885, she had a return of the bleeding. He again dilated the urethra, and found a broad, hard tumor in the bladder. Some of this he enucleated, and some he scraped away with Durham's retractors, and then sponged the parts with iodine and phenol. The woman was now quite well. All this shows that when the growth is malignant even much may be done. Between the two operations on this patient she had given birth to a child. He had no experience in such cases in the male, but quite approved of Dr. Stein's plan of bilateral section of the prostate in such a case.

Dr. Penny, of Bristol Hospital, recommended suprapubic section for the removal of such tumors.

Mr. Humphrey, of Shrewsbury, also approved of Dr. Stein's plans in dilatation of the female urethra.

Mr. Harrison, in his reply, read two letters, just received. In one from Mr. Annandale that gentleman said that every case must be judged on its own merits and carefully explored before undertaking such an operation. Mr. Cage wrote that such bladder tumors were certainly very hopeless cases. Perhaps one in ten might be benefited by operation.

Mr. William Adams, of London, read a paper on

CONGENITAL DISLOCATION OF THE HIP-JOINT.

In 1845 he had seen the first case of the complaint in a boy eighteen years of age. In 1860 more than sixty cases had been observed, thirteen of which had been in males and forty-seven in females. In nineteen cases both hips were affected. In two of the histories the infants were born before the medical man arrived. The affection was in one case said to have been hereditary. No malposition is noticed in the infant at birth, and it was not until it began to walk that the child was noticed to have anything the matter with its joints. In some cases the patient is treated for hip-joint disease. At the age of three years the diagnosis becomes easier by means of Nélaton's lines and the ilio-femoral test. It is said that the head of the femur can be felt in such cases, but he had not found this to be true. Nor is obliquity of the thighs a symptom. Carnochan's original work was published in 1850, and several of the plates there given were drawn from life, or copied from pathological specimens in the Dupuytren Museum of Paris. Mr. Adams put the question: Is this a true dislocation or a malformation of the acetabulum? He was inclined to look on the disease in the latter sense. The acetabulum was not sufficiently developed in the uterus, and the capsular ligament was long and loose in most of the cases.

A paper was read by Dr. Thomas, of Adelaide, on the

TREATMENT OF HYDATID CYSTS OF THE LUNGS BY MEANS OF PUNCTURE.

Such patients, the author said, often exhibit the most advanced symptoms of consumption. In one case the cyst weighed ten ounces, and contained two hundred and fifty-six square inches in superficial extent. There had been thirty-two cases of this disease collected by himself. In the Adelaide Hospital there had been five cases operated on. The general result of the treatment by perforation had been that of twenty-five operated upon five had died. The patients were of all ages, from ten up to fifty years. A cyst under the scapula might be opened by means of a puncture made under the clavicle, and the trocar and cannula might be used. He personally had operated on five cases. Of these four did well and the fifth died. Altogether he made out that twenty-seven cures had arisen from thirty-two operations. Some persons had wished to put forward the idea that all cavities in the lungs should be treated by perforation, but he thought this out of the question in cases of phthisis. Finally, Mr. Thomas showed specimens of the various means taken to arrest hemorrhage after the operation, one of these being a cleverly devised bag resembling the fiddle-bags of Dr. Barnes, and the others india-rubber chest catheters made by Messrs. Mayer & Melzer.

Dr. Ward Cousins referred to the difficulty in the diagnosis of such tumors, and there was danger of inflammation of the sac after opening.

Mr. Thomas said that this was doubtless the case sometimes, but not so when the patient was found to be expectorating large fragments of hydatids. In Australia these cases were frequent enough, and in most cases there was no difficulty in that part of the matter. The operations had been most successful.

Thursday, July 30th—Second Day.

Dr. Bennett in the chair.

Mr. Treves read a paper (see p. 169) on the

TREATMENT OF INTESTINAL OBSTRUCTIONS.

Mr. Lawson Tait, on being called on to speak, explained that he had not heard the paper, and was not able to give any opinion on it, having been in the Obstetrical Section during the reading of the paper.

Dr. George Smith said the best ground for diagnosis of the position of the lesion was only to be learned by visual inspection, not by tactile knowledge. The coils should be seen and, generally speaking, the part that was most inflated would come to the surface and not be very far off from the seat of the stricture. Not that he was at all in favor of any wholesale extrusion of the bowels. The incision should be in the median line, and the finger should be substituted for the hand in ascertaining the seat of the disease. He might say in passing that the bowel might be handled with perfect impunity. Large quantities of fluid in the intestines might cause intestinal obstruction of a physiological kind. Over-distention of the bowel should be avoided. Nélaton's operation for enterotomy was the best, and the best plan was to form for a short term an artificial anus. He confessed that the operation for intestinal obstruction was one of the most difficult in the whole range of operative surgery, and the one which required the greatest care and knowledge of the structures coming before the operator's view.

Mr. A. Eddowes said that occasionally a case of spontaneous cure of intestinal obstruction took place, and gave the clinical history of a case of this kind. The diagnosis should be made as early as possible, and he mentioned a case where a boy had come into the Salop Hospital, in whom a portion of intestine had followed the route of the testis, which lay in an undeveloped condition in the inguinal canal close to the testis. This was found out after death, as the boy died shortly after admission into hospital. That case might have been saved had the diagnosis been clearly made out.

Mr. Robson Mayo said that the record of post-mortem examinations of intestinal obstructions in hospitals showed that many cases could not have been benefited by operation, while others might have been greatly benefited by a timely operation. In the former run of cases there were such as those where purulent peritonitis existed. In one case in which he had operated he had removed nearly two feet of gangrenous intestine, and stitched the divided ends of the bowels together. This patient died the following day. All cases of laparotomy, whether successful or the contrary, should be reported. Out of six cases he had operated on four recovered. Mr. Teale, of Leeds, had collected histories of twenty-one cases, most of which had died. His conclusions were that in chronic intestinal obstructions belladonna would often relieve or cure. Laparotomy as a means of diagnosis and possible treatment was often useful and sometimes might remove the obstruction or at least give some relief. This is one of the most important of all surgical cases, and he believed that, in the same way that ovariotomy had recently come into the sphere of the surgeon, so would the treatment of intestinal obstructions in a short time.

The debate was continued by Mr. Pughe and by Dr. Ward Cousins.

Mr. Pughe then read "A Case of Successful Abdominal Section for Internal Strangulation."

Mr. Bishop Stanmore read a paper on "Enterorraphy, with a Description of a New Form of Suture."

Mr. Edmund Owen read a paper on "Caries of the Cervical Vertebræ."

Dr. Snow read one on the "Non-heredity of Cancer," and Mr. Keetley spoke on the "Radical Cure of Hernia by Injection."

The Section adjourned until 11 A.M. on Friday.

Friday, July 31st—Third Day.

Dr. Bennett in the Chair.

Dr. Bernard Roth read a paper on "Two Hundred Cases of Lateral Curvature of the Spine Without Mechanical Support." The great value of regulated gymnastic exercises was strongly insisted upon by Dr. Roth, who gave a number of cases in which patients had been restored to health by his plans. There was no discussion.

Mr. Brindley James read a paper on the "Treatment of Lumbago and Rheumatic Pains by the Percusso-punctator," in which he recommended the use of galvanism in these painful affections, giving a series of interesting cases.

Dr. C. B. Ball, related a case of "Melanotic Sarcoma of the Rectum," in which he had performed excision of the rectum, with the result that the patient was alive a year after the operation.

Mr. Farrant Fry read an account of cases of the treatment of varices by excision, which he much recommended in many cases.

Mr. Mansell-Moullin read a short paper on "Chronic Sprains."

Mr. T. E. Cahill read a paper on "The Latest Surgical Dressing." After saying that Listerism no longer held sway in Berlin, he spoke of several plans of aseptic dressing still in use in Germany, and wound up by describing a dressing of dried peat which had been heated and dried several times, and was then applied to wounds. This acted evidently, he said, by its astringency not by its asepticity.

Dr. Drysdale, of London, had seen in the surgical practice of Mr. John Wood such admirable results from the antiseptic treatment, that he was very sorry to hear that surgical opinion seemed again to be waning in its belief concerning carbolic acid.

PUBLIC HEALTH SECTION.

Wednesday, July 29th—First Day.

Dr. Davies, in the Chair.

A paper by Dr. Paine, of Cardiff, was read on

CHOLERA AND THE CITY OF CARDIFF.

In the absence of the author, it was read by Dr. Vacher, of Birkenhead. He gave in his adhesion to the germ theory of the disease. It is a specific organism which causes cholera, which may continue latent for a long period, as exemplified in the origin of the cholera in Toulon last year, from stores in an old hulk that had lain by since the Crimean war in 1854. In 1849 cholera first visited Cardiff, in May, when it first occurred in Caroline Street, and in a few days spread through the contiguous streets, where the water-supply was polluted. There were 351 deaths in a population of 16,693. A temporary hospital was erected for cholera patients. After this epidemic a complete system of drainage was established. In 1853 a man came to Cardiff with cholera from Bristol, and was removed to a building near the workhouse. The man in charge took the disease and died in a few days, and also the nurse; but there were no more deaths. In July a foreign seaman with cholera was found in a seaman's lodging-house, in Millicent Street. He died of it, and his infection was traced to a foreign vessel. Two days after this cholera broke out in the street, and deaths took place in the houses adjacent to No. 49, where he died. Thirteen cases arose in two days. Convalescents were removed to the temporary hospital, where each patient remained a few days and was then discharged. No second case occurred in the family thus treated. The use of well-water was prohibited and pure water was used. In 1866 cholera entered Cardiff from the sea, but only 44 died of it. A block of nine houses in Morgan Street was found where one case of cholera occurred. All of these houses were supplied from a pump. Eight of the houses had this supply. Ten cases occurred in the houses. The ninth house had water from a public supply and escaped. In 1884 fear was entertained lest the disease should come to Cardiff from Toulon. A steamer was therefore employed to board all vessels arriving from suspected ports and to put the cholera questions. If any case of cholera was reported on board, the patient was removed to a temporary hospital on the island of Flat Holm, and the

crew carefully inspected. All infected vessels were thoroughly disinfected before being admitted into port, the bilge-water being carefully discharged. Four vessels with infection on board arrived, from which three cases of cholera were removed and treated in hospital. By such care cholera is robbed of its chief terrors.

Dr. Ballard, of London, said the most agreeable feature in the paper read was that no mention was made of the bacillus. Dr. Pringle had followed the line of argument pursued before there was any talk of germs, and he thought the younger members of the profession would do well to look mainly after local conditions for the prevention of cholera.

Mr. Dyke, Medical Officer of Health, at Merthyr, said he had had experience of four outbreaks of cholera in Merthyr, and was ready to express his opinion that the spread of cholera was greatly caused by filth. If filth were removed, cases of cholera would not occur.

Dr. J. Martin, of Weston-super-Mare, gave a description of cholera in two contiguous villages, one healthy and situated on a gravel soil, and the other dependent on a polluted water-supply. The latter was severely attacked.

Dr. Davies praised the immense care of Dr. Paine. There was at present no power to deal with persons on board ships unless they were actually ill. He thought power ought to be given to detain the rest in an infected ship for forty-eight hours, until danger of contagion was over.

Dr. C. R. Drysdale, of London, considered that cholera was as specific a poison as small-pox or syphilis, and that this poison entered the system either through the lungs or by means of a contaminated water-supply. Some persons said it was not taken from the sick, but in the Punjaub, in one epidemic, seven hundred attendants on the sick had taken it. The Broad Street pump was contaminated in 1856 in London, and in ten days five hundred persons were attacked with cholera. Of nineteen persons who drank water contaminated by fresh excretions in one epidemic, five died within forty-eight hours. The disease never appeared in any city unless some person with cholera entered that city. It was impossible in European cities for cholera to arise *de novo*. If all these undeniable facts were granted, the conclusion was inevitable. Cholera was a contagious zymotic disease, and could only be prevented in the way that typhoid fever, syphilis, or other poison diseases were prevented, *i.e.*, by the segregation of the sick, the disinfection of the discharges from the patient, which should not, if possible, be allowed to enter the sewers, and by the greatest attention being paid to the water-supply. Pure water-supply in Hindoostan had greatly lessened the mortality from cholera among our troops. Then, again, the flooding of the Bristol sewers, by Dr. Davies' advice, in 1866, had cut short the epidemics when they arose in any part of that city. Of course, cleanliness and comfort were admirable prophylactics of all similar diseases, but even the most cleanly people would contract cholera, syphilis, or small-pox, if the contagium were in their midst. Hence, the main point in the prophylaxis of cholera was to take care that it was recognized to be a contagious zymotic disease, and, if this were understood, hygienic measures would be clear enough. As to treatment, it was clear that the purging and vomiting were the efforts made by the system to free itself from an asphyxiating poison. Hence, opium and astringents were contra-indicated, but no clear treatment was as yet made out for the guidance of the profession.

Dr. Corner, of Poplar, was much in favor of disinfection of sewers by perchloride of iron, but did not quite agree that opium was contra indicated. The report of Dr. Lewis, in 1866, with respect to the post-office officials, showed that those men who had used a prescription for incipient diarrhœa containing a confection with opium, showed that opium seemed to have some power in preventing the onset of the disease. The use of doubtful water should be sedulously avoided.

Dr. Ballard said he did not mean to assert that there was nothing living in the causation of cholera, but maintained that it was not proved to be a germ-caused disease. He thought it very unfortunate that the public should be led to think the disease was contagious until this was fully proved to be the case.

Surgeon-general Cornish said the subject of cholera had attracted his attention for the past thirty years. He could not help thinking that it was communicable from persons with the disease to others. The spread of the disease could be greatly lessened by attending to the cleanliness of cities, and to the water-supply. It was probably a germ-caused disease. Dr. MacArthur had treated an epidemic in the east of Fifeshire. There were there two very filthy villages, St. Monans and Pittenweem, quite in the neighborhood of each other. In the first of these no cholera had occurred, but in the second there were many cases. The only difference between these villages lay not in the filth, but in the purity of the water-supply, which in the former came from a mountain lake, while the other was contaminated with sewage. The poison of cholera was clearly very soluble in water. With regard to the opium treatment, he had some doubts what was best to do; he remembered that Murchison had proposed morphia and chloric ether.

Dr. Davies said he would not mind burying the word germ if that was likely to lead to dispute. He had seen a great deal of cholera. First of all, he saw it in Bristol in 1869, when, being a bachelor, he was asked to look after the paupers who were then dying very fast of the disease. He then learned the tactics of the enemy. In the wards he was attached to, none of the boys had been attacked until one boy climbed over a railing and bit off the buttons from the trousers of an old man that had died of the disease. That boy died within twenty-four hours. Dr. Evans, one of the masters of the Bristol school, would insist on drinking water from Jacob's Well, a contaminated source. He died of cholera. Typhoid fever subsequently attacked nine houses supplied with water from that well. In 1866 he acted on the supposition that there was something portable in the poison of cholera, which might be attacked by chemicals. After talking the matter over with Dr. W. Budd, he had the drains flushed with a solution of perchloride of iron, which had acted marvellously well, and was a very cheap method of avoiding death from this terrible disease. As to treatment, he had tried the fractional doses of calomel as advised by Dr. Ayres, of giving two grains of calomel every ten minutes, and also the plan of giving drachm doses, but these had been of no service. All the patients to whom castor-oil had been given died, so that his present views of treatment were almost equivalent to *nil*. Sanitary measures are essential. He agreed with Dr. Drysdale in all he said, but, after all, the non-contagion advocates followed the same practical remedies.

Dr. Pringle, in reply, said cholera did not exist among the lower animals, except, perhaps, among cows. If cholera were infectious or contagious, he thought he would have taken it when treating so many in Hindoostan. The condition of the poorer classes should be seen to, and poor places emptied. Neither opium nor sulphuric ether were of any service.

Dr. Maunsell read a paper on "Summary Views of Medical Aid."

(To be continued.)

"Until the American Medical Association, however, can maintain sufficient order at its meetings to enable it to take a creditable vote upon questions coming before it, it should abstain from interfering further with the arrangements for the International Congress. In fact, for the future it had better leave the matter where it belongs—in the hands of the American medical profession at large, which can be depended upon to provide the necessary intelligence, energy, and organizing ability to make the Congress as successful as any which has preceded it."—*Philadelphia Medical Times.*

THE HOSPITALS MEDICAL SOCIETY OF PARIS.

Stated Meeting, June 26, 1885.

M. VIDAL, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

M. FÉRÉOL related the history of a patient whom he had presented at a previous meeting of the Society. It was that of a young woman in whom

PERFORATION OF THE VELUM PALATI

had taken place with great rapidity. The patient denied having had syphilis, and no traces of a previous infection were anywhere discoverable. The general opinion of those present, however, was that the lesion was syphilitic in character. M. Féréol placed the patient upon iodide of potassium for a week, and observing no improvement had then had recourse to a mixed treatment of mercurial inunctions and the internal administration of ninety grains of iodide of potassium. The patient suffered no inconvenience from the treatment, but the infant whom she was nursing had wasted away. The lesion seemed to be constantly increasing.

M. VIDAL thought it would have been better for the infant's sake to depend upon the mercurial alone. He feared that the perforation was due to a subjacent osseous necrosis.

M. FÉRÉOL said that the infant did not suffer as long as the iodide was given alone, but only after the commencement of the mixed treatment. He affirmed that there was no osseous lesion present.

M. FERNET then read a

EULOGY OF M. NOËL GUENEAU DE MUSSY,

whose death occurred recently.

THE PRESIDENT thanked M. Fernet in the name of the Society, and announced that a subscription list would be opened to provide for the purchase of a bronze bust of their late member.

M. MERKLEN then related a case of

TUBERCULAR INOCULATION.

The patient, a woman twenty-six years of age, free from any tuberculous antecedents, either hereditary or personal, had taken care of her husband, who was suffering from phthisis, for a period of six months. She had slept in the same bed with him, and had often to endure fatigue and deprivation of sleep, but had nevertheless remained in good health. Two months after her husband's death she noticed a number of little nodules on the index and middle fingers of the right hand, soon followed by nodosities, first on the anterior aspect of the forearm, and later on the back of the hand and external border of the forearm. There was no pain, but the patient soon began to emaciate, and in a short time the little tumors presented the characteristics of cutaneous tubercular gummata. Examination of the lungs showed signs of tubercular infiltration. Tubercle bacilli were found in the cutaneous lesions. The speaker thought that the case was one of true tubercular inoculation, brought about by the contact of the fingers with the clothes and the sputa of her husband. The pulmonary affection he was led to regard as secondary.

M. VIDAL had seen a somewhat similar case, which, however, differed from this in that the pulmonary disease was primary and the cutaneous tubercles secondary.

On motion the Society then adjourned.

THE INTERNATIONAL DISEASE.—The Neapolitans call syphilis the French disease; the French, the disease of Naples; the Poles call it the German disease; Hollanders and Englishmen refer it to Spain; the Orientals lay it to the Franks, the Persians to the Turks; the Portuguese christen it Castilian, and the Chinese call it the disease of Canton. Other peoples follow the same rule as those mentioned. Syphilis has no father who is willing to stand responsible for its birth.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 10, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. WALDSTEIN, from the Committee on Microscopy, reported that the specimen presented by Dr. C. H. Knight at the Stated Meeting, May 27, 1885, was epithelioma extending deep into the tissue of the tongue.

EXSECTION OF THE KNEE-JOINT.

DR. JOHN H. RIPLEY presented a patient with the following history: Francisco A——, thirty-eight years of age, native of Italy, laborer, married, was admitted to Charity Hospital, September 14, 1882. His father and mother are both dead; cause of death unknown. The patient has two brothers, both alive and well.

Previous History.—No history, and no evidence of venereal disease. Four years ago, in Italy, the patient had an attack of "rheumatism," at which time he suffered from severe pain in the left knee-joint, which was hot but not swollen. This attack lasted about one year and disappeared spontaneously.

On September 2, 1882, the patient slipped upon a banana-peeling in New York, fell sidewise and injured his left knee, which immediately swelled to "twice its natural size," and became very hot and painful. Twelve days later he entered Charity Hospital, where he was treated for rheumatism for three months, and then transferred to another ward, where extension was employed for two months in conjunction with the use of liniments and exhibition of some internal remedies. Extension was then discontinued for two months, other treatment continued.

Seven plaster-of-Paris splints were then applied, each at intervals of six weeks. Other remedies were then used for a varying length of time, as electricity, tincture of iodine, actual cautery, etc.

On October 21, 1884, exsection of the knee-joint was performed by Dr. J. H. Ripley, and the limb was put up in plaster-of-Paris. During convalescence temperature did not go above 103° F. This occurred only during the second week after the operation, and lasted only a short time. Discharges from the wound were slight in amount and normal in character. At the end of two months the wire sutures joining the sawn ends of the bones were removed, leaving two fistulous tracts of considerable extent on either side of the knee. Under the use of mercuric bichloride solution (1 to 2,000), nitrate of silver, strapping, and other antiseptic and astringent remedies, the sinuses finally healed. No dead bone has been found at any time.

The case was interesting in several respects. In the first place the fact was interesting that the patient had an inflamed knee for nearly three years without giving any evidence of suppuration until the joint was opened. At the time of the exsection Drs. Shrady, Howe, Bryant, and Gibney were present, and neither was willing to commit himself as to the condition of the joint, and several of them doubted the propriety of performing the operation. Dr. Ripley, however, felt convinced that it was useless to continue palliative measures. Even after the patient had been anæsthetized, crepitus could not be detected, and there was no evidence of destruction of the joint; there was simply impairment of motion, and the limb was swollen and tender.

Another point of interest was the illustration the case afforded of the reparative power of diseased bone. Had he removed all the bone diseased there would not have been anything left except the shafts of the long bones above and below the knee. The affected portions were in the condition of osteo-porosity, and filled with abscesses, which Dr. Ripley scraped out, and also removed the bone immediately adjacent.

The patella was extensively carious, and the articular

cartilages were partially destroyed, but at no two opposing points, which explained the absence of crepitus.

The third point of interest was with reference to the use of wires, which, he thought, did but little, if any, good. When he came to remove the metallic sutures (iron), he had almost as much difficulty as he experienced when exsecting the joint.

It was Dr. Ripley's second case of exsection, the first occurring several years ago in the person of a girl in Charity Hospital, whose knee-joint was in substantially the same condition found in this case, and in which he removed about the same amount of bone. The limb, however, was not rendered immobile, and the patient was much longer in recovering than in the present case. The patient presented had two inches shortening. The parts healed by first intention, except where the drainage-tubes were and the wire sutures.

The President regarded the result as a most excellent one, and the case as one affording strong evidence in favor of exsection rather than the more common operation of amputation. He was convinced that the rate of mortality after exsection of the knee-joint was probably one hundred per cent. less than it was ten years ago. He had performed the operation three times during the last winter, and all the patients recovered, and the bone in each instance was so extensively diseased that, had he removed all that was affected, there would not have been sufficient left to justify the exsection. All these limbs were dressed with immovable splints, and wire was not used. He saw no reason why Dr. Ripley should have worked to remove the wire, as it would have done no harm if allowed to remain.

Dr. Van Gieson said that, from what he had observed, although he had never performed the operation, it was better not to use any metallic sutures whatever for holding the bones in apposition. He was unable to see what was gained by their use, as the limb could be placed in the proper position after the operation and kept there by immobile apparatus.

Dr. Ripley thought that if something could be introduced temporarily, to aid in determining when the sawn surfaces of bone were in perfect apposition, it would be all that was necessary.

Dr. A. Jacobi presented a patient with

A CONGENITAL DEFORMITY,

described as follows in a written history furnished by Dr. A. Brothers, House Physician, and Dr. Pope, Senior Assistant, Bellevue Hospital: William McE——, seven years of age, a native of the United States, was admitted

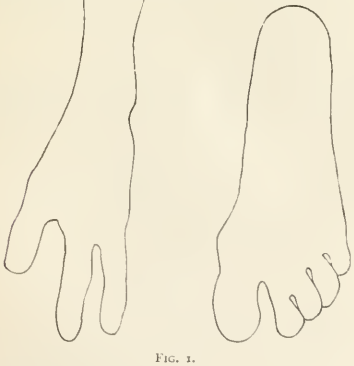

Fig. 1.

June 6, 1885, to the Marquand Pavilion. Otherwise than the deformity the child was healthy. The right upper extremity was normal. The left arm was normal. The left forearm and hand presented the following interesting features: There were only three fingers, the index- and little-finger being absent, together with their corresponding metacarpal bones. The ulna and radius were present, but shorter than the corresponding bones of the other forearm. Left ulna 14 ctm., right ulna 16¾ ctm. The left elbow-joint was imperfectly formed, so that the hand could not be completely supinated. This seemed to be due to the position of the head of the radius. Which of the carpal bones were absent could not be determined with any certainty. The lower extremities presented symmetrical malformations, except

Fig. 2.

in the following respects: The left foot was about one-half inch shorter and smaller than the right. The right thigh was longer than the left. From the right trochanter to the condyle it was 14 ctm. From the left trochanter to the condyle 10 ctm. The movements of the right hip were much easier and freer than those of the left. The patella was absent on the left side, and imperfectly formed on the right. The legs were of unequal length. The left leg, from the condyle to the internal malleolus measured 27 ctm., right leg 28 ctm. On the left foot the second and third toes were slightly webbed. The face and head were symmetrical. The chest showed some rachital development, most marked on the left side The thighs presented forward and slightly outward, as well as downward when the patient stood erect. The patient was an orphan, and had one brother eleven years old, who was also deformed.

Dr. Jacobi also presented another patient, William B——, three years of age, who was admitted to the same pavilion, at Bellevue Hospital, May 19, 1885, with a congential deformity, consisting of

SHORTENING OF THE LIMB, ABSENCE OF THE FIBULA, PRESENT ONLY TWO TOES WITH THREE METATARSAL BONES.

The following history was also written by Drs. Brothers and Pope:

The patient presents a congenital deformity of the right leg and foot. The tibia has an anterior curve at about the junction of the middle with the lower third. At that point there was a longitudinal scar one-half inch in length. There was strong eversion of the foot, and absence of the outer malleolus. There seemed to be no fibula, at least none could be made out. This opinion was confirmed by the position of the foot and the absence of the outer ankle. There were only two toes: the great toe and one other, which latter seemed to be a junction of two toes, as the bones which entered into its formation, except the distal phalanx, were double or separate. There were three metatarsal bones. The great toe articulated with the first of these and the second toe with the other two. The formation of the right lower extremity to the knee seemed to be perfect. It

was impossible to bring the leg into a straight position (line) with the thigh, either from the action of the posterior muscles of the thigh or some abnormality in the formation of the knee-joint. The leg also, when brought as nearly straight as possible, turned out from the median line of the lower extremity, so that the concavity of the entire limb presented externally. The thighs were of equal length. The right leg was shorter than the left by one and one-half inch; right leg, eleven inches; left leg, twelve and one-half inches. The tendo Achillis was present and normally attached. There seemed to be no anterior tibial artery; at least they were unable to find any pulsation where it should be. The posterior tibial was normally present. The right foot was shorter and smaller than the left.

On admission, the child had sore eyes, which condition had passed away under treatment with sulphate of copper and a saturated solution of boracic acid. As to the bones entering into the formation of the tarsus it was impossible to speak with certainty. The os calcis was present, probably also the cuboid and astragalus and the scaphoid. The cuneiform bones seemed to be absent. The tendon (only one could be made out in this case) of the outer group of muscles of the leg could be felt at the outside of the lower end of the tibia seeking its normal attachment. This muscle, together with the absence of the fibula, seemed to cause the eversion of the foot. The right patella seemed to be somewhat smaller than the left, and placed a little external to its normal position. The three metatarsal bones articulated with the scaphoid and cuboid.

Dr. Jacobi remarked that he had seen three or four cases in which one of the bones of the leg was absent. In two of the cases seen previously there was also a superficial scar, as if there had been a perforation of the skin, and it must have been formed within the second month of intra-uterine life, when the forming bone was close to the surface and superficial ulceration took place. When the skin is just forming such an external lesion was very natural.

Dr. Van Santvoord presented a specimen of

ULCERATIVE ENDOCARDITIS IN THE ATHEROMA OF THE AORTA AND LARGER ARTERIES.

J. M——, aged forty-six; single; baker; admitted March 28, 1885.

Family history.—His father died suddenly after an illness of seven weeks at the age of fifty-four. Nature of illness unknown. He had previously been strong and healthy. His mother died suddenly of heart-disease at the age of sixty-three, after having been an invalid for several years. Of four brothers and sisters one he knew to be strong and well, the others he had lost sight of.

Past history.—Patient had been a hard worker; his surroundings had been always good: he was a hard drinker, having been accustomed to go on prolonged sprees ever since his sixteenth year. When a child he had measles, scarlet fever, and small-pox; when twenty-four years old he had a chancre, but no history of secondary disease could be obtained; he had an attack of the rheumatism, commencing in the ankle-joints, during the war; he had suffered from the same disease at intervals since then; for seven or eight months prior to admission to the hospital his feet would be swollen at night after standing all day. Patient's history is imperfect, owing to his apathy and loss of memory.

Physical examination.—Heart: Aortic, direct, and regurgitant and mitral regurgitant murmurs heard. The apex was in the sixth intercostal space, midway between the edge of the sternum and the nipple. Lungs negative. Liver showed diminished dulness. On admission a rose-colored eruption, consisting of small papules, was seen scattered over the body. This eruption gradually disappeared, the spots in some instances becoming almost blue before passing away. Mental condition on admission was good, but he later became apathetic and his memory failed. No abnormality noticed in his urine. On admission the patient was suffering from an acute attack of rheumatism. During the two months of his hospital residence he suffered from irregular recurrences of the malady, which would always yield to a certain extent to ol. gaultheriæ or sodii salicylat. The patient had profuse sweats, which were controlled by atropia. He had irregular exacerbations of temperature, sometimes with and sometimes without exacerbations of his rheumatism. The patient gradually emaciated, became unable to take food, and died of exhaustion, May 31, 1885.

Autopsy.—The body was somewhat emaciated, and considerable post-mortem lividity was noticed. Head: There was a small bony growth which infringed upon the brain between the second and third frontal convolutions, but it had apparently given rise to no symptoms. There was a certain amount of pachymeningitis hæmorrhagica, chiefly over the left hemisphere. The lateral ventricles were dilated, and the ependyma was somewhat thickened. The large vessels at the base of the brain were considerably atheromatous, but those composing the circle of Willis were apparently healthy. Thorax: The lungs were somewhat œdematous, but no infarctions were found. There was a small quantity of clear fluid in each pleural cavity. Abdomen: The liver was somewhat enlarged, fatty, and cirrhotic; the spleen was nearly double the normal size, soft, and was universally adherent; the intestines showed no particular abnormality; the stomach was distended and showed on its mucous surface numerous superficial ecchymoses. The Heart showed the lesions chiefly interesting; the pericardium exhibited a number of irregular thickenings, apparently the remnants of old pericarditis; the ventricles were somewhat dilated, and the muscular substance appeared to be fatty, but no microscopical examination had been made. Two of the leaflets of the aortic valve showed masses of soft vegetations upon the ventricular surface, each surrounding a perforating ulcer, about the size of a crow-quill. The third leaflet was not affected by the ulcerative process, but was somewhat atheromatous upon the inner surface. At the base of one of the columnæ carneæ was a roughened spot about the size of a three-cent piece, and covered with membrane. On the upper surface of one leaflet of the mitral valve a similar mass of exudation was found, but it had no perforating ulcers. Aside from these lesions the heart was normal. The aorta showed advanced atheromatous change, as did also the great vessels and the radial arteries. The pulse, a few days after admission, gave the sphygmographic tracing usually seen, and said to be characteristic of aortic regurgitation with atheromatous arteries. (A sphygmographic tracing was exhibited.)

On looking at the case, it was seen that the only symptoms which pointed toward some morbid process besides acute rheumatism with the valvular lesion ordinarily accompanying it, were the roseola present on admission, the exacerbation of temperature without obvious causation, and the cachexia.

It was interesting to notice that there was a marked systolic murmur at the base and also at the apex. The latter was supposed by some to be evidence of mitral regurgitation. It is a recognized fact, however, that a systolic murmur at the apex is frequently heard when aortic regurgitation is present, and also that it does not mean necessarily mitral regurgitation.

Dr. Ferguson presented a dry specimen illustrating

VOLVULUS OF THE SIGMOID FLEXURE OF THE COLON.

It was taken from the body of a man thirty-seven years of age, married, and a native of Russia.

He complained on several occasions for years of violent abdominal pains and cramps, which passed away and

were similar in character to the trouble for which he had entered the House of Relief on February 27th. The attack for which he sought relief in the hospital had lasted three days previous to his admission. Commencing with a chill, which was followed after a short time by nausea and vomiting, he suffered severe and continuous pain in the abdomen. He was carefully conveyed by ambulance to the hospital, and while his condition was seemingly fair, after arrival he progressively and rapidly failed, and died within four hours after admission.

Autopsy.—Body well nourished; the abdomen was distended and in places presented a greenish hue; peritoneum contained three pints of bloody fluid; the colon was greatly distended; the sigmoid flexure was greatly distended with gas and blood; the wall of the gut in this location was everywhere hemorrhagic; the sigmoid flexure was twisted upon itself once, which prevented the passage of the contents of the large bowel downward; the small intestines were adherent to each other by recent lymph; the intestines throughout were distended and their peritoneal surface intensely hyperæmic; the organs of the thoracic cavity were normal; the organs of the abdominal cavity not referred to were also normal.

Dr. Waldstein said he had wondered that the condition of affairs seen in Dr. Ferguson's specimen did not exist more frequently than it did. He had very frequently found, at autopsy, the sigmoid flexure drawn over into the right side, and a corresponding kink in the descending colon, with immense dilatation of the transverse and ascending colon as far up as the cæcum. He had noticed it with special frequency in elderly persons whose omentum and mesentery were abundantly supplied with fat, and the condition must have existed for some time, as indicated by the enormous distention of the large intestine, perhaps depended upon some local peritoneal irritation or inflammation at the beginning of the volvulus.

PERI-RECTAL DERMOID CYST.

The President presented a tuft of hair removed from a patient twenty-two years of age, who came to him about ten days previous for what was supposed to be a peri-rectal fistula. He had been in perfect health up to eight months ago, when he had what he supposed was a small boil, near the outside of the coccyx, which broke and had remained open. On introducing a probe, Dr. Wyeth found a sinus, but without an opening toward the rectum. He had nearly finished scraping out the abscess with a Volkman spoon, when he noticed a very small opening that admitted a probe to the distance of an inch and a half, when the point of the instrument appeared in the abscess cavity. He then laid this cavity open, which communicated with the abscess proper, and found in the bottom of the furrow a tuft of hairs, the longest of which was two inches in length.

The specimen, so far as the President knew, was unique, and the only explanation which he could offer was that a groove-like inversion of the epiblast took place, and that the tissue designed to produce hair did subsequently develop this growth, and gave rise to a form of dermoid cyst.

Dr. Ferguson said that congenital cysts in the locality of the sacrum were somewhat frequent, and referred to two reported by Dr. Fowler, of Brooklyn, in the *Annals of Surgery*, both of which were lined with cylindrical ciliated epithelium, and the contents of the cysts consisted mainly of these cells, with some cholesterine crystals. They were situated, in Dr. Fowler's cases, higher upon the sacrum than in Dr. Wyeth's case.

Dr. Jacobi said that, from what he knew of dermoid cysts, the large majority of them were found inside rather than outside of the coccyx, between the rectum and coccyx, also between the rectum and the vagina. He remembered to have met with quite a number, and such cases were reported to be quite frequent.

The Society then went into executive session.

Correspondence.

OUR CARDIFF LETTER.

(From our Special Correspondent.)

Cardiff, South Wales, August 2, 1885.

The annual meeting just concluded has been most successful. No unpleasant incident has occurred to mar the proceedings. The weather has been very propitious. At the commencement of the meeting the heat was, it is true, very great, but it has gradually diminished until now the weather is simply delightful. I think the number of members attending is scarcely as great as at last year's meeting at Belfast, but it has not been far short, and the average attendance in the sections has been very good. The proportion of consulting practitioners attending has certainly been larger. I met quite a number of representative men distinguished in their several branches. Among the London consultants present were Dr. Wilks, Dr. Priestley, Dr. Playfair, Dr. Pavy, Dr. Sidney Coupland, Dr. Prosser James, Dr. Bristowe, Dr. Isambard Owen, Dr. Herringham, Dr. Edis, Dr. Gervis, Dr. Grigg, Dr. Hack Tuke, Dr. J. Milner Fothergill, Dr. Drysdale, Dr. J. F. Payne, Dr. Murrell, Dr. Woakes, Dr. Snow, Dr. Dudley Buxton, Professor Marshall, Mr. Erichsen, Mr. Henry Power, Mr. William Adams, Mr. Macnamara, Mr. Edmund Owen, Mr. Treves, Mr. George Field, Mr. Malcolm Morris, Mr. Mansell-Moullin, Mr. Knowsley Thornton, Mr. Keetley, Mr. Bernard Roth, and others. Mr. Reginald Harrison, Dr. Barr, and Dr. Imlach came from Liverpool; Dr. William Roberts and Dr. Walter, from Manchester; Mr. Lawson Tait, from Birmingham; Dr. W. R. Thomas, from Sheffield; Dr. Spender, from Bath; Dr. Reid, from Glasgow; Dr. Berry Hart, Dr. Freeland Balfour, Dr. Byron Bramwell, and Professor Fraser, from Edinburgh; Dr. Jacob, from Dublin; Dr. Cuming, from Belfast, and many others of note from various parts. Several Americans were present, among them were Drs. Duncan, Bulkley, and Stein, of New York, and Dr. Wilson, of Baltimore. The President of the Jamaica branch was present, as were also several medical men from the southern hemisphere. Professor Lesshaft, of St. Petersburg, also attended, and read two papers.

This is not the first visit of the Association to South Wales. In 1853 the annual meeting was held at Swansea. A considerable increase in the number of members has taken place in the thirty-two years which have elapsed between now and then. In 1853 there were only 1,853 members. Now there are 11,249 members. This shows a very great increase, and when we remember that the Association started in 1832 with a muster-roll of only 200 members, its growth is still more marked. There are now thirty-nine branches in Great Britain and Ireland, India, and the Colonies. The invested funds of the Association, exclusive of certain moneys held on trust for special objects, amount to nearly twenty thousand pounds.

Cardiff is a town excellently suited for the purpose of a large meeting, such as that of the Association. It has a population numbering nearly one hundred thousand, and there is ample hotel and apartment accommodation. Private hospitalities, too, abound. There are numerous objects of interest both in Cardiff and the immediate neighborhood. Among these the first place must certainly be awarded to the Bute Docks. As a port, Cardiff ranks third in the kingdom, London being first, and Liverpool second. The Bute Docks are the private property of the Marquis of Bute, who has expended upward of three million pounds upon them, and is still further enlarging them. The docks possess the largest basin in the kingdom. The water from the Severn and Bristol Channel is not admitted to the docks, being so heavily charged with mud, but the docks are kept filled with fresh water from the river Taff, brought to them through a canal which has been constructed for the pur-

pose, and is termed locally "The Feeder." The depth of water in the docks is thus quite unaffected by the tides. At low water the outside of the dock gates is left quite bare by the receding tide, while inside there is thirty-eight feet in depth of (fresh) water. A new dock of forty-seven acres in extent is being constructed. On two mornings running parties of members were taken to see the docks, the railway train being run down an incline to the bottom of the one in construction. The view there was very imposing, the dock walls being fifty feet in height. The "steam navvy" was seen at work, most of the excavating being done by it. We also saw the hydraulic "tip" for coaling ships. Our visit had the advantage of the genial guidance of the chief engineer, Mr. McConnochie, C.E. I am digressing, however, and must return to more strictly medical subjects.

The first day's proceedings went off without any perceptible hitch, though an animated discussion took place over the Council report. One gentleman who got up to speak was interrupted by the President of the Council (Dr. Balthazar Foster), who wished to explain then and there a point raised by the speaker (Mr. George Brown). The latter, however, refused to give way. Dr. Foster, he said, would have the right to reply at the end of the discussion, and if he allowed Dr. Foster to reply then out of his ten minutes, he should have to sit down when the sand-glass had run down, and would have lost part of his time. The report of the Council was finally adopted by an overwhelming majority. The Council has thus been authorized to carry out the scheme proposed by them for purchasing a site in London and building their own premises thereon, instead of continuing to rent as at present. The Association are their own printers and publishers, and have effected a large saving thereby. In addition to building, printing, and publishing offices they have determined to erect a Council chamber, reading-rooms, and rooms for the use of members when in London. It is estimated that to carry out this scheme (which has now been sanctioned by the Association) will cost from twenty to twenty-five thousand pounds. This represents the entire accumulated capital of the Association, or, as one speaker put it, their accumulated savings since the foundation of their society fifty-three years ago. It is hoped to avoid sinking the whole of the large sum mentioned above by renting a site on a long lease, and paying a ground-rent of three or four hundred pounds annually, instead of laying down so many thousands in purchase money. Your readers must remember that twenty thousand pounds means one hundred thousand dollars.

In the evening the *pièce de résistance* was the Address of the President, Dr. W. T. Edwards, of Cardiff. As usual on these occasions, he read it from a copy he held in his hand. Some delay took place before Dr. Edwards commenced reading his address, as on attempting to do so he found he had not sufficient light. After two apologies for the delay a pair of candles was at length obtained. Dr. Edwards said he had no learned leisure to prepare an elaborate address, and he would therefore give a few plain words chiefly of local reference. He gave a very interesting account of Cardiff, its history, antiquities, medical institutions, and sanitation, concluding by making some reference to the immense progress made by the Association since the former meeting in South Wales in 1853. The old saying, "Ubi tres medicos," etc., was certainly not verified on this occasion, as no sign of disapproval was evinced by the allusion Dr. Edwards made (in concluding his address) to the work of Him who came on a divine mission, but who accomplished his purpose largely through ministering to the bodies and healing the diseases of men.

Dr. Edwards sat down amid rounds of hearty applause, which were none the less hearty that the address was brief.

Dr. Strange, of Worcester (President at the Jubilee Meeting in 1882), said Dr. Edwards' address was much shorter than that he had himself delivered at Worcester, but he thought it was also much better. Many people preferred short addresses. Dr. Strange might have added "especially in such hot weather." The heat was indeed intense, much more than could have been expected even in July. Those who travelled here by rail on Monday will long remember the journey. It was almost like being in a Turkish bath with one's clothes on.

During the delivery of the presidential address much merriment was caused by Dr. Edwards stopping and turning round to reprove Dr. Balthazar Foster, who was chattering away in a low tone to his neighbors on the platform. Dr. Edwards looked round once or twice at Dr. Foster, and finding he took no notice, at length deliberately stopped and turning round and putting his hand on his shoulder, said: "I must call our President of the Council to order. He has been a President longer than I have and has got over his nervousness. I have not." When thus publicly rebuked, Dr. Foster at once subsided and Dr. Edwards proceeded amid ringing laughter and applause.

A good deal of merriment was again evoked by Dr. Edwards in returning thanks for the vote of thanks for his address. He frankly confessed that he had looked forward to its delivery with a good deal of trepidation and was glad he had got it over.

(To be continued.)

THE TREATMENT OF MASTITIS BY REST AND COMPRESSION.

To The Editor of The Medical Record.

Sir: The object of this communication is to review certain assertions contained in an article on "The Treatment of Mastitis by Rest and Compression," by Dr. W. F. Milroy, of Omaha, Neb., which appeared in The Record of August 8, 1885. He opens his article in your journal as follows: "While house-surgeon to Maternity Hospital, New York City, a year ago, during the service of Dr. Paul F. Mundé, and through his kindness, I had an opportunity of developing an idea which resulted in the adoption of this mode of treatment in all of our cases in which this calamity threatened." Dr. Milroy introduces in his article the history of a case of mastitis occurring in a woman confined June 17, 1884. Judging from the history given and from a statement elsewhere contained in his article, this was the case in which Dr. Milroy began the treatment of mastitis by rest and compression.

Dr. Milroy makes frequent reference to a paper written by myself, which was based upon eight years' experience in bandaging for breast troubles. This paper was completed in June, 1884, and immediately forwarded to Dr. Paul F. Mundé for publication in *The American Journal of Obstetrics*. A few days later I received a letter from Dr. Mundé, a portion of which I here produce:

"20 West Forty-fifth Street, New York, June 11, 1884.

"Dr. P. A. Harris:

"Dear Doctor—I have looked through your very thorough paper on the 'Treatment of Mastitis, etc.,' and will accept it, if you will consent to wait until October for its publication. I am actually overcrowded and cannot possibly find room for it before. . . .

"Yours truly,

"Paul F. Mundé."

The doctor finally arranged that the paper should be published in the numbers for January and February of the present year.

It will be seen that Dr. Mundé's acceptance of my paper is dated June 11, 1884, and Dr. Milroy first employed his compression and rest under the service of Dr. Mundé, June 23d, of the same year.

The next paragraph in Dr. Milroy's paper to which I would direct attention is the following: "It will be observed that the most essential point of difference between

this treatment and that of Dr. Harris consists in the employment of *firm* pressure instead of the slight pressure which he," Dr. Harris, "recommends."

Regarding the degree of compression required for remedial effect, long experience has convinced me that the best and most grateful results are obtained from moderate compression combined with lifting the gland, this last-named measure being particularly valuable to those patients who are out of bed.

The degree of support which it is possible to obtain from any bandage or appliance that rises but little higher in transverse line than the axillæ, bears no comparison to the lifting effect of any good method of dressing which includes or passes over the shoulders.

Dr. Milroy quotes from my paper an assertion "that the many-tailed bandage, as employed by Dr. Dugas, is objectionable, because it tends to flatten the breast, and press it out of form." Dr. Milroy admits that the many-tailed bandage long since employed by Dr. Dugas is, in its action, so nearly like his own that my objection to Dr. Dugas' treatment might apply with equal force to his (Dr. Milroy's) plan. It certainly does, and I still claim that, everything considered, a change from my method of bandaging which *compresses*, *lifts*, and tends to maintain the *natural form* of the breast, to another which has little or *no* lifting effect, and exerts compression only while pressing the breast out of form, would be a step backward.

Again, Dr. Milroy asserts as follows: "Now, it must be apparent to any who reads the description of the application of Dr. Harris' bandage, that its complexity will deter very many from attempting its use, and many more from succeeding in it. Let him who does not think so make trial of it once."

Dr. Milroy does not squarely say that he has failed in the application of my bandage. We might infer, however, that such is the case. The dressing has, to my knowledge, been applied successfully, not only by surgeons, but by physicians making no claim to the practice of surgery, and I have yet to learn of the failure or inability of any physician to apply the bandage as I have directed. Dr. Milroy drifts still further, and almost insinuates that I am incapable of applying my own bandage, as may be judged by the following quotation from his paper: "When a man of Velpeau's genius meets with so much difficulty," in applying and retaining the bandage, "it is hardly possible that the use of eighteen large safety-pins, as suggested by Dr. Harris, can obviate the whole difficulty."

Let me assure Dr. Milroy that the use of ten or twelve large safety pins does "obviate the whole difficulty," not in my hands alone, but in the experience of many others who will no doubt cheerfully verify my assertions in this relation.

Another objection to my dressing raised by Dr. Milroy is that the patient must assume the sitting posture during its application. This objection is reasonable with physicians who argue that it is especially dangerous for the puerperal woman to sit up in bed before the seventh day. In consequence of the teachings of Drs. Engelmann, Dugas, and others, the practice of the profession has become modified in this particular, and many having abandoned the rule of long recumbent posture, so zealously practised by our fathers, are able to allow their patients to assume the sitting posture for a short time when occasion demands.

Dr. Milroy has scarcely alluded to, much less emphasized, other and very important principles which my treatment involves. I will omit mention of them here, it being my intention to supplement my original paper when the experience of other physicians in the application of the bandage will be added to my own.

I am, sir, yours very truly,

PHILANDER A. HARRIS.

26 CHURCH STREET, PATERSON, N. J.,
August 10, 1885.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 8, 1885, to August 15, 1885.

CAMPBELL, JOHN, Colonel and Surgeon. Granted leave of absence for one month.

IVES, FRANCIS J., First Lieutenant and Assistant Surgeon (recently appointed). Ordered for duty in Department of Platte. S. O. 184, A. G. O., August 13, 1885.

AZPULL, THOMAS F., Captain and Assistant Surgeon. Retired from active service, August 10, 1885. S. O. 181, A. G. O., August 10, 1885.

CHAPIN, A. R., First Lieutenant and Assistant Surgeon. Granted one month's leave, to take effect when services can be spared by commanding general, Department of Missouri, with permission to apply for one month's extension. S. O. 179, A. G. O., August 6, 1885.

WALES, PHILIP G., First Lieutenant and Assistant Surgeon (Fort Cœur d'Alene, Idaho). Ordered for temporary duty at Boise Barracks, Idaho. S. O. 130, Department of Colorado, August 1, 1885.

KENDALL, WILLIAM P. Appointed to be Assistant Surgeon, U. S. Army, with the rank of First Lieutenant, to date from August 12, 1885.

Official List of Changes in the Medical Corps of the U. S. Navy for the week ending August 15, 1885.

BEYER, H. G., Passed Assistant Surgeon. To attend meeting of the American Association for Advancement of Sciences, at Ann Arbor, Mich., and at conclusion of meeting to resume duty at the Smithsonian Institute.

BOYD, JOHN C., Passed Assistant Surgeon. From Navy Yard, Washington, D.C., to special duty at Bureau of Medicine and Surgery, Washington, Navy Department.

LIPPINCOTT, J. C., Passed Assistant Surgeon. To Navy Yard, Washington, D.C., as relief of Passed Assistant Surgeon Boyd.

OWENS, THOMAS, Assistant Surgeon. From special duty at Bureau of Medicine and Surgery, Navy Department, and waiting orders.

SAYRE, J. S., Assistant Surgeon. From U. S. P. S. Independence, to Naval Hospital, Mare Island, Cal.

A NEW METHOD OF ADMINISTERING PEPSIN.—Dr. Prosser James writes in the *British Medical Journal* of May 16, 1885, describing a new form of pepsin. The object which he set before himself was that of preparing pepsin that could be taken in the natural way; that is, a little at a time and not all at once in a large single dose. But patients object often to taking even one dose at meal-time and would be probably with difficulty persuaded to take several at intervals of eating. The wine is ineffectual, as it precipitates the pepsin. A simple mixture of pepsin with salt may be successfully employed as a digestive condiment, provided it be freshly prepared each time; but such a mixture, if kept, is apt to decompose. How to overcome this difficulty was the next problem, but this was solved by bringing the chloride and the pepsin together in such a way as to form a compound, possibly a pepto-chloride. Whether such union occur or not, the compound, Dr. James says, is quite stable. It is a powder having a slight color, but when used as a table-salt is nearly indistinguishable from that condiment. It is called "peptic salt" or "digestive salt," and its use has already given satisfaction in several cases.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 9 — New York, August 29, 1885 — Whole No. 773

Original Articles.

BRONCHITIS—ACUTE AND CHRONIC.

By J. MILNER FOTHERGILL, M.D. Edin., Hon. M.D. Rush Med. Coll., Ill.

Physician to the City of London Hospital for Diseases of the Chest (Victoria Park).

Acute bronchitis is a malady fraught with great danger to life in the very young, the very old, and in those already enfeebled by pre-existing disease. With robust persons in youth and middle age it is comparatively rarely fatal. It is, then, a malady which taxes the bodily powers; if they can be maintained, then all is well, and the disease runs its course safely. Failure of the powers is the matter upon which the physician must keep an unwinking eye. If he loses sight of this cardinal matter the case may easily slip through his fingers.

Bronchitis has its two distinct stages, each requiring its own appropriate treatment. There is, 1, the stage of arrested secretion, and, 2, the stage of excessive secretion.

1. Stage of arrested secretion. Cold is probably the excitant of bronchial inflammation. The poor baby crying in the cold, taking in the chilly air by its mouth, and thus missing the warming plates of the turbinated bones, is usually the victim of bronchitis a few days subsequently. A garrulous old man is talking in a keen wind, and the same result follows. Of course the deed is done before medical aid is sought. In bronchitis distinct rigors are rarely experienced, merely some chilliness, or at most a feeling of some cold water running down the back. The respiration is labored, because the swollen bronchial mucous membrane lessens the bore, calibre, or lumen of the bronchial tubes. Of course, the finer the tubes implicated the more this is felt. When the fine tubes are largely affected, then the attack is termed "capillary bronchitis," and the danger to life is great. Such is the bronchitis set up by a thick London fog, which often slays its hundreds of victims. The expectorated phlegm, when the secretion stage is reached, is not the white froth of ordinary bronchitis, but a grayish mass not unlike an oyster in hue and bulk. Where the larger bronchiæ are chiefly the seat of disease then the malady is comparatively insignificant.

In the first stage of bronchial dryness there is usually much irritation, much useless unavailing cough, for there is, as yet, nothing to be got up. The skin is usually dry. There is rarely marked pyrexia. The first step is to soothe the irritated membrane and to secure secretion. Relaxants are indicated, and of old nitrate of potash, with tartar emetic, would have been the line taken, with some opium and Plummer's pill at bedtime. The indications are to relax the swollen, turgid, dry mucous membrane, and to relieve the cough. The local application of steam, plain or medicated, by means of the "bronchitis kettle," is always good, and can be continued at intervals for hours, indeed until the desired end be attained. Then if there be much complaint of rawness or soreness down the sternum, counter-irritation over the front of the chest is often very useful. As a pupil of the late Professor J. Hughes Bennett, of Edinburgh, of course I did not believe in counter-irritants on starting practice; but my results were so far below those attained by my father, on the old-fashioned plan, that, perforce, I was driven to follow his plan or lose the patients. The best counter-irritant is undoubtedly croton-oil liniment; but it has the drawback of its effects if any other parts of the body, especially where the skin is tender, be accidentally touched by it. Especially is such counter-irritation required by robust countrymen. Then as to the general treatment.

At bedtime a dose of Dover's powder may be indicated, or a grain of opium with James' powder. If a robust man, a few grains of calomel may not be out of place. Whatever may be the objections to the use of opium later on—and they are overwhelming—the sole objection to its employment at this stage is its effect in arresting bronchial secretion. If there be much suffering and irritative cough, the lesser of two evils may be some opiate. Then, if a robust person, the treatment may consist of vin. antim., ℥ xv., vel tinct. aconite, ℥ xv.; sp. mindereri, ℥ j., t.i.d. If a delicate person, pot. iod., gr. iij., sp. mindereri, ℥ j.; t.i.d. (sp. mindereri is liquor ammoniæ acetatis). Hot bottles in bed help to procure free perspiration, by which the general vascular turgescence is relieved, and that of the bronchial mucous membrane as well—the thing desired. In one case encountered in my early days, the young man had repeated attacks of bronchitis, always stubborn in the first stage, for which my father bled him with excellent results; and I had to bleed in another attack after having exhausted my armamentarium of less heroic remedies. When the skin is got to act freely, then the bronchial membrane loses its irritability and secretion sets in, and the case enters upon its second stage.

2. Stage of excessive secretion. With the change in the condition of affairs comes the corresponding change in the treatment. Our object now is not to relieve the discomfort and promote secretion, but to enable the patient to get up the secretion with which the air-tubes are more or less choked, and which, if not got rid of, will accumulate and suffocate the patient. Now comes the struggle between the malady and the patient's power of endurance. No depressants are required now. Opium will arrest the secretion and clog up the bronchiæ. The patient may be wearied with the fight and crave for sleep, begging hard for a narcotic. A narcotic! Why, if it were not for the absolute necessity for voluntary effort to maintain the respiration, the patient would be off to sleep—like Damian in the intervals of the rack—without any need for a narcotic. To give a narcotic is to paralyze those very efforts without which life would soon ebb out. The patient is breathing for dear life, and what we have to do is to help the taxed organism to maintain the struggle. To drag the air through the obstructed air-tubes is trying work. Then cough is required to get up the obstructing mucus. What we now require, *par excellence*, are stimulants to the respiratory centre. The best known of these are ammonia, atropia, strychnia, ipecacuan, and squills. The combination might stand thus:

℞. Ammi. carb. ..... gr. iv.
Tinct. nuc. vom. ..... ℥ x.
Inf. cinchonæ. ..... ℥ j.
4tâ vel 6tâ horâ.

If it be desired to keep up the secretion, then serpentaria might be substituted for the cinchonæ. Senega is in repute, but its taste is most objectionable; it it be used, some spirits of chloroform must be added, by which it is rendered much less offensive. If the case be a bad one,

probably the above combination had best be adhered to. If life is not gravely endangered, then

℞. Liq. atropiæ..... ♏ j.
Liq. am. anisat..... ♏ xv.
Aq..... ʒ j.
M. 6tâ vel 4tâ horâ,

may be preferable. If the case be mild, then

℞. Ac. hydrobrom..... ʒ ss.
Sp. myristicæ..... ♏ ij.
Syr. scillæ..... ʒ ss.
Sp. chloroform..... ♏ xv.
Aq..... ʒ j.
M. Three or four times daily.

may be sufficient; and a very elegant and palatable cough mixture this forms.

Bronchitis runs a definite course; and here, as in fevers, to tide the patient over the limited time is to save him. Failure of the powers under the demand upon them is the danger to be steadily kept in view. These powers must be sustained by meat-broths containing baked flour (*i.e.*, starch largely converted into soluble dextrine) and milk, with malt extracts or malted preparations; in fact, food containing grape-sugar—the natural food of the body. Alcohol may be indispensable, and must be given with no niggard hand if need be. Support! Supporting measures of all kinds in unstinted quantities are indicated. But there is one part of the organism that specially needs support, and that is the right ventricle. The strain on the right heart is at times tremendous, and failure of the right ventricle is the common cause of death. The right ventricle of a dugong, or other diving mammal, would be a grand acquisition in a bad case of bronchitis. If there be a pre-existing mitral lesion, then the state of the right heart is a cause of the gravest anxiety.

On commencing practice a number of cases of bronchitis went the wrong way, despite my utmost efforts. Chagrined and complaining of this one day to an old practitioner, and saying that in each case there was a mitral lesion, he consoled me thus: "You will find such cases will all die!" This was comfort of a kind; but the remark induced me after that to take the condition of the right heart into my calculations; and after that my results were more satisfactory. Digitalis was added to the mixture; and then my old friend's forecast was falsified! A hot bottle, or hot bran-bag, or hot poultice over the front of the chest is not only comfortable, but it keeps up the action of the heart, as well as loosens the phlegm.

Acute bronchitis may occur primarily and leave a chronic condition behind it, or it may occur as an intercurrent condition in a case of chronic bronchitis. When acute bronchitis is a primary malady it usually leaves behind a certain amount of vesicular emphysema, which in young subjects usually disappears; but occasionally one comes across a case of chronic bronchitis with well-marked emphysema in a girl barely in her teens. For aiding the recovery of the lung-elasticity strychnia seems to me the best drug. As to the resultant chronic bronchial condition, it may require iron in atonic cases. In gouty cases solvents of uric acid, potash, and lithia are indicated. Balsamic remedies are useful in all chronic catarrhal conditions of mucous surfaces, from urethritis to a bronchial flux.

Chronic bronchitis.—This condition usually dates from some acute attack in the past, sometimes in the by-past. It may be a rheum without any true inflammatory first stage. As such it is an outcome of mitral disease, often masking the cardiac condition. Rarely, if ever, is it found without more or less emphysema. Every acute exacerbation leaves a worse condition of emphysema behind it. In the young the lung largely recovers, but not so in older subjects. Pursy or broken-winded before a new acute attack, the chronic bronchitic comes out of the struggle worse broken-winded than before. The efforts of coughing have further strained or ruptured lung tissue no longer possessed of the elasticity of early years. Consequently it is of great importance to avoid all acute bronchial trouble as far as possible.

This condition of emphysema is one of great clinical interest. Ordinarily it is assumed that emphysematous persons are barrel-chested. This is a very crude view. Of course, all are most familiar with the barrel-chested, red-faced, blue-lipped, puffing persons obviously emphysematous. At each inspiration the sterno-mastoid muscles are seen to stand out like plough-cords. Often the skin between them can be seen to be sucked in simultaneously—deep fossæ being formed. The act of inspiration is a laborious one. Except when bustled by effort, the respiratory act is not increased in number per minute. The acceleration produced by effort will often tell more accurately than physical examination of the chest of the actual extent of the emphysema. If the patient be in bed, the respiration is seen to be distinctly abdominal. The comparatively immovable thoracic case is lifted up bodily by the neck muscles while the diaphragm descends. The lungs are too full of air even upon complete expiration. If called upon to speak, the patient will rest his elbow upon the nearest object, so as to fix the shoulder, and then take a breath. If sitting, both hands will be seen resting on the thighs so as to fix the shoulders, and thus get the benefit of the accessory muscles of respiration. On physical examination cardiac dulness is more or less completely lost from the attenuated lung spreading over the heart. The liver dulness does not commence till the ribs are nearly reached, and then the liver, pushed downward, is found extending considerably beyond the border of the ribs. The diaphragm of the emphysematous person is flattened; it is dragged down by the violent inspiratory efforts, while the voluminous lungs obstruct its return. The viscera on the abdominal side of the diaphragm are pushed down bodily. The thoracic space is thus increased. But if the abdomen be distended with flatus, then the descent of the diaphragm is impeded, and a condition of "asthma" is set up. Indeed, "wind" is the plague of their lives with emphysematous persons, with or without bronchitis.

All chronic bronchitic persons are more or less emphysematous, and therefore what has just been said applies to them. In addition, they have often some thickening of the bronchial lining membrane, which adds to their dyspnœa. Sometimes they have genuine attacks of spasmodic asthma.

The lines upon which such cases are to be treated are as follows: The respiration is embarrassed, and, therefore, a stimulant to the respiratory centre is indicated. So strychnia comes first. Then it is well to keep the bronchial secretion free and unchecked, and for this end ipecacuan suggests itself. But ipecacuan is a tonic to the liver as well, and so is doubly useful when there is nervous congestion. Some might add some benzoic acid. The right heart is embarrassed, so some digitalis will be useful. Then as to carminatives for the "wind." The essential oils, the peppers, and the nauseous gums are all good for flatulence. In pill form, a good combination is as follows:

℞. Strychniæ..... gr. $\frac{1}{4}$.
Pulv. ipecacuan..... gr. $\frac{3}{8}$.
Pulv. digitalis..... gr. $\frac{1}{2}$.
Pil. galban. co..... gr. ij.
Bis aut ter in die.

If the bowels are not regular, a small quantity of podophyllin or croton oil may be added. To some readers such a compound may seem ridiculous. A derisive smile may flit over the features, betraying what is passing through the mind. But all the same this pill has done wonders for a large number of persons whom I know and have prescribed for.

And now as to rest at night, a very important matter. It may be well to try a mixture, so:

℞. Bromidi ammoni..... ℈ j.
Tinct. camphoræ..... ℥ j.
M.

A favorite night pill with my late father, who had an extensive experience of bronchitis in all forms, was:

℞. Morphiæ mur..... gr. ¼
Benzoic acid..... gr. j.
Pil. scillæ co..... gr. ij.
M.

Here the benzoic acid counteracted the effect of the morphia upon the bronchial mucous membrane, and prevented arrest of the secretion. And such a pill really does give a great deal of comfort to old bronchitics whose rest at night is broken by bouts of coughing. Paregoric or tinct. camph. co. is a compound built upon this plan, and is often of great service where opium or morphia alone are baneful remedies.

Usually on leaving the recumbent posture on waking a coughing bout commences. Phlegm has gathered during the night on parts which have become more or less accustomed to it. But with movement the phlegm is dislodged, and then cough is set up for its removal. The accumulation of the night is thus got up after much exertion, and then the chest is comparatively clear of phlegm, and comfortable. Sometimes the morning cough is trying, and shakes the sufferer terribly. Some hot tea or other hot fluid affords relief; while it is well to teach the patient how to cough properly. There may be no education possible or required in the matter of sneezing, but certainly this is not the case with coughing. The patient must be taught to fill the chest with air before giving way to the expiratory action—cough. Watch a person who has never learned to cough. See the futile attempts. The shallow inspiration, the useless, impotent cough. At last a paroxysm of cough comes on, the chest become fully inflated, and then the cough which follows expels the offending phlegm, a sense of relief following its ejection. When we reflect upon the sacculated condition of the bronchial tubes, and remember the firm wall of hardened-lung tissue of these bronchiectases, we can see how full inflation of the lung is essential for such compression as alone can force out the contents of such sac. To first fill the chest with air is the one condition of successful cough. To learn to do this is to save much useless coughing, and much strain upon the lung-tissue, leading to further emphysema. So much for learning to cough.

When the phlegm is hard to get up, from some check to the bronchial secretion, the inhalations of steam are good, and iodine, Friar's balsam, eucalyptus, and other agents may be added to the steam. Some persons burn benzoin pastilles.

For attacks of "asthma" the different "fuming" remedies advocated in the article on "Asthma" (MEDICAL RECORD, August 8, p. 141) are indicated.

There are some points about the clothes and hygiene of chronic bronchitics worthy of mention. They are a chilly race, from impaired oxygenation and defective heat production. They are scant of breath and cannot get about. They must be warmly clad; yet they cannot bear any weight of clothes. Consequently their clothing must be light as well as warm. Furs in the daytime out-of doors; down bed-quilts for the night. Warm under-clothing in the day; and a flannel night-gown. On cold nights a fire in the bedroom is good. A respirator is invaluable for preventing fresh attacks of cold. Fifteen years' experience of a respirator has told me its value and entitles me to speak. Never mind its unsightliness; or the remarks it may provoke on the part of the thoughtless, or even the sympathy of others. Like the gloves, it should always accompany hat and stick. If it had not been for a respirator the writer would have been a pursy, broken-down bronchitic, instead of a well and fairly preserved man approaching middle age.

Then, again, remember the position of the liver. Pushed out of its warm nook, thrust down so that much of it is only covered by the thin abdominal parietes, it is liable to chills. Consequently a cummerbund, or broad belt of several thicknesses of flannel, is most desirable. This protects both the liver and the kidneys. Specially is this last matter of moment where there is a gouty element in the case—a very common complication. The food should not be too highly albuminous; and the patient ought to be encouraged to take fat as far as possible in any and every form.

By such measures the chronic bronchitic may live on for years—practically on sufferance, *i.e.*, by taking proper care, death being the result of neglect or forgetfulness.

OPERATIONS FOR SALPINGITIS.[1]

By W. GILL WYLIE, M.D.,

NEW YORK.

I HAVE eleven specimens of diseased uterine appendages, removed since I presented fourteen in January last. What I have to say is but supplementary to my recent paper upon this subject, read before the New York Academy of Medicine. Of the eleven, all but one recovered. The one that died was a case of pyo-salpinx. The left tube was distended with about two ounces of dirty grumous pus. I succeeded in elevating it without its bursting, although it was firmly fixed by extensive adhesions. Great care was taken to prevent the escape of any of the pus into the peritoneal cavity, but I learned afterward that the same sponges in which the pus was caught were used again during the operation. Of the twenty-five cases, nine were private cases, and all recovered; sixteen were hospital cases, and three were lost.

These cases were all carefully treated before resorting to the operation. Pledgets of cotton saturated with a solution of boro-glyceride, alum, and glycerine were inserted in the vagina twice a week to improve the local circulation and soften out indurated tissues. After the uterus became movable to more or less extent, those suffering with menorrhagia were curetted, while in those suffering with dysmenorrhœa the os was dilated and the lining membrane treated; in most cases the dysmenorrhœa was relieved. I have about reached the conclusion that when the lining membrane of the uterus is neither diseased nor congested dysmenorrhœa is very rare, that the congestion preceding the menses may cause pain, and often is associated with local peritonitis, but that the flow certainly, in many cases, gives relief to the pain caused by diseased tubes and ovaries.

The cases were selected for operation not because they were favorable or likely to be easy. In every instance the patients were bedridden invalids or were totally unfitted to do ordinary work and keep out of the hospital or the poorhouse. With the exception of three or four all had extensive adhesions, and only one of the twenty-five had no adhesions. The majority were well-marked cases of pyo-salpinx, several were complicated by pelvic abscesses and hectic fever. I have never yet opened a patient and failed to find and lift up and remove the appendages on account of adhesions. So far I never had hemorrhage take place after the operation. The three cases lost were hospital patients, and on account of the extensive adhesions the abdominal cavity was exposed. All died from septic poison on the fifth or sixth day. The death-rate of twelve per cent. is not high, even when compared with the European operators, for if I had eliminated those with pelvic abscess, etc., and put them in different tables, a different showing could be made. In Bellevue we labor under many disadvantages; our means of isolation are imperfect, and our assistants are changed every six months, and it is easy to

[1] Presented to the New York Pathological Society at its meeting, June 24, 1885.

have a record spoiled by one poor assistant. Comparing this with other laparotomies that I have done, the death-rate is just the same. Of twenty-five laparotomies of different kinds of tumors, three died, but one of these was hysterectomy for cancer, and another hysterectomy for the removal of a fifty-pound fibroid, and both were done in Bellevue Hospital.

Leaving out all hysterectomies, and I have had only one death in twenty-one laparotomies, other than those for removal of the tubes. In twenty-four laparotomies, done in private practice, I have lost only one, and that was my first ovariotomy, where I attempted to enucleate a large cyst that was strongly adherent all over its surface. Since then I have in all such cases removed only a part of the sac, and sewed the remainder to the abdominal incision and drained the remaining pouch.

Case XV.—I. M——, a native of the United States, aged twenty-eight; married, has had seven children and four miscarriages; admitted October 1, 1884. She gives a history of almost constant and profuse leucorrhœa of a month's duration or longer. Complains of slight pain in back. States that about three weeks ago she experienced an attack of faintness. Since then she has been very constipated, and has had heavy dragging sensations about the rectum. Physical examination shows a large fluctuating tumor, the size of a large cocoanut, situated behind, below, and to left of uterus, which is large, subinvoluted, and pushed to left and forward. Pelvic hæmatocele was diagnosed, and this was confirmed by the withdrawal of a little brownish, broken-down blood with a small aspirator. Treatment: complete rest in bed, laxatives, tepid douches (1 to 10,000). November 8th, discharged improved.

On January 15, 1885, patient readmitted. Since discharge has had a severe attack of pelvic peritonitis and discharge of bloody matter per rectum. Comes to hospital complaining of severe pain in the left side. On examination small tumors on both sides; left very sensitive. Treatment: laxatives, douches, rest in bed, pancreatized milk.

January 19th.—Operation. Many adhesions found on both sides, completely embedding both tubes and ovaries, and attached to right ovary was what seemed to be sac of an old hæmatocele. The lumen of tubes were occluded by adhesions, and the ovaries degenerated, breaking into shreds in removal. Patient made a rapid recovery. Highest temperature was 100⅘°. Discharged February 23, 1885, cured.

Case XVI.—T. D——, native of Ireland, aged thirty-five; single, no children, no miscarriages; admitted November 2, 1884. Menstruation is regular, but is accompanied with pain; complains of bearing-down sensations when she stands, and of a soreness and of pain in left iliac region. Patient is hysterical. Examination shows uterus to be anteflexed and drawn to left side; there are signs of pelvic peritonitis; ovaries are enlarged and prolapsed. She was put on usual treatment of laxatives, douches, tampons, peptonized milk. No improvement, patient bedridden.

February 2d.—Operated on. There were numerous adhesions; tubes embedded in adhesions; ovaries enlarged and cystic, especially the right. Highest temperature, 101⅘°. Patient recovered entirely from the operation. She had a cough, due to phthisis.

Case XVII.—E. P——, a native of England, aged twenty-nine; a widow; has had three children and three miscarriages; admitted December 13, 1884. Menstruation has been profuse and attended with severe pain; leucorrhœa constant; complains of severe cutting pain in right iliac region, extending down the thigh; also of "bearing-down" pains; bowels habitually constipated; micturition painful. Examination showed signs of extensive pelvic peritonitis, uterus fixed in position, and tumor in right broad ligament, the left also thickened. Ordered rest, tampons, douches, on alternate days laxatives, pancreatized milk. General condition improved and uterus more movable.

February 28, 1885.—Tait's operation. There was some hemorrhage on account of adhesions having to be torn; the omentum and intestines adherent; right ovary large and congested, and tube seat of catarrhal inflammation, and one-half inch in diameter; left ovary cystic and enlarged. Patient soon recovered. Highest temperature, 101⅘. Kept under observation several weeks, local pain perfectly relieved and general health much improved.

Case XVIII.—M. C——, a native of Sweden, aged fifty; single; admitted February 18, 1885. Has had no children and no miscarriages, was treated for two years for vaginitis, supposed to be specific, and she gradually became so much of an invalid that she could not work. Patient still menstruates; with menstruation has had but little trouble; but now is unwell every second or third week. There is a constant yellowish discharge from uterus, and in considerable amount. For several years patient has suffered from pain in right iliac region and in back. The pain is described as "smarting," and is at times severe, keeping her much of the time in bed. Is troubled with constipation and painful micturition.

Physical examination: Both ovaries sensitive, and left prolapsed and plainly felt. Uterus enlarged and somewhat prolapsed. Patient was given complete rest in bed, douches and laxatives, and pancreatized milk a few days before operation.

Tait's operation on April 2, 1885. There were few adhesions. Three small fibroids in uterine wall posteriorly. Tubes enlarged, left ovary prolapsed. Patient made a good recovery. Highest temperature, 101°.

Case XIX.—D. S——, born in Germany; aged twenty-seven; married; admitted February 7, 1885. Has had two children and no miscarriages. Suffers from menorrhagia and severe pain in back, and in both iliac regions, though it is worse in left. Is habitually constipated. Hysteria well marked. Physical examination shows adhesions from pelvic peritonitis. After tampons, douches, and laxatives, curetting was done on February 23d. There was some improvement, less hemorrhage, but severe pains continued, especially in left side. Now that induration and thickening of peritoneum had disappeared, a tumor could be made out on left side.

April 6, 1885. Operated on. Adhesions of the left side were strong and extensive, completely covering the tube and ovary. Both ovaries cystic, the left enlarged. Both tubes were in a state of catarrhal inflammation and imperforate. Patient recovered without any trouble.

Case XX.—E. F——, a native of Ireland, aged twenty-three; single; admitted April 11, 1885. No children, no miscarriages. Menstruates every two weeks and loses much blood. Has severe pain before and during the flow. Leucorrhœa not constant. Suffers from darting pains in hypogastrium and in back. Examination reveals a tumor in left broad ligament. Usual treatment was carried out.

May 7, 1885, she was operated on. Strong adhesions on left side, the left ovary enlarged, and tube tensely dilated with pus to one-half its diameter. The right ovary and tube were diseased to less extent, but abscess involved ovary and end of tube, and were removed. After tube was lifted up, sponges were placed to prevent escape of contents of the tubes into cavity of peritoneum. Thick dirty pus squirted out in a stream with first cut of scissors.

Died May 11, 1885, on fifth day, from septic poisoning and gradual extension of local into general peritonitis. As no pus escaped into cavity, and the stump was carefully cauterized, it was probably the use of some of the same sponges with which the pus had been caught that infected the peritoneum. Drainage-tubes were used and washing out tried in vain. Coil of cold water, etc., were also resorted to.

Case XXI.—M. H——, a native of the United States, aged forty; married; no children, no miscarriages. Menstruation always regular. No leucorrhœa. Patient was

perfectly well until middle of last February. Since that time has suffered from pains in back, hypogastrium, in left iliac region, and in left thigh. This pain in the thigh was often severe, and resembled sciatica. Examination shows uterus to be enlarged, lifted upward, forward, and a little to the left, and fixed above pubic bone by a tumor as large as a baby's head, which seemed to be held down in pelvis by left broad ligament. When the tumor was first noticed, in February last, she says it felt about as large as an orange. Patient was kept under observation for two months. The tumor increased in size, and by end of this time felt like a thin cyst, and by one leading gynecologist was diagnosed as a simple cyst of broad ligament, and he recommended that it be opened per vaginam, etc. The fixation of the uterus and tumor, however, and the uncertainty of operations per vaginam on pelvic tumors, caused me to prefer laparotomy. After the usual preparatory treatment this operation was done, May 9, 1885. The left broad ligament was found very much thickened and spread over a fibro-cystic tumor of the left ovary. The left Fallopian tube was fully as large as the thumb, and six inches in length. A pint of yellowish fluid was drawn from the tumor by means of a trocar and cannula. It was found impossible to uproot the tumor from under the ligaments so as to secure a pedicle. About three-fourths of all the sac was removed, after the broad ligament had been tied next to the uterus, and as far to the left as posssible, thus allowing the intermediate parts, including about five inches of left Fallopian tube, to be cut away. The borders of the remnant of the sac were ligated and sewed into the abdominal wound, and a drainage-tube was put into the peritoneum above the tumor, and one into remnant of sac. Portions of the wall of the cyst, which at the bottom contained a flaky, gelatinous mass, were nearly an inch thick. The patient did well. In twelve days the ligatures came away, and in five weeks she was up and about.

Case XXII.—J. F——, a native of the United States, aged twenty-five; single; no children, no miscarriages. Menstruation has always been too frequent, and during the last four years has often occurred every two weeks, and has been attended with severe pain. There has been a yellowish discharge from the uterus, considerable in amount, and almost constant. She has suffered from pain in back and in iliac regions, especially the right, and since the age of eighteen these pains have been severe. She has also been troubled with constipation, headache, nausea, and vomiting. Nine months ago was treated for endometritis. This was followed by two or more attacks of pelvic peritonitis, which were supposed to be pelvic diseases. For past eight months has been bedridden, and has been in the habit of taking opium several times a day.

Physical examination shows both ovaries prolapsed and sensitive, the right enlarged. There are also unmistakable signs of adhesions, due to pelvic peritonitis.

May 17, 1885.—Operation after preparatory treatment. Both tubes were found catarrhal and enlarged, and covered with bands of adhesions. Fimbriæ of both tubes adherent and lumen obliterated. Although pulse was constantly over 105 and very weak previous to operation, she made an uninterrupted recovery. Five weeks after operation was sitting up in bed, and had taken no opium for ten days.

Case XXIII.—E. McC——, a native of Ireland, aged twenty-one; single, no children, no miscarriages. Has physical signs of first stage of phthisis. Admitted March 17, 1885. Menstruation regular until three years ago. Intervals have been prolonged to six weeks, but lately intervals have been too short and she has lost much blood. Always has great pain when unwell. Abundant leucorrhœal discharge of yellowish color. Patient is unable to work on account of pain, often severe, in iliac regions and in back. Is constipated. Micturition painful.

March 26th.—Cervix uteri dilated, which gave some relief from pain at menstrual periods. Physical examination shows signs of pelvic peritonitis and a small tumor on left side.

May 29, 1885.—Operation. There were few adhesions. Left ovary cystic. Right ovary not much diseased. Tubes seat of catarrhal inflammation. Patient made a rapid recovery.

Case XXIV.—J. R——, a German by birth, aged twenty-nine; married, no children, four miscarriages; admitted May 26, 1885. Menstruation is regular, but she loses a considerable amount of blood, and has severe pains during the flow. Some leucorrhœal discharge, white in character. For two years has suffered from sharp, burning pain in both iliac regions; also from headache and pain in back. Not very much constipated. Micturition accompanied with burning pain.

Physical examination: There was evidence of pelvic peritonitis, uterus fixed by old adhesions, and a tumor could be felt in the left broad ligament. It seemed about as large as a lemon, and was in a mass of adhesions. The right broad ligament was also thickened.

June 4, 1885, abdomen was opened by the usual incision; the omentum was adherent over the uterus and broad ligament. It was removed, and some adhesions of the intestines were separated, and the enlarged and adherent tube and broad ligament was unrolled from the cystic ovary on the left side. A cyst of the left ovary as large as a lemon was removed with the tube without breaking. The right tube and ovary were found also diseased and removed, the lumen of both tubes were occluded by adhesion of the fimbriated extremities.

Patient made a good recovery.

Case XXV.—A. M——, born in United States, aged twenty-six; married, one child, one miscarriage; admitted June 13, 1885. Menstruation always too frequent; duration about one week, always attended with severe pain. For a year has had a yellow and stringy leucorrhœal discharge. Complains of severe pains in sides and in back. Habitually constipated, and suffers from headache. More or less bedridden.

Physical examination: Uterus fixed to some extent by old adhesions due to pelvic peritonitis. Both broad ligaments thickened. After usual treatment she was operated on June 17, 1885. When the adherent omentum was removed the left tube was found curled backward toward the uterus, with its fimbriæ firmly adherent to the anterior wall of the uterus, and it was found necessary to tear off the adhesion as it was so firm. Both tubes were covered with adhesions and their fimbriated extremities closed. These were removed with both ovaries, which were abnormally cystic. Now, June 25th, patient is doing well; no bad symptoms have showed themselves.

Summary.

No. of case.	Date of operation.	Age.	Condition.	Children.	Miscarriages.	Disease.	Result.
XV.	Jan. 19, 1885.	28	Married	7	4	Catarrhal s. and degenerated ovaries.	Recovered.
XVI.	Feb. 2, 1885.	35	Single	0	0	Catarrhal s. and cystic ovaries.	do.
XVII.	Feb. 28, 1885.	29	Widow	3	3	Pyo-salpinx.	do.
XVIII.	April 2, 1885.	50	Single	0	0	Catarrhal s. and atrophied ovaries.	do.
XIX.	April 6, 1885.	27	Married	2	0	Catarrhal s. and cystic ovaries.	do.
XX.	May 1, 1885.	23	Single	0	0	Pyo-salpinx ovaritis: abscess.	Died.
XXI.	May 9, 1885.	40	Married	0	0	Hypertrophied tube. Fibro-cystic ovary.	Recovered.
XXII.	May 17, 1885.	25	Single	0	0	Catarrhal s. Fimbriæ adherent.	do.
XXIII.	May 29, 1885.	21	Single	0	0	Catarrhal s. Left ovary cystic.	do.
XXIV.	June 4, 1885.	29	Married	0	4	Catarrhal s. Fimbriæ adherent. Small ovarian cyst.	do.
XXV.	June 17, 1885.	26	Married	1	1	Catarrhal s. and occluded tubes.	

According to Dr. Gordon the circulation of the blood was familiar to the Chinese physicians two thousand years ago.

FRACTURE OF THE CLAVICLE, FOLLOWED BY VICIOUS UNION—GRADUAL INFRACTION OF CALLUS—REMOVAL OF DEFORMITY.

By WILLIAM STONE TORREY, M.D.,

SCRANTON, PA.

The case cited below presents no peculiar features, but the treatment is apparently novel and the result certainly exceptional.

Miss A——, aged thirteen, consulted me on February 23d, with reference to a deformity of the shoulder, the result of an injury which she had sustained a month previously.

History.—On January 23d, while playing upon the ice, the patient fell, striking upon the left elbow. When the fall occurred, the forearm was flexed upon the arm, the limb extended laterally from the side, and the elbow directed behind the lateral median line of the body.

A surgeon was consulted at the time, and a diagnosis of fracture of the clavicle was made. No treatment was instituted.

On February 23d, the time at which the child was brought to me, one month after the reception of the injury, the case presented the following characteristics:

Inspection revealed a marked deformity on the affected side. The scapula and prominence of shoulder were displaced downward, forward, and inward

The distance from sternum to acromion was apparently less on the affected side than on the sound side. When the patient assumed the erect posture, the shoulders being thrown back, the distance between the spinous processes of the vertebræ and the posterior border of the scapulæ was proportionately greater on the affected side than on the sound side.

Mensuration showed the distance from sterno-clavicular to the acromio-clavicular articulation on the affected side to be four and four-fifths inches. The distance between the same points on the sound side was five and a half inches.

Palpation over the bone showed the tumor to be a large amount of "provisional callus" which had been thrown out aronnd the seat of fracture.

From the shape of the callus a diagnosis was made of oblique fracture of the middle third of the clavicle in a direction inward and backward, followed by vicious union. A small degree of reduction could be accomplished by placing a pad in the axilla, adducting the arm, and at the same time making counter-pressure upon the shoulder in a backward direction. An unfavorable prognosis was given, but as the friends were very anxious to have something done, I consented to institute some treatment with the object of lessening the deformity.

Treatment.—On February 28th a shellac board-splint was cut, extending from the tip of one shoulder, posteriorly, to the tip of the opposite shoulder. This was moistened and moulded to fit the bony prominences of the scapulæ and vertebræ. The splint was well padded and secured with an ordinary roller bandage (the axillary spaces being first protected by padding) by figure-of-eight turns crossing behind. On top of this plaster bandages were applied, commencing under the axilla, passing over the shoulder, under the axilla again, over the shoulder, and then across the back. When the second turn over the shoulder was made, considerable force was exerted in order to draw the shoulder backward, and the force was then retained by passing the roller across the back and securing by passing under the axilla and over the shoulder on the sound side. When the bandaging was completed and the plaster had set, the result was a firm plaster cast extending from shoulder to shoulder posteriorly, with firm plaster rings surrounding the shoulder anteriorly and inferiorly. Behind, the inferior margin of the splint was nearly on a line with the posterior-inferior angles of the scapulæ. The ring passing around the shoulder on the affected side was purposely made broader than that on the sound side, in order to obtain a fulcrum through which to make extension outward. The arm was not confined to the side, but was allowed to hang.

More complete extension backward than that already resulting from the figure-of-eight turns above described was effected by means of padding introduced between the splint and the posterior aspect of the shoulder. The least resistance being in a backward direction, the broad portion of the splint was carried away from the posterior aspect of the shoulder, and in consequence of this a counter-force was exerted on the acromio-clavicular articulation by that portion of the plaster-of-Paris ring which was anterior to it. The outer fragment was thus carried backward.

This padding was increased every few days, and padding was also introduced between the plaster-of-Paris ring inferiorly and the axilla, in order to enlarge the size of the fulcrum and thus increase the outward extension force.

The splint was removed on April 3d. Examination showed the tumor to have decreased in size. The distance on the affected side from the sterno-clavicular to the acromio-clavicular articulation was five and one-half inches, the same as on the sound side.

When the patient stood erect, the shoulders being thrown backward, the appearance of the spaces between the posterior border of the scapulæ and the spinous processes of the vertebræ were alike on both sides.

July 17th.—Examined the patient again upon this date. A large amount of the "provisional callus" has been absorbed, and the contour of the two sides, both anteriorly and posteriorly, are nearly alike.

Clinical Department

A CASE OF COMPOUND FRACTURE OF THE RIGHT HUMERUS COMPLICATED BY DISLOCATION OF THE ELBOW-JOINT AND BY INJURY OF THE BASILIC VEIN AND MEDIAN NERVE.

Dr. E. C. Carter, Assistant Surgeon, United States Army, sends us the following: On the night of November 10, 1883, I was called to see W. C——, a lad, fifteen years of age, who had been thrown from his horse. The boy was lying in a wagon. He was pale and seemed to be in great pain. On examination I found he was suffering from a compound fracture of the right humerus about two inches from its lower articular surface. The patient had fallen from his horse while at full gallop, and the posterior surface of his arm, midway between the elbow-joint and the *line* of fracture, had struck a pointed stump. The lower fragment of the bone was dislocated forward, producing a marked protuberance in front of the elbow-joint. The lower end of the upper fragment was thrust through the skin so as to project an inch or more.

The end of this fragment was obliquely serrated, and in its passage through the soft tissues of the arm had lacerated the basilic vein and injured the median nerve. As was to be expected, the patient had lost much blood. The hemorrhage was controlled by pressure and the patient immediately etherized. Care was taken to place the light—the hour rendering a light necessary—in such a position that the wind blew from it toward the patient. As the wind was steady and strong there was little danger of the ether vapor becoming ignited. The blood and dirt in the vicinity of the wound were carefully removed, and an antiseptic wash of carbolized water was liberally used. The dislocation was easily reduced, but some difficulty was experienced in getting the broken bone into its proper position, though this was finally done without removing the extremity of the projecting fragment, as at one time appeared necessary.

Antiseptic dressings were applied, and the arm was

placed in a favorable position, as anchylosis was expected. Those in charge of the patient insisted on taking him next morning to his home, a distance of sixteen miles. During the journey, in a wagon without springs and over rough roads, the dressings became displaced, and in washing the wound, the patient's friends used *pure* carbolic acid, which produced severe and painful burns. The patient was brought back to me after the lapse of four days, and his condition was such that it was necessary to have him under close professional supervision. The wound was inflamed and full of stinking pus. The patient's temperature, taken in the axilla, was from 101 to 102° F.; his pulse-rate was 100 a minute. His tongue was foul; he had no appetite and had lost flesh. His complexion was pasty, the odor of his breath was unpleasant, and he complained of headache and weakness. All dressings were removed and the wound was again thoroughly washed out with carbolized water, and movable antiseptic dressings were applied. Citrate of iron and quinia in doses of six grains was administered three times a day, and an aperient and a generous diet were prescribed. At the end of twenty-four hours the wound looked healthy and the pus had no bad odor. The temperature and pulse rate were normal, and at no time afterward did the temperature rise above 99° F. The case required careful attention for five weeks. At the end of that time the bone was firmly united, the superficial wound healed and the elbow-joint partially anchylosed. An anterior and a posterior splint were firmly and evenly bound along the whole length of the arm, so as to relieve the strain on the humerus, and the fore-arm forcibly extended and flexed. In one month from the time artificial extension and flexion were begun the patient could extend and flex the arm with ease. Pronation was more slowly acquired, and for some time there was anæsthesia of the palmar aspect of the index- and middle-fingers and inner half of the ring-finger. The thenar group of muscles was partially paralyzed and atrophied. I attributed this anæsthesia and paralysis to the injury of the median nerve sustained at the time of fracture.

Six months after the wound had healed I saw the boy herding cattle, and as he was guiding his horse with one hand, and whipping it with brutal ease with the other, it was apparent that he had recovered all the normal uses of his arm and fore-arm.

Progress of Medical Science.

A Case of Scrotal Gastrocele.—Dr. M. Schmidt was consulted by a patient who had for some time suffered from digestive disturbances, accompanied at times by vomiting of a black, flocculent, sour, but not fecal, smelling fluid. There was no constipation. There was a scrotal hernia, which gave a loud tympanitic note on percussion, and presented fluctuation at its lower part. A diagnosis was made of hæmatemesis, probably from ulcer or cancer, though it was thought possible that the hernia might contain a part of the stomach. The patient's condition would not permit of an operation, and he died shortly afterward. The autopsy showed that the hernial sack contained the middle two-quarters of the greatly dilated stomach. There was neither carcinoma nor ulceration of the gastric walls.—*Deutsche Medicinal-Zeitung*, June 4, 1885.

The Influence of Cimicifuga Racemosa upon Parturition.—At a recent meeting of the Chicago Gynecological Society, Dr. J. Snydam Knox read a paper in which, from his clinical observations, he drew the following conclusions: 1. Cimicifuga has a positive sedative effect upon the parturient woman, quieting reflex irritability; nausea, pruitus, and insomnia, so common in the last six weeks of pregnancy, are always rendered less distressing, and often disappear under its administration. 2. Cimicifuga has a positive antispasmodic effect upon the parturient woman. The neuralgic cramps and irregular pains of the first stage of labor are ameliorated, and often altogether abolished. In fact, during the first indiscriminative use of the drug in all cases, I had the mortification, with a few women, of terminating the labor so precipitately, and without prodromic symptoms, as to be unable to reach the bedside before the birth. 3. Cimicifuga relaxes uterine muscular fibre, and the soft parts of the parturient canal, by controlling muscular irritability, thus facilitating labor, and diminishing risks of laceration. 4. Cimicifuga increases the energy and rhythm of the pains in the second stage of labor. 5. It is my belief that cimicifuga, like ergot, maintains a better contraction of the uterus after delivery. It is my habit, however, to administer from fifteen to thirty minims of the fluid extract of ergot after the birth of the fœtal head, and I have had but few opportunities of testing this effect of the cohosh. My method of administration has been to give fifteen minims of the fluid extract of cimicifuga in compound syrup of sarsaparilla each night for four weeks before the expected confinement. One fluid ounce of the fluid extract of cimicifuga to three fluid ounces of compound syrup of sarsaparilla—dose, one teaspoonful—makes just the required quantity.

Malaria and Pregnancy.—Dr. G. C. Nijhoff, of Amsterdam, discusses, in the *Weekblad*, the question of the relation of malaria to pregnancy, adducing some observations of his own. Some years ago it seemed to be the general opinion that pregnant women were very rarely affected by malarial fevers. Thus, Griesinger (Virchow's *Handb. der spec. Path. und Ther. Infections-Krankh.*, 1856) found that, during the prevalance of a quartan fever in Prague, only two out of 8,639 pregnant and parturient women were affected. Again, Credé states (*Monatsch. für Geburtsh.*, Band xv. S. 1, 1860) that, in Leipsic, during the three years 1856–59. there was scarcely a case of tertian ague in a pregnant woman. Mendel and Ritter have also recorded the comparative immunity of pregnancy from malarial attacks, for which the latter accounts by the smaller degree of exposure to malarial influences during pregnancy. When, however, it does occur, it does not, according to both Mendel and Ritter's observations, exercise any remarkable effect on the course of the pregnancy. On the other hand. Göth, of Klausenburg. found (*Zeitsch. für Geb. und Gyn.*, Band vi. S. 17, 1881) that, during a severe epidemic of a malarial nature, 46 out of 881 pregnant women were attacked; and of these 46, in 19 the labor was premature, and in some the children were still-born, and, even when they were alive, the size and weight were abnormally low. Bompani also (*Centralbl. für Gyn.*, 1884, S. 821) is of opinion that malaria causes more premature labors than syphilis.

The discordant views of authorities, of which the above may be taken as examples, extend also to the treatment which should be adopted in the malaria of pregnancy, some, as Cazeaux, advising that quinine should be given as the surest preventive against abortion; while Petitjean (Charpentier, *Traité des Acc.*, Tome i., p. 562. 1883) and Monteverdi consider that quinine is a powerful ecbolic; the latter thinks it even more active than ergot. The writer mentions particulars of four cases, in which malaria attacked pregnant women, quinine being given. In one of these the labor came on five weeks before the calculated time; but the child was of full length. and it was uncertain whether it was really premature. In another case the labor occurred at about the right time, but immediately after a severe attack of fever, the weight of the child being 2.8 kilogrammes (about 6 lbs. 2¼ ounces). The other two pregnancies terminated normally, with healthy children. With respect to the mutual effect of malaria and the process of labor, Ritter was of opinion that labor tends to arrest a malarial attack, suggesting, as an explanation of this, that the hemorrhage may perhaps account for it. Göth considered that labor is prolonged by malaria to double its normal

length, and stated that artificial assistance by forceps or extraction of the placenta was requisite more often than in cases uncomplicated in this way. The writer's own observations induce him to agree with Ritter rather than with Góth. In one of his four cases, the malarial attack did not return for twelve days after the labor; and in two more cases the patients were free for fourteen days after labor. In all these cases, the labors were normal, with very little hemorrhage. It is, of course, often difficult to diagnose malaria in the puerperal state. Ritter believed that puerperal women are peculiarly susceptible to malaria, but that they are less exposed to its influence than other people. He, however, mentioned fourteen cases, of which only three had had attacks during the pregnancy. He also thought quinine less satisfactory in its results than usual, owing to the enfeebled digestive power. The author's experience of puerperal malaria is very limited.—*British Medical Journal*, July 18, 1885.

Foreign Bodies in the Digestive Canal.—The case is related by Dr. Kohn of a melancholic patient with suicidal tendencies, who, in the hope of ending her life, swallowed three large spoons, each seven inches long, and with a bowl about an inch and a half wide. They were all passed from the rectum lying together, the convexity of one bowl fitting into the concavity of the other, and surrounded by a mass of consistent fecal matters. The passage of these bodies had excited a mild peritonitis at first, and later an attack of diarrhœa, but these disturbances speedily subsided, and no trouble was experienced after the spoons had been passed from the bowel. This case is almost unique, considering the large size of the spoons and the comparatively sharp edges of their bowls.—*Deutsche Medicinal-Zeitung*, June 4, 1885.

Is Acetonæmia the Cause of Diabetic Coma?—Contrary to the observations of Patters in 1857, whose views have been accepted by subsequent authorities, Albertoni, writing in the *Rivista di Chimica, Medica, e Farmaceutica*, endeavors to show that acetone is not the poison which causes death in diabetic patients. Indeed, when administered by the mouth it is, if pure, less poisonous, he states, than ordinary ethylic alcohol. The phenomena observed in diabetic coma are by no means always similar to those produced by acetone. He gave large doses (one hundred grammes) of glucose to rabbits, but could detect no acetone in the urine. Isopropylic acid is partly changed in the organism, acetone being formed; part of the acid is, however, passed unchanged. In man, when a dose of six cubic centimetres is given by the mouth, it is detected unchanged in the urine. Aceto-acetic ether does not produce symptoms of diabetic coma, but it does cause albuminuria and hæmoglobinuria, and is certainly eliminated in an unaltered condition. From previous researches it seems evident that aceto-acetic acid often exists in diabetic urine, its presence being detected by the red color given with perchloride of iron if the urine is not boiled or treated with an acid. This acid is well borne by the organism, and cannot be the cause of severe poisoning. The condition which governs its appearance in the urine is the reaction of the urine and that of the renal parenchyma. If the urine is acid, the aceto-acetic acid is decomposed, forming acetone; but if alkaline, neutral, or slightly acid, the aceto-acetic acid is found unchanged. This is the explanation of the discordant observations on this subject. It is probable that the formation of aceto-acetic acid explains the presence of albumen, which is sometimes observed in diabetes. Crotonic acid, the formation of which in diabetes was demonstrated by Stadelmann, cannot be considered as poisonous, two grammes producing no effect on rabbits. Crotonic aldehyde is, on the other hand, highly poisonous, even in small doses, four drops producing in a rabbit dyspnœa, and even narcosis, with the exhalation of an odor resembling crotonic aldehyde, and other phenomena which are described by Kussmaul as present in diabetic coma. Large doses caused powerful disturbance and rapid death, with epileptiform convulsions.—*Lancet.*

Maggots in External Auditory Meatus. — Dr. Vogt reports the case of a youth, aged seventeen, who came to his office June 20, 1885, and gave the following history. While plowing corn on June 17th, a "blow-fly" entered the meatus auditorius externus of the left ear, and as he was a considerable distance from home and it caused him no great inconvenience, he allowed it to remain there for over an hour before he went home and had it extracted. The next day, he thought he felt something moving in his ear, and used a warm milk injection which gave relief for a short time. The next day he used a turpentine and milk injection, but as this did not produce the desired effect and his ear became inflamed and caused him a great deal of pain, he came to me for relief. Upon examination I found the parts swollen and inflamed, and no less than a dozen full-grown maggots in the meatus and on and around the tympanum. I removed the maggots with an ear-scoop, washed the ear with a five per cent. solution of carbolized warm water, and afterward poured a small quantity of carbolized olive oil into the ear, which had the desired effect of giving permanent relief.—*Western Medical Reporter*, August, 1885.

Acute Pericarditis in the Aged.—The diagnosis of acute pericarditis is sometimes difficult even in adults, but it is yet more so in the aged. In them there are often old pulmonary lesions, chronic bronchitis and emphysema, or valvular and other cardiac affections which serve to mask the sounds proper to pericarditis. If, in addition to these, there are also signs of recent intrathoracic disease, the symptoms become still more obscure. This is shown by M. Chas. Lejard, in a recent thesis (*Revue Médicale*, June 6, 1885), who states that of the thirty-two cases of pericarditis in the aged, which form the basis of his paper, in but nine was the diagnosis made during life. The symptoms which should excite suspicion in the mind of the medical attendant are, the author says, a certain difficulty in respiration, usually increasing for several days, an elevation of temperature from 2° to 3.5°, dull, irregular, intermittent, or even tumultuous heart action, and a corresponding state of the pulse. If, during the course of a pneumonia or some other febrile disease, a sudden fall of temperature occurs, and is accompanied by the irregularity of heart-action above referred to, one ought to think of the possibility of pericarditis. The examination of the physical signs and the presence of friction-sounds would serve to establish the diagnosis, but this will be usually a diagnosis by exclusion. The treatment of pericarditis in the aged offers nothing of note. Local counter-irritant blisters or dry cups are to be used, but, above all, tonics are indicated, such as quinine, alcohol, and digitalis. These will form the basis of the treatment. If there is a very abundant serous effusion, the pericardium may be tapped, and the fluid drawn off, the advanced age of the patient affording no contra-indication to this mode of treatment.

Perforation of the Intestine caused by a Bimanual Examination.—Dr. Schwarz relates the case of a woman, forty-six years of age, who had suffered for a long time from a fibrous tumor of the womb. Shortly after a bimanual examination the patient was seized with peritonitis, and died. The writer supposed that the inflammation was caused by a rupture of the uterus and the passage into the abdominal cavity of some mercuric chloride contained in a vaginal douche. At the autopsy, however, he found that there had been adhesions of a loop of intestine to the uterus, and these adhesions had been broken and the gut ruptured by the manipulations, notwithstanding the fact that the examination had been conducted with great gentleness owing to the tenderness of the womb.—*Journal de Médecine de Paris*, June 7, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, August 29, 1885.

MEASURES RECOMMENDED BY THE ROYAL ITALIAN SOCIETY OF HYGIENE FOR THE PREVENTION OF CHOLERA.

IN a recent number of the *Gazetta degli Ospitali* are to be found the conclusions arrived at by the Italian Royal Society of Hygiene, as to the best means of preventing the spread of cholera. As these conclusions are based on the wide experience obtained from the prevalence of the dread scourge in Italy last year, they deserve attention. While offering little that has not already been recognized in connection with this subject, the whole is admirably epitomized, and for this reason, as well as the above, it is well worth consideration.

The Society announces :

I. The fundamental basis of public prophylaxis against cholera is a well-ordered, independent sanitary administration, composed of medical persons especially instructed in the subject, supported by the Government. To this end is recommended :

1. A reorganization of the existing service in the best possible manner.

2. That schools and laboratories be established to educate physicians in hygiene, that they be able to fill these high and responsible offices properly.

II. Relative to the etiology of cholera, Professor G. Sormani gave the Society the following facts, deduced from observations made during the epidemic of 1884 :

1. That infected garments are the means in many instances of propagating cholera-germs, and that they are more to be feared than people themselves.

2. That the clothing of the feet should be the objects of special attention, as these, coming in constant contact with the surface of the soil, are more easily contaminated in infected places, and maintaining constantly a certain degree of moisture, can preserve, transport, and diffuse with great facility the cholera-germs.

3. Linen washed in infected water transmits the cholera.

4. That probably in linen and garments infected with cholera, and in contaminated water, the cholera-germ acquires a special character (sporification ?) whereby it has greater tenacity and duration.

5. That animals and birds, especillay those which are filthy, seem to be able to carry the cholera-germ in their furs and feathers.

6. That surface-water and surface-soil have been proved to be a means of transmission of the cholera-germs.

7. That running water transports from the surface of the soil the germs, which multiply and diffuse themselves.

Therefore, he concludes that the local authorities should be empowered to take measures to prevent the contamination of the water-courses, for when this happens it will not be possible to check the spread of the disease ; and that to provide efficacious safeguards against cholera the Government should favor with money and encouragement the study undertaken in Italy for a more exact knowledge of the facts which go to establish a basis of scientific prophylaxis.

III. The Society considered the means of preventing the invasion of cholera. These should consist of :

1. Strict quarantine on the frontiers adjacent to the infected countries.

2. Sanitary inspection of the quarantined. Disinfection of garments with moist heat at 100° C. Destruction of the same if polluted with infection.

3. That while free passage of new merchandise destined for commerce be permitted, all free passage of every kind of effects, garments, and objects used should be forbidden.

4. Whenever return of travellers is possible it should be done. Emigrants (operatives, peasants, and poor people) coming from infected districts should be returned under the care of the Government, and preferably by water rather than by land.

IV. The Society recommend that the quarantine laws relative to quarantine of harbors and pest-houses be revised to correspond more with the altered conditions of travel. That the land and sea quarantine be proportioned to each other.

V. Relative to internal quarantine it is suggested that a sanitary cordon under the direction of the Minister of the Interior be instituted ; that the circulation of people from infected districts be prevented ; and that those who come should be quarantined and disinfected. The fumigation of people and of effects ordinarily performed, at the railway stations or elsewhere, ought to be prohibited as useless and also dangerous.

VI. For local prophylaxis the Society advise :

1. To combat as far as possible the first case of cholera or suspected case. That such be taken to a suitable hospital ; that suitable fumigation follow, and every precaution be used that the infection do not spread.

2. To institute common ovens for practising effectual disinfection. To take great care to separate infected clothing from that going to the general laundry, and to banish useless fumigation of people and things.

3. To hinder everything tending to increase the misery and panic of the people ; to favor the establishment of a public kitchen and inspection of all alimentary substances and of drinking-water.

4. Recommending, above all, the care of the hygiene of the house, of the soil, and of the subsoil of inhabited places.

VII. Lastly, the Society maintains that in the quarantine of persons from infected districts ten days afford ample opportunity for disinfection.

THE INTERNATIONAL MEDICAL CONGRESS.

THE *Journal of the American Medical Association*, which has so steadily maintained a character for dignity and dulness, has recently lost its first attribute at least, without perhaps undergoing much change as regards the second. Its endeavors to prop up the present managers of the International Congress have led it into a curious position. It is no longer the organ of the profession, or even of the Association, but is rather a strident defender of the clique who are bent on having their own way. Despite the almost universal condemnation of the policy developed at New Orleans and Chicago, the *Journal* continues to defend it. In doing so, it has not had the courage of other journals, which it accuses of being "organs," but has systematically repressed all adverse critical comments even from disinterested European brethren. It has sneered at the eminent gentlemen who have withdrawn from the Association, and has characterized them as thoughtless and foolish malcontents. Although resignations have now been going on steadily for over two months, it still chooses to regard the action as "hasty."

With all this, however, we are each week informed, that if the withdrawing members will hurry up and return to the fold, it may not yet be too late for them to be forgiven! The *Journal* is in much the position of a man on a raft, who threatens the passengers of a staunch ship with all the dangers of the sea if they do not soon come down and help him navigate.

Last of all, the *Journal*, to help itself along, has been guilty of misstatements, which, however, we can easily believe were accidental or typographical. We quoted last week from it the announcement that Dr. John H. Packard had withdrawn his resignation. We have the authority of the *Medical News* that this is not true.

Our Chicago contemporary, in discussing the question, has in every instance evaded the real issue, viz., that there should be no politics in a scientific convention. The introduction of this issue it cannot excuse, and wisely has not attempted it.

From its last announcement, we infer that no serious attempt at compromise is to be made. The present managers will, it is true, change the rules so that any regular physician can be a member of the Congress. But it is simply an insult to intelligence and self-respect to assume, as is done, that this is any concession. Gentlemen of New Code affiliations can contribute in money and work, but cannot share the honors!

There is a demand from the whole American profession, from that of England, Germany, and the other countries of Europe, that the Code issue be entirely left out. Will not the committee, which is to meet in this city on September 3d, respond to this demand? It would not be very difficult, and the success of the Congress would then be assured.

INDIAN SPRUE.

NATIVES of temperate regions resident in tropical countries are subject to a variety of diseases, affecting chiefly the chylopoëtic system, which are known to us only from text-books, or as they are occasionally seen in the persons of those who have contracted them during a sojourn in hot climates. Among the most interesting of these disorders, and one of which we have seldom seen a satisfactory description, is that known as Indian sprue, or aphthæ tropicæ. One of the best accounts of this disease which has yet appeared, and one upon which we have drawn largely in the following description, was published some years ago by Dr. C. L. Van der Burg,[1] and translated for the Reports of the Imperial Maritime Customs of China, No. 2, 1884.

Indian sprue is an endemic disease occurring in the East and West Indies and other hot countries. The affection is chronic, non-contagious, never existing as an epidemic in the true sense of the word, although there may be a large number of sufferers in a single locality, and does not occur as a sequela of any other disease, but is protopathic and *sui generis*. It is not commonly fatal, but its course is slow and exceedingly protracted, and even after recovery there exists a marked tendency to relapses if the patient does not return to a temperate climate. The cause of the disease has never been conclusively determined, but it would appear to reside in suppression of the action of the skin and expulsion of the blood from the superficial capillaries, leading to a condition of abdominal plethora and modification of bile secretion. Women are more commonly attacked than men.

Indian sprue may, for convenience of description, be divided into three stages, though it does not always run the entire course, and the different periods are very variable as regards their duration. The first stage is that of gastro-intestinal catarrh. There is at first an indefinable feeling of malaise, which is soon followed by symptoms of digestive disturbance. There is a feeling of epigastric fulness, without distinct pain, which is increased after eating, but it is at the same time almost impossible to refrain from taking food in quantity, owing to the ravenous appetite which the patients experience. There is abdominal distention from the accumulation of gas, relief from which is often obtained by explosive eructations, in which not only gas is expelled, but also a sour, acrid fluid. Vomiting is an occasional symptom, and is usually periodic, occurring about noon. The tongue at this time may be clean or slightly furred, but soon little red specks appear along the edges and at the tip, which are seen on close examination to be injected papillæ. The action of the bowels now becomes irregular, there being perhaps a natural stool one day, and the following day, or may be even after a few hours, a watery, light-yellow passage may occur. The patients do not present a cachectic appearance, though there is usually a yellow tinge to the conjunctivæ. There is no fever.

In the second stage, all the symptoms of gastro-intestinal disturbance become more pronounced. Abdominal distention is greater, vomiting is more common, pain in the stomach is complained of, and there are frequent intestinal discharges of pultaceous, clay-colored matters. The liver is diminished in size to such an extent that even during full inspiration its lower border can with difficulty be felt behind the ribs. The appearance of the tongue at this time is characteristic. The red specks increase in number and size, covering finally the entire organ, while the surface becomes dry, glossy, and smooth,

[1] Indische Spruw (Aphthæ Tropicæ). Batavia: Ernst & Co. 1880.

seeming to be wholly denuded of its epithelium, and is very sensitive. The redness is very marked, and Dr. Van der Burg regards its depth of color as a sure indication of the progress of the disease. The mucous membrane lining the mouth and pharynx is colored in a similar way. The under surface of the tongue presents a like appearance, but has a somewhat bluish tinge. The urinary secretion is diminished in quantity, and is albuminous, but no casts are present. The skin is dry. There is great muscular weakness and profound mental depression, approaching almost to melancholia. It is not very often that the disease passes beyond this stage, and when it does so it is usually because of persistent disregard of dietetic rules. Recovery frequently occurs. The third stage is one of general wasting; vomiting is very frequent and follows immediately upon the ingestion of food, the diarrhœa becomes watery, the patient becomes feverish, and death occurs from exhaustion. The mucous membrane covering the tongue and other parts of the mouth becomes fiery red, the gums retract, and large clefts and fissures appear on the tongue.

Such are, in brief, the symptoms of this distressing disease, but they are not always so marked or so regular in their appearance, and variations from the typical description are the rule rather than the exception. The pathognomonic sign, however, is the appearance of red specks, not vesicles, upon the tongue coincidently with the symptoms of gastro-intestinal catarrh.

The treatment of Indian sprue is mainly dietetic, although the value of certain drugs is not to be denied. The food should be chiefly farinaceous in character, consisting of rice, corn-meal, arrow-root, and the like. Various kinds of prepared foods for infants and invalids, of which so many have been put on the market of late years, here find a field of eminent utility. Most succulent vegetables, cabbage, onions, peas, and similar articles, are to be avoided. Beef is injurious, but most of the varieties of white meats, poultry, veal, and pork, are well borne. A mode of treatment of comparatively recent origin, known as the "fruit cure," is one that promises to find favor with patients and physicians alike, as it has, in many cases, been productive of excellent results. Patients subjected to this "cure" live almost exclusively on fruits of various kinds, chiefly those grown in temperate climates, such as peaches, pears, apricots, and apples. Necessarily canned fruits must be depended upon in great measure, and a preference is expressed for those of American canning, the European preparations containing too much sugar. Along with these, strange to say, cucumbers and other articles containing a large proportion of water are given. It is sometimes difficult to induce patients to undertake this method of treatment, which is so opposed to their ideas of a diet suitable in diarrhœa, but the results which have been obtained from it are said to have been most gratifying. Among the drugs most in favor are the mineral acids, nitrate of silver, and mucilaginous preparations. Opium and calomel are injurious.

It is not often that we meet with this strange disease in temperate climates, yet it is occasionally seen in the persons of those who have returned after a long residence in the tropics, and as descriptions of it are so few, so inaccessible to the majority of physicians, and usually, also, so imperfect, and ever misleading, the account here given may prove to be of assistance to some perplexed practitioner in whose way chance has thrown a sufferer from Indian sprue.

"WHAT TO DO IN CASES OF POISONING."[1]

BEFORE us is a diminutive volume bearing this title. The knowledge of its contents might prove more valuable to its possessor than that of many a quarto.

What graduate is there who does not feel, after he leaves college, hanging over him like the sword of Damocles suspended by a hair, the dread possibility of a summons to a case of poisoning? His mind is full of scraps of information with which he has passed his examinations and obtained his degree. Made more prominent because of the questions asked with reference to the subject, toxicology and antidotes have assumed an awe-inspiring importance. The dread of cases of poisoning ever remains with him; but some way the knowledge which carried him to the triumph of obtaining his degree oozes away with time, leaving only a vague notion of just when and why the plaster from walls and ceilings should be scraped to administer to the poisoned victim; when the gallons of coffee should be given; when the patient should be flagellated and walked about, and when on no account he should be raised from a recumbent position; when the whites of eggs should be called for; when the vinegar cruet should play an important part as furnisher of an antidote—all this exceedingly useful and necessary knowledge becomes, in many a medical mind, perfectly clear on every-day topics, a hopeless jumble.

Says the writer of the little volume: "I can imagine nothing more painful than to be called to a case of poisoning, and not to know what to do." Many a doctor has a sneaking notion of how painful this would be, and yet he remains unprepared for such an emergency; putting off refreshing his rusty knowledge, allowing himself to go unsupplied with the most common antidotes; procrastinating like a man who knows he ought to make his will, but does not.

The doctor cannot, like a cook, have his recipe-book in his hand; he must carry it all in his head. His ideas must be ready, like fire-engines, for full service when called upon.

To avoid the complexity of the subject and the perplexity of diagnosis, a search has been made for that philosopher's stone, a "multiple antidote;" that is, a preparation which will neutralize the toxic action of all or most all the active poisons. Two such are given as very nearly answering the purpose.

One of these is the iodide of starch, which is efficacious in poisoning by sulphuretted hydrogen, the alkalies, the alkaline sulphides, and especially the alkaloids, with which iodine forms an insoluble compound. The other is given as follows: Saturated solution of sulphate of iron, 100 parts; water, 800 parts; calcined magnesia, 88 parts; purified animal charcoal, 40 parts.

The iron solution should be kept separately, and the magnesia and charcoal mixed in a bottle, and the whole well shaken together. It may be administered *ad libitum*, a wineglass or more at a time. It is said to

[1] By William Murrell, M.D., F.R.P.C. Fourth Edition. Published by H. K Lewis. London: 1884.

render preparations of zinc, arsenic, and digitalis absolutely inert, and to partly neutralize the action of mercury, morphia, and strychnine. It has, however, no action on the alkaloids, and none on phosphorus, antimony, or hydrocyanic acid.

Better by far than "the multiple antidote" is "the antidote-bag." We commend it to our readers. If you would purchase immunity from the dread of encountering a case of poisoning, possess "the antidote-bag;" then, if the summons comes at midnight, or any other hour, you will go forth without trepidation. You will have in hand everything you need—antidotes, emetics, stimulants, hypodermic syringe; not to mention the little book, your fountain of wisdom.

"Every doctor should have a stomach-pump," also says our mentor, or at least be sure that he knows how to rig up an apparatus which will do the same work.

For a young physician there links an added terror to the summons to a case of poisoning, the dread of having to encounter the legal proceedings which will surely follow a fatal issue. Our little book gives sage advice in such an event, and adds this, which is sufficient to bolster up the courage of any faltering medical witness: "If you have read up on the subject, you should be more than a match for any barrister."

You have your book of reference at hand, your "antidote-bag" or "multiple antidote," a stomach-pump; you have become primed to give legal evidence, as if accustomed to it all your life. One thing still remains. "Every medical man should get up the subject of *ptomaines*," remarks our author with emphasis. These closely resemble vegetable alkaloids; but they are cadaveric substances, generated during the decay of the dead body, and are supposed to be alkaloids. It must be known that they exist, and how they react.

It should ever be remembered that, as Dr. Murrell tersely and correctly puts it, "all rational treatment of cases of poisoning is founded on a correct appreciation of the physiological action of drugs." It is the same with reference to diagnosis. "There is no royal road," he says; "the only way to arrive at a correct conclusion is to utilize your knowledge of the physiological action of drugs." Then you will always know "what to do in cases of poisoning."

JACCOUD'S METHODS OF TREATING PHTHISIS.

Every modern writer upon phthisis seems to feel it a duty to lay stress upon the possibility, and even frequency, of cure or arrest of phthisis. There is a great deal of hopeful prognosis also floating through medical periodicals and monographs. Yet we are still unable to find any author who is willing to give in exact terms the percentage of cures which he has had.

The writer is willing to admit that among some five hundred cases which have come under his observation, he can record only one positive and one relative cure in the first stage, and two relative cures or arrests in the second stage. Still we are being constantly assured that phthisis is curable in all stages, and, perhaps, it is quite as well that such a hopeful feeling should be the prevalent one.

One of the most emphatic supporters of the doctrine of the curability of phthisis is Professor Jaccoud, whose work[1] has just been translated by Dr. Montague Lubbock.

Professor Jaccoud is a unicist, believing all forms of phthisis to be tubercular. Clinically, however, he makes the usual distinctions of pneumonic or caseous phthisis, chronic miliary phthisis, or the ordinary form, and acute miliary tuberculosis. Leaving out the last-named type, the forms of phthisis which are most curable are, first, the pneumonic, and next the chronic miliary phthisis. The different types of chronic phthisis may be arranged, as regards possibility of cure, as follows: First of all, arthritic phthisis, or phthisis in rheumatic persons; next, the primary, then the scrofulous, the innate, the hereditary, and finally the diabetic form, which is always incurable.

M. Jaccoud announces a certain novelty in his conclusions and views on treatment. We turn, therefore, with special interest to this latter subject, which he, aside from his chapters on prophylaxis, divides into four heads: the hygienic, medicinal, climatic, and the treatment with baths and mineral waters. But little stress is laid upon anything but the climatic and medicinal treatment, these including, of course, ordinary hygienic measures.

M. Jaccoud has studied personally and with care the subject of climates. He makes but two classes of climates, and his views are simple, clear, and, so far as they go, correct. Climates are either high and cold, or low with a steady and mild temperature. High climates have a positive therapeutic effect, low climates are simply negative in value in that they only enable the system to be put in good general condition.

The subject of the medicinal, hygienic, and dietetic treatment is naturally most interesting, since, after all, in the vast majority of cases the victims of phthisis must depend upon these.

In the initial period of phthisis, Jaccoud recommends as a general course of treatment milk or kumyss twice daily, cod-liver oil or glycerine, and arsenical granules. Three ounces of oil daily is the least amount that will do any good, according to Jaccoud. This is certainly an important statement, since all over the United States cod-liver oil is given in doses of only two to four drachms. Arsenic should be given in the form of granules of gr. $\frac{1}{64}$. Of these two are taken daily, and the number increased up to eight or ten. Glycerine may be substituted for oil, in doses of three to four tablespoonfuls daily. A drop of essence of mint and two drachms of rum or brandy may be added to it.

So much for general medicinal treatment; but our author attaches very great importance also to local indications. Counter-irritation over the affected part is always necessary, and the specially important thing is that it be kept up continuously. Jaccoud prefers to use Vienna paste. When cough is accompanied with habitual expectoration, pure creasote, in small doses, with the oil or glycerine, is recommended, and is believed to act upon the catarrhal as well as the pulmonary lesions.

Pyrexia is perhaps the most important single symptom

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[1] The Treatment and Curability of Pulmonary Phthisis, by S. Jaccoud, Professor of Medical Pathology in the University of Paris. Translated and edited by Montague Lubbock, M.D. (London and Paris), M.R.C.P. (Eng.). Pp. 407. New York: D. Appleton & Co. 1885.

to be opposed. According to Jaccoud this pyrexia is, generally speaking, either inflammatory or septic in origin. The symptomatic or inflammatory fever is usually best treated with quinine, about fifteen to twenty grains being given daily. In the absorption or septic, or as it is ordinarily termed, the "hectic" fever of phthisis, quinine is believed to be of no use, and in its place salicylic acid is very strongly recommended. Thirty grains are given on the first day, then twenty or fifteen on the second or third days.

We have not space to go further in description of Jaccoud's methods. In fact we do not find in them anything radically new. His judgment upon the value of inhalations and compressed air is on the whole favorable, and in accordance with present views. With regard to pneumonic phthisis, a strong point is made as to the necessity of early, continuous, and vigorous stimulation. Throughout the course of treatment the use of alcoholic liquors is advised.

News of the Week.

Navy News.—Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the week ending August 22, 1885. Surgeon P. H. Bailhache, granted thirty days' leave of absence, August 15, 1885, Chairman of Board to examine Candidates for appointment as Cadet in the Revenue Marine Service, August 19, 1885. Passed Assistant Surgeon Fairfax Irwin, Recorder of Board, August 19, 1885.

The Third Annual Meeting of the American Rhinological Association will be held at Lexington, Ky., October 6, 1885. Papers and discussion will be devoted exclusively to the diseases of the nasal passages and their sequences. Officers for 1885: P. W. Logan, M.D., Knoxville, Tenn., President; A. DeVilbiss, M.D., Toledo, Ohio, First Vice-President; J. A. Stucky, M.D., Lexington, Ky., Second Vice-President; C. A. Sims, M.D., St. Joseph, Mo., Recording Secretary; N. R. Gordon, M.D., Springfield, Ill., Librarian. J. G. Carpenter, M.D., Stanford, Ky.; H. Jerard, M.D., East Lynne, Mo.; H. Christopher, M.D., St. Joseph, Mo., and E. F. Henderson, M.D., Los Angelos, Cal., Council. Information concerning the full programme, membership, papers, attendance, etc., may be learned from any of the above officers of the Association.

An Editor's Loss.—A fire in the office of the editor of the *New England Medical Monthly* destroyed his exchanges, a large quantity of matter ready for the press, books and manuscripts for the Medical History of Connecticut. We tender our condolences.

A Misinterpretation.—Dr. Garnett, of Washington, publishes in a contemporary journal the untruthful statement that The Medical Record is an ardent advocate of consulting with homœopaths. This shows how oversight sometimes leads the most polite into discourtesy. We have never advocated consulting with homœopaths, but only for the freedom and right of the individual to do so in certain cases.

The Professorship of Ophthalmic Surgery in the University of Gratz has been conferred on Dr. Blodig.

Progress of the Cholera in Spain.—According to information received by the National Board of Health, the following figures represent the diffusion and mortality of cholera in Spain for the period from July 4th to 17th, inclusive:

Provinces.	Cases.	Deaths.	Per cent. of mortality.
Albacete	35	13	37.1
Alicante	2,083	856	41.1
Castellon	1,367	639	46.7
Cuenca	467	205	43.9
Jaen	22	8	36.3
Madrid	1,076	602	55.9
Murcia	2,879	1,128	39.2
Tarragona	369	184	47.8
Teruel	81	33	40.7
Toledo	608	267	43.9
Valencia	10,220	4,979	48.7
Zaragoza	1,690	585	34.6
Total	20,897	9,499	....
Previously reported	28,044	12,347	....
Total reported.	48,941	21,846	....

The *Bulletin* also says that it is probable the epidemic has prevailed much more extensively than is indicated by the above figures, as the *Medical News*, published in Madrid, states in its issue of July 30th, that in one place more than one thousand certificates of death were found that had not been reported to the registrar. The same paper also states that in the vicinity of Valencia corpses are allowed to remain in some of the houses for more than forty hours, that the clothing and bedding of those who have died of cholera, which should be burned, are sometimes not taken from the houses for eight days, and sometimes not at all, and that the public vehicles of Alfafar, etc., which have their stand in the Plaza of San Augustine, carry corpses to the cemetery at a charge of forty-six reales, and immediately upon removing the bodies, load up with passengers for the return trip to the villages. The editor very properly urges the people to unite for protection against the scourge by the observance of sanitary precautions.

Pleasing to Americans.—In one of his letters to the *Philadelphia Medical Times* Dr. J. Milner Fothergill thus pays his compliments to American writers: "New books are certainly coming out here, but in sparse quantity compared to the legion springing up on your side of the water, many of which find their way over here, and are in repute. Not only are the products of the United States in drugs and chemicals taking the lead of home productions, but in literature they are threatening the old supremacy of England, or, rather, the United Kingdom: for Edinburgh always has held a good position in medicine, and when a Dublin man girds up his loins for a book, it is usually for a good one."

University of Vienna.—Drs. Hofmokl, Ultzmann, and Anton Wölfler have been appointed Extraordinary Professors of Surgery, and Dr. Mauthner Extraordinary Professor of Medical Chemistry.

Dr. A. Wynn Williams (London) has been elected a Corresponding Fellow of the Boston Gynecological Society.

The Academy of Sciences in Holland has awarded the Leeuwenhoek medal to Professor Ferdinand Cohn, of Breslau.

MEDICINE IN RUSSIA.—Dr. J. Lazarewitch, Professor of Midwifery and Gynecology in the University of Kharkoff, has been raised to the dignity of Emeritus Professor. Dr. Kusmin, formerly assistant to Professor Sklifasovsky, both in St. Petersburg and Moscow, has been appointed professor of the Hospital Clinic in the latter city. He has acted as editor of the "Annals of the Surgical Society of Moscow."

THE Government of India is making arrangements to have further investigations of a varied character, as to the essential cause of cholera, continuously conducted in India, under the direction of Dr. Douglas Cunningham. As the commission sent out under the direction of Professor Roy, by the Association for the Advancement of Medicine by Research, is now at work in the cholera-infected districts of Spain, the contributions made by England to the question, though somewhat tardy in their arrival, are likely to be important.

THE ACADEMY OF MEDICINE OF LIMA.—A report has been presented to the Free Academy of Medicine of Lima, Peru, by Dr. Villar, from the commission which had been appointed to investigate the cases of yellow fever in Callao.

A ROYAL MEDICAL PRACTITIONER.—Prince Ludwig Ferdinand of Bavaria, son-in-law of Queen Isabella of Spain, who obtained the degree of Doctor of Medicine at Munich last year, is now practising at Nymphenburg, Bavaria.

REMOVED FOR "OFFENSIVE PARTISANSHIP."—Dr. E. S. Elder, Secretary of the Indiana State Board of Health, has been removed for "offensive partisanship."—*Fort Wayne Journal of Medical Sciences.*

COCAINE is already being adulterated. Professor Kastenbine, reports the *Medical Herald*, analyzed a preparation sold by a Detroit chemist, and found it to contain two-thirds of boric acid.

AMERICAN DERMATOLOGICAL ASSOCIATION. — The Ninth Annual Meeting of the American Dermatological Association was held at the Indian Harbor Hotel, Greenwich, Conn., on August 26th, 27th, and 28th. Dr. W. A. Hardaway, of St. Louis, is President of the Association; Dr. W. T. Alexander, of New York, is Secretary.

FURTHER WITHDRAWALS FROM THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.—Five of the officers of the Congress appointed from Chicago have withdrawn; also three gentlemen of Charleston, S. C.; two from the army, and several others living in different parts of the country. German and French medical journals echo the opinions expressed by the English medical journals, lamenting the introduction of ethical and local issues. Sir James Paget has written a letter to Dr. Hays, of Philadelphia, and Sir William MacCormac a letter to the *Boston Medical and Surgical Journal*. Both gentlemen intimate regret and surprise at the course taken by the American Medical Association. The invitation to meet in this country tendered in Copenhagen was believed, they say, to have been tendered in the name of the American profession. If it had been thought that a political issue would have been introduced, the invitation would not have been accepted.

THE FEVERS OF MINNESOTA.—In a paper on "Types and Phases of Fevers in Minnesota," read before the Hennepin County Medical Society, August 3, 1885, by Dr. Slagle, of Minneapolis, it was concluded that in Minnesota there are typhoid and typho-malarial fevers, but no types or phases of fevers peculiar to the State.

THE FOURTH ANNUAL ANNOUNCEMENT OF THE NEW YORK POST-GRADUATE MEDICAL SCHOOL is at hand. From it we learn that there were during the past year one hundred and twenty-nine matriculates. The school now has a hospital, which has already been substantially endowed, its own medical society, and its own journal. Sixty-three operations were performed in the hospital during the past season.

SANITARY ENGINEERING; A NEW FIELD FOR YOUNG MEN.—The School of Mines of Columbia College has recently established a course of study for the education of sanitary engineers. The course lasts four years, and is a comprehensive one, though apparently deficient in physiology and pathology.

EXIT THE BACILLUS OF SYPHILIS.—M. Cornil reports to the Académie de Médecine the results of the investigations by MM. Alvarés and Tavel upon the bacillus of syphilis (Lustgarten). They find a bacillus resembling Lustgarten's in normal secretions, and they incline to the opinion that it is identical with the so-called bacillus of syphilis.

DR. OLIVER WENDELL HOLMES.—We trust that Dr. Holmes will not feel sensitive on being reminded that this is his seventy-sixth birthday.

JOURNALISTIC CHANGE.—The *Medical Chronicle* has ceased its distinctive existence and combined with the *Philadelphia Medical Times*.

DANIEL'S MEDICAL JOURNAL is the title of a new journal just started by Dr. F. E. Daniel, late editor of the *Texas Courier-Record*. The *Journal* comes to us ablaze externally and internally. Dr. Daniel has a chivalrous mind and journalistic instincts. We wish him all success.

THE JEWISH RACE.—Disciples of Darwin have long wondered why Jews, who have been circumcised for thousands of years, are still born with a normal prepuce. M. Blanchard now announces to the Société de Biologie that many male Jewish infants are born without a prepuce. M. Landouzy affirms that flat-foot is very common among the Jews; M. Blocq affirms that scrofula, phthisis, hysteria, and severe neuroses are more than ordinarily common among the Jews, and that the race is in its decadence.

THE NEW BUILDING OF THE COLLEGE OF PHYSICIANS AND SURGEONS is to be located immediately opposite Roosevelt Hospital. Work has already begun upon it. The building, it is said, will be large and well equipped, but plain.

THE MISSISSIPPI VALLEY MEDICAL SOCIETY will meet at Evansville, Ind., September 8th, 9th, and 10th next. The railroads will return members at one-third fare. Hotel rates from $1.50 to $2.00 per day. This Society was formerly the tri-State Medical Society, comprising the States of Ohio, Indiana, and Kentucky.

Dr. Henry B. Sands has resigned his professorship on the Practice of Surgery at the College of Physicians and Surgeons. He will, it is said, still continue his clinical work in connection with the curriculum of the institution.

Dr. Samuel A. Green.—The Governor of Massachusetts has appointed Dr. Samuel A. Green, formerly City Physician and ex-Mayor of Boston, to the position on the State Board of Health, Lunacy, and Charity, formerly held by Dr. H. P. Walcott.

Resignation of Dr. Noyes from the Organization of the International Medical Congress.—Dr. Henry D. Noyes, of this city, has sent the following letter to the Permanent Secretary of the Committee on Organization of the International Medical Congress. "I beg to acknowledge your favor of the 19th ult., informing me of my appointment as First Vice-President of the Ophthalmological Section of the Ninth International Medical Congress by the committee which met at Chicago. This position I cannot accept, because, by so doing, I should assent to the action of the American Medical Association, which has thrust into the International Medical Congress a controverted subject with which the Congress has no concern, and has determined to exclude from all official positions the medical men whose convictions in this regard it disapproves of. I refuse to admit that the composition of the International Medical Congress should be in any way determined by the controverted points of the Code of Ethics of the American Medical Association. I also refuse to join in treating with neglect or disrespect honorable and eminent physicians, who do not accept all the restrictions of that Code about medical consultations. The right of the American Medical Association to take this course, can, I think, be successfully challenged; but for my own decision it is enough that I cannot concur with it, and that I feel sure that its pursuance will prove most hurtful to the Congress, in whose welfare, as you know, I have taken a deep and active interest. For the courtesy of the committee in tendering me this honor, I beg you to express my thanks."

The Drainage of Bellevue Hospital.—It is reported that twenty persons, employed as nurses and helpers in Bellevue Hospital, are ill from the effects of sewer-gas which has been permitted to enter some of the wards while plumbers have been placing new drain-pipes in the building. In the offices of the Health Department it was said that no reports of trouble from sewer-gas in the hospital had been received through official channels. The work of placing new drain-pipes in the hospital was begun on the recommendation of the Board of Health, and the plans of drainage are such as meet the approval of the sanitary officers.

The Verdict of the Court-Martial in the Case of ex-Surgeon-General Wales has, says a Washington correspondent of the Philadelphia *Medical Times*, caused somewhat of a sensation. It will be remembered that Dr. Wales was tried by court-martial and found guilty of inefficiency and neglect of duty, because he failed to discover the rascality of several of his clerks, by which the Government was swindled out of a large amount of money, said to be over a hundred thousand dollars. The court failed to connect Dr. Wales with any of the frauds, but convicted him on a technicality, and imposed what is considered here a very severe penalty, out of all proportion to the offence. The high professional character of the late Surgeon-General, and his successful labors for the advancement of the medical staff of the navy, did not avail him; in fact, they seemed to render his offence the greater in the eyes of the court, which apparently held the opinion that the duties of the Surgeon-General were simply to watch his subordinates and prevent their stealing. It seems by the confession of the principal criminal, the late chief clerk of the Bureau of Medicine and Surgery, that the frauds had gone on undetected for years under Dr. Wales' predecessors; but the court refused to go into the inquiry farther than concerned the latter's administration. To outsiders it looks very much as if Dr. Wales were the victim of a systematic persecution, of which the late Secretary of the Navy was the chief promoter. It is well known here that there was a violent personal antipathy between the two men, which may have been partly political, but is believed to have largely arisen from social antagonisms. The penalty imposed by the court is suspension from rank and duty for a period of five years. It is said that Dr. Wales' counsel will not rest satisfied with this verdict, but will appeal the case to the Supreme Court.

The Small-pox in Canada. — The mortality from small-pox in Montreal is on the increase. Most of the victims are French Canadian Catholics, who do not order their lives in obedience to sanitary rules, and are opposed to vaccination. Small-pox has for years been more or less prevalent in Montreal. In the five years ending with 1880 it caused the deaths of 2,549 persons in that city, and of these 2,146 were French Canadians. Of the fifty-six who died last week, fifty-two were French Canadians. The ignorance of these people seems to be on a par with the incompetency of the city authorities. Several cases are reported from Toronto and Quebec; but the authorities of the latter city deny the truth of the report. The City Council of Quebec are attempting to enforce the compulsory vaccination ordinance.

The Cholera in France.—Early in the week the cholera in Marseilles was rapidly increasing. Within forty-eight hours two hundred new cases were admitted to the Pharo Hospital, and during the same period two hundred deaths from the disease were reported within the city limits, besides fifty in the southern suburbs. At Toulon the disease was likewise spreading. The French squadron at Hyères has reported four deaths from cholera. Later reports denote some falling off in the mortality and morbidity of the disease.

Dr. Hire's Recommendation a Forgery.—It is reported that Dr. William H. Hire was appointed examining surgeon in the Pension Office at New Orleans on a recommendation purporting to be from Mr. St. Martin, of Louisiana, which turned out to be a forgery. Dr. Hire is under indictment for violation of Section 5,438, Revised Statutes of the United States, which refers to the collection or presentation of fraudulent claims against the Government.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 24, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DIFFUSE LIPOMA—LOCAL ELEPHANTIASIS.

DR. A. JACOBI presented a baby, eight months old, the mother sixteen years of age. The anomaly for which he presented it was a moderate amount of swelling on the outer aspect of the lower half of the left leg, with the history that the swelling was noticed at birth, at which time it was smaller and softer than at present. Dr. Jacobi first saw the child two weeks ago, and the swelling had increased in size slightly since that time; it had not enlarged in circumference, but was raised a little more above the level of the surrounding tissue. The enlargement begins outside of the tendo-Achillis, about four centimetres above the malleolus externus, extending around the leg to about one-third of its circumference; the longitudinal diameter is about four and a half or five centimetres. It is not at all lobulated. Dr. Jacobi presented the case for diagnosis. There were only two things which, in his opinion, it could possibly be; first, diffuse lipoma; second, local elephantiasis. In the March number of *The Archives of Pediatrics*, last year, he published an article on congenital lipoma, and at that time collected a large number of reported cases, some complicated and others uncomplicated. One was complicated with spina bifida; one was very large, and spread over a very large portion of the body, quite diffuse, not capsulated at all as are lipomata in the adult. In a few cases the swellings were quite local. In one or two instances the tumors were removed without difficulty, but in others the cases terminated in death after attempt at removal. The diffused lipomata are characterized by not being capsulated, by beginning in the normal fatty tissue and growing locally, sometimes over a very small surface.

Another possibility in the case was that it was a local elephantiasis. He had seen congenital elephantiasis of such local character and in exactly the same neighborhood. He had seen it upon the dorsum pedis, and also upon the neck in the form of one or more heavy folds of skin; upon the foot in masses extending from one to one and a half inch, the transverse length being more than the vertical. He had seen one case in which the disease appeared in the lumbo-sacral region. One of the characteristic conditions which would aid in making a differential diagnosis was the fact that the skin itself is found hypertrophied, and it seemed to him that in the case presented the skin was hypertrophied. It was not movable over the fatty substance. If this be so, the case might be claimed as one of localized elephantiasis.

THE PRESIDENT asked if it might not be a sarcomatous growth.

DR. JACOBI said it was not malignant, like sarcoma, because it was not sufficiently circumscribed, and it was probable that it did not extend deeper than the subcutaneous tissues.

THE PRESIDENT said he had seen one case of congenital sarcoma which occurred upon the chin of a little boy, and remained as a movable thickening of the skin for a year and a half before it began to grow, and then it grew very rapidly until he died, at the age of two and a half years, with an immense sarcomatous tumor.

DR. JACOBI said that in his case the tumor was already of considerable size, and if it was malignant he thought it would have already assumed the shape which would have been expected if it had been sarcoma. The child was a very fat one, and that might perhaps arouse the suspicion of the swelling being originally lipomatous in character; at the same time many such babies were seen without like accumulations of fat.

DR. RIPLEY thought it unnecessary to hazard an opinion with reference to diagnosis when it was so easy to reach one by simply making an incision, removing a small portion of the growth, and examining it microscopically. Certainly if it was lipomatous the nature of the swelling could be thus readily ascertained, and no harm would be done by the procedure. So, also, if it proved to be a growth of another character, an operation for its removal could be completed.

DR. JACOBI said he thought he should remove the growth, and would probably have an opportunity to present it to the Society at some future meeting.

DR. W. GILL WYLIE presented a series of specimens (see page 227), illustrating eleven additional cases in which he had performed Tait's

OPERATION FOR SALPINGITIS.

DR. AMIDON asked Dr. Wylie in how many of the twenty-four cases in which he had operated the patients were distinctly hysterical.

DR. WYLIE said that probably one quarter or one-third might be classed as hysterical. He was inclined to the opinion that those patients were hysterical in whom the ovaries were in a condition of cystic degeneration without much disease of the tubes. In most of the cases the patients were absolutely bedridden. For the most part the operation was performed for the relief of physical pain. By no means did all the patients have dysmenorrhœa, and in the majority of cases in which dysmenorrhœa did exist it was associated with disease of the tubes.

DR. RIPLEY asked if, in the case in which there was uterine catarrh, with extensive pelvic adhesions, it was possible to cure the woman without resorting to such a heroic operation.

DR. WILEY thought it was not, as she had already been under treatment for a long time, had become an opium-eater, and was bedridden. Possibly the dysmenorrhœa might have been cured; but according to his observation, in all cases in which there had been what is called cellulitis, in the existence of which he did not believe, the tubes were usually involved, and he regarded it as the best procedure to remove them.

THE PRESIDENT asked if in the two cases reported as having died from the escape of septic matter into the peritoneal cavity, any effort was made to secure drainage.

DR. WYLIE said that in all of the cases except one, drainage was looked after carefully.

THE PRESIDENT asked what antiseptic precautions were observed.

DR. WYLIE said that the precautions consisted in the use of clean instruments, sponges, and hands, one assistant, shaving and washing the patient with bichloride solution (one in five thousand), and making the abdominal opening as small as possible. In only two cases had he washed out the peritoneal cavity, and in both the patient recovered.

THE PRESIDENT thought there were two cardinal points in abdominal surgery; first, cleaning and disinfecting the cavity after the operation; and, second, the institution of free drainage. From some recent experience he felt encouraged in the belief that the rate of mortality in abdominal surgery could be reduced still further than it had already been done. When a student he was taught that rupture of the bladder with the escape of urine into the peritoneal cavity was sure death. He recently saw a case of this kind in which a careful toilet was made with a pretty strong solution of bichloride of mercury, and there was no reaction whatever. The wound in the bladder was stitched to the edge of the external wound. He had also seen a case in which the peritoneal cavity became more or less filled with the gelatinous contents and septic matter from cysts, and in which the peritoneal cavity was filled with the warm sublimate solution (one to eighteen thousand) until it ran over, when the cavity was emptied, and this operation was repeated two or

three times until all septic material had been washed out and the cavity thoroughly disinfected. There were no evidences of sepsis after the operation, and no peritonitis occurred.

Dr. Wylie said that in private practice he had had twenty-two cases, with only one death. Of the eleven cases reported this evening, nine were in private practice, and in all the patients recovered.

Dr. C. H. Knight presented a specimen with the following history:

PERINEAL SECTION AND INTERNAL URETHROTOMY FOR STRICTURE AND URINARY FISTULÆ—HYPERTROPHIED BLADDER.

A. N——, forty years of age, Spanish, single. Patient had first gonorrhœa twelve years ago, and a second attack two years later. After last attack had several abscesses in perineum following partial retention. Was obliged to use catheter for a year or more habitually, and at times ever since. More than half the urine now passes through two perineal fistulæ, just to the right of raphe and one and a half and three inches in front of anus. Is obliged to urinate at least six times during the day, and rises twice or more times during the night. The urine is generally thick, and contains large quantities of pus. The perineum is very thick and inelastic, and is covered with scars of old abscesses, some of which have been incised, others having opened spontaneously. Meatus admits No. 24 (Fr.). At 4½ inches there is a contraction to No. 22, and No. 20 is arrested at 5 inches. No attempt has hitherto been made to close the fistulæ or divide the strictures. The fistulæ were laid freely open, but their point of communication with the urethra could not be discovered. They were traced backward a considerable distance, until the point of a probe could be felt separated from a small guide in the bladder by merely a thin layer of urethral mucous membrane, and then the urethra was opened by a free incision. From the same point, about five inches from the meatus, the urethra was divided with dilating urethrotome along the entire extent of its upper wall to No. 32, the meatus having previously been enlarged with a bistoury. Sounds were passed regularly for six months. The perineal wound gradually closed, until only a few drops of urine came through the false passage, and frequently none at all would appear for several days continuously. Fifteen months after the first operation the patient had a severe fall, and in a few days an abscess formed near the anus, behind the perineal fistula. The opening of this abscess resulted in a marked increase in the proportion of urine passed by the perineum. No sounds had been used for six months, and slight recontraction was found with No. 30 bulb at about five inches. Patient was very anxious to have fistula closed, and the first operation was practically repeated, the urethra being divided so as to admit No. 36 sound easily to bladder. The patient recovered from this operation as rapidly as from the first. The perineal wound quickly closed, and after the tenth day no urine passed by the perineum for a period of five weeks, when a few drops appeared, without the formation of a fresh abscess. This occurrence greatly depressed the patient, and soon after, having had a serious quarrel with a business associate, he took an enormous dose of potassium cyanide and died in a very few minutes.

The specimens, removed at the New York Hospital by Dr. Thayer, of the House Staff, show the effect upon the bladder of prolonged urethral obstruction, a large periurethral abscess in the deep urethra, and the appearance of the urethra two months after an internal urethrotomy. The kidneys and other viscera showed no evidence of disease, but the stomach was intensely congested from the action of the poison. The vesical wall is much thickened, the hypertrophy being most marked in the muscular coat, and the capacity of the bladder seems to be diminished. The mucous lining is also somewhat thickened, but is smooth and free from erosions. The prostate gland is somewhat hypertrophied. Just behind the junction of the prostatic with the membranous urethra, and to the right of the veru montanum, are two fistulous openings, separated by a band of tissue one-eighth of an inch in width, and entering the cavity of an abscess, which partially surrounds the membranous urethra and extends backward toward the prostate gland. Half an inch in front of these two fistulæ, and communicating with them rather than with the abscess cavity, is the small opening of a third fistula, which runs just beneath the mucous membrane. In the median line of the floor of the membranous urethra is the mouth of a fourth, which opens directly into the abscess. This is the larger of the fistulæ and readily admits a No. 28 (Fr.) sound. The smallest will receive only a small probe. The capacity of the abscess is estimated at about two drachms. The pendulous urethra shows along its upper wall a "cicatricial splice," the result of the internal urethrotomy, about one-third of an inch wide at its widest part. Their position and the remoteness of the fistulous openings from the point of urethral contraction suggest the possibility of their having been caused by instruments, and there is, moreover, a history of rather rough handling and of profuse hemorrhages on several occasions after instrumental interference. An interesting point in the clinical history of the case is the re-establishment of vesical tolerance after removal of urethral obstruction by the internal urethrotomy, notwithstanding the evidently reduced capacity of the bladder. Previously the necessity of emptying the bladder had been frequent and urgent; after the operation the intervals between the acts of urination were of natural length and the bladder seemed to be under perfect control.

Dr. Amidon asked if the hypertrophy of the bladder had anything to do with the maintenance of the perineal fistulæ.

Dr. Knight thought it doubtless had, and was also of the impression, from the position of the fistulæ, that they were produced by instruments.

The President remarked that he never fully appreciated how little was known concerning the introduction of steel sounds into the bladder until he began teaching.

Dr. Ripley said he once had a patient at St. Francis' Hospital, sixty years of age, who had not passed urine through the urethra for six years. He performed external perineal urethrotomy, and the fistulæ closed.

The President believed that in the majority of cases the fistulæ would heal after perineal section.

FIBRO-SARCOMA OF THE NASO-PHARYNX.

Dr. R. P. Lincoln presented a specimen, removed June 23d from the naso-pharynx of a man, seventeen years of age, from whom he removed a similar growth eleven months ago and presented the specimen to the Society in October last. The second specimen was chiefly interesting on account of the method of treatment. In the first case he removed the tumor by the use of the galvano-cautery écraseur, intending to cauterize the stump thoroughly until the seat of the growth was entirely destroyed. Although he had the assurance of the patient that he would return and have the stump cauterized, he failed to keep his promise, and Dr. Lincoln had opportunity to make only occasional applications. Finally the new growth became so much enlarged and gave the patient so much inconvenience that he submitted to another operation, and Dr. Lincoln hoped to be more successful than formerly in obtaining opportunity to repeat the caustic applications to the stump. The tumor presented was quite vascular, as was the case of those of reproduction, the vessels increasing in size with each new growth. It filled the right nostril and the post-nasal cavity, and had a broad attachment. The wire grasped the tumor well up to its insertion. The case illustrated the necessity of repeated cauterizations of the stump after removal of such a neoplasm.

Dr. Jacobi asked Dr. Lincoln if in most of his cases the patients were young persons.

Dr. Lincoln replied that in most of the cases the patients were under twenty years of age. A patient, however, whom Dr. Knapp had sent to him to-day, was a man probably forty-five years of age.

FRACTURE OF THE OCCIPTAL BONE.

Dr. W. P. Watson presented the occipital bone, removed from a man, nineteen years of age, who received an injury of the head, probably from a stone. It was a coroner's case, and it was to the coroner he was indebted for the specimen. The man was hit on a Wednesday. He went to his work on Thursday, worked all day, and also on Friday and Saturday. But Saturday evening he complained of headache, went to bed, sent for a physician, who found the patient unconscious. The subsequent clinical history of the case Dr. Watson had been unable to obtain. At the autopsy there was found in front of the occipital protuberance a soft spot in the scalp. On turning back the scalp there was found a well-marked ecchymosis about an inch and a half in diameter. On removing the calvaria there was found a fracture, commencing at the occipital protuberance and extending downward three and a half inches, involving a portion of the margin of the foramen magnum on the right side; on the left side it did not extend down to the margin of the foramen. There was marked congestion of the brain and meninges. When the patient was admitted to St. Francis' Hospital, Hoboken, on Tuesday, he had tonic spasm, the pupils were irregular, sometimes responding to light and other times not; the bowels and urine normal; the patient was unconscious. About two or three hours before death there was quite a profuse hemorrhage from the nostril.

Dr. Van Santvoord said he had had opportunity to make several autopsies in cases of this kind, and in all death occurred from surface hemorrhage; the fractures themselves were apparently innoxious.

Dr. Wylie referred to the case of a young man who received an injury of the head, had hemorrhage from both ears followed by serous discharge for ten days, and also hemorrhage from the pharynx. He gradually recovered without special treatment, except rest.

The President remarked that hemorrhage from the ear was not necessarily an indication of fracture of the base of the skull.

Dr. Wylie said no, but there was in addition a discharge of serous fluid from the ear for ten days.

The President referred to a most remarkable case, the specimens from which were in Wood's Museum, that of a sailor who fell twenty feet and struck square upon his buttock and received no fracture at all except at the base of the skull, where there were twelve different fractures caused by displacement of the bones of the spinal column upward.

CATARRHAL ULCERS OF BOTH VOCAL CORDS.

Dr. Van Santvoord presented a specimen illustrating catarrhal ulcers of the vocal cords, resulting from ulceration of the larynx accompanying measles. The patient was an infant, eight months and ten days old at the time of death, and an inmate of Randall's Island Asylum. It was suffering from the early symptoms of measles when admitted. The eruption developed on the second day. On the second day of the eruption the child began to have cough of croupy character, preceded by severe pharyngitis. On the fourth day of the eruption there was entire loss of voice. The child died of extensive broncho-pneumonia and bronchitis.

At the autopsy, in addition to the broncho-pneumonia and bronchitis, the larynx was found to be very much congested, and at the posterior half of each vocal cord there were found ulcers which appeared as if covered with slough. He had had occasion to make a number of autopsies in which there were broncho-pneumonia and bronchitis following measles, but as a rule he had not examined the larynx unless there had been some special evidence of laryngeal trouble before death, and had not before seen the condition illustrated in his specimen. On looking up the literature of the subject, however, he found that it was not very uncommon. Rilliet and Barthez stated that about one-half of the fatal cases of measles showed ulcerations of the larynx. In this case there were no symptoms of laryngeal obstruction.

FATTY DEGENERATION OF THE HEART—CONCENTRIC HYPERTROPHY.

Dr. J. H. Ripley presented the heart removed from the body of a man, sixty-seven years of age, who, one year ago, weighed two hundred pounds. His history showed that he had never been sick to any extent until last July; he had never had either rheumatism or syphilis. Last August he had an attack of diarrhœa accompanied with abdominal pain. At the end of a week Dr. Ripley saw him and found him suffering from intense pain over the hypochondriac region, but at that time the diarrhœa had ceased. There was a great deal of tenderness over the region of the liver, and the area of hepatic dulness extended four inches below the free border of the ribs. The temperature was 101° F. The constitutional symptoms, except the pain in the hepatic region, were not very grave. He was struck with one symptom and that was the great frequency of the pulse, together with its extreme feebleness and irregularity—one hundred and sixty to the minute, irregular, and at times almost imperceptible. There was marked turgescence of the cervical veins; there was œdema at the base of both lungs. Dr. Ripley diagnosed the acute trouble as perihepatitis. At the end of a week the patient recovered from the acute attack, and so far as the bowels were concerned they were constipated afterward. He did not rally thoroughly from the attack, and little by little his dropsy increased, both pleural cavities became involved, and later he had ascites and extensive anasarca. All treatment failed to reduce the increasing dropsy. In November Dr. Ripley punctured the cellular tissue of the lower extremities and water drained away in large quantities. The pleural cavities became free, also the abdominal dropsy and anasarca disappeared. The pulse, however, continued rapid, irregular, and feeble, at times two hundred to the minute. The patient suffered from dyspnœa and anorexia principally. After he had watched the case for a time Dr. Ripley made the diagnosis of probable fatty degeneration of the heart, and based it upon the condition of the stomach, with the great rapidity of the heart's action, the condition of the veins of the neck, and the dropsy. Up to November 1st, despite very careful examination, no cardiac murmur was discovered. Later on there commenced a perceptible murmur at the apex, which was not transmitted, and still later on, a murmur was heard at the base of the heart. By January 1st the patient had so far recovered that Dr. Ripley discontinued his visits, although there remained considerable dropsy, but the patient had a fair appetite. While Dr. Ripley was attending the patient there was no evidence of Bright's disease. Not long after he ceased his visits the patient got worse, but went under the treatment of an irregular practitioner, under whose care he remained until death. As near as Dr. Ripley could learn, the man had general dropsy, which was removed by hypercatharsis two or three times. The patient gradually emaciated until he did not weigh more than one hundred and forty pounds, and his skin always had a yellowish, saffron color.

A partial autopsy revealed extensive infiltration of the cellular tissue with serum; three pints of serum were found in the abdominal cavity; the pleural cavities contained about six quarts of fluid; the pericardium contained not more than one or two drachms of fluid; the liver was considerably enlarged, its capsule thickened, and on section it resembled ordinary nutmeg liver; the kidneys were covered with an unusual quantity of fat, the capsule was adherent, and the cortical portion thick-

ened; the spleen was about the size of a pullet's egg, contained two lobes which were attached to each other by a capsule; the lungs had become carnified at the bases, and there were old pleuritic adhesions.

The organ chiefly interesting was the heart. The pericardium contained an unusual quantity of fat. The aortic valves were very much thickened, shrunken, and apparently insufficient. The cordæ tendinæ of the mitral valve were thickened and shortened, and the valve itself was shrivelled, and the orifice was in a state of stenosis. The walls of the left ventricle were very much thickened; the capacity of the ventricle was very much lessened; it would not contain more than one or two drachms of fluid. It was a case of concentric hypertrophy. The tricuspid valves were thickened, and there were some fibrinous deposits on the anterior suface. There was but slight atheroma of the aorta. The coronary arteries were healthy.

On microscopical examination of the muscular tissue many of the primitive fasciculi were literally filled with small fat-globules, and the striæ were indistinct. Dr. Ripley took pains to examine the right ventricle and both auricles, and found that the muscular tissue in all of them had undergone extensive fatty degeneration, more marked in the right than in the left ventricle, and the auricles were not much better.

He presented the case because, although fatty degeneration of the heart was very common, still its clinical history had not been written up very extensively. In addition to the clinical history already given, it might be added that the arteries throughout the body did not appear to be atheromatous.

The Society then went into executive session.

British Medical Association.

FIFTY-THIRD ANNUAL MEETING.

Held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1885.

REPORTS OF SECTIONS.

(Continued from page 218.

PUBLIC HEALTH SECTION.

THURSDAY, JULY 30TH—SECOND DAY.

DR. DAVIES in the Chair.

MR. FRANCIS VACHES, of Birkenhead, read a paper on

SUMMER DIARRHŒA OF CHILDREN, ONE DISEASE OR MANY.

He pointed out that in 1883 there were 15,000 deaths, and in 1884 25,000 deaths from diarrhœa. The number of deaths in the latter year was more than half the total number from the two chief zymotic diseases. After dealing with the question at considerable length, Dr. Vaches found it impossible that the immense infant mortality referred to diarrhœa every summer could be due to one disease.

DR. MARTIN, of Bolton, thought that summer diarrhœa was often due to altered quality of the milk.

DR. WIGHT, of Southport, thought the health returns should be more discriminating.

DR. SWETE, of Worcester, said it was very difficult for the medical officer to get proper returns in such a question as this.

DR. PAINE, of Cardiff, said the difficulty of giving correct returns of the causes of death was very great. The Registrar-General had recently called attention to the number of cases in which death was put down to diphtheria, which he believed was due to careless diagnosis. The same remark applied to diarrhœa, which was a symptom and not a disease. First of all, diet was a common cause of diarrhœa, and then came temperature and rainfall, which, taken singly or together, might produce disease. He inquired into the question of one hundred and ten deaths from diarrhœa, and in only one case had the child been breast-fed. Cow's milk should not be used for at least fourteen days after calving. In July, August, and September there was the question of temperature which gave a proclivity to disease. In 1883 the mortality from diarrhœa in the eastern part of Roath was one hundred per cent. more than in any other part of the district, and there were imperfect sewers there, which much favored zymotic diseases. The average rainfall in Cardiff was forty-three inches, and last year thirty-six, so that more diarrhœa prevailed. Disinfectants had been poured into the sewers, and this appeared to have much lessened the mortality from cholera.

SURGEON-MAJOR PRINGLE thought that much of the milk brought to market was unfit for the food of children.

DR. DAVIES thought that diarrhœa was, to a certain extent, a generic name, but he could not admit that all the diseases which came under his treatment were merely symptoms. Some of the diarrhœa cases he said had cow's milk, others bread and water, and lived in houses under £20 rental.

DR. BULLARD, of London, said he had tried to get to the bottom of this question, but unfortunately had not been well enough supported by the members of the profession.

DR. PAINE had noticed at one time, when cholera was prevalent in Cardiff, that it did not occur among the Irish infants, whose parents did not buy cow's milk, but fed their children on oatmeal and water.

DR. DAVIES noticed that Irish women nursed their own children.

DR. DRYSDALE, of London, said that there could be no doubt that the cause of many of the deaths from diarrhœa was the drinking of milk and other fluids containing organisms which were true poisons. These were particularly lifelike in the hot, summer months. Good milk was in many instances the best cure for diarrhœa in children, but the milk must in many cases be boiled, and of course the bottles used in infantile feeding maintained scrupulously clean. A large number of children of the poor in London died from diarrhœa through being brought up by hand, and in 1847, when he was on a tour in Ireland, at the time of the famine, children were carried off in large numbers from the diarrhœa caused by starvation.

DR. MARTIN, of Bolton, read a paper on

OVER-PRESSURE IN SCHOOLS AND HOME LESSONS.

Over-pressure injures the health of children, produces misery at home, both for parents and children, almost every night. Children, in order to keep pace with the present code, have to pore over their lessons (in some instances) until ten, eleven, or twelve o'clock at night (as do pupil teachers, who should be growing in body and mind). Next morning the child goes to school without being able to eat its breakfast; the effect of this upon the brain and nervous system takes away the appetite, enervates the child, and stunts its growth; then follow headaches, vomiting, nervous debility, brain fever, talking and walking about in the bed-room in the night, St. Vitus' dance, curvature of the spine, heart disease, myopia, spitting of blood, and in some instances convulsions and death. I have personally seen all the above in my own district. The dread of the examination, of the inspector's visit, the anxiety to gain a prize, or the thought of not being able to pass the examination, so as to leave school in order to work for a livelihood, have each and every of them a share in the production of mischief. The master or matron is worried and in misery about the grant, the inspection, the school peace, and the managers; and to aid in increasing the number of passes and the augmentation of the grant, the managers or teachers in some instances send for all children (even from houses where there exists infectious or contagious disease) to be present at the examination, no provision being made in the Education Act for the

counting of those as present at the examination who have been kept from school for the protection of the public health. In reference to schools, light, position, ventilation, and proper warmth are all essential to the health of children and teachers. I now repeat what I stated on May 4, 1883, viz.: "It is very important that children who have a capacity for education in the higher branches of knowledge should have every opportunity of gaining such knowledge, and that the State should assist. It is also very necessary that a child or young person be at school five or six hours a day, but I often see children whose health is injured by over-study or brain work; such children might very properly be excused what teachers call home work, to enable them to learn domestic duties, and assist their parents or guardians. At the same time it would make them more healthy and more fitted to the wants of the country."

Since I read my paper at Liverpool in 1883, home lessons have ceased at some schools for very young children, and parents now know that home lessons cannot be insisted upon and are illegal. The examinations have been less rigid; but still the code is too high, and as it is monstrous to imagine that all children can be brought up to the same level, the boasted one hundred per cent. of passes is a very strange thing. The head master or mistress of every school ought to have the option of removing from examination, at least, seven per cent. of those who can give their whole time to school, and fifteen per cent. of "half timers," who have not the same privileges as others; this, with an allowance for children kept from school for the protection of the public health, would mitigate to some extent the evils existing. The special committee of the London School Board admit that they have not had the advantage of practical medical testimony when speaking of increased physical benefit. But it has been stated that "throughout the country the voices of managers, teachers, and employers of labor bear witness to the diminished vigor and attenuated limbs of the children of our working population, and ask if there is no way of opening the eyes of our education theorists to the bitter and terrible wrongs inflicted on our young." Professor T. Pridgen Teale, a very high authority, says he is "simply horrified at the refinement of human slavery and torture invented and carried on in this civilized country." The question of ill-fed children is a very important one, but of all the cases that have come under my care, only two could be said to be due to improper feeding, and not one to want of sufficient food; the punishment must be severe where a child is crammed in the head, and nothing in the stomach. Teachers also come in for a full share of torture. Three teachers have died in the Bolton District within a very short time, all comparatively young; one of them died on the very day of the examination of his school. It is a well-known fact that myopia is unknown among the wild tribes. Some time ago, at Berne, Professor Pflüger, a great authority, gave it as a fact that more than one-half of forty-five thousand children examined in Germany, suffered from defective vision; in some schools those suffering from myopia, or shortsightedness, amounted to seventy or eighty per cent., and the commission actually found twenty per cent. of the boys, and from thirty to forty per cent. of the girls, suffering from curvature of the spine. The most enthusiastic devotee of excessive education would regret to see the above state of things take the place of the indomitable pluck, energy, and endurance of our forefathers.

Dr. Swete, of Worcester, said that there could be no doubt that over-pressure in schools was due to the way in which parents were pushing on their children to get on in the world, and, as an inspector said in his district, the children had too much brain food and too little stomach food. In Scotland, where children studied well, they were fed on oatmeal porridge and milk, but in English towns the children got scarcely any phosphates and too much brain work for their stamina.

Dr. Drysdale, of London, said it was an axiom in his mind that children could not be better educated than they were fed. The chief point in education was first of all to give good nutrition, and he was convinced that the State system of education, as at present in vogue, would break down, unless the supply of children were greatly reduced, so that the number to be educated did not exceed the capacities of the capital of the country to feed, clothe, and house adequately. It would be possible for the State to insure comfort and education to all born into it, but if it did this it was bound, as J. S. Mill said to us, to see that no one was born without its consent.

Surgeon-Major Pringle said he was much struck on returning to this country after an absence of twelve years, to find so many boys and girls wearing spectacles, and suspected this must be caused by the over-pressure in Board schools.

Dr. Mantle read a paper on

INFECTIOUS SORE THROAT WITH RHEUMATISM.

He exhibited some microscopical slides, showing the organisms which had been, in his opinion, the origin of this disease, which appeared to be epidemic and contagious at present in some localities.

Dr. Swete, of Worcester, read a paper on

A DANGER WITH CONSTANT WATER SUPPLY.

He showed that suction brought sewage and other deleterious matter into the water-pipes. They must, therefore, try to prevent the suction. If there was no vacuum in the water-pipes there could be no suction. He exhibited a valve for placing on the highest point on the water-pipes, which valve would let the air in without letting the water out. This plan was approved of by many of the members of the Section.

The meeting then adjourned.

FRIDAY, JULY 31ST—THIRD DAY

Dr. Davies, of Bristol, in the Chair.

The first paper was read by Dr. C. R. Drysdale, of London,

ON THE INFLUENCE OF COMFORT IN LOWERING THE DEATH-RATE.

The author said that this point had been first discussed clearly, as far as he knew, by Dr. Villermé, of Paris, in 1832, who had showed that in Paris the death-rate of persons in easy circumstances between the ages of forty and fifty, was only 8 per 1,000 per annum, while it was 18.7 per 1,000 among persons of humble circumstances. And that the death-rate in the poor quarter, twelfth arrondissement of Paris, was 1 in 15 persons as against 1 in 65 in the rich quarter, or second arrondissement. It had recently been shown by M. de Haussonville in the *Revue des Deux Mondes*, of 1884, that there were three times as many children to a family in the twelfth, as in the second arrondissement. The remarkable statistics of C. Ansell, junior, of the National Assurance Society of London, had showed that of 100,000 born of the professional classes and gentry at a given age, 80,000 were alive, as against 65,000 of the general population. The present statistics of the various districts in London was a complete confirmation of these statistics of rich and poor mortality. The rich suburb of London, Hampstead, had a very low death-rate, 11.50 per 1,000 per annum, as against a poor quarter, St. George's parish, Whitechapel, with a death-rate of 26 per 1,000. Here, again, the birth-rate was, as in Paris, in the inverse ratio of the death-rates. The birth-rate of Hampstead was but 22 per 1,000 as against 40 per 1,000 in the Whitechapel parish. His own hospital, the Metropolitan Free Hospital of London, was in the Whitechapel district, and he had found that the average of children to a family among

his married female patients over forty-five years of age was more than seven children, whereas the number of children among the professional classes in Paris was not two to each family. The death-rate of the children in Whitechapel among the poor was often twenty five to thirty per cent. in the first year of life, against eight per cent. among the infants of the well-to do classes in England and France. His conclusion, therefore, from all these glaring facts, was that the further lowering of the death rate among the poorer classes would be an impossible matter so long as families were so large in that class. If only the birth-rate among the classes with the lowest wages was as low as 25 per 1,000 instead of 40 per 1,000, he saw no reason why the death-rate of England and Scotland might not fall to 12 per 1,000, as it was in well-fed New Zealand. The State would have to discourage the production of families of more than four children, sooner or later.

Dr. Paine, of Cardiff, agreed with the opinion put forward by Dr. Drysdale, as to the superior mortality of the poor, although it was remarkable that sanitary efforts had reduced the death-rate among the poor in a greater ratio than it had among the well-to-do in Cardiff. The statistics of London cited were true of the poor Irish population of Cardiff, which was next door to mendicancy in many cases. The birth-rate in Cardiff was 41 per 1,000, yet the infant mortality under one year was rather low. He had often said that the natural death-rate of a population should not exceed 15 per 1,000, and thus in Cardiff there were at least 5 lives more per 1,000 annually that should be saved, which future laborers in hygienic science must work for.

Dr. Davies, of Bristol, said that poverty was clearly a factor in causing high death-rates, and in Bristol that was because the zymotic diseases attacked the children of the poor, who crowded into small house accommodation so much more than did the well-to-do classes. In Bristol the poorer classes had good food; but they were exposed to cold, and the children were not nursed carefully enough. There was a charitable association in that city which did its best to remedy this misfortune of the poor. The death-rate of Bristol was only 2 per 1,000 lower than that of Clifton, which was very consoling. He did not see how the poor could be enjoined to have smaller families. The evil to be combated was the Poor Law system, which made the poor thoughtless, so that, unlike the professional classes, who postponed their marriage-day until the man was thirty, the poor married at twenty, and in eight years had five or seven children to provide for. The poor should not be taught improvidence by the law.

Dr. Pringle said that in Lewisham, London, where he resided, there was an immense amount of overcrowding, which was caused by the imperfect supply of house accommodation and the very high rents the poor had to pay.

Dr. Rice Morgan, of Swansea, said the paper covered a most important ground, and related to the age, distribution of the population, and wealth of its members. Poverty and discomfort were not always synonymous, for many operators who were well off lived in wretched tenements to save money in rent.

Dr. Drysdale, of London, said that he was glad to find such eminent public officers acknowledging the gravity of the question. For his part, he had long been convinced that the next move in sanitary science must be in the direction of the State discouraging the multiplication of misery by means of those large families which no one wished to see, and least of all the parents. If the birth-rate of Brompton was only 19 per 1,000, against 40 per 1,000 in Whitechapel, it was clear that intelligence might alter that, and doubtless in the near future sanitary science would, in the words of the great economist, J. S. Mill, come to look upon the producing of large families in any class in European countries in the same way as they now looked on drunkenness or other preventable cause of death and misery.

Dr. Brindley James read a paper entitled "Are Coroner's Juries Necessary?" He contended that such was not the case, because in France, Belgium, and other countries, the system of the *médicin des morts* was a far better guarantee against crime than our jury system. To prove this he alluded to the Becarmi poisoning case in Brussels, some years ago, where a husband poisoned his brother-in-law from sordid motives, with the assistance of his brother and his wife. The poison used was nicotine, and the *médicin des morts* who investigated the case detected the poison in the vomited matter, while had this case been put before a jury the man would have got off. The publicity of English juries was extremely painful to the relations of many poor people who had accidentally died, and who were maligned in the daily papers after death because they had occasionally used alcohol. He was of opinion that some system of the kind should replace the happy-go-lucky system in England.

Dr. Drysdale, of London, spoke in praise of the French *médicin des morts*, who came at once on a death occurring and thus made a clear piece of statistics in case of children dying within the first six weeks, many of which did not appear either as births or deaths in English mortality statistics.

Dr. Davies said he had made a suggestion some years ago to the authorities that there should be two coroners in each district, one of whom should be a medical man.

Dr. James thanked Dr. Drysdale and Dr. Davies for the approval they had expressed of his views, which he felt very strongly.

Dr. J. Lloyd Roberts read a paper on "Epidemic Pneumonia."

Dr. Might read a paper entitled "Remarks on the Present Management of the Sanitary Medical Service, with Suggestions for its Improvement." He was strongly in favor of a more educated class of the community being the directors of the sanitary board in each city.

The Section then separated with a vote of thanks to Dr. Davies, of Bristol, for his most able and courteous conduct in the president's chair.

Dr. Davies said this was the most self-denying of all the sections, since it did its very best to get rid of the very diseases on which medical men lived.

SECTION OF PHARMACOLOGY AND THERAPEUTICS.

Wednesday, July 29th—First Day.

This Section opened with an address by the President, Professor Fraser, of Edinburgh, who began by complimenting the Association for forming the Section, of which the present is only the second year, and then preceeded to administer a further compliment—some would say the puff direct—to the *Journal*. He then dwelt on the propriety of separating pharmacology from other branches of study, and urged that there ought to be at every great medical school a properly equipped laboratory for research on this subject. He held such laboratories to be as necessary as they were admitted to be for the prosecution of chemistry and physiology.

Professor Leech, of Owens College, then read his paper on "The Duration of the Action of Medicinal Substances," a subject which seemed to interest the Section less than might have been expected, though some interesting remarks were made, and the paper when published will be worth perusal.

Then came a discussion on

SUBCUTANEOUS MEDICATION,

introduced by Dr. Talfourd Jones. In connection with this a paper was read on the "Subcutaneous Use of Quinine," by Dr. L. Aitkin, who also contributed interesting remarks on "Ergotine in the Hemorrhage of Typhoid Fever." Dr. Spender and several others contributed remarks, but altogether the discussions on the first day scarcely came up to the expectation that had been formed when the arrangements were made for this Section.

THURSDAY, JULY 30TH—SECOND DAY.

DR. E. LONG FOX, of Clifton, opened a discussion on the "Action of Diuretics," in which several gentlemen took part.

The President, DR. FRASER, F.R.S., read a paper on the "Action and Uses of the Digitalis Group, with Special Reference to Strophanthus Hispidus." He related his experiments with the last-named drug, with which he seems to have been occupied for a considerable period. There is no doubt about its very powerful influence upon the heart, and it will probably come into use, but at present very few persons seem ever to have seen it or heard of it. The reporter only met with two gentlemen in the Section who were acquainted with it, and both of them were professors. This being the case, there could be but little discussion, but a good deal of interest was excited by the demonstration which followed, by DR. STOCKMAN, of Edinburgh, of the action of strophanthus hispidus on the heart of a frog by means of an apparatus which recorded the tracing so that it could be carefully compared with the tracing produced by the heart's beat immediately before the application of the drug.

The Section was asked to consider a proposal of DR. BALTHAZAR FOSTER, made through the Collective Investigation Committee,

THAT THIS SECTION SHOULD DISCUSS NEW REMEDIES, AND MAKE A SELECTION FOR FURTHER INVESTIGATION IN CONJUNCTION WITH THE COLLECTIVE INVESTIGATION COMMITTEE.

THE PRESIDENT rather threw cold water on the project, remarking that he did not himself expect much good to result from a superficial investigation such as that proposed, but he would be happy to hear the opinions of those present. No one responding to this invitation, he then asked Dr. I. Owen to state on behalf of the Collective Investigation Committee the exact nature of their proposal.

DR. ISAMBARD OWEN thereupon explained the project, and proposed that the Section should appoint a subcommittee to co-operate with the committee he represented.

THE PRESIDENT again invited an expression of opinion, but there was no response. There were not a dozen members in the room; none of them seemed to care one way or the other. The question was therefore put from the Chair whether such a sub-committee should be appointed; some in very weariness held up their hands and the proposal was declared carried. Then followed the naming of the committee; the President declined to serve, as did one or two others, but eventually the two Secretaries and Dr. Murrall were appointed.

A list of drugs was next proposed, but the Section seemed too weary to consider them, and a proposal to leave the selection to those who undertook the investigation was welcomed as a relief, and though not formally put was allowed to pass, and the subject dropped.

DR. NORMAN KERR read a paper,

OUGHT ALCOHOL TO BE PRESCRIBED, AND HOW?

It was anticipated that this would lead to some discussion, Dr. Kerr being known as a thorough-going advocate of teetotalism; his paper, however, was a very moderate one. He by no means advocated a refusal to prescribe alcohol, but insisted that it should only be given for definite purposes and in duly adjusted doses. As he concluded only a few minutes remained for discussion, and no one seemed desirous of occupying them by either controverting or supporting the views advanced.

If this day's proceedings were to be considered as a test, it must be acknowledged that the Section scarcely justified its formation; the real work could have been done elsewhere.

FRIDAY, JULY 31ST—THIRD DAY.

A debate had been arranged on "General and Local Anæsthesia," and was opened in a very long and extremely uninteresting paper by DR. DUDLEY BUXTON, who waded through it in a most tedious manner, but steadily persisted in reading every word, though his audience became smaller by degrees and beautifully less, scarcely half a dozen being able to sit it out to the end. He occupied rather more than an hour and a quarter, although every copy of the programme stated that no paper in the Sections must exceed fifteen minutes. He confined himself principally to general anæsthesia, the causes of death, the differences between ether, chloroform, and other substances employed, and the manner in which they acted, with many other points which will probably be interesting to read, but were positively painful to listen to as they were droned out. At last he sat down, and the President rose to state that Professor Cheyne, who had promised to attend, had been prevented, but had forwarded a statement of his views in a printed pamphlet. This pamphlet contained a reprint of a lecture to the Professor's surgical class, and had already been printed in the *Practitioner* with prefatory remarks. The Professor had caused a copy to be given to every one entering the room, nevertheless the President decided to have it read. This was the sequel for a further exodus of the long-suffering members, and great indignation was expressed afterward at the conduct of the President in thus wasting the time, which it was freely said he would not have permitted had the author not been a Scotchman and a colleague.

Mr. Bailey, Dr. Redwood, Dr. Talfourd Jones, Dr. Bampton, and another or two made a few remarks, after which Dr. Buxton got up to reply and occupied a considerable portion of the remaining half hour. Only a few minutes were then left, and any other papers had to be taken as read, as the President declared the work of the year to be concluded.

SECTION OF OBSTETRIC MEDICINE.

THURSDAY, JULY 30TH—SECOND DAY.

(Continued from page 215.)

The next paper was by MR. LAWSON TAIT, of Birmingham, and was entitled

MODERN TREATMENT OF UTERINE MYOMA.

Mr. Tait referred to the advances which had of late years been made in pelvic and abdominal surgery. He then introduced the present subject by narrating two cases. They were sisters, and came to consult him at the same time. One was thirty-eight years of age, unhealthy and anæmic in appearance; the other was thirty-six years of age, and seemed to be in perfect health. To his surprise the latter announced herself as the patient. She had a uterine myoma which reached to the ensiform cartilage. She had been advised by several medical men to let it alone and have nothing done for it. When he had examined this patient the sister expressed her wish to be examined also. He accordingly examined the elder one of the two and found her to be also suffering from uterine myoma. It was a small one, and she had been treated by a pessary. Thus, said Mr. Tait, he actually had at the same time in his consulting room, two women, sisters, both of whom suffered from uterine myoma. The elder had but a small tumor but had been much reduced by hemorrhage; the younger had what was virtually—from its rapid growth—a malignant tumor reaching to the ensiform cartilage. In his opinion, neither of these women could have lived five years. Mr. Tait's treatment for uterine myoma was the removal of the uterine appendages. This caused the cessation of menstruation. The hemorrhage ceased and the myomata disappeared. In one case on which he had operated the menses recurred. He had not, he said, full notes of the case, but he had probably omitted to remove the tubes, which he now always made a point of doing. Mr. Tait said he considered his treatment of uterine myoma was as justifiable as any other surgical procedure, and the secondary

results were as good. It saved life and removed suffering as satisfactorily as did the removal of an ovarian tumor. Up to January, 1884, he had operated on fifty-eight cases. He had followed up the history of his cases, and out of fifty cases, there were forty-five of which he could give a complete and satisfactory account. As for the danger of the operation, he thought the mortality ought not to be one per cent.

Mr. Tait briefly referred to insanity as a complication. Two of his cases had been removed to asylums soon after being operated on. In one case the insanity manifested itself before the operation; in the other, acute melancholia came on as soon as the patient recovered from the anæsthetic. He alluded to other cases in which insanity had followed abdominal operations. He had himself seen it after removal of an ovarian cystoma, after hysterectomy, and even after a simple exploratory incision. It was not unknown after other surgical procedures, even those which were non-abdominal. Mr. Tait referred at some length in his paper to the opposition which he had excited and the obloquy which had been cast upon him. A paper read by him before the Royal Medical and Chirurgical Society had been thought unworthy of being printed in its "Transactions." He had, therefore, forwarded it to *The American Journal of the Medical Sciences*, where it had appeared. He maintained that the operation was perfectly justifiable, and had saved the lives of many patients who, but for it, would have died.

Dr. Gervis said that there were two justifiable plans of treatment for uterine myoma, viz., 1, to remove the uterine appendages; 2, to perform hysterectomy.

Dr. Playfair said Mr. Lawson Tait had, with his usual vehemence, set up an enemy merely to knock him down again. Gynecologists approved of Mr. Tait's procedure and appreciated his work. Mr. Tait only shared the difficulty which any man met with who brought out anything new. He had himself been accused of being a quack because he had introduced new methods of treatment. Mr. Tait, he said, had confused the opposition to the removal of the uterine appendages with that which had been expressed by many to their removal for pyosalpinx. Many had opposed their removal for the latter disease, though he himself had not. Dr. Playfair asked what were the indications for removing the appendages in uterine myoma? Why had Mr. Tait removed them in the patient who appeared healthy? He had himself known a case in which a woman had a large uterine myoma which reached to the ensiform cartilage. The woman was a monthly nurse, and had had it twenty-eight years. He had known her for twenty-five years. She suffered nothing from its presence, and the only objection to it was that everyone supposed her to be pregnant.

Dr. Imlach said that no surgeon was less fond of surgery than Dr. Keith. All the cases recorded by Dr. Keith were stated by that surgeon to have been known by him for years. He wished Dr. Keith had had the courage to operate sooner. He quite agreed with Mr. Tait as to the justifiability of the operation.

Dr. Edis also supported Mr. Tait. He said it had been denied that in these cases patients ever died from hemorrhage. *But they did;* he had seen it. Many doctors said we should wait for the menopause. He had known a case in which a patient had waited for the menopause until the mature age of fifty-six years, and there were then no signs of it. Had this patient been operated on sooner, ten years of enjoyment might have been added to her life. Referring to a specimen exhibited by Dr. Walter (of a uterine myoma removed by hysterectomy), he said we should never see such specimens. The patient should be operated on sooner, when the milder operation would suffice.

Mr. Tait, in reply, again referred to the opposition his views had met with. At the International Medical Congress held in London, August, 1881, he had been decried by London physicians. Dr. Priestley had accused him of wanting to operate for the sake of the fee for the operation. He might as well accuse London physicians of wishing not to operate for the sake of keeping the patient in hand, and going on taking fees for attendance, so that objection answered itself. As to pyosalpinx, he now regarded it as settled, and beyond the reach of argument. There were doubtful cases to be discussed. But in "reflex cases" he hedged himself about with so many conditions as almost to preclude him from operating. He could count on his fingers, almost on those of one hand, the cases in which he had operated without pelvic disease, and he could defend even these. As to whether his diagnosis was always correct he said that the fact of the patients coming to him was a proof that they had been dealt with before. Almost all the patients who came to him had been sent to him by practitioners, and came to him with a diagnosis already made. It has been objected that the operation produced sterility. But, he asked, how could a woman with such a tumor as that shown by Dr. Walter bring a child into the world? The tumor completely filled the pelvis. Another argument was that you unsexed a woman and deprived her from the enjoyment of sexual gratification. This had been shown to be incorrect. These two were merely windbag arguments, and only wanted pricking to make them collapse. Replying to Dr. Playfair, he said he operated in the case in question because of the exceedingly rapid rate of growth of the tumor.

Friday, July 31st—Third Day.

Dr. Gervis, in the Chair.

Dr. Berry Hart, of Edinburgh, read a paper on

the mechanism and management of the third stage of labor.

The oxyhydrogen light was used in illustration of this paper, the meeting being changed for the purpose to a room which could be darkened. Numerous micro-photographs were enlarged and thrown on the screen by means of the oxyhydrogen light and suitable lenses. Some microscopic sections were shown in the same way. Having shown the micro-photographs, etc., the shutters were opened and Dr. Hart then read his paper. The entire expulsion of the membranes was, he said, of great importance. We had obtained a good deal of knowledge through the attention which was now paid to abdominal palpation. After discussing at some length the structure of the uterine mucous membrane and of the decidua, Dr. Hart discussed the mode of expulsion of the placenta. It was, he said, expelled by uterine retraction and expression. There was little to shake Duncan's view that it was expelled edgeways in ordinary cases. But this mechanism was easily disturbed by adhesions and the fœtal surface made to present. The placenta and membranes were not expelled normally till twenty or thirty minutes after birth. The practical points to remember were that the placenta and membranes were not expelled for some time after birth, that they were expelled by contraction of the uterus, that expulsion took place edgeways, and that normally there was no entry of air. Dr. Hart recommended that, after the birth of the child, the mother should be placed in the dorsal position. The uterus might be grasped to maintain contraction, but Crédé's method of expulsion should not be applied too soon, as the placenta alone might thus be expelled, leaving the membranes behind. It should not be used in less than half an hour, and then only with the left hand. He approved of the employment of a douche containing corrosive sublimate (1 in 4,000).

Dr. Gervis said the dorsal position was important after the birth of the child. It was not a question of twenty minutes or thirty minutes, but we should not express the placenta at once by Crédé's method. The application of *pressure* to the uterus was, however, a good plan both before and after birth. He always instructed

the nurse to press on the fundus. Antiseptics tended to prevent hemorrhage.

Dr. Steel, Senior Vice-President, then took the Chair in place of Dr. Gervis, who was obliged to leave for London.

A paper by Dr. Braxton Hicks was then read by one of the secretaries in Dr. Hicks' absence. The paper was entitled, "On a Condition of the Inner Surface of the Uterus, after the Delivery of the Child, of Practical Importance." In his paper, Dr. Hicks stated that after delivery the inner surface of the uterus was, of course, considerably reduced in area by the contraction of the uterus. If the lining membrane were correspondingly reduced, the surface would be level; if not, it would be thrown into folds. He was not aware that the latter condition had ever been described. He had observed it and now drew attention to it. The importance of this state of the uterine mucous membrane was that it might be mistaken for a tumor or some other condition.

Dr. Freeland Barbour, of Edinburgh, then read a paper on "The Anatomy of the Placental Site with reference to the Third Stage of Labor," and exhibited a number of specimens illustrating his paper.

Mr. G. Padley then read a paper on "A Case of Acute Abscess of the Unimpregnated Ovary, with Recovery by Absorption."

Dr. D. A. Davies read a paper entitled "Short Notes of a Case of Chronic Inversion of the Uterus."

THE ACADEMY OF MEDICINE OF PARIS.

Stated Meeting, June 30, 1885.

M. Bergeron, President, in the Chair.

(Special Report for The Medical Record.)

The Academy being called to order, M. Luys presented

A PLASTER MODEL OF THE HUMAN BRAIN,

which had been designed by Dr. Descourtis. It was an exact reproduction of a natural brain, enlarged about four times, and measured 25½ inches in the antero-posterior diameter and 15½ inches in a vertical diameter. The speaker stated that this was the only model of the kind in France, the plaster brain made under the direction of Broca, and now in the museum of the Anthropological Society, not being an exact model of a natural brain, but rather a representation of what the ideal brain should be.

M. Gavoy presented a model of

AN IMPROVED STETHOSCOPE

furnished with a hollow chamber which served to intensify the natural sounds before they reached the ear.

Dr. Nicaise then read a paper upon

RICE-GRAIN HYGROMA OF THE THIGH.

He related three cases which had recently come under his observation, in which he had removed cysts, containing rice-like granules which microscopical observation showed to be tuberculous. Some rabbits inoculated with scrapings from the walls of the cysts, or with portions of the rice-grain bodies, presented evidences of tubercular infection, though they had not yet been subjected to a conclusive examination. In one of the cases the inflammatory tubercular process had given rise to the exudation of a fibrinous mass, weighing nearly twelve and a half ounces, without serum or pus. This fact would seem to show that there was a special form of

TUBERCULAR INFLAMMATION OF SEROUS MEMBRANE,

not leading to cellular proliferation or transudation of white corpuscles, but to the formation of a large quantity of fibrinous material. The speaker also reported a case of fungous arthritis of the knee, in which there was, at the same time, a soft semi-fluctuating swelling in the immediate neighborhood of the articulation. This was opened, and M. Nicaise was surprised to find, instead of suppurating fungous proliferations, a reddish, translucent, dry, fibrinous mass, completely filling a cavity whose wall was infiltrated with tubercular growths. The author asked whether these forms of hygroma and synovitis, in which the rice grain bodies were found, were always tubercular in their nature. He thought it was a question which could not be answered without further study, and the knowledge derived from more extended observation.

M. Constantin Paul then made a report upon

AN ELASTIC RESPIRATOR,

devised by Dr. Basil Féris for use in the treatment of pulmonary emphysema. The apparatus was something like an elastic truss for double inguinal hernia, but with the pads pressing in a reversed direction. It was applied in such a way that the pads rested in the second intercostal spaces at the level of the union of the ribs with the costal cartilages. Dr. Féris had used the respirator in nearly thirty cases of emphysema, and in only two did it fail to give more or less relief. The reporter regarded the apparatus very favorably, and thought it very useful in remedying the want of tone in the respiratory muscles. The muscles of inspiration were not fatigued by this compression if it were only equivalent to, and not greater than, the normal tonicity of the expiratory muscles. The respirator was useful in habitual dyspnœa, even of considerable intensity, and failed only in cases in which the difficulty in breathing was excessive, as in certain attacks of spasmodic asthma.

The speaker read a second report upon a memoir entitled

BILIARY LITHIASIS AND ITS SYMPTOMS,

by Dr. Merle. The author maintained that it was frequently impossible to conclude as to the existence of biliary lithiasis from the general symptoms, and that certainty in diagnosis could be obtained only by the discovery of the biliary concretions in the fæces. Individuals suffering from this condition, he asserted, were subject to attacks of intense colic followed by diarrhœa, and if the stools were examined they would be found to become more and more liquid and to contain a constantly increasing amount of biliary gravel. The latter might be more readily detected if warm water were added to the stool, as the fecal matters would rise to the surface, while the gravel would sink to the bottom and could be found by decanting the upper layer of fluid. The author had based his conclusions upon a very small number of cases, but the reporter regarded them as worthy of attention, and advised that Dr. Merle pursue his investigations further, with a view of strengthening his previous observations.

Finally, M. Paul presented to the Society, in the name of the author, the second edition of

LESSONS ON MINERAL WATERS AND HYDROTHERAPEUTICS,

by M. Durand-Fardel.

The Academy then went into executive session.

The Laicization of the Hôpital Cochin.—The Paris authorities recently voted to laicize the Hôpital Cochin, one of the few institutions of the kind still under the charge of the sisters. But they have met with an obstacle which may bar their further progress. In examining the records it was ascertained that according to the terms of endowment there was a stipulation that the hospital should always be under the care of the sisters of charity, under penalty of forfeiture of the land and money to the original heirs. There are said to be many of the latter in Paris who are only waiting for the execution of the decree to bring suit for the property.

Correspondence.

OUR CARDIFF LETTER.

(From our Special Correspondent.)

(Continued from p. 223.)

CARDIFF, SOUTH WALES, August 2, 1885.

THE other general meetings were fairly well attended. I need not refer to the general addresses, as your readers will have had the opportunity of forming their own judgment on them long before you receive this—in fact, before it is posted here. Suffice it to say that they were numerously attended and well received. The work of the sections is described to your readers in separate reports. I subjoin a few notes about the museum.

The annual museum has of late years been quite a feature at the annual gathering. The rule is that the objects shown must be genuine novelties. This rule is not very rigidly interpreted, the consequence being that many of the exhibits are by no means novel. As at larger and more pretentious exhibitions, there is also an unmistakable commercial air about some of the stalls. The exhibitors, in fact, take a stall and exhibit for the sake of the advertisement. It pays them. The commercial aspect is sometimes a little too much to the front, though I think in this respect Cardiff has been better than some former meetings. Still, in spite of these slight drawbacks, the museum is always worth a visit. I will briefly mention some of the exhibits which struck me as noteworthy.

Messrs. R. & J. Beck showed some very cheap microscopes, nickel-plated, on a solid stand, and with a one-inch and one-fourth inch objective, for a very moderate sum. For a little extra, a one-sixth inch objective was included. The same firm showed several specimens of micro-organisms under various powers, viz., bacilli anthracis, spirillum of relapsing fever, bacilli tuberculosis, and comma bacilli. A new microtome was also shown, but as the cost is fifteen guineas, it is not likely to be purchased except for special work.

Mr. Immisch exhibited a very neat metallic thermometer, resembling a watch very much in appearance, having a transparent face, and a hand which indicated the temperature. It was not self-registering, but as it took thirty seconds for the index to return to the starting-point, the reading could easily be taken. A very handy surface thermometer was shown by Messrs. Mayer & Meltzer.

A convenient ether-freezing microtome was shown by Dr. R. A. Hayes, of Dublin.

Mr. Jahncke exhibited his very convenient nickel-plated pocket urine-test case, also a pocket hypodermic case, and patent boxes of similar construction for carrying bottles.

Messrs. Millikin & Down exhibited, among many other instruments, Mr. Golding-Bird's tracheal dilator, made on the principle of the nasal speculum. This was, strictly speaking, not a novelty, having been introduced some few years since, but I think it was new to many present.

Messrs. Essinger exhibited Hartmann's patent wood wool, wood wool wadding, and hygienic wood wool diapers.

Messrs. Krohne & Sesemann had on view Kabiersky's powder-blower, for the application of powdered medicaments for the antiseptic treatment of wounds, diseases of the throat, nose, ear, eye, etc.

Several anæsthetic appliances designed by Dr. R. T. Freeman were shown by Mr. J. F. Blennerhasset, of London.

A more complete series of Dr. Oliver's urinary test papers was shown, also Dr. Pavy's test-pellets for sugar in the urine.

Models were on view of Morrell's Patent Combined House-ashes and Earth-closet System.

Withington's Patent Sewer-gas Excluder was a rather curious piece of mechanism. It consisted of a solid plug so arranged as to act as an obturator in the soil-pipe when the closet was not in use. When the closet was flushed with water the plug moved to one side. The exhibitor seemed to think it was quite as good as, or even better than, a good ventilating pipe in excluding sewer-air.

I noticed an exhibit of the Buffalo Natural Lithia Springs. Messrs. Burroughs, Wellcome & Co. had a large stall of pharmaceutical exhibits, as also had Messrs. Allen, Hanburys & Co.

A large and interesting stall was that devoted to Jaeger's patent clothing. Dr. Jaeger appears to be an enthusiast. He has persuaded himself that it is his mission to press on the public the desirability of clothing themselves from head to foot in products derived solely from the animal kingdom. Vegetable fabrics are to be discarded. A large box of camel-hair was presented to every visitor to the stall who would take it, and also a well-bound volume, of nearly two hundred pages, describing the system and enforcing its value and importance.

A separate room was devoted to anatomical and pathological preparations. Among these were some sagittal mesian sections of the female pelvis (frozen), sagittal lateral sections of female pelvis, and axial coronal sections of female pelvis, showing the relations of the ureters to the vagina and cervix uteri. These were exhibited by Dr. D. Berry Hart, of Edinburgh, one of the Secretaries of the Obstetrical Section.

I must now bring this letter to a close. You have already learned that the 1886 meeting is to be held at Brighton. Dr. Withers Moore is the president-elect. It is rather early to prophesy as to the next meeting, but I think it is likely to be more largely attended than any meeting of recent years. Brighton is of easy access from all parts of the south coast, and is but little more than an hour's run by rail from London, where alone we have over nine hundred members in the Metropolitan Counties Branch of the Association.

THE CARDIFF MEETING—ANOTHER ACCOUNT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: All those who attended the Cardiff meeting must admit that it was one of the most pleasant and also one of the most successful of those held within the last few years. Such at least is the general impression amongst those who have recently returned to town from the meeting in South Wales. Wales is noted for its hospitality, and on this occasion the festivities provided by the liberality of the local worthies did much to enliven the scientific proceedings. Not that a certain number of entertainments is not the custom at the annual meetings. A certain amount of amusement is always blended with the scientific repast provided, and of late years this has tended to preponderate. So much so, indeed, that some wicked people whisper that many members attend the annual meeting mainly for the sake of the fêtes. However this may be, I think those who attended the President's reception in the Park Hall on the Wednesday evening, and danced till two in the morning, were not very likely to arise early and put the finishing touches to the papers they were to read. I much fear, also, that several members of the Council were late at the Council meeting, held at half-past nine on the following morning. Strolling along the banks of the canal by the light of many-colored Chinese lanterns, and listening to the distant strains of the Hungarian band, or turning in the giddy mazes of the waltz, was rather calculated to take the edge off the zest for scientific inquiry which the members of the British Medical Association are supposed to possess.

Some scientific instruments and a few microscopic objects were shown up-stairs, but even the latter were of more popular than medical interest. This was doubtless

in deference to the presence of ladies, for the fair sex are admitted to the entertainment. They are, too, not confined to the medical element, but invitations were freely scattered among all the local magnates. Both on Wednesday and at the Mayor's reception on Friday, the ballroom proved the chief centre of attraction. On the latter occasion the revellers did not depart till daybreak. About fifteen hundred were present each time.

The dinner passed off without any very striking incident, except that one gentleman fell off his chair by sitting down on it too near the edge. This raised a laugh at his expense in his immediate neighborhood. Some remark was caused by the President giving the signal for "lighting up" by making the customary remark that the duty was taken off tobacco immediately after the Queen's health had been drunk, instead of, as is generally done at public dinners, waiting till the Prince of Wales' had also been drunk. Mr. Wheelhouse, in proposing the Army, Navy, and Auxiliary Forces, did not at first observe that a naval officer was present to respond for the Navy, but he afterward repaired the omission. The High Sheriff of Glamorganshire, Colonel Hill, caused immense laughter by stating that he had, when he first learnt that the Association was to meet at Cardiff, turned to the "Encyclopædia Britannica" to learn something of the origin of surgery. He had there, he said, found it traced back to the Egyptians, and the origin of bleeding credited to the hippopotamus. That animal, it was said, when depressed, was accustomed to bleed itself by running its leg against a stump. Professor Lucae, of Berlin, was amongst the visitors present, and, in proposing "The Guests," Dr. Wilks coupled his name with that of Dr. Duncan Bulkley, of New York.

Lest your readers should imagine that all play and no work was the order of the week, I will now refer to some of the work done. Two important discussions took place in the Section of Medicine, viz., on "Acute Rheumatism" and "Glycosuria," respectively. Dr. Bristowe introduced the former, and surprised those who only knew him as the author of a very learned but rather heavy text-book, by the ease with which he spoke and the point and interest he imparted to his address. Dr. Bristowe, indeed, made an excellent speech. Dr. Pavy introduced the discussion on "Glycosuria," but the length of his address was rather wearisome. Readers of papers are limited to fifteen minutes, but this rule does not apply to those who introduce discussions. Dr. Pavy much exceeded it, and consequently left but little time for subsequent speakers. Dr. Pavy was again to the front on the following morning, when he occupied nearly an hour in reading his paper on "Cyclic Albuminuria." He brought forward a number of interesting points, but he has not the advantage of being a good speaker, and it was scarcely fair to exceed the time allowed for papers to so great an extent as he did. He actually occupied a good deal of time in reading various letters from patients and their doctors. This involved a good deal of repetition. Dr. Pavy is one of our ablest London physicians, and what he says is always to be listened to with respect, but I cannot help thinking that he might have considerably shortened his paper with advantage. Much of it was so elementary that it was only suitable for a clinical lecture. Dr. Wilks, the President of the Section, was placed in rather an awkward position. Being Dr. Pavy's colleague at Guy's Hospital, he, no doubt, scarcely liked to "shut him up" in fifteen minutes.

What I have said about the set discussions, applies equally to other Sections. Thus in the Section of Pharmacology and Therapeutics, the last morning (two hours) was allotted for the discussion on "Anæsthesia." A paper on another subject was also put down to be read. Dr. Dudley Buxton, of University College Hospital, introduced the discussion, and took an hour and a quarter to do so. As he read every word, and has not a particularly good delivery—rather the reverse—it is not surprising that many of "the practical men," whose opinions he said he wished to elicit, took up their hats and departed after patiently listening for some time. Dr. Buxton occupied another quarter of an hour in his reply, thus making an hour and a half altogether. His paper was not by any means devoid of interest, but it would have been much better received had it been shorter. The discussion was very freely joined in by those present, though the time was much abridged by the lengthy introduction. I am disposed to think that there is a good deal of reason in what I have heard stated, anent the Cardiff meeting, viz., that a man who cannot say his say in half an hour had better write his paper out and send it to the *Journal*, and not pretend to join in a discussion, at any rate where the time is so limited. On the present occasion, a good deal of time was occupied by the reading (by the Secretary) of a communication from Professor Cheyne, of Edinburgh. Professor Cheyne had promised to take part in the discussion, but being unable, printed his contribution in pamphlet form and sent a number of copies for distribution. As each gentleman present had thus before him a printed copy, it was surely unnecessary to occupy the time by reading it aloud, also especially as a larger portion of it had appeared in a medical journal about a year ago. Professor Fraser, however, ruled that it should be read and read it was.

The Surgical Section was scarcely as successful as last year. The two discussions went off well. Those who were anxious to hear Mr. Lawson Tait's views on Intestinal Obstruction were disappointed, as that gentleman did not turn up at the appointed time, being presumably engaged in the Obstetrical Section. Putting aside the two special discussions, I scarcely think the papers read were (taken as a whole) of equal interest to those of last year.

The Obstetric Section was very well attended. An animated discussion took place on "Antiseptic Midwifery." Dr. Clifford Allbutt, too, received a good mauling. Perhaps it was as well he was not present in person to respond, or the discussion might have become still more personal than it did. Dr. Berry Hart made rather a good show by exhibiting about twenty or thirty micro-photographs by means of the oxy-hydrogen light. The photographs were enlarged and thrown on a screen, the room being darkened for the purpose. The display would have been more instructive had Dr. Berry Hart read his paper first and then showed the specimens. As it was, some of them were rather difficult to understand. Each one appeared for only a few seconds and was then quickly succeeded by another, Dr. Hart adding a few words of explanation. He afterward read his paper, which was rather difficult to follow, as he read very quickly, and his enunciation was not very distinct.

Otology was apparently not very popular, as I understand all the otological business was got through within one afternoon. Ophthalmology attracted more votaries, the presence of some distinguished foreign ophthalmic surgeons proving an attraction.

I need not pursue in detail the work of the Sections, as you already have special reports of them.

Medical practice in Cardiff and South Wales generally is, I am informed, highly remunerative. This is fortunate, as the expenses of the late meeting have been heavy, and a considerable proportion of them will fall on the local Branches of the Association. I was told that the Conversazione given by the President and Reception Committee would alone cost five hundred pounds. In the colliery districts of Wales, I understand, many of the colliery surgeons make very large incomes. It is, it appears, a sort of rule for all the colliers to pay the colliery surgeon so much weekly in proportion to their earnings. Three pence in the pound was mentioned as a usual sum. Where wages are good and many men employed, it will readily be understood that this may pay very well. One surgeon frequently has several collieries, and employs many assistants. I heard of one who employed twenty,

and was surgeon to collieries in two different valleys. Many colliery surgeons are said to make thousands of pounds a year, and I even heard a story of one who lived quite in the country among the hills, and made fifteen thousand pounds a year, though the latter sum sounds rather apocryphal.

I will conclude by relating a story I heard while in Wales: A certain doctor in a certain district was noted as being a very absent-minded man. He was sent for one day to visit the wife of a banker. On arriving, he walked into the drawing-room, took no notice of the lady, but walked straight to the mantelpiece, and, resting his elbow on it, leaned his head on his hand and sighed deeply two or three times. He then went away without speaking to his patient. He had, in fact, not thought about her, being engrossed in thought about another one. She, however, thought otherwise. Her husband came in presently, and she asked him what the doctor had said. She knew, she said, that the doctor thought she would die, only he did not like to say so. In vain the husband protested that he had not even seen the doctor. The latter was finally recalled, and asked for his opinion. He then said he could not say what illness the lady was going to have, but she was to go to bed and stay there until he called again. He did not call again for six months. This was gravely related to me as a *bona fide* occurrence. I am not prepared to vouch for its accuracy, but the narrator told me it was perfectly true and well known. Absent-mindedness is, of course, not found only in Wales.

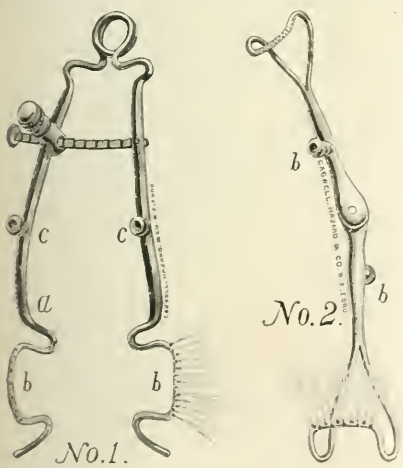
New Instruments.

A NEW INSTRUMENT FOR WASHING THE UPPER CUL-DE-SAC OF THE CONJUNCTIVA.

By JOSEPH A. ANDREWS, M.D.,

OPHTHALMIC SURGEON TO CHARITY HOSPITAL, NEW YORK, ETC.

In purulent conjunctivitis the first and most important indication is to wash away the infective material as early and as thoroughly as possible.



A thorough cleansing of the upper cul-de-sac is not possible by the ordinary means. The instrument pictured above is designed to secure the fulfilment of this important indication. Figure 1 is an eye-speculum, the arms, *a*, of which are hollow, and the claw, *b*, is deeper than in the ordinary eye-speculum. The claw has a number of perforations through which the water is injected into the upper cul-de-sac. At *c* a fine rubber tube is attached and connected with a fountain syringe.

The instrument requires to be introduced between the eyelids with great gentleness, and care should be taken to avoid injuring the cornea with the instrument. The eyelids should then be gently lifted from the eyeball and the spray of fluid allowed to play upon the upper cul-de-sac.

Figure 2 represents a folding lid-elevator (large and small size) designed for the same purpose as the eye-speculum. The arm is also hollow, and the perforations are in the claw. The tube of the fountain syringe is attached at *b*.

An ordinary syringe has been used to wash the eye in purulent conjunctivitis, but its use should be seriously deprecated, because it never fulfils its purpose; moreover, in driving the piston-rod home, the nozzle of the instrument being between the eyelids, the eyeball is very likely to be injured, and the fluid is invariably injected all over the patient's face, and the operator does not escape it.

These instruments are manufactured by Mr. W. F. Ford, of Messrs. Caswell, Hazard & Co., of New York.

40 WEST TWENTY-FOURTH STREET.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 16, 1885, to August 22, 1885.

WOLVERTON, W. D., Major and Surgeon. Granted leave of absence for twenty days. (Washington Barracks, D. C.) S. O. 171, Department of the East, August 14, 1885.

MAUS, L. M., Captain and Assistant Surgeon. In addition to his other duties, assigned to duty as attending surgeon of the Department Rifle Camp. S. O. 83, Department of Dakota, August 3, 1885.

BLACK, C. S., First Lieutenant and Assistant Surgeon. Upon return of Troops F and L, Third Cavalry, to Fort Davis, Tex., to rejoin his proper station, Fort Clark, Tex. S. O. 98, Department of Texas, August 13, 1885.

MCCAW, W. D., First Lieutenant and Assistant Surgeon. Having reported back at these headquarters from detached service, ordered to rejoin his proper station, Fort Lyon, Col. S. O. 122, Department of the Missouri, August 17, 1885.

Official List of Changes in the Medical Corps of the U. S. Navy for the week ending August 22, 1885.

DRENNAN, M. C., Surgeon. To temporary duty at Annapolis, Md., as member of Board for Physical Examination of Candidates for Admission to the U. S. Naval Academy.

SIMON, WILLIAM J., Surgeon. To temporary duty at Annapolis, Md., as member of Board for Physical Examination of Candidates for Admission to the U. S. Naval Academy.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending August 22, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
Aug. 22, 1885.....	1	22	15	1	19	27	0	1
Deaths.								
Aug. 22, 1885.....	0	6	2	1	3	13	0	1

A Visit to the Clinic of Professor Gussenbauer in Prague.—Professor Gussenbauer is the presumptive successor of Professor Billroth, whose assistant he has been for many years; he is a very able and remarkable surgeon, and one of the best teachers of the age. He is about forty years of age and occupies the chair of surgery in this most ancient and celebrated University of Prague. For five years he filled the same chair in the University of Liege, and taught in French. The Government wanted to confer honorific titles and medals on him, which he declined, and asked instead to create places for surgical pupils (operations Zoeglinge) at the clinic of Prague. The surgical amphitheatre is a magnificent room, quite new and of huge proportions, admirably adapted both for lectures and operations. It is lighted from a glass ceiling and lateral windows. First the outdoor patients are attended to, then the house patients are brought in on stretchers. Two or three medical students are called up to make a diagnosis. The history of the case is then given and the proposed plan of operation is stated and explained. A man seventy years of age is brought in, with a cavernous angioma of the left ischio-rectal fossa. He only uses a bistoury; a dissection of insurmountable difficulty for a less skilful operator, lasts not less than an hour. The tumor of the size of two fists is formed of two distinct parts, the inferior half has the character of an angioma, the upper half that of a sarcoma. The ischio-rectal fossa is tamponed with iodoform gauze. Then came a resection of the elbow, for fungous arthritis; then a case of ablation of intramuscular lipoma of the neck; then an amputation of a leg. Esmarch bandage is applied. One of the "operations Zoeglinge" performs the operation under the eyes of the professor. He has to detach and turn back the periosteum before applying the saw, etc., etc. He averages five operations a day before his class, from 10 A. M. to 12 M. Antiseptic precautions are minutely carried out. For many years he used phenic acid, of late, the corrosive sublimate, 1 to 500, is his remedy, he plunges his hands in repeatedly during the operation; ligatures are soaked in the corrosive sublimate solution, but instruments in that of phenic acid. He is ably assisted by his internes and by the "operations Zoeglinge." Traumatic fever is unknown at his clinic, doubtless due to the strict antisepsis.—*Prog. Med., St. Louis Journal of Medicine and Surgery.*

The Modest View of Specialism.—When the worst has been said against specialism, it still remains as a system of work which, if narrow and comparatively humble in its aim, is practically more successful in attaining it than broader and more philosophical methods. The final test of every institution as of every individual in these days is the record of actual achievement which it has to show. Judged by the standard of results, whether in the shape of additions to the store of scientific truths or to the armory of weapons against disease, specialism has nothing to fear. Even its enemies must admit that it is to it that the vast strides which the art of healing has taken in late years are mainly due, and there can be no doubt that medicine can only continue to advance by a process of specialization becoming more and more minute. In the eyes of *idéquologues* whose breadth of view rather impairs the keenness of their vision of things close at hand, the specialist no doubt may appear a somewhat unheroic figure beside his larger-minded brethren. Practical men, however, consider less the intrinsic nobility of the work than the efficiency with which it is done.—*Dr. Morell Mackenzie.*

The Bees and Apollo: a Medico Pharmaceutical Fable.—Once upon a time the busy bees were gathering honey from a flowery field on famed Hymettus. Suddenly one bee was heard to buzz much more loudly than the rest of his companions, who, upon listening, heard that he had found a new process for extracting a superior honey of remarkable medical properties. He had also, at the same time, invented a very ingenious way by which he could with comparative ease make his buzz sound four times as loud as that of the ordinary bee. By means of these inventions, he soon disposed of large quantities of honey at a high price. But one day, Apollo, who was experienced in the matter of honey and its medical properties, came that way, seeking some good sample for the use of his friend Diana, who was a little ill. He looked at the new preparation, which was put up in soft capsules and called "honeyine," and at another kind which was put up in chocolate tablets and called "honey-idea." He also listened to the new buzz. "I think," he said finally, "that the buzz is much more wonderful and effective than the honey; I will take it to Diana, who is fond of buzzing." Some days later, Æsop, on hearing this story, remarked that the moral which he would add was, that the art of advertising a new medicinal preparation is of more importance than the art of making it.—*Boston Medical and Surgical Journal.*

Bullet-wounds of the Heart.—Dr. T. H. Brannan, of Canal Dover, O., referring to the fact that "the experience of experts with shot-gun wounds of the heart is limited," reports a case in point. About 4 A.M. June 17th, a miner was shot. "He turned immediately around, and walked seventy-seven paces in the direction of his house, climbed over a board fence, three boards high (the fourth and top board being gone), proceeded two hundred paces farther to the front gate of his residence and there fell. From here he was carried into the house, propped up in bed, and at the end of thirty minutes passed into a convulsive tremor of short duration, at the end of which he was dead. He was rational to the last, and conversed up to the moment of his death. At the autopsy five hours later a No. 2 shot was taken from the calf of his right leg; one from the left wrist; while the third and fatal one entered the chest in the third intercostal space of the left side, one inch above, and two and one-half inches inward, from and on a line drawn from the left to the right nipple. From this point the shot passed backward and to the right, passing through in its course and in their order both walls of the pericardium, the base of the pulmonary artery, the left auricle, the inner border of the lung, and impinging upon the right side of the body of the fourth dorsal vertebra, at which point it glanced off and was lost in the body. The pericardium was found distended with coagulated blood, and the pleural cavity contained a smaller quantity.

Pityriasis Versicolor.—This discoloration of the skin is occasioned by the presence in the epidermal layers of a parasite known as the *mycrosporon furfur*, and is often cured by the external use of sulphur in the form of daily baths and frictions with the ointment. An ointment consisting of 20 drops of nitric acid in 1½ ounce of lard is also said to be efficacious. Another remedy which has been used successfully is a lotion of corrosive sublimate of the strength of 1 part to 1,000.

Extract of Male Fern.—Krämer recommends as possessing very active properties an extract prepared in the following manner. The rhizome is gathered in May and October, is scraped and divided into small fragments and exhausted, while still fresh, in ether containing a very small proportion of alcohol. The ethereal tincture thus prepared is kept in closely stoppered flasks in a cool place. When wanted for use a sufficient quantity is evaporated to the proper consistence, and the extract is obtained.

The Raillière Springs at Cauterets.—A report has been going the rounds of the French press to the effect that the Raillière establishment in Cauterets had been nearly destroyed by a storm, and that the composition of its spring had been materially modified. This report is now contradicted by Dr. Bouyer, the medical inspector of Cauterets, who affirms that it is a malicious fabrication originating in a rival establishment, jealous of the increasing popularity of this thermal station.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 10 NEW YORK, SEPTEMBER 5, 1885 Whole No. 774

Original Articles.

COUGH.

By J. MILNER FOTHERGILL, M.D. EDIN., HON. M.D. RUSH MED. COLL., ILL.,

PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST (VICTORIA PARK).

IN this day of careful physical examination of the thorax some other matters have almost dropped out of sight. The old physician who recently declined the loan of a stethoscope by a young clinical assistant for the diagnosis of pneumonia, saying, "Thank you, young man; but I think I can detect pneumonia without a stethoscope!" could no doubt have taught that youth much that would be useful to him. A stethoscope is a capital instrument in the hands of a man who knows its use; but it has undoubtedly drawn attention away from what may be termed rational consideration of the chest, and a judicial handling of what the patient has to tell, which often furnishes a clew to the treatment; a matter on which sometimes the stethoscope is silent. It is not that physical examination is not a most valuable means of acquiring certain information; but that this other information is apt to be overlooked or underestimated; and thus a good proportion betwixt the two means of examination is lacking.

A cough is a forced expiration to eject some offending material from the air-tubes, just as a sneeze clears the nares. But suppose the offending or irritant matter cannot be ejected, what then is the value of the cough? Nothing whatever. There is, then, much useless cough, as well as useful cough. Other matters than something in the air-tubes may set up a cough. Thus we find cough equally present when there is some phlegm in the air-tubes; when there is a mass of tubercle undergoing softening; and in the pulmonary congestion of a mitral lesion. A crumb in the larynx will provoke violent cough; and so will other laryngeal irritation. All know the brazen trumpet-like cough of aneurism of the aortic arch pressing upon the recurrent laryngeal nerve, a cough closely simulated in character at times by a neurosal cough. This last was so marked in two girls that their cough told when they were on the hospital premises. It is needless to say their departure was always expedited. Then, cough in the form of "hawking" is exceedingly common in pharyngeal disturbance.

There is, too, cough unconnected with the air-passages and the respiratory organs. There is the well-known cough of pregnancy, the "nine months' cough." There is ear-cough, said to be connected with the tympanic branch of the glosso pharyngeal nerves, which is set up by irritation in the ear. There is the cough of gastric irritation, common with alcoholic indulgence. In one case, at least, known to me, diarrhœa always set up cough. Cough of the "hemming" character, often misinterpreted as the short cough of early phthisis, is found commonly in girls at or after puberty, linked with ovarian or spinal irritation. It is clear, then, that cough has various causal associations.

The importance of reflex cough need not be considered here; nor yet the means by which it may be relieved. In all reflex actions the bromides suggest themselves at once. If the exciting cause can be dealt with, then the resultant cough is relieved.

It is rather the intention here to consider cough from its clinical and therapeutic point of view, and to see what indications it furnishes us for treatment. For instance, in "heart cough," *i.e.*, where the cough—a hard, dry cough—is set up by congestion of the pulmonic or lesser circulation by some dam or block at the mitral ostium, sedatives are most undesirable.

Such cough is most commonly found in a young girl with a mitral lesion. One such case I well remember when the resident medical officer of the Leeds Public Dispensary. The girl, a child of twelve, had mitral regurgitation—an injury inflicted upon her previous to her coming under my notice. Digitalis and iron improved the general condition, and with it the amount of cough; but still the child, a bright neurosal creature, coughed considerably. She ceased to attend, but some weeks later her mother came and made a frank confession to this effect: "Doctor, I thought the girl ought to have some cough medicine, and when I asked you for it, you always refused to give her any. One day I came when I knew you would be out, and got one of your assistants to grant me some cough stuff. It acted like a charm; but she soon fell off and lost her appetite, and could not get about; and now there is dropsy in her ankles. She is so bad, I want you to do what you can for her." Appropriate treatment soon restored the child to her ordinary condition; but her mother did not hanker after cough medicine after this experience. This case illustrates vividly the disastrous effects of allaying the cough when due to pulmonary congestion. For a little time it gave relief, but the after condition was worse than the first. So much for the indication afforded by cough under one set of circumstances, the case just mentioned by no means standing alone.

The consideration of "useful" and "useless" cough may now engage our attention. It is a matter involving the gravest thought, and well deserves our best consideration. We will take cough in bronchial cases first. There is in the early stages of acute bronchitis much useless cough set up by the dry mucous membrane, and the means for its relief have been set forth in a preceding article ("Bronchitis, Acute and Chronic"). Then it was said there existed no particular objection to opium, which gives great relief. But in such case the sedative is combined with other agents of a relaxant character, as tartar emetic or aconite. As soon as free secretion comes the cough changes its character. It is no longer the dry, harsh, shaking cough of ineffectual effort, raising nothing, but becomes the less painful, truly expulsive cough of successful effort. Now, what we are required to do is to give stimulating expectorants, and so help and improve the character of the expulsive cough. There is usually at this point no indication for opium, and none is required unless it be a little at bedtime in certain cases.

It is rather in chronic bronchitis with little expectoration and much bronchial irritation that the question of decision taxes our best mental energies. In some cases the rest at night is broken by irritant cough, and then the question arises of the lesser of two evils. If the opium arrest the secretion, and so render it tougher and more difficult to get up; if the opium brings lethargy to the liver, impairing the appetite, and locking up the bowels, still it gives the patient rest. Consequently it may become necessary to administer it. But it should be given with benzoic acid in compound squill pill, and a little podophyllin or watery extract of aloes to coun-

teract its undesirable effects in the alimentary canal. And by such combination no doubt the maximum of good with the minimum of bad effect can be secured. Numbers of chronic bronchitics under my father's professional care took such a pill every night for years without apparent injury, while it added greatly to their comfort. (I refer to my father's experience in these cases because I served under him and saw his practice, my own experience of general practice being but short.) But granting all this, the less opium in disease of the respiratory organs the better—as a broad rule. Sometimes some chloral, or bromide of ammonium with tincture of hyoscyamus, may seem indicated rather than opium, or even camphor may be the best agent to employ in certain cases. But, in a general way, opium (in such pill-combination as has just been suggested), with some alcohol at bedtime as a "night-cap," *i.e.*, whiskey or brandy and hot water, taken on getting into bed, is the best practice with chronic bronchitics. One great matter there is in such cases, never to be lost sight of by the patient, and that is to avoid passing from a warm sitting-room to a cold bedroom; the bedroom should also be warm. Another is to have the bed warmed by the old-fashioned warming-pan, or, perhaps better still, by a hot-water bottle, which can be pushed down to the foot of the bed (so as to keep the feet warm) when the patient gets into bed. This matter of an equable temperature is very important, and many bronchitics toast themselves well before going upstairs to a cold, unwarmed bedroom, where they cast off their day clothes, don a cold night-shirt or gown, as the case may be, then kneel down and say their prayers, and get into a cold bed. It is needless to say that no medicinal course can be successful in a case where this goes on.

Important as the matter of cough and its indications for treatment are in chronic bronchitis, the matter of cough in chronic pulmonary phthisis is even still more important. There is the cough in the night breaking the sleep, and there is the cough in the day shaking the sufferer; both objectionable and undesirable, and requiring to be dealt with. The circumstances under which cough is developed in pulmonary phthisis vary. Sometimes mere apex consolidation is accompanied by cough. Where there is bronchial implication and localized bronchitis in the affected area this can readily be understood; but at times there is cough without the moist râles indicative of this condition. We are compelled here to suppose some irritation of the pulmonary fibres of the vagus, which is transmitted to the respiratory centre, leading to a discharge producing the modified inspiration and expiration familiar to us as "cough." Belladonna is said to exercise a decided influence over these fibres, and so is indicated in such condition. (By this property belladonna, or atropine, is a desirable addition to an opiate for a night-pill.)

It has also been claimed for gelsemium sempervirens that it is useful in such cough by its action upon the nervous mechanism of the respiration. Bromide of ammonium suggests itself at once for the relief of such cough, from the known utility of the bromides in all reflex trouble.

One curious point there is about cough in its relations to static pulmonary consolidation, and that is this: Whenever a person possessed of a patch of consolidated lung has also the liver upset, then the irritation in the said patch with resultant cough is marked. No cough medicines nor antispasmodics do any good; but agents which act upon the liver, as a blue-pill at bedtime (or other mercurial), and a dose of sulphate of soda next morning, produce a distinct and unmistakable effect in lessening the cough. Consequently, when a patient complains of troublesome cough and an area of consolidated lung is found, it is often well to inspect the tongue and inquire into those subjective sensations experienced when a person is bilious or "liverish." From its known effect upon the liver, opium not only gives no relief, but positively aggravates the condition.

When a tubercular mass, or a portion of the consolidated area commences to soften—probably by the proliferating cells being so crowded on each other that they die; possibly by the appearance of bacilli on the scene—then we can readily understand the oncome of cough, and often severe cough. The dead mass is an irritant—like the thorn of Van Helmont—as a process of ulceration cuts it off from the surrounding lung-tissue; and during the time the process is going on there is distinct local irritation setting up cough. There is, too, hectic fever, with nocturnal pyrexia and night-sweats. In this condition it may become necessary to add some opium or morphia to the mixture of quinine and phosphoric acid so much in vogue for its relief; and whether any sedative must be added or not; and if so, what quantity is a matter to be decided by the merits of each particular case. That some morphia is unavoidable to procure sleep in such condition goes without question; but it must be guarded by the additions suggested in the article on "Pulmonary Phthisis." Such a condition is like a specific fever, or a storm at sea, in that it comes to an end sooner or later, and if the organism can be kept going, or the ship afloat till the end comes, all is well. Of course if there be but one softening patch the irritation set up is smaller than when there are several such morbid areas. In the latter case, opium in the day may be unavoidable; and its drawbacks must be met and got rid of, or neutralized, by such wit and skill as the medical attendant can command, either in himself or in some consultant of more experience or deeper thought. Above all things, keep up the powers by such food as the patient can take. The fever usually brings with it thirst. Then let the patient have cold beef-tea, with baked flour in it; malt extract, with effervescing water; milk, with a mineral water or whey; or milk diluted with water, and some Mellin's food added; and good home-made lemonade, with a fair amount of acid and sugar or malt extract in it. Rice-water, or barley-water, or tamarind-water may be relished. Grapes and the juice of fruit are excellent. Alcohol may, too, be indicated. Sometimes it is neck or nothing. The patient must be heavily dosed with opium to allay the paroxysms of cough; aye, and there is something more than cough, viz., the danger of hemorrhage from a ruptured blood-vessel in the softening area, brought about by the violent effort of cough. The poor patient is like a soldier with the bullets flying over his head; if he escapes one, another hits him. The patient is passing through a period of acute perils; perhaps rather, he is like a canoe shooting rapids studded with rocks; much, very much depends upon the boatman's skill and experience; something upon luck—and the patient's luck is the luck of a good constitution! If the softening areas be numerous or extensive, then the prospects of escape is small, and the skill of the steerer will be gravely taxed. In spite of everything that skill and assiduous attention can do or accomplish, the case may go on from bad to worse unto the inevitable end.

But, in my own experience of phthisis, cough has not been so very prominent a matter as to require treatment in the day, except in a few instances. It is not common for the consumptive to be shaken by racking cough requiring opium in the day. And on inquiring of an experienced sister at the hospital, who has watched the practice of many physicians, including the late Dr. Peacock, she informs me that my personal experience is in harmony with that of other physicians at Victoria Park Hospital. It is at night that cough is prevalent; and the use of opium, in combination with other agents, to procure a good night for the phthisical is a matter upon which there is general agreement.

When there is one or more cavities present, the use of opium is not affected by the fact. Indeed, a cavity is a matter of little moment, either one way or the other, therapeutically. Of course, the patient is no better for having a cavity; but the question is, Is he any worse? Patients with cavities die, certainly; and patients with

cavities leave the hospital very greatly improved by their stay. As to the question of cough and its treatment, a cavity counts for nothing; the cough certainly may be connected with its contents, or perhaps the condition of its wall. But the fact of the patient being in the third stage of phthisis (following the classification of Pollock in his "Elements of Diagnosis in Phthisis") does not affect the treatment.

Finally, in dealing with cough, the physician must observe and reason upon the cause of the cough, what it accomplishes, and how it affects the patient, before proceeding to deal with it. Some cough is useless, because ineffective, and needs some stimulating expectorant to render it efficacious—a very common affair; some cough is useless from every point of view, and so requires a sedative; and here the physician must decide in each case which is the lesser of two evils—the cough, or the sedative.

London, W.

TWO CASES OF EPILEPSY WITH RARE COMPLICATIONS — GRAND AND PETIT MAL WITH SHORT PERIODS OF TRANCE AND VISIONS — HYSTERO-EPILEPSY FOLLOWED BY PROLONGED TRANCE.

By ROBERT H. PORTER, M.D.,

Louisville, Ky.

Ernest B——, aged nine, was brought to my office on the morning of July 5th by his father. In a few moments he had an attack of petit mal that lasted just one minute. His father told me that two months previous his son had been run over by a street car, and in about four weeks afterward he was found sitting on a fence and unconscious. This state of unconsciousness lasted for half an hour. The next day he had several attacks of loss of consciousness, then these attacks became more frequent and at the same time were associated with a slight spasm. Three or four days after the first attack of unconsciousness the spasms changed to mania, which lasted for a week. During this time he was very violent, often attempting to commit suicide and to kill some member of the family.

After the mania subsided the spasms returned in the form of both grand and petit mal. Several days he would have as many as a hundred attacks of petit mal per day; then again they would be less frequent but more severe; often fifteen or twenty attacks of grand mal. Sometimes instead of a spasm he would have a short period of trance, and while in this state he would have a vision of God in Heaven with the Holy Angels, and would see the golden streets of the New Jerusalem. While in this condition he would usually talk all the time telling them of what he saw. After he returned to consciousness he would remember the vision, but did not know that he had been talking about it. Occasionally instead of a spasm or trance he would have a short period of frenzy or epileptic *furor*, in which he would attempt to do violence to himself or some one else. This condition of spasms, trance, and mania had continued for about three weeks preceding his first visit to my office. His father also told me that for three or four years he had been subject to a very severe cough, with frequent hemorrhages, and had been regarded as a consumptive; but for several months preceding his present illness his cough and hemorrhages had entirely subsided, with a corresponding improvement in his physical condition.

In two or three days after coming to see me he was quieted down, and his spasmodic trouble under very good control until July 11th, when his brother Claude was seized with a very severe attack of hystero-epilepsy. This excited him very much and caused the return of grand mal. The family bedrooms were adjoining, and while the boys were separated one would cry out and the other answer. This would be followed by severe spasms in each, one aggravating the other to such an extent that, on July 14th, it became necessary to remove Ernest from home to one of the infirmaries. Soon after leaving home he became quiet, and while in the infirmary, where he remained about a week, there was very little or no spasmodic trouble. He was taken from the infirmary to the house of a relative, where he remained two weeks, during which he continued to improve very nicely. At the expiration of this time it became necessary to return him home again. This increased his spasmodic trouble for a few days. Then he quieted down and continued to improve until August 13th, when he had an attack of acute diarrhœa, by which he was very much prostrated. In recovering from this on August 18th, he went into a trance that continued twenty-four hours. After recovering from this trance state he has continued to improve very rapidly up to the present time without any return of the spasmodic trouble.

On the morning of July 11th I received an urgent call to see Claude B——, a brother of the above patient. On entering the room he was found in a state of frenzy, barking and attempting to bite his attendants. Failing in this he bit himself a number of times. In a few minutes following this condition he had a general convulsion, with opisthotonos so extreme that the occiput touched the dorsal vertebræ, the patient resting on his face and feet. In a moment this condition was just reversed, with chin resting on his breast, limbs drawn up, and his knees touching his abdomen. He would continue this series of convulsions, first one form and then another, for five minutes; then remaining quiet for a few moments he would begin singing and growling with barking and attempting to bite his attendants or himself. During the barking and biting period he would go through all sorts of facial contortions. After watching him for a few minutes it was seen that he would go through a regular series of convulsions, and his condition was recognized as a severe attack of hystero-epilepsy.

Notwithstanding the use of appropriate sedatives, the paroxysms continued without cessation during the day, but he was quieted down as night came on and slept fairly well. The next morning the spasms returned, seeming to begin just where they left off the night before.

For two or three days he continued in this condition, but becoming a little more unmanageable through the irritation caused by his brother. On the morning of the 14th Ernest was removed from home, and then Claude became more tractable. During the first three days he was in a continual paroxysm all the time except while asleep. On the 14th it was found that the spasm so affected his throat that it was impossible for him to swallow anything, not even liquids; but by keeping him secluded the effect of the sedatives which he had already taken very freely was sufficient to control him. Gradually the convulsions became less frequent and severe, so that by the end of the first week they were under control. During this period he was unconscious all the time. As soon as the spasmodic trouble was controlled, he was found to be in a trance state. The second week of his illness he continued very vicious and combative; when molested in any way or approached by any one, he would begin snapping and attempt to bite them.

After the second week his vicious disposition subsided, and since then there has been very little difficulty in controlling him. During the first two weeks of his illness, owing to the spasm of the throat and his vicious state, it was so difficult to give him anything that he took very little food—the medicines needed to quiet him was about all he could be made to take—but since that time he has been taking food and medicine fairly well. It is now seven weeks since his first attack, and he is still in a state of trance; during the continuation of this trance state he has been exceedingly restless in the day, but sleeping fairly well at night from the effect of the medicines. He has not been able to walk any since the attack first came on. During the day he goes about the house on his hands and knees, with his eyes closed, and

during the early period of his illness, while he remained so vicious, with frothing of the mouth all the time, he seemed like a caged lion. There has at no time been any fever in the case, but occasionally he has periods of depression with cold extremities. Within the last day or two he has shown a tendency to a return of consciousness, he has a better expression, is inclined to open his eyes better, and on a few occasions has recognized and spoken to his attendant.

As usual in trance cases his eyes have been closed since the beginning of the attack; by using a little force they can be opened, and seem to be natural in appearance, only lacking the expression of intelligence. There has been no ophthalmic examination. If it were made it would probably show no abnormal conditions. There has been no paralysis or other indications of compression, or any other of the grosser brain-lesions. General sensibility seems to be somewhat exalted, and the usual reflexes respond to their appropriate tests. He hears sounds, and is very much irritated by noises in general, but has no comprehension of spoken words. He pays no attention to anything that is said to him. During the first week of his illness, when the spasmodic trouble was so marked, the unconsciousness was attributed to status epilepticus complicated with hysteria, but since the spasmodic condition has been controlled, followed by the prolonged trance, it is probable that the trance dates from the initial seizure.

The family history shows poor vitality, spasmodic troubles being in some of the collateral branches on the paternal side. His maternal ancestors have all died of consumption, his mother herself having been an invalid for several years, suffered with severe cough and frequent hemorrhages, but latterly her health has improved, and at the present time is in very good physical condition, except severe nervous headaches; the father has always been in good health. While at school, five months previous to his present illness, Claude received a blow in the left temporo-parietal region that stunned him for a while, producing confusion and loss of consciousness; but he soon recovered without any indisposition following it. He continued at school, without interruption, during the remainder of the session. On the 9th of July, two days before his present attack, his brother, in a state of frenzy, attempted to kill him, striking him a blow in the left eye, without doing any damage to the eye itself; he was dazed for a few moments, and from that time had several attacks of petit mal per day until he was seized with hystero-epilepsy.

These boys are the only children in the family. They have an inherent instability of the cerebral organization, and the present attacks of spasmodic trouble were caused by shock from the injuries. In neither case were the blows on the head sufficient to produce either fracture of the skull or concussion of the brain.

Aside from the complication of trance in one of these patients, hystero-epilepsy itself is seldom seen in this locality. Out of a large number of epileptics that I have had the care of, this is the first case seen; and out of a number of physicians who have seen these patients with me, none of them had previously seen a case.

217 West Broadway.

Exophthalmic Goitre and the Color of the Hair.—Referring to the question raised by Dr. Neal as to the color of the hair in exophthalmic goitre, Dr. E. S. Dunster, of the University of Michigan, writes: "I have at present under treatment a well-defined case of ophthalmic goitre, in which the hair is of a dark brown color, almost approaching black. In the few other cases (four or five in number) that have come under my observation, no record was made of the color of the hair. I have, however, a general recollection that in most of them the color was light; but to make such a statement definitely, unsupported as it is by recorded evidence, would carry little more weight than a guess."

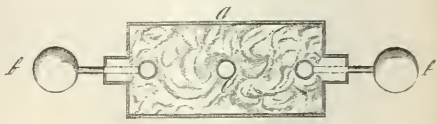
A METHOD OF PRODUCING OZONE IN LARGE QUANTITIES.

By ANDREW H. SMITH, M.D.,

NEW YORK.

The question as to whether ozone has any therapeutic value is still unsolved, owing probably in a great degree to the difficulties of production in quantity sufficient for satisfactory experimentation. An observation made by the writer in December, 1883, seems to open a way by which these difficulties may be overcome, and ozone produced with sufficient readiness to permit the study of its physiological and therapeutical action on an extended scale, and also its remedial use, if it should be found to possess curative properties.

Cotton wool, when deprived of its oil as in the preparation of "absorbent" cotton, is a sufficient conductor of static electricity to secure the diffusion of that agent through a considerable mass of the fibre placed loose



between the prime conductors of a static machine. If the experiment is tried in a darkened room the cotton assumes the appearance of a luminous cloud. A large surface of air contained in the cotton is exposed to the electrical action and a corresponding amount of ozone is produced.

The apparatus which I have had arranged as the result of the above observation consists of a glass cylinder ten inches long by five inches in diameter, and having a narrow neck at each extremity, through which a brass rod is passed connected with the respective prime conductor and terminated by a base. On one side of the cylinder and midway in its length is an opening an inch in diameter, and provided with a lip for the attachment of the inhaling tube. The cylinder is loosely filled with absorbent cotton and the balls attached to the rods from the prime conductors are introduced a short distance through the necks. The current is thus made to traverse the cotton, and when the machine is operated in the dark, the whole interior of the cylinder becomes luminous. The air drawn through the tubes is supplied by the openings at the ends of the cylinder, which are much larger than the rods which pass through them when a four-plate Holtz machine is employed. This air is so highly charged with ozone that it must be inhaled with caution. If breathed uncautiously it excites cough and produces a disagreeable irritation along the respiratory tract, and especially at the bifurcation of the trachea, which irritation may continue for several hours. Persistence in the inhalation would, no doubt, be followed by congestion or inflammation of the bronchial membrane.

The remarkable power of ozone as an oxidizing agent has led to the idea that it might be utilized in the treatment of disease, especially of a septic character. No definite results, however, have been attained as yet.

Dental Lesions of Morphinomania.—Dr. Combes states that there is a peculiar form of caries which attacks the teeth of those addicted to the use of morphine. It appears first on the triturating surface of the large molars and extends rapidly until a large cavity is formed. The bicuspids, incisors and canines are then attacked in succession. This form of caries is nearly painless, advances with great rapidity, and is unaccompanied by periosteitis. The dental lesions occur usually at the same time with the falling out of the hair.

A CASE OF DISLOCATION OF FIRST CERVICAL VERTEBRA—RECOVERY.

By H. R. CARTER, M.D.,
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THE patient, a sailor, aged twenty, was admitted to hospital May 31, 1884. His companions stated that he had fallen from aloft that morning, a distance of about twenty-five feet, striking the back of his neck or head on a rope eight or ten feet above the water. When he struck the water he had a slight convulsion and lay motionless. He was unconscious and quite limp when picked up, but after coming to his senses had been jerking and stiff up to the time of admission, about six hours later.

Examination showed the occiput drawn well back and down as far as possible, the chin projecting forward but not raised. Not an extension of the head, but more like the position one would take expecting a blow on the back of the neck. Pain in the neck was continuous but not very severe, with the head in the above position and at rest. Pressure in the furrow behind the occiput was unendurable, producing great pain and a general tetanic condition.

The patient was continually jerking, and any handling, as in removing his clothing or even a decided touch, increased that condition, producing true though slight general spasms. The symptoms resembled those of strychnia-poisoning, save that the face was unaffected. The left arm was blue, cold, sweating profusely, rigid, and absolutely powerless. The right arm powerless, but less rigid than the left. The legs were not paralyzed but rigid and clumsy. Sensibility was at first present, but later was lost, and the patient was unable to swallow, even his saliva. Every attempt to bring the head forward produced unconsciousness. This occurred three times and during the examination, although the movement of the head was *very* slight. Consciousness was quickly, but not immediately, restored by bringing the head to its former position. While unconscious he was flaccid; on recovering there was a succession of spasms, the extensor muscles being very rigid. Pain was also produced in the neck, back, and arms, which gradually lessened on remaining quiet. The head was fixed only by muscular action, but the patient could not move it on account of pain. The finger being passed into the pharynx, a decided displacement of a vertebra forward was at once discovered at the upper part of the pharynx. The man was rational and not excited mentally, even during the spasms following unconsciousness. Everything seemed best explained by a dislocation forward of the first cervical vertebra on the second.

A full does of chloral was given by enema, and when the patient had come under its influence, I directed the nurse to lift up the head strongly, slightly extend it, and rock it very slightly. Pulling on the back of the neck with my left hand, I pressed with the thumb of the other on the projection in the pharynx, in a direction backward and upward, imparting to it at the same time as much of a rocking motion as possible. It was as much as a minute and a half before the projection began to yield; then it quickly but not suddenly moved into place; no click was heard or felt, but the head came up into position. The patient said "All right," before my thumb was removed from his mouth. A considerable amount of force was used, all, I believe, that I was capable of exerting. The head and shoulders were dressed on a pillow properly stiffened. He could swallow immediately. The twitching and rigidity disappeared in two and a half hours. The awkward, clumsy movements of the legs and arms disappeared the next day. The neck was painful and stiff for ten or twelve days, the man walking about at first with his head in his hands to steady it. The symptoms of vasomotor derangement in the left arm, viz., profuse sweating, cutaneous capillary congestion, etc., continued longer, and had not entirely disappeared at the end of sixteen days.

Clinical Department.

COCAINE IN THE EXTRACTION OF TOE-NAILS.

DR. W. T. SMITH, of Hanover, N. H., writes that he recently used cocaine in extracting a great toe-nail, with results that seem worthy of record in view of the ordinarily painful nature of this operation. He made four injections about the nail and then ran his needle under the centre of it. In a few minutes he thrust the blade of his scissors along the track of the needle and split the nail to its base and removed it with the forceps. The patient watched the operation, and said that it was absolutely painless. He used a four per cent. solution, and judged that fifteen or twenty minims were absorbed.

MAGGOTS IN THE EAR.

DR. W. FLETCHER WILSON, of Denver, Col., sends us the following history: Cora S——, aged twelve, called at office, July 25th, for relief of ear trouble. For nine years she had had a chronic discharge from the left ear. She had received no treatment, with the exception of simply syringing for the purpose of cleanliness. Two weeks previous to her calling at the office, she had been allowed a week's visit to some friends. While there the syringing was neglected. On her return home she complained of severe pain in the left ear. On application to family physician, a few drops were given, and a small glass syringe used, to cleanse the ear of the discharge. No relief, but increasing pain following, a consultation was called. She was then in a very weak and exhausted condition.

Examination showed a thin and bloody discharge from the ear, and a mass of maggots filling the external auditory canal. On touching with a cotton carrier, they would recede so as to almost disappear from sight without the aid of the speculum. After a few moments they would again come near the opening.

Using a pair of forceps, with serrated edges, two were removed. Springing from the head of each were two small, curved tenaculæ, about a line in length, with which they fastened themselves to the wall of the canal, so that when being removed they allowed of considerable stretching before loosening their hold. Each time, after removing one, the lively movements of the others, from being disturbed, caused such intense pain that, on removal of a second, the child fainted.

Syringing was then resorted to. Although using a very strong stream, I succeeded in removing but one. I then placed the child prone on the right side, and filled the diseased ear full of sweet-oil. After tedious waiting, I seized with the forceps each maggot as it came to the surface, and succeeded in thus removing seven, making in all ten. Pain ceased immediately after their removal. The canal was then thoroughly cleansed. Its inner third was entirely denuded of flesh; also, membrana tympani and mucous membrane lining tympanic cavity were gone. The bones of middle ear were so loosened that the malleus and incus were removed from the canal while being cleansed. Entire loss of hearing. Under the use of carbolic acid, three grains to the ounce, and frequent cleansing with cotton carrier, the discharge ceased and the parts recovered as far as possible.

The children had been in the habit of sleeping a short time each day under the shade of some trees. A fly, probably attracted by the odor, entered and deposited the eggs from which the larvæ were developed. Not being at home, the syringe was neglected and the eggs allowed to remain.

The above case well illustrates the necessity of cleanliness in ears suffering from chronic purulent otitis. When we take into consideration the tenacity with which the larvæ clung to the walls, and their manner of reced-

ing into the depths of the canal when disturbed, with my failure to dislodge them with a large syringe, it is not surprising the parents did not discover them.

The larvæ were about one-third of an inch long and one-twelfth of an inch thick. They seemed filled with blood. Two of them were killed; the other eight were placed in a two-ounce bottle, and a small piece of meat thrown in. After three days two more died. A little dirt was then placed in the bottle, and the larvæ at once buried themselves. In about two weeks four developed into very large grayish-black flies, about the size of horse-flies.

A CURIOUS MONSTER.

Dr. R. H. Spencer, of Peramo, Mich., writes: "I have recently attended a case of labor in which a female child was born, which is a curiosity. Child presented by the breech and was delivered after the usual method. The lower limbs are drawn up to the abdomen and there seems to be no action in the hip-joint, the knees look more like elbow-joints and are also anchylosed, the feet are an exaggerated form of talipes valgus, and at the union of the sacrum and lower lumbar vertebra there is an opening that looks very much like the anus, through which I could pass the end of my little finger, and on doing so it caused bloody serum to ooze from the rectum. The child is now three weeks old and doing well; the opening in the back has nearly closed. The question arises in such a case, as to the duty of the physician in keeping such a child alive. It was my wish to cut the cord and not tie it, but the family objected as they wished to have it baptized, they being Catholics."

SWAMP BUTTON-BUSH IN RHUS POISONING.

Dr. S. P. Hubbard, of Taunton, Mass., writes: "As I have never seen in any medical journal the virtues of the swamp button-bush (*Cephalanthus occidentalis*), for poisons of all kinds, especially *Rhus Tox.*, I wish to say to the medical profession that no remedy half equals it. Try it. Make a strong tea and freely bathe the parts with it while hot."

MENINGITIS AS A RESULT OF OTITIS.

Dr. E. E. Mather, of Williamstown, sends us the following history: On Monday, July 13th, at 4 A.M., he was called to see M. G——, farmer, aged thirty-three years, married; the messenger stating that he was in a fit. He found him in bed, having recovered partially from the seizure, but breathing heavily and still in a semi-comatose condition from which he could with difficulty be aroused, but exclaiming, when aroused, "My head! oh, my head!" Temperature 100°; pulse 70 and even; respiration stertorous; the pupil of left eye one-half smaller than the right pupil; there was ptosis of the lid of left eye; there was a peculiar immobile condition of the face; no paralysis.

His wife said that from an early age he had suffered from severe attacks of pain in the left ear, the attack resulting in suppuration, when the pain would be relieved. He had not consulted a physician for them. These attacks of otitis and otorrhœa were not continuous, but would recur on slight provocation. For two or three days before the doctor saw him, he had the earache (always the left ear), but continued his work in the hay field, and on Saturday he became very much heated in attempting to secure the last load from an approaching thunder-shower. The shower caught him and wet him through. That night and next day he suffered excruciating pains in the left ear, until at length the doctor was called. There was no outward suppuration; there was a moisture or sweating of and in the external ear. He recovered in some degree his consciousness, but there was constant tendency to sleep. There was almost total loss of memory. All food was refused; there was nausea and vomiting; bowels constipated. There was also a peculiar form of aphasia—he could not remember words: amnesic aphasia. For instance, he would beg me to give him some "epizootic." The pain in the head was confined to the left side; the same immobility of the features; ptosis of left lid and occasional profuse sweats. The temperature after the first two days ran not above normal, and sometimes under; the pulse grew slower every day until it reached forty-six; when aroused from his sleep, he would yawn and yawn; no paralysis at any time. This condition of things was maintained until the day previous to death, when his temperature was 101°, and pulse 72. No autopsy would be allowed.

Progress of Medical Science.

Supposed Rupture of Kidney.—A boy, aged fourteen years, leaped over a hedge, landing upon a lower level on the other side on his feet, but rolled over on his left side. He picked himself up and walked some distance, not complaining of pain. When he made water it was very bloody, and afterward vesical tenesmus was very constant. He was driven eight miles to the nearest town; on arriving he had recovered from the shock. He had pain and "severe spasms" over left ureter and kidney. He was treated by rest, liquid diet, gallic acid and opium, and ice locally, which relieved the pain over the kidney. Next day the urine contained less blood, sp. gr. 1.022. Microscopical examination showed traces of broken tubules, no renal epithelium; there was a swelling over the site of the left kidney; temperature normal. Six days afterward the urine was clear; occasionally there was a slight trace of albumen. He returned to school in a month. Dr. Campbell, who had the case under observation, believed that the accident occurred by the kidney being pinched between the false ribs and the ileum, or that the weight of the kidney was sufficient to lacerate some of the vessels in the cortical substance.—*Liverpool Medico-Chirurg. Jour.*

The Functional Condition of the Leg after Transverse Fracture of the Patella.—In a paper read at the French Congress of Surgery, M. Richelot, of Paris, holds that, when persistent lameness follows transverse fracture of the patella, such condition is due not to separation of the fragments of the bone, but to atrophy and consequent loss of power of the quadriceps muscle. There are many subjects of old fracture of the patella who, notwithstanding separation of the fragments to the extent of nearly four inches, are able to walk about and to ascend and descend stairs quite as well as though the bone were normal. It often happens that the functional power of the injured limb improves the more as the separation of the fragments continues to increase. When the rectus muscle has lost a fixed point of insertion, and can play but a very slight part in extension, there remain the two vasti muscles, the inferior attachments of which are never torn through. It is necessary, therefore, in cases of fracture of the patella, to prevent, if possible, any atrophy of these muscles. The first muscle to waste is the rectus, then the vastus internus, and, finally, the vastus externus. The atrophy is of the same nature as that resulting from arthritis, or from any other articular lesion. M. Richelot holds that, in the treatment of fracture of the patella, it is more important to prevent wasting of the extensor muscles than to attempt to bring the fragments together. Most surgeons, he states, have seen examples of good locomotion, with considerable separation of the fragments, and other examples of extreme lameness with the fragments in close or even immediate apposition. This absence of relation between the extent of the pseudarthrosis and the degree of functional impairment, indicates that wide separation of the fragments

is not the essential element of the loss of power of the limb. Atrophy of the quadriceps muscle, varying much in extent in different cases, but of very common occurrence after fracture of the patella, is the main condition on the intensity and persistence of which depend the intensity and persistence of the functional impairment of the limb. Separation of the fragments certainly impairs the extending action of the rectus, but this muscle does not form more than a fourth part of the mass of the quadriceps, and the two vasti muscles always remain attached to the sides of the inferior fragment, and, therefore, if not atrophied, are sufficient to maintain the functions of the limb. When the lateral fibrous structures remain intact, and there is not an absolute solution of continuity between the thigh and the leg, it is useless, M. Richelot argues, to endeavor to bring the fragments together by a multiplicity of apparatus, or to perform arthrotomy, which, not to speak of its dangers, seems superfluous if the quadriceps be normal, and illusory if it have undergone atrophy. In the treatment of fracture of the patella, after the limb has been fixed in a simple apparatus and the most simple means of bringing the fragments together have been applied, the surgeon's attention should be mainly directed to the quadriceps muscle.—*London Medical Record.*

Successful Cerebral Surgery.—In *The Lancet*, May, 1885, Dr. Macewen reports the case of a man, aged thirty-six, who in August, 1883, fell downstairs, and was rendered unconscious for twelve hours. In November, 1883, the patient was admitted into the Glasgow Royal Infirmary, with impairment of power in the left arm, accompanied by muscular twitchings and pricking sensations in some parts. A lesion was diagnosed in the motor cortex of the upper half of the right ascending frontal convolution, probably due to irritation set up around an extravasation of blood, due to the previous injury. In December the author trephined, and found a membrane-like patch over the surface of the brain, involving the arachnoid and pia mater along with the external surface of the gray matter; there was also blood effused into the substance of the brain in the ascending frontal convolution. All this was removed, the bone was replaced after having been broken up into several small pieces, and the wound was dressed with eucalyptus gauze. The patient made a perfect recovery without a bad symptom, and two months afterward was able to do his ordinary work.

Sacculer Dilatation of Urethra.—Lawson Tait relates a case, which he published in *The Lancet*, October, 1875, of a lady, who suffered from a sacculated dilatation in the floor of the urethra. Until the beginning of this year, the author states, he had never seen such a case, but during the past three months he has met with three cases almost exactly similar. The symptoms in all were precisely alike. There was a constant escape of fœtid ammoniacal purulent urine, which did not occur always on ordinary micturition, but only when there was any strain, or upon pressure, or change of position, and sometimes quite independently of the patient's control. On examination a tumor was found, apparently continuous with the neck of the bladder, presenting itself between the lips of the vestibule, closely resembling an ordinary cystic vaginocele. When a catheter was passed along the roof of the urethra, it went into the bladder and clear urine was drawn off; but, if passed along the floor of the urethra, it entered the cavity of the tumor, bringing away putrid urine. On each case, the author operated with complete success. This form of disease is stated to be, most likely, due to an error of development, by which a small offshoot of the urethra, like a diverticulum of intestine, is the result of faulty union of the primal folds; and this becomes of pathological importance when women become accustomed to those errors of urination to which they are all more or less addicted. —*British Medical Journal.*

Communicability of Tuberculosis by the Genito-Urinary Organs.—Dr. Settier narrates five cases, in which the contagion of tuberculosis was probably communicated by the genito-urinary organs. The first, a man, aged thirty-eight, with no family history of phthisis, contracted a disease of the prostate after marriage with a phthisical girl who had a constant leucorrhœal discharge, which discharge was found to contain numerous tubercle-bacilli. The pus from the man's urethra also contained unmistakable tubercle-bacilli. The second case was that of a healthy young man, aged twenty-nine, in whom, four years after marriage with a phthisical woman, there were swelling of the left testicle and epididymis, and enlarged prostate. The diagnosis was established by the recognition of tubercle-bacilli in pus from the urethra. Case three, was that of a woman, married to a phthisical man. After marriage she suffered from leucorrhœa, vulvo-vaginitis, and pelvi-peritonitis. When admitted, she was suffering from tuberculosis of the lungs, tongue, and ear. In case four, a negress, whose husband died of phthisis, suffered from a vast tuberculous abscess of the pelvis, with commencing mischief at the apex of the right lung. In case five, a man, aged twenty-nine, suffered from pulmonary and laryngeal phthisis. The right testicle, and especially the epididymis, was enlarged. This he attributed to an orchitis, which he had long before the chest was affected. —*London Medical Record.*

Fish-poisoning and the Fish-poison.—The supposition that fish-poison is a ptomaine, and that fish-poisoning is ptomaine-poisoning, receives confirmation through the researches of Professor V. K. Anrep, of Kharkov. During February and March, 1885, there occurred in Kharkov several cases of poisoning by salted sturgeon, five of which ended fatally. The author succeeded in isolating ptomaines (after the methods of Stas and Otto, and of Brieger) (*a*) from the sturgeon which had caused poisoning; (*b*) from the gastro-intestinal contents taken from one of the fatal cases; (*c*) from the liver, blood, brain, and spleen taken from the same fatal case; and (*d*) from the urine of another deceased patient. All the ptomaines proved quite identical in regard to their physical and chemical properties, as well as in regard to their physiological action on animals. Anrep's fish-ptomaine is an amorphous solid body, of strongly pronounced alkaline properties, and of highly toxic power. It dissolves in water only with difficulty, but gives salts which are readily soluble. These salts may be brought to partial crystallization (*in vacuo*). Under the influence of caustic alkalies, acids, and boiling, the fish-ptomaine undergoes decomposition and loses its toxic action. The characteristic peculiarities of the alkaloid are two: (*a*) its stability (the ptomaine in substance as well as its ethereal solution did not suffer the slightest change in its chemical and physiological properties even after a month's keeping); and (*b*) its slow action on red blood-salt, the reduction of the latter being effected only in three to six hours. The author carried out a series of physiological experiments to elucidate the action of his ptomaine on animals. In dogs, a hypodermic injection of a quarter of a milligramme of hydrochloric salt rapidly produced sickness, vomiting, moderate dilatation of the pupils, then dryness of the mucous membranes, thirst, and general prostration; in about two hours there appeared retardation of the respiration, weakness, and slight retardation of the cardiac action, and considerable failure of reflex action. The symptoms lasted for about ten hours, and then the animal pretty rapidly recovered. In rabbits, the identical injection produced considerable dilatation of the pupils, very considerable retardation and difficulty of respiration, progressive weariness of the cardiac action; an hour later, paresis of the hind limbs; and in two hours, death from simultaneous arrest of the heart and respiration. In frogs, an injection of a dose much smaller than a fourth of a milligramme (0.0038 grain) brought about paralysis, loss of reflexes, dilatation

of the pupils, failure and retardation of the cardiac action and respiration, and, on the second or third day, death. The symptoms of fish-poisoning in man presented a nearly complete likeness with those produced in animals by Anrep's fish-ptomaine. Within three to six, not later than twenty-four hours after the ingestion of poisonous fish, there appeared malaise, sickness, giddiness, then pain in the stomach, vomiting, paleness of the face, dryness of the mucous membranes of the mouth and tongue, thirst, failure of sight, ptosis, dilatation of the pupils, coldness of the limbs, labored respiration, feeling of oppression in the chest (especially in the præcordial region), weak and small pulse, difficult swallowing, considerable prostration, slight decrease of the temperature of the body. In the further course of the fatal cases, the cardiac action markedly grew weaker and weaker, the respiration became more and more difficult, prostration and ptosis increased, the temperature fell lower; then appeared cyanosis, retention of urine and fæces, slight œdema of the face, indistinctness of speech, weakness of voice. On the second, sometimes on the third or fourth day, death ensued. Analyzing the list of the symptoms, Professor Anrep points out that the fish-poison paralyzes the spinal cord and medulla oblongata; probably also the unstriated muscular tissue.—*London Medical Record*, July 15, 1885.

Carcinoma of the Cerebellum with Scirrhus of the Lung.—Cantani reports the case of a woman, aged forty-five, who had occipital headache, rigidity of the back of the neck, inco-ordination of movements, progressive loss of the mental faculties, vomiting, tendency to fall backwards, and frequently also slowness of the pulse and respiration. The emaciation, vomiting, and epigastric pains might have given rise to the suspicion of cancer of the stomach, but the symptoms generally were those of a lesion of the cerebral nervous system, and the diagnosis made was that of tumor of the cerebellum. At the necropsy a small abscess, limited to the cortical substance, was found in the right parietal lobe, in correspondence with the first parietal ascending convolution; in the right lobe of the cerebellum was an abscess, of the size of a walnut, and in the left lobe of the cerebellum another abscess, of the size of a filbert. In the upper lobe of the right lung there was a nodule of scirrhus as large as an apple. During life there were no other signs of pulmonary lesion than raised percussion-note and prolonged respiration in the right superior lobe. The author supposes the abscesses were the result of suppuration from neoplastic foci of carcinomatous nature, developed in the brain, and that the pulmonary scirrhus was secondary.—*London Medical Record*.

Accessory Suprarenal Capsules.—Chiari describes four cases under his own observation, and proves that accessory adrenals may be found in males as well as in females, and in adults as well as in children; they do not undergo atrophy in youth, and lie between the kidney and the testicle or ovary. In one case, a large tumor was removed by laparotomy from the abdomen of a man aged forty-four; it lay between the right kidney and the brim of the pelvis, upon the quadratus lumborum and iliacus internus muscles, external to the psoas, and behind the cæcum and the peritoneum covering the right iliac fossa. It was invested with a capsule intimately connected with neighboring structures. Dr. Chiari looked upon the tumor as proceeding from an accessory adrenal, but consisting of irregularly-arranged adrenal tissue, and therefore cancerous. In support of his opinion, he notes that it grew in a region where accessory adrenals are found, and possessed a complete capsule, as is only the case in growths of a similar consistence and rapid growth, when they originate within an organ that has a true capsule. Grawitz has described new growths developed from healthy accessory adrenals. The characters of sections of the tumor examined by Dr. Chiari resembled, microscopically, normal adrenal tissue. Groups of characteristic pigmented cells, infiltrated with fat, were found, precisely similar to those seen in the substance of the suprarenal capsule. The tumor recurred, its substance bursting its capsule and invading neighboring organs.—*London Medical Record*.

Acute Suppuration after Forcible Rupture of Articular Adhesions.—Professor Oberst reports four cases from the hospital practice of Volkmann, on which acute suppuration followed the breaking down of articular adhesions. In each of these cases, the ankylosis had followed an acute infective process. In two cases the primary affection was acute articular rheumatism, and in one the ankylosis was the result of acute infective osteomyelitis. In the fourth case, the nature of the primary affection could not be clearly made out, but there is no doubt, Oberst states, that it was some acute infective process. In two cases, the suppuration caused by the breaking down of adhesions—in one in the cuticle, in the other in the knee—did not extend beyond the affected joint, while in the other two it was very extensive, and caused much disorganization, necessitating amputation of the thigh in one of these instances, and causing death in the other. In the last case, which was one of ankylosis of the knee and deformity after acute rheumatism, forcible extension of the limb caused infraction of the inferior epiphysis of the femur, and was rapidly followed by acute and typical osteo-myelitis, with necrosis and formation of multiple abscesses in the medulla. Oberst thinks that the multiplicity of the abscesses, the character of the necrosis, and other morbid conditions in this case indicated that it was one of specific infective and not of simple septic osteo-myelitis, and it is suggested that it might have been due to the action of the poison of acute rheumatism. There can be no doubt, it is held, that in each of these four cases the suppuration set up by relatively slight force may be most readily explained by the supposition that, from the date of the primary acute affection during disease, germs had been left in the affected regions, and that, by the attempt to restore the functions of the joint, they had again been rendered mobile and placed under conditions favorable to the restoration of more active vitality. In each case, the patient at the time of operation was quite healthy—except with regard to articular deformity—and free from fever, and in not a single instance did any abscess or fistula exist at this stage. There could not, it is stated, have been any infection from without, as the integument in each case was quite intact, and the extravasation of blood caused by the forcible movements of the joint did not reach the surface. These cases, Oberst points out, should teach surgeons that they ought to be very cautious in attempting to break down ankyloses which have resulted from acute infective diseases. In cases of this kind, a cutting operation would certainly be less dangerous than forcible rupture of the adhesions by simple manipulation. In not one of the very numerous cutting operations that have been performed with orthopædic aims at the Oberst Hospital at Halle has any instance been observed, Oberst states, of complication due to infection. It is supposed that the micro-organisms remaining after the primary disease find a much less favorable soil in the disinfected and antiseptically-treated operation-wound than in contused and lacerated tissues, and in abundant or diffused extravasations of blood, conditions which often exist after forcible attempts to restore the functions of an ankylosed joint.—*Centralblatt für Chirurgie*.

Relief of Cramp of the Uterus during Labor.—For relieving cramp of the uterus during parturition, Dr. Svanberg employs a compress, soaked in a mixture of chloroform and olive-oil, equal parts of each, or two parts of chloroform to one of oil, applied closely to the abdomen, between the umbilicus and the symphysis pubis. He has found the result to be immediate relief of the spasm, even when the previous inhalation of chloroform has failed.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, September 5, 1885.

THE PATIENT AND HIS CHOICE OF DOCTORS.

THE relation of the patient, family doctor and consultant is discussed in a recent number of the *London Lancet*. The editor regrets the increasing tendency of the patient to seek consultation independent of the family physician, and the decline which the present day witnesses in the esteem in which this personage is held. The patient takes his affairs in his own hands, and goes from one to another in search of opinions, which may actually, or according to his notions, differ in many instances. This tends to throw discredit on the profession and create a distrust in its judgment. The writer says: "It is well worthy of consideration of consultants and patients whether a system so mischievous should not be abandoned."

As it is impossible to discipline patients so that they will seek advice in only one direction, the plea is made to consultants. Their discourtesy to the family physician is pointed out, the coolness which will arise between them, and the disturbance of friendly feeling between the family and the physician. The injury done to patients themselves, because of the conflicting diagnoses which are liable to occur, is also shown. It tends to merge the consulting physician into the specialist, whose attention is too apt to be concentrated on the localized disease, unless the family physician interfere in behalf of his patient. A diagnosis, too, may be made without due deference to the family history. Moreover, the patient sees his consulting physician seldom, and makes use of his medicine for a long time when it is no longer appropriate.

In all this there is, indeed, more than a modicum of truth; but there is also an obverse to it worthy the consideration of the "family physician," if not "the consultant" and "the patient."

It is true we are living in a different age from a generation or so ago, when clergymen and doctors were institutions which ran parallel with the lives of families, fixed and immutable, until summoned

> "To join
> The innumerable caravan which moves
> To that mysterious realm where each shall take
> His chamber in the silent halls of death"

Independence of thought and feeling are rife in every department. Scepticism is a ghost not to be laid, and plays the mischief with the once honored "family physician," who now holds no sinecure, but must prove his right and title to the office by his display of skill and intelligence, and the power he has of convincing his clients that he is abreast with the times. *The Lancet*, with praiseworthy conviction, assumes that the "family physician" is infallible. It has not the slightest misgiving that by any chance he may be a fossil, who is liable to err, who has a pompous reliance on his own judgment, and if questions arise will bring in a friend who will support his view of the case, and will not in any event go counter to his wishes. The patient becomes a shuttlecock tossed only to and fro between the battledores of their two opinions, to their edification but little to his benefit. Tied up with the red tape of etiquette, there can be no interference. The amicable relations of the physician must not be disturbed, nor that of physicians and families. The question of the patient's welfare is one of minor consideration.

It is at best a delicate relation which a physician holds toward a patient. That of the clergyman is nothing in comparison. The hypothetical soul and its treatment disturb its possessor very little for the most part. The property of the individual comes nearer to him, and he selects his lawyer according to his purse and his opinion of ability. The body, although a living, every-day palpable reality to its owner, is more mysterious and incomprehensible than either of the two—that is, if it gets out of order. He is buffeted with notions of how to take care of it. And though the words of the Sphinx, "Know thyself," sound ever in his ears, he is conscious it is a riddle that he never can solve, and puts the solution into the hands of his doctor with more blind faith than he leaves his soul with his clergyman, or his property with his lawyer. It is no wonder that he has misgivings, and that he wanders from oracle to oracle in the hope of enlightenment. It is well to warn him against such a course, as confusion becomes more confounded, and, as *The Lancet* justly observes, little good can result to him.

The Lancet blames the consultant, and with some show of justice; nevertheless we do not think that his position is sufficiently considered. If he is the doctor he ought to be, he should feel that the patient could be benefited by no counsel as well as by his; for no physician, to take the highest view of the case, should practise until he feels that he is competent to do as well, nay, even better, than any one else. Such being the case, it is depriving humanity of its rights to withhold his opinions and treatment when applied to for them. Especially as the patient, for the time being, at least, is of the same mind. Why should an iron-bound etiquette interfere? Why has not the patient the same right to go from doctor to doctor as to go from shop to shop in search of an article to suit him in quality and price? to go from church to church to find the clergyman whose sentiments, oratory and rhetoric please him? to go from lawyer to lawyer to find the one who will best plead his case and preserve to him his property? He may err in judgment in all these; he has the same liability to err in the matter of his doctor—doubtless will; but why should it be a matter of personal offence between physicians any more than between merchants, clergymen, and lawyers, who

do not bind themselves together with any such notions of etiquette?

The golden rule of doing unto others as one would be done by should certainly be observed in all relations, and among doctors especially. The consultant should not feel that it is his especial duty, as he often does, to alarm the patient in regard to his previous course of treatment, and however much the doctor may think it, it is not quite kind to the absent to tell his patient that up to the time of his fortunate meeting with him all had been wasted and worse than wasted that had been done. Moreover, he should remember to take *cum grano salis* the remarkable statements of the patient relative to anatomical facts and diagnosis, ever bearing in mind that what he says may be interpreted in the same way to some one else, and that a broad mantle of charitable consideration is due to his brother practitioner, who would doubtless be as much astonished as any one at the form his statements had assumed.

In these respects, therefore, we must differ with *The Lancet*, and come to the conclusion that a plea is not so necessary for the family physician as for the consultant, who has by far the heaviest burden to bear in the task put upon him to behave like a Christian and a brother, and above all for the patient, innocent as a lamb, who finds in any case perplexity and distrust, since he comes to a market to purchase wares concerning which he knows little or nothing.

MASKED ARTICULAR RHEUMATISM.

Considerable attention has been paid of late years to various forms of latent rheumatism in which the disease does not manifest itself primarily or solely in the articulations, but in which other organs and tissues are attacked, to the exclusion even in certain cases of the joints. In children, as is well known, the articular implication is often so slight as to pass unnoticed, and perhaps the nature of the disease is never discovered, or it is learned only when the heart symptoms declare themselves. But it is not to such cases as these that we wish to refer, but rather to those in which some other structures are attacked primarily, giving rise to symptoms well calculated to deceive any who do not remember that rheumatism is a general disease, and not an articular affection.

We have already noticed in these columns a pulmonary form of rheumatism described by M. Lebreton. This occurs in individuals, belonging to a rheumatic family, who may or may not have previously suffered from the articular form of the disease. There are three principal varieties, the pneumonic, the œdematous, and the congestive. The symptoms of the first variety are not those characteristic of true pneumonia. The face is pale, and the stethoscopic signs are fugitive, not being confined to one lobe or one lung, but changing about from one lung to the other, or from the apex to the base, with most perplexing irregularity. In the œdematous form there is pallor of the face, respiration becomes suddenly labored, and the ear applied to the chest hears râles in every part. In both these varieties the skin is constantly bathed in a profuse acid perspiration. The congestive form occurs under three clinical varieties. There may be frequent hæmoptyses without any other evidence of pulmonary lesion, or there may be repeated attacks of dyspnœa equally inexplicable by any intrathoracic disease. Lastly, there is the latent variety, giving rise to no special subjective symptoms, and characterized simply by a sound resembling the crepitant rale of pneumonia, heard only in inspiration.

In a communication addressed to the Paris Academy of Medicine some three years ago, Dr. Maurice Perrin related a number of instances of conjunctivitis due to rheumatism. This affection resembles, in the rapidity of its development and the gravity of its symptoms, gonorrhœal ophthalmia, and the integrity of the cornea is often seriously endangered. There are, however, certain forms of less severity, not purulent, and resembling simple catarrhal conjunctivitis.

Certain cases of epilepsy have been referred by Tiessier, of Lyons, to the influence of the rheumatic poison. He has seen persons attacked with epilepsy for the first time while they were suffering from articular rheumatism, and others who were epileptic and had never had any of the joint manifestations, but who came from a rheumatic family. These cases were all promptly cured by appropriate medicinal treatment.

At the Congress of German Physicians, recently held in Wiesbaden, Dr. Immermann, of Basle, said that he had repeatedly, in recent years, met with cases of acute neuralgia of the fifth nerve, due to the action of the rheumatic poison. That they were referrible to this cause was shown by their clinical course, by the fact that they occurred at a time when acute articular rheumatism was epidemic in Basle, and, lastly, by the effects of treatment. The cases were accompanied by high fever (in one instance of 104° F.), and in some there were secondary heart lesions. The pain was intense, and was located in one or other branch of the trigeminus, but the impression given to the observer was not that of a purely local neuralgia, but the affection seemed, in some indescribable way, to be rather part of a general disease. The neuritis yielded readily to salicylate of soda. Dr. Edlefsen, of Kiel, remarked that he had also met with similar cases of trigeminal neuralgia of rheumatic origin, which had promptly subsided upon the exhibition of salicylates.

These forms of rheumatism are evidently analogous to the latent manifestations of the malarial poison, and their treatment is to be conducted in the same way, by the exhibition of the specific remedy. Now that the existence of these masked forms of articular rheumatism, as they are designated by Immermann, has been demonstrated, their number and variety will doubtless be largely increased by successive observers, and perhaps many affections which are now so rebellious to treatment will be found to belong to this category, and, their true nature being known, they may be seen to be more readily curable than has hitherto been supposed.

AN AMERICAN DAVOS.

The physiological and therapeutical effects of high altitudes and a winter climate have been very carefully studied by European physicians, largely because of the good practical results secured by invalids at Davos, in the Engadine, and at similar places in Switzerland.

Davos is situated in a valley at an elevation of 5,400 feet, at latitude 47°. The physical conditions there which produce the results observed in consumptive invalids are: 1, Great elevation above sea-level; 2, a continuous and, during winter, permanent covering of snow; 3, a minimum of watery vapor in the air; 4, a clear sun; 5, a clean atmosphere, free from zymotic germs, dust, and fog; 6, a sheltered position, favorable for receiving both the direct and reflected solar rays.

As in all high altitudes, the solar radiation is very intense. It is a fact that with increase of altitude the sun-temperature rises while the air-temperature falls. At Davos, for example, the sun-temperature is from 89.2° to 108°, while the air-temperature may be near zero.

Dr. Hermann Weber summarized the physiological effects of such a high, cold altitude as Davos in a series of lectures delivered in London last winter:

1. Increased activity of the skin, better nutrition and invigoration of the skin.

2. Strengthening of the heart and the contractile fibres of the vascular system, with augmented frequency of the heart's contractions at first, but reversion to the normal state after a longer sojourn, together with greater force of each contraction, and thereby increased suction-power.

3. More rapid respiration at first, but return to the normal rate after a few days. Probable increase of depth of inspirations. Strengthening of the respiratory muscles, and probably also of the elastic fibres of the finest bronchial branches. Increased flow of blood through the lungs.

4. Generally a marked increase in the excretion of water through the lungs, and increased and facilitated excretion of carbonic acid.

5. In most cases transient or continued increase of appetite, ingestion of food, digestion, and assimmilation.

6. Thereby improved production of blood and nutrition of the organs.

7. Greater energy of nervous and muscular action.

8. In most cases improvement of sleep.

9. Probable augmentation of tissue-change.

Dr. Edward Frankland, president of the Royal College of Chemistry, has called attention in the *Popular Science Monthly* to the fact, as he believes, that the United States has in the Yellowstone Park a climate quite equal, if not superior, to that at Davos. The great plateau of this park is between seven thousand and eight thousand feet above sea-level. The mountains about it are from ten thousand to twelve thousand feet high. The period of permanent snow is longer than at Davos, the latitude a little lower, viz., 44° to 45° parallel, and there are plenty of places where a free horizon southward can be obtained; in all these respects the park being superior to Davos.

Dr. Frankland's opinions are based upon a hasty visit, and are mainly suggestive in character. It is well for physicians to know, however, that there is an American Davos in their reach. The badness of the accommodations for the present prevent any utilization of the park by invalids. Some studies must be made also upon the very important factor of the quality of the soil.

THE INDICATIONS AND METHODS FOR RADICALLY TREATING HERNIA.

The question of the propriety of attempting a radical cure of hernia by operation is a frequently recurring one. The importunities of patients and the ambition and ingenuity of surgeons combine to this result. Despite the most strenuous arguments, however, in favor of various methods for radically relieving hernia, it is still the general opinion of surgeons, that for the vast majority of cases we have yet no safe and sure method of cure, and that the routine or even frequent performance of the so-called radical operations, except for "congenital" cases, is not justifiable. An interesting review of this subject has recently been given by Mr. John Wood, in a series of lectures delivered before the Royal College of Physicians. Mr. Wood has identified himself with the advocates of radical operations, and has himself devised a method which is familiar in name, though not perhaps in detail, to readers on this side of the Atlantic.

In the past twenty-seven years Mr. Wood has operated upon 370 cases of inguinal hernia, with four deaths. Of those whose after-history is recorded, considerably over half are stated to have been permanently relieved.

Perhaps Mr. Wood's operation has not yet been duly tried in this country. It is certain, at any rate, that it has no popularity among surgeons here. Undoubtedly surgical opinion just now favors some of the various open methods advocated by Banks, Annandale, Alexander, Stokes, and others. Perhaps some of these plans approach dangerously near in practice to the old mediæval methods of simply tying the neck of the sac, and either cutting it off or leaving it and the sides of the canal to heal up as they lie. But however this may be, the "open operation," when carefully done, seems to have very little danger and to give good results.

Although, as we have stated, surgical opinion is still very conservative as regards operations for the radical cure of hernia, yet it does not follow that in the future these operations will not be much more regularly and extensively performed. Mr. John Wood, in the lectures referred to, gives a list of the indications for the radical operation, of which our London correspondent has presented the main features to our readers. (See Medical Record, July 4th.)

"It appears indubitable," Mr. Wood says, in concluding, "from the results of the last twenty or more years' experience of the radical cure of hernia, that the position of those surgical writers who have maintained that the radical cure should not be attempted, except in the severest cases, is untenable."

INSANITY AND DIVORCE.

We believe that there are some States in which insanity is admitted as a ground for divorce; but throughout the world the contrary rule holds in civilized countries. Every physician sees, at times, cases where this state of things is the cause of a life-long burden and unhappiness. And it is not unnatural that the question should be raised, at times, if the law as it exists is right. In a recent number of the *Medico-Legal Journal*, Dr. George H. Savage, of London, discusses the subject at length, and cites three cases as illustrating the condition and working of the English law.

Dr. Savage upholds the present law and practice—that insanity occurring after marriage should not be held as a ground of divorce. Indeed, he is so positive on this point that he thinks that arguments in its favor are unnecessary. Because a man has made a bad bargain is no reason, he says, why he should break the bargain. He as an individual must suffer for the good of society; besides it is very difficult to say that any given insane man or woman will never recover. These are the grounds which Dr. Savage indicates as those upon which he bases his opinion. For the present, Dr. Savage's view and the common law should undoubtedly stand, for progress in such matters must be careful and slow. But we feel certain that after a time the people and the law-makers will see that society is not benefited by a law which binds a man or woman for life to a chronic lunatic. In a large per centage of the cases of insanity which have lasted four years a commission of experts could safely and surely pronounce the disease incurable. Besides, if in some phenomenal and extraordinary instance the decision were wrong, would the harm in this rare and almost impossible instance be proportionate to the happiness conferred in many other instances?

While we are not ready, therefore, as yet, to take the ground that chronic, incurable insanity should be admitted as a ground of divorce, we cannot praise the perfunctory manner in which Dr. Savage dismisses the question.

The law with regard to insanity and divorce now is very much like that with regard to insanity and crime. One of the contracting parties may have been insane before or after, perhaps even at the time of, the marriage contract; yet this is not a ground for annulling it. Such ground only exists when it is proved that the party, at the time of the marriage, was of such unsound mind as to not know and understand the nature of the act. Dr. Savage cites two cases—one of them, that of Lord and Lady Durham, a true *cause célèbre*—which illustrate the working of the English law—and very bad work it is, too. In both cases insanity developed in marked manner directly or soon after the marriage, and in both cases the existence of mental unsoundness before the marriage is evident to a medical expert. Yet divorce was denied, because it could not be proved that at the time of the marriage the contracting party did not understand the nature of the act.

It may be that this English test is the only practicable one, considering all things, but it is certainly, from a scientific standpoint, irrational; and we see no reason why it should not be repudiated here by medical men, as it has been done in its application to criminal acts. The real question should be whether the person was mentally diseased at the time of the contract.

We confess to feeling a little surprised that Dr. Savage should allow his cases, which show so glaringly the injustice of the law, to go without more critical comment.

THE MORAL DANGER OF THE AMERICAN MEDICAL PROFESSION.

There is no denying the fact that the profession of this country is subjected to what we may term a moral strain that is greater than is experienced in older countries. The multitude of half-formed doctors turned out by our schools, the fierceness of competition, the American passion for "practical" and business-like methods, the haste for success, all tend to tempt the younger physicians especially toward a laxity in conduct. Considering all these things, it behooves every conscientious physician to keep a careful watch upon himself. His responsibility is very great. Although the practice of medicine has already assumed many of the features of a "business," it is not, and, as we have before said, never can, by honest men, be carried on just as a trade would be. Having to do only with the body and its ills, no physician of any conscience and human sympathy can fail to regulate his conduct on a higher plane than that of the simple *quid pro quo* of the tradesman.

Yet, unfortunately, it appears that men without conscience do get in our ranks, and even attain some standing there. It is against these that the profession must be on its guard. We have too long regulated what is good and praiseworthy in the physician by standards that are, in a measure, false and artificial. There have been times when a man, however sincere and honorable, would be looked at askant if he used electricity or massage, or pushed a probang down the larynx.

It behooves a doctor now to judge his fellow by high standards of Christian morals, and by these alone. He should be true to his patient, his colleagues, and himself. Such conduct should be the gauge of professional loyalty, and such conduct very much needs cultivating.

PERSONAL MEDICAL NOMENCLATURE.

We propose to give our readers a little insight into the present condition of medical nosology, or at least into one phase of it. It will be very readily agreed that the human body has diseases enough, and that medical literature has technical terms enough; and we shall probably not find it hard to show in this, and succeeding articles, that these terms are accumulating upon us altogether too rapidly. Medical technical terms have in the past been largely a matter of chance, and they are now in some considerable degree a meaningless jumble of personal appellations, bad Latin, and worse Greek. We have had no tribunal in the past for determining what is appropriate as a name, and hence students of the present day are visited with the sins of their forefathers back to remote periods of time. One of the most glaring excrescences which is fastened upon medical nomenclature is that which attaches to anatomical parts or pathological processes the name of its supposed discoverer. It is to this that we would call attention now, and more particularly to the diseases which, in medical writings, generally receive the name of their first describer. In protesting against the practice of identifying a morbid process by a historical name, we do not wish to deny that there is in it a measure of justice. Nor would we insist too strongly upon its confusing and misleading effects, as illustrated last fall, for example, by the darkey who refused to vote for Blaine, and gave as a reason, "He ain' no 'onest man; he's got Bright's disease, an' why do'ne he give it back to Mr. Bright." But certainly, as a practice, it has become already an encumbrance, and it is time we should cry a halt. We doubt if our readers are quite aware of the number

of diseases which are carrying their discoverer's name to immortality. Neurology seems to have taken the lead, although the names are not always those of neurologists, while among races it is the French and English who lead in the department of personal nosology. Duchenne has had three diseases named after him, but by Duchenne's disease we generally mean locomotor ataxia. Paralysis agitans is also known as Duchenne's disease, while the Duchenne-Aran type of muscular atrophy is the name applied to the ordinary (spinal) form of progressive muscular atrophy.

Exophthalmic goitre is claimed by two countries and five individuals, and is called, according to the particular penchant of the writer, Parkinson's or Basedow's, Graves', Marsh's, or Parry's disease. Dubini's disease is a peculiar and fatal form of chorea (chorea electrica); Thomsen's disease, which is really a congenital defect of development, consists of peculiar attacks of rigidity of the voluntary muscles; Little's disease is the spasmodic tabes of children. Diabetes has been known as the disease of Willis. Charcot has two diseases named in his honor—the joint disease of tabes and amyolateral sclerosis; Bright's disease and Hodgkin's disease, or malignant lymphoma, are most familiar terms; Dupuytren's contraction is a peculiar disease of the palmar fascia, and Raymond's disease is otherwise known as "local asphyxia, local syncope, and symmetrical gangrene." The dentists have Rigg's disease and Fauchard's disease.

The saints, and the gods of the pagans have had their share also in medical nomenclature—of this, St. Anthony's fire, St. Guy's and St. Vitus' dance, the sacred disease of Hippocrates (epilepsy), and the ignis sacer, or anthrax, are illustrations.

News of the Week.

Professor Berger, of Breslau, well known as a neurologist, is dead.

Professor Ch. Seby, who had recently been called to the Chair of Anatomy at Prague, is dead.

The Medical Society of Virginia holds its next annual meeting at Alleghany Springs, beginning September 15th.

In the Congo Free State are 4,500,000 people and only half a dozen doctors; at least so accounts state.

Ferrán's Charges for Preventive Inoculation.—If, as seems likely, Ferrán is not to acquire fame through his so-called preventive inoculation of cholera, he appears to have had a good thing pecuniarily. The charge for each vaccination is said to have been about $2.50, and for several weeks in succession he and his assistants inoculated an average of six hundred individuals a day.

The Epidemic of Small-pox in Montreal is assuming alarming proportions. It is reported that there are over fifteen hundred cases now in the city. The sanitary service, never very efficient, is inadequate to the demands made upon it now.

An Operation for Cancer of the Stomach.—The daily papers of the 1st inst. contained full accounts (with office address of the surgeon) of an operation performed at Charity Hospital for removal of an abdominal cancer.

Cultivating Coca.—The coca plant, from which the new local anæsthetic is obtained, is being planted on a considerable scale at Ceylon.

Typhoid Fever in a Lunatic Asylum.—Typhoid fever has been prevalent in the New Jersey State Insane Asylum at Morris Plains, sixteen cases having already occurred. A careful examination of the premises and buildings resulted in the conclusion that the prevalence of this disease was caused by the imperfect drainage system. On one side the sewage is run into trenches within four hundred feet of the building, and is then allowed to deodorize in the air, and the gases are carried into the rooms of the patients.

New Fields for Medical Practice.—Our editorial of some weeks ago, in which we called attention to the possible advantages of certain foreign countries as fields for medical practice, has excited an unexpected amount of interest. We have received a number of letters from different physicians asking for further particulars. We cannot attempt to give them. Stanley's book on the Congo contains trustworthy information regarding that subject, though perhaps the views are a little rose-colored. Information regarding Mexico and the Argentine Republic can doubtless be got through the State Department and the consuls of those countries.

Dr. Partington, after reading of the wholesale withdrawals from the International Medical Congress as at present governed, was heard to remark sententiously, that he feared the Congress was likely to be merely a sexual one.—*Boston Medical and Surgical Journal.*

The Third Annual Meeting of the American Rhinological Association will be held at Lexington, Ky., October 6, 1885.

A Spurious Hermaphrodite.—A curious case, reported in the *Gazzetta degli Ospitali*, July 29, 1885, has recently come before the Italian courts of a supposed woman who was found to be a man. The case furnishes an instance also of poetic justice. The individual, who is now fifty-one years of age, was supposed at birth to be a female, and received the name of Faustina. Brought up as a girl, no suspicion was entertained of her sex, although at puberty the breasts were not developed and the beard began to grow. At the age of twenty-one she was married, but sexual intercourse was impossible, and after ten long years of ineffectual efforts the husband became discouraged, and the couple separated. Faustina had in the meanwhile discovered her powers, and had formed a secret attachment with a female acquaintance. After the separation from her husband Faustina went to live with a married brother. But they did not agree well together, and finally, after having come to blows, the brother turned Faustina out of the house. Fearing an arrest for assault, he thought to gain an advantage by accusing his pretended sister of having seduced his wife. The case was thus brought into the court, and Dr. Badaloni was called in to examine the defendant. He found that the case was one of complete hypospadias simply, and that the subject was unquestionably a man. The brother, however, not only lost his case, but was compelled to share his inheritance with Faustina, who had been excluded from it by law on account of his supposed sex.

Errata in Dosage.—Dr. A. F. Fuchs, of Fredonia, Wis., writes: "Your Vienna correspondent, in writing about Nothnagel and his mode of administering powdered digitalis, uses the proper numerals, but the improper words in expressing the dose. Three grammes (3.0) are equal to forty-five grains, and are not written .03 or .3, but thus, 3.0. In his article your correspondent is incorrect in every instance in which he uses the word gramme, excepting as regards salicylate and benzoate of soda. As most, but not all, of your readers know, centigramme is the term which should have been used. As a complementary means, one to three grammes of caffein would be very satisfactory to the undertaker. Centigrammes or decigrammes might benefit the patient."

Dr. Sands has not Resigned.—We are requested to state that Dr. Sands has not yet resigned his professorship, but will deliver his didactic course next winter as usual.

Defending Anti-cholera Inoculations.—Dr. Cameron has written an able plea in the *Nineteenth Century* in favor of Ferrán's anti-cholera inoculations. He claims that there is some evidence to show that one attack of cholera gives some immunity against another. Gebert is the only authority who has maintained this view.

Use of Bovine Lymph in Europe.—Bovine lymph is to be permanently introduced in place of human lymph in Saxony, during the course of the present year.

Changes in the European Universities.—A number of changes and new appointments have recently been made in the medical faculties of the European universities. Some of these we have already mentioned. Dr. Josef Reinsberg has been appointed Extraordinary Professor of Forensic Medicine (to lecture in Bohemian) in the University of Prague. Dr. Anton Wölfler has been made Extraordinary Professor of Surgery, Dr. Mauthner of Medical Chemistry, Dr. Hofniski of General Surgery, and Dr. Ultzmann of Urology, at Vienna. Professor Merkel, of Königsberg, succeeds to the Chair of Anatomy of the late Professor Henle, at Göttingen.

The Treatment of Mastitis by Rest and Compression.—Dr. Paul F. Mundé, of this city, writes: "The letter by Dr. P. A. Harris, in your issue of August 22d, on the 'Treatment of Mastitis by Rest and Compression,' in which, among other things, he claims the priority of that method over Dr. W. F. Milroy, late house-surgeon to Maternity Hospital, New York, begins by a very evident insinuation that, because the date of my acceptance of his (Dr. Harris') article for the *Journal of Obstetrics* is but a few days in advance of the treatment by a similar method of Dr. Milroy's first case, I being then on duty at Maternity as visiting-surgeon, Dr. Milroy must have received the incentive to the method from me, therefore from Dr. Harris. Now, as regards the question of priority between Drs. Harris and Milroy, there can be no doubt that it belongs to Dr. Harris, without the slightest fear of dispute. But perhaps Dr. Milroy may have independently hit upon the same or a similar practice, and the object of this letter is to show that he undoubtedly did so, and to refute the insinuation that he received his inspiration second-hand from Dr. Harris through me. In the first place, I have no recollection of having mentioned the subject of the treatment of mastitis by any method to Dr. Milroy, either at Maternity or elsewhere. Secondly, my other occupations and the distance to Blackwell's Island have for several years prevented my attending to my duties at Maternity with the regularity required by the rules (for which reason I resigned the position last June); and hence I find by the visiting-book, which I have taken pains to have consulted on the matter, that I visited the Maternity only twice during April, once during May (15th), and not at all during June, 1884, although technically on duty. I could not, therefore, have communicated Dr. Harris' method to Dr. Milroy. At some time during the past spring, Dr. Milroy wrote me from Chicago, asking permission to publish the cases of mastitis treated by him on my service by his method, a permission which I cheerfully accorded him. This is all the connection I had with the matter. Justice to Dr. Milroy, as well as in a minor degree to myself, would seem to call for the above statement."

London as a Great Medical Centre.—Dr. Wesley M. Carpenter, of this city, in a letter to the British Medical Association, calls attention to the opportunities which London possesses for becoming a great centre for advanced medical teaching. These consist in the great abundance of clinical material which so large a city must afford, the existence of a prosperous and wealthy corporation, the British Medical Association, which might take the matter in hand, and the fact that the Royal College of Surgeons has recently received an enormous sum of money which might well be used for purposes of advanced medical teaching. One thing is certain, that, if London does not do something, New York will. Already it is ahead in the matter of special and post-graduate instruction.

Afraid of Ferrán.—Ferrán and his "caldos" are now viewed with dread and terror by all the towns where the Government ordered him to follow up his "preventive cholera inoculations;" so much so that, as soon as it became known he was to visit certain towns, the people rose with the Alcalde and Municipality, and prevented him from entering the towns. So it happened in Denia, which was to be his "centre;" also in San Matero, Oliva, etc.—Cor. *British Medical Journal.*

Fatal Poisoning by Morphine Through a Druggist's Mistake.—A druggist of Hoboken, Mr. Am Ende, well known in this city as a conscientious and enterprising man, put up ten grains of morphine in powders, instead of quinine as prescribed. The powders were taken by two young ladies of Hoboken, and both died from morphine poisoning. Thereupon Mr. Am Ende took a poisonous dose of atropine. The incident bears its own moral: That the most careful can sometimes make the most serious mistakes. There is room for the broadest charity for Mr. Am Ende, as there is for the sincerest sympathy for the afflicted family.

Dr. Frank B. Gallery, one of the prominent physicians of Rochester, died, on August 29th, from the effects of an operation recently performed on him. He was incapacitated from professional duty some time ago, and removed to the town of Greece, where he died. He was thirty-eight years of age.

The Next Annual Meeting of the American Public Health Association will be held at Washington, D. C., during the second week in December. Dr. Smith Townsend, the health officer of the District, is chairman of the committee of arrangements, and has already appointed his subordinate committees.

INTERNATIONAL MEDICAL CONGRESS MUDDLE.

The following correspondence, sent to The Medical Record, will speak for itself:

Baltimore, August 31, 1885.

Apropos of the meeting of the Committee of Arrangements in New York this week, I enclose you a choice and unique bit of literature on the subject of the International Congress, in the shape of a circular and blank endorsement, sent to the profession here by our worthy representative, Dr. John J. Lynch. The circular takes a view of the defection from the new organization somewhat different from the *Journal of the American Medical Association;* for while that publication asserts, in its editorials, that the opposition is made up of a few discontented men, Dr. Lynch complains of the many who have resigned positions even in Baltimore. The endorsement is a cringing effort to secure allegiance to the fast-waning power of a totally unworthy and unpopular organization. Together with a copy of the circular and endorsement sent me, I enclose you a copy of my answer to Dr. Lynch, which, if you see fit, I should be glad to have you publish.

Very truly yours,
John Van Bibber, M.D.

47 Franklin Street, Baltimore, Md.

(Copy of Circular.)

Baltimore, August 15, 1885.

My Dear Doctor: The resignation of many of the gentlemen in this city who were given positions on the various sections, etc., of the Ninth International Congress, to be held at Washington in 1887, by the Committee of Arrangements, which met at Chicago in June last, renders it necessary that I should be prepared to suggest names to fill these vacancies at the approaching meeting of the Committee in New York, September 3d, proximo. To do this I must know who approve of the action of that Committee and are prepared to lend their names and efforts to make the Congress a success, and who are not.

I beg, therefore, that you will sign the enclosed endorsement if you are prepared to support the action of the American Medical Association and its Committee, and return it to me by mail at your very earliest convenience. Very respectfully, etc.,

John J. Lynch, M.D.

1 S. Broadway, Baltimore, Md.

(Copy of Endorsement.)

The action of the American Medical Association, at its meeting in New Orleans in April and May, 1885, and the subsequent action of its Committee at Chicago, in insisting that only those who support the National Code of Ethics should become members of the Ninth International Medical Congress, to be held in Washington, D. C., in 1887, meets my hearty approval, and I will do all in my power to promote the success of the Congress.

——— ———, M.D.

(Copy.)

West End, August 29, 1885.

Dr. John J. Lynch, Baltimore:

My Dear Sir: I beg leave to return to you the enclosed endorsement unsigned, and I take great pleasure in explaining my action to you. I do not consider that the New and Old Code controversy, which is a local one in New York, has any bearing whatever on the question of an International Medical Congress. In consequence of the "resignation of many of the gentlemen of this city who were given positions on the various sections, etc., by the Committee of Arrangements which met in Chicago in June last," I do not consider that you or your decimated committees represent the medical profession of Baltimore any more than Dr. Shoemaker and his associates represent the city of Philadelphia. The extent to which this simile may be carried must be a mortifying truth, not only to you, but to every member of the present Committee of Arrangements.

The fact that the most prominent members of the profession, in all the medical centres of the United States, have withdrawn from your organization cannot be considered a very high compliment in this country, but when this action is advertised, discussed, and criticised among the foreign members of the International Congress, your position becomes unenviable in the extreme.

As a member of the Section of Neurology and Psychiatry under the organization of Dr. Billings and his associates, my position was very clearly defined, and, under the circumstances which I have pointed out to you, I hope you will pardon me for not wishing to change my associations.

Although we live in the same city, I have, by some strange misfortune, been deprived of the pleasure of knowing you personally, yet believe me, my dear doctor, that in your present trying and mortifying position you have my most sincere sympathy. Very truly yours,

John Van Bibber, M.D.

The following propositions are also offered from another source for consideration:

Two committees have been formed in relation to the International Medical Congress—which is legitimate?

It should be remembered:

1. That the American Medical Association Committee was invitatory as well as executory.

2. That the International Medical Congress accepted the invitation of this committee, and by resolution ordered it to make all the arrangements for the meeting in this country in 1887, by virtue of its inherent power under its constitution.

3. It follows that this committee became the organ of the Congress, and it was instructed to execute *its* will at its meeting in this country.

4. That this committee of eight had no existence, so far as the Congress is concerned, until the Congress created it.

5. That when formed it became the organ of the Congress, its controlling body in this country, to carry out its objects.

6. That so far as the Congress is concerned, this committee of eight was only one of invitation, and could hold no power from the American Medical Association to act for the International Medical Congress, a superior organization, created for scientific purposes, and without local politics.

7. That as a committee of the American Medical Association it was the duty of the committee of eight to report the result of its action to the body which created it, which having been done, it ceased to exist as an agent of the American Medical Association, because its creator has no power to act, as an association, for the Congress.

8. That the new committee of twenty-eight, added to the eight original members, does not exist, as the American Medical Association has no power to create such for the International Medical Congress.

9. That the committee of eight can resign as appointees of the Congress, *only*, by the consent of that body or its executive committee, and that it is still amenable to the Congress as its agent, and it is its duty to act as its representative and ignore the action of the American Medical Association entirely.

The appointees of the committee of eight still stand good.

Reports of Societies.

British Medical Association.

FIFTY-THIRD ANNUAL MEETING.

Held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, *and* 31, 1885.

REPORTS OF SECTIONS.

(Continued from page 248.)

SECTION OF MEDICINE.

WEDNESDAY, JULY 29TH—FIRST DAY.

DR. WILKS in the Chair.

In opening the Section DR. WILKS, as its President, read an address on

SOME CAUSES OF DISEASE AND ON SOME REPARATIVE AND DESTRUCTIVE PROCESSES.

He acknowledged himself as to some extent out of harmony with certain prevailing notions, and was, in spite of many inducements to change, still disposed to abide by doctrines which he had been endeavoring to promote for the last thirty years. He then proceeded to dwell upon the difficulties of distinguishing between processes which are reparative and those which are only destructive, and gave interesting illustrations, from both a physiological and a pathological point of view.

DR. CUMING moved a vote of thanks to the President for his address, which was seconded by DR. W. ROBERTS, and carried by acclamation.

THE PRESIDENT acknowledged the compliment and immediately called upon the Section to proceed with the debate

ON THE TREATMENT OF RHEUMATISM.

DR. BRISTOWE opened this debate, according to programme. He said, when first asked to do so, he thought the subject had been fairly threshed out, but on further consideration he felt that the disease was so common that it was worth the while of practical men again to compare notes. He supposed, as he knew there was an impression abroad that he was very sceptical as to the use of drugs, an impression which he admitted was perhaps deserved, that it might be intended to extract from him some admission as to an acquisition of further power over the disease. He confessed, however, that he had nothing new to communicate. He had seen no mode of dealing with acute rheumatism, and he had no manner of faith in any power of controlling it by drugs—at any rate until the last few years. He had used, as at one time so popular, nitrate and bicarbonate of potass, but he had not been impressed with the possibility of this method being curative. Then he had used blistering, after the plan of Dr. Herbert Davies, and his experience of this treatment impressed him with the belief that it did benefit the joints, but did not curtail the inflammation of those joints. Next he had tried a formula propounded by Dr. Peacock, and for some years a favorite one at St. Thomas'. It contained several drugs, including iodides, bicarbonates, colchicum, etc. He supposed this might act after the manner of a blunderbuss loaded with a variety of shot, and if a patient had a little gout in his constitution, or a little syphilis, the doses might do him a little good in such respect. He confessed, however, that he had never seen this treatment influence the progress of a case of acute rheumatism. Then came the salicylates, and in adopting them he perhaps did so without any enthusiasm. In fact he lagged behind, as he generally does, with regard to new remedies. He is content to wait while a good deal of evidence accumulates, and then, of course, as a teacher, feels bound to try them. So here he waited, he lagged behind, but there is this he must say, that having eventually begun to use these salicylates he has not given them up, and this he cannot say of any other drugs.

In regard to his conclusion, 'perhaps he still lagged behind many more enthusiastic physicians who regarded the salicylates as specifics for rheumatism as much as quinine is for ague, or iodides and mercurials for syphilis. As to statistics, we ought to remember that in comparing them the items or integers are unequal, and with every effort to equalize them we cannot obtain perfect mathematical solutions to clinical problems. He found, however, that salicylate of soda or salicylic acid reduced the temperature in two or three days to normal. As the temperature falls the pain abates, but the affection of the joint lags behind. This, however, he considered only natural. What could be expected? A damage had been done—more or less effusion had been poured out—and time was required to repair the injury. Dr. Bristowe next turned to the cardiac lesions. Does the tendency to heart disease disappear? he asked. There was, he said, much difficulty in answering this question, and the remark he had made as to statistics must be applied here. He held in his hand the statistics compiled from his hospital case-books, but would not read them, as that would be tedious [applause], and they would appear in due course in the *Journal*. He would, however, state that they were highly favorable to the treatment. It had been said that relapses are not prevented, and some said they were more frequent after salicylates. He knew that relapses did occur, but not more than we find in other diseases after what we call specific treatment. He thought the relapses were possibly not more than those of ague after quinine, syphilis after mercury and iodine, or psoriasis after arsenic. In these diseases, especially the last, the drug is continued after the tendency to recur is apparently gone, but they do recur after this, and, moreover, when the system is, so to say, saturated with the drug, which should prevent relapse. Then in rheumatism there is a natural tendency to remit the salicylates. With the fallen temperature the patient feels so much better that he thinks he ought not to take more medicine. He wants to get up and leave the hospital, and the medicine is often remitted too soon, and relapses ensue; noises in the ears, deafness, delirium, and some other temporary ills might occur, but he had never known any real danger or had any cause for anxiety. As soon as convalescence was fairly established he fed his patients up. As to the nature of rheumatism and the influence of the drug over it, there were indications that it might be analogous to malaria, and Dr. Maclagan's work showed that there was much to be said for this view, which was in reality the one that led Dr. Maclagan to the discovery of the value of salicylates. Before closing his remarks he wished to add that he had this week had two cases in St. Thomas' over which salicylate of soda had no influence, but this might be attributed, he thought, to the fact that they were perhaps not really cases of true rheumatic fever. In one the inflammation was confined to one knee, and he was now inclined to regard the case as one of synovitis only. The other was a case of hyperpyrexia, which proved speedily fatal.

DR. SIDNEY COUPLAND said he had no doubt that the salicylates afforded us the best remedy, but he felt it was too much to call them specific, for they had no effect whatever on the cardiac part of the disease, by far the most important part. They reduce the fever and ease the pain, and this to such an extent that we now need seldom give opium. He gave smaller doses now than in his early cases, but he did not discontinue the medicine for a week or more after all symptoms had disappeared. The doses might be reduced, but the drug ought not to be omitted. He felt sure relapses were due to early getting up, the exposure thereby occurring, and to the solid food, which was permitted too early. In some cases of failure he had observed that there was a suspicion of gonorrhœa having lately occurred, and the salicylates were powerless in gonorrhœal rheumatism. He thought, too, he had noticed other diseases of the genito-urinary tract complicating obstinate cases, and he

suggested it might be well to inquire how far inflammation of this membrane, however arising, might be associated with rheumatic attacks.

Professor Latham said he had no belief whatever in germs as the cause of rheumatism. If the disease were produced by microbes, how was it cured, as it used to be, by bleeding? Did the blood drawn reduce the number of organisms? and were we to conclude that a certain number of microbes produced rheumatism, but a few less were of no consequence? So purgatives, once in general use, would cure the disease. Did the evacuations carry away a few of the extra bacteria and leave their friends so reduced in numbers as to be powerless for harm?

Again, did opium put the bacteria to sleep? If we cut across the spinal cord we at once get excessively high temperature, but it is not held, surely, that the operation instantly develops swarms of bacteria which give rise immediately to hyperpyrexia. What was rheumatism? Why do we see from the same causes pleurisy, pneumonia, catarrhs, rheumatism, and other diseases. Could it be held that all are due to germs or organisms always surrounding us? The fact was, he felt that this doctrine of bacteria had been carried too far. The old lactic-acid theory was much nearer the truth—indeed, very near it, as he had shown in recent publications. Cold applied to the surface modifies the circulation and therefore the nutrition of muscular tissue. What, then, is the relation of muscle? what that of albumen to lactic acid? The chill affects the nutrition and the successive changes in which cyan-alcohol, glycocine, lactic acid, and uric acid appear are interfered with. By giving purgatives, very little animal food, and saturating the system with salicylic acid, not stopping short of producing toxic symptoms, we could inaugurate a new series of changes. Lactic acid had much to do with the disease but was not the body on which salicylic acid directly acted. Rather it was excessive formation of glycocine and uric acid in the tissues that set up the symptoms, while the salicylic acid cured by combining with their antecedents and so preventing their formation. He had endeavored to show that albumen is a compound of cyan-alcohols with a benzene nucleus. The cyan-alcohols had been prepared in the laboratory except the lowest of the series, $CH_2\begin{cases}OH\\CN,\end{cases}$ which requires for its preparation formic, or methylic aldehyde, but this has not yet been isolated. From cyan-alcohols corresponding amido bodies had been combined. Therefore we might expect that by treating $CH_2\begin{cases}OH\\CN\end{cases}$ with NH_3 we should get a cyanamide $CH_2\begin{cases}NH_2\\CN.\end{cases}$ This last, when hydrated, would form amido-acid glycocine. From the same cyan-alcohol attached to a benzene nucleus he held creatine to be formed, and by further changes, urea and the next cyan-alcohol higher in the series, $CH_3.CH_2\begin{cases}OH\\CN.\end{cases}$ Then by hydration of this, as well as $CH_3.CH\begin{cases}OH\\CN,\end{cases}$ lactic acid would be formed. Again, the same antecedent $CH_2\begin{cases}OH\\CN\end{cases}$ might combine with salicylic acid in the liver. There, if combined with cholic acid we might have glycocholic acid formed, which by alkalies is converted into cholic acid and glycocine.

$$CH_2\begin{cases}OH\\CN\end{cases} + C_{24}H_{40}O_5 = C_{26}H_{43}NO_6.$$

Methene cyan-alcohol. Cholic acid. Glycocholic Acid.

Now, if salicylic acid combined with the methene cyan-alcohol we should have a formula of the same character as is held to be represented by the molecules of living albumen,

$$CH_2\begin{cases}OH\\CN\end{cases} + C_6H_4\begin{cases}OH\\COOH\end{cases} = CH_2\begin{cases}OH\\CN.OH\\COOH.\end{cases}$$

As it combined CNOH would become CONH, and the salicylic acid would be converted into salicyluric acid. Amid some manifestations of impatience Dr. Latham, who had provided no diagrams to assist in following his formulæ, concluded by saying that salicylic acid might prevent the formation of glycocholic acid, and consequently of glycocine, and thus prevent the formation of uric acid and lactic acid. His views would be published in extenso.

Dr. Prosser James said he would not attempt to follow Professor Latham's interesting views, which required study at leisure, but begged to recall the attention of the Section to the subject announced for the debate, which was the treatment [applause] of acute rheumatism. He had, he said, too much reason to feel the scepticism attributed to and confessed by the opener of the debate, Dr. Bristowe, but he was not altogether devoid of faith in drugs, and had himself derived from them very great relief.

Dr. James said he had had a very painful personal experience of various methods of treating acute rheumatism, for he had had several severe attacks, and as a sequel he now suffered from osteo-arthritis. Some authorities, indeed, held there was no connection between the acute and chronic diseases mentioned. His own case pointed in the other direction. No question as to the diagnosis could arise. He had the happiness of numbering among his friends the survivors of his former teachers, most of his colleagues, and many other eminent physicians, whose sympathy and desire to help had been as welcome, and perhaps as effectual, as their advice. They were of one opinion as to the nature of the early attacks. Since the chronic disease succeeded he had also experienced the usual relapses. He had been under treatment by alkalies, by salines, by opiates, by quinine, by the salicyl compounds, by blistering, by rest in bed *without* peppermint-water, and so on, and would just state his experience of some of the remedies. As to nitrate of potash and other salines, he had been unable to satisfy himself that these drugs exercised any influence over the progress or duration of the disease, and the same remark applied to some other modes of treatment which had been advocated.

Passing to treatment which gave him relief, he spoke first of opium, and commended small doses of morphia—preferably by subcutaneous injections. Only just enough to numb the pain—to render it, as it might be said, bearable—should be given, and then it could be continued for some time, if required, without any need for increasing the dose. It was not necessary to narcotize the patient. When the pain abated, sleep often ensued. Small doses did not disturb the functions, nor create a desire for repetition, but they exercised a most soothing influence over the nervous system which reduced the intense agony to a more endurable pain.

Dr. James next spoke of alkalies. In his first attack, which occurred at the time when the alkaline method was most in favor, the treatment was begun with alkalies, administered so as to speedily render the urine neutral. This neutrality was maintained for several days. As no effect was produced on the disease, no relief to pain or any other symptom, opiates were given, and the amount of alkalies reduced. Speedy return of excessive acidity and some increase of fever induced his advisers to urge fuller alkaline treatment. This was accordingly pushed to what was deemed the limit of safety, after which small doses were given from time to time on the appearance of excess of uric acid or urates. The impression produced was just that which he had always entertained—that alkalies were most useful at the commencement of an attack, that they should not be pressed beyond the point of neutralizing the urine, that the neutrality might be maintained with advantage for a day or two, and that then alkalies had accomplished all they could do, except as occasional correctives. Employed in this way he had no fear of their producing anæmia or debility. Even in chronic rheumatism small doses of alkalies at intervals

may be called for to correct digestion or for other purposes. Perhaps the best alkali for the purpose was lithia, the dose being small and the solubility of its salts great.

The late Dr. Billing taught that rheumatism is a neurosis and should be treated by quinine, and watched with much interest the effect in his (Dr. J.'s) case, as he had himself suffered in the same way and derived great benefit from quinine. A continual state of cinchonism was maintained for weeks, a consumption of twenty-seven grains daily being required for this. The antipyretic effects of the remedy were distinct and unvarying. Lessening of this dose was always followed by an increase of temperature and of the rapidity of pulse.

As the disease abated the dose could be lessened without so marked an increase of pyrexia, but until convalescence set in, every diminution was followed by a rise in the pulse and the thermometer, so that an accidental omission of a pill would leave its record on the charts. Certainly the remedy pushed to a moderate degree of cinchonism had afforded him material and constant relief, and had given rise to no material or important inconvenience.

In a subsequent attack salicin was tried. Its effect resembled that of quinine, but was much less marked. It seemed adapted only for acute attacks, and should be used at the outset and pushed in large doses. In the chronic cases it seemed almost useless. But in one severe exacerbation or intercurrent attack it had afforded him some relief, checking pulse, temperature, and pain; but it had to be taken in fifteen- or twenty-grain doses every two hours to secure this, and once in thirty-grain doses. The safety, the even tonic influence, of these doses gave it the preference to the other salicyl compounds. Noises in the ear and other symptoms, such as we see in mild cinchonism, soon come on under large doses of salicin. Constipation, too, he found apt to occur, and requiring to be corrected.

He regarded salicin as superior to the other salicyls, as he had never known it give rise to dangerous symptoms. He thought its effect more similar to that of quinine. It was tolerated by the stomach when the other salicyls were rejected. He had used it ever since its reintroduction, for, as he had shown elsewhere, it had long ago been employed, but long fell into disuse. In fact, the willow was a popular remedy from early ages. The Greeks employed it, and more than a century ago it was treated of as a febrifuge and as what we should now call an antipyretic. Salicin was an early substitute for quinine, but the larger doses required rendered it more costly, for which reason probably it was too soon laid aside.

Dr. W. R. Thomas said we were too much influenced by fashion. He had not found salicin a grand remedy in all cases. We ought to select our cases. He had been accustomed to reckon three varieties of rheumatism, viz., sthenic, asthenic, and gonorrhœal. In the sthenic form he relied on carbonate of potash. In the asthenic cases he would trust to salicin, and after this discussion to quinine. The third form required different treatment.

Dr. Markham Skerritt said there were two sides to the question of salicin; for while some cases improve at once, in others the disease would hold in spite of salicylate of sodium, which was the salt he usually preferred. The more acute the case, the higher the initial temperature, the better was the salicylate of sodium. In subacute cases it was of much less use. He lessened his doses as the disease gave way, but he went on with the salt until the temperature had been normal for a few days, and then he gave iron, selecting the most astringent preparation which the patients could tolerate.

Dr. Pavy had not intended to speak, but the interest of the debate induced him to add his opinion of salicylates. He found the more acute the disease, the more generally it was distributed; the greater the number of joints involved, the more likely was salicylate of soda, which he most used, to serve. But it has not the influence over complications that it has on the disease. It could not cut short either endocarditis or pericarditis; it was not a remedy for complications. The temperature and pain were soon relieved, but we must then go on with the remedy for twelve or fourteen days, or relapse would very likely occur. The effect only controlled the disease; it did not cure.

Dr. Harker insisted on the value of the clinical thermometer. He had found salicin and quinine most useful, and could endorse what a previous speaker had said in regard to these most important antipyretics.

The President, in closing the debate, said all seemed satisfied that we had a new remedy of late years. No one had seen a case cured in twenty-four hours before salicin was used; but relapses seem to occur oftener, and so our cases go on again. His clerk at Guy's had collected the records of hundreds of cases, and found that, on the whole, patients seemed to remain in hospital about the same time as formerly.

At the conclusion of the debate on rheumatism the papers were proceeded with.

Dr. L. D. Bulkley, of New York, read a paper on

ASTHMA, AS RELATED TO DISEASES OF THE SKIN,

in which he gave statistics of his hospital practice, showing how often asthma had occurred in a patient suffering from various forms of cutaneous disease.

Dr. Byron Bramwell warmly thanked Dr. Bulkley for coming so far to state his experience, and briefly stated the gist of a paper he had down upon endocarditis, and promised a demonstration for the next morning.

Mr. C. R. Straton read a paper on "Chorea," giving an account of his views on this disease during what he termed its pre-choreic stage.

The time having expired, and a garden party being arranged, to be followed by a conversazione, a number of other papers were taken as read, and the Section adjourned.

Thursday, July 30th—Second Day.

From ten to eleven o'clock in the morning Dr. Bramwell gave a series of demonstrations on "Ulcerative Endocarditis," and at half past eleven Dr. Pavy gave demonstrations on the "Clinical Examination."

At two o'clock in the afternoon The President took the chair, and at once called upon Dr. Pavy to open the discussion which had been arranged on the clinical aspects of glycosuria. Thereupon Dr. Pavy proceeded to read a long paper, occupying a full hour in the reading. He found the disease most common between the ages of forty and sixty years. It was more common in persons of Jewish race than among Christians, and, also, it was more amenable to treatment. It was often very insidious in its approach, but sometimes it would set in very suddenly. He had known cases in which no suspicion had been entertained of unsound health for a considerable time after the disease commenced, and he had been able to prove this. Persons who wear black-cloth trousers, such as clergymen, sometimes remark the difficulty of brushing out certain white spots, and he had heard it stated that the porters in French hotels could recognize patients with glycosuria by the extra trouble of brushing their clothes. In micturating against a wall some of the urine was splashed on the trousers, and on drying the sugar was left forming the white spots in question. He had remarked that many of these patients display an intense congestion of the membrane of the mouth and throat, and he had come to consider this as a marked sign of glycosuria. The disease might endure for years. This was oftenest the case in elderly persons, but it might happen also in the young. Sometimes it disappeared entirely. He did not mean it was kept under control, but that it was eradicated. Sometimes sugar appeared, but only temporarily; then the red condition of the

mouth was important. He saw a case with this, and on testing the urine found sugar, but though often tested for afterward, there was none. Diabetes insipidus and mellitus might coexist. The quantity of urine was in such cases without any definite proportion to the amount of sugar. Some patients perspired on one side only, and this, he thought, showed that the state of the skin was associated with the condition of the nervous system. Diabetes occurred in association with enlargement of the liver, and such patients might go on for years with no other ill-effects. Perhaps the enlargement might be considered compensatory. Neurotic conditions, especially spinal, coexisted with glycosuria.

Sometimes ataxia came on first, sometimes diabetes, and so we might feel sure they are associated. Patients would say they had sciatica or gout. Others that they could not feel properly in their legs. One told him that he felt as if he had got a twenty-pound weight on his feet, another as if his boots were too large. Darting or lightning pains were also complained of. There was increased sensation of the skin, the hyperæsthesia being shown by pinching. In other cases the pain was deeper and said to be felt in the bones. He had known a seam in the dress complained of as causing pain so as to prevent the patient lying down. The pains were worse at night, so often that there seemed a direct connection between the time and the symptom. Sometimes the pains attacked the arms instead of the legs. Exophthalmic goitre and glycosuria often occurred together. As to acetonæmia, he did not believe in it. Of course he knew that diabetics might die comatose, and this was sometimes called "Kussmaul's coma." He did not know why, ever since 1874, it should be so called; for our countryman, Dr. Prout, had long before described it. Whatever greatly affects the patient may bring on this complication. Grief, distress, fatigue, and other causes would do so. He had seen the first indication of its approach in his consulting-room, when the patient had come a journey and was naturally anxious, and in a day or two he was dead. Vomiting would also bring on the coma, which he attributed to exhaustion of the nerve-centres. Rapid pulse and breathlessness were suspicious symptoms. The patient might complain that he could not get air enough. A little later drowsiness would come on, and the end was near. Fatty emboli had been much spoken of; they were purely physiological, as he had long ago shown in his lectures on physiology, and fully accounted for by the food. Albuminuria sometimes coexisted. In small amount this was not of much consequence, but sometimes it passed into Bright's disease.

Dr. Skerritt read the report of a case of febrile glycosuria of an acute kind, and he said he had found that febrile attacks diminished the amount of both the sugar and the water. Sometimes when febrile diseases exist, sugar would entirely disappear. Again, glycosuria might set in quite suddenly, as if it had been set up by the febrile disorder.

Professor Latham commented on the association between diabetes, gout, and rheumatism, and said that the condition of the nervous system might set up either of the three. In gout there was less irritability of the sympathetic, corresponding with the advancing years, in which the disease is most observed, and so we get glycocine. But in the sensitiveness of youth the oxidation did not go so far, and so we had rheumatism. If oxidized less diabetes ensued, which he regarded as the analogue of muscular rheumatism, while acetone was the analogue of hyperpyrexia.

Dr. W. R. Thomas maintained that the first consideration was diet, as inattention to this had first brought on the disease. In patients of full habit diet was most urgent, and yet they were most difficult to manage. The results of experiments confirmed this view. When syrup was injected into a rabbit's stomach after a meal it was not quickly absorbed into the system, but retained by the large quantity of vegetable matter, which did not give it up so rapidly as to incommode the liver. But when the same experiment was made on dogs, the sugar was rapidly absorbed—too rapidly for the liver to convert it into glycogen—and therefore glycosuria ensued. We should therefore give plenty of vegetable food, and at the same time alkalies. The neurotic variety of the disease was often seen in men of business who were greatly preoccupied and persons who worry. A sea-voyage then is a good thing, and he had known one case completely cured by it. Bromide of potassium should be given at night to produce sleep, arsenic regularly as a tonic, and opium occasionally to check the excessive excretion of sugar. Exercise should be taken to divert from the brain.

Dr. Savage was not able to be present, but he sent a note of apology, in which he stated that the insane did not often suffer from glycosuria, but that he had seen several cases in which there had been an alternation between the two diseases.

The President remarked that he did not believe that the coma was due to acetone. One speaker had said he did not believe in acetonæmia. Why, then, did he use the term? He protested against such a use of words. Kussmaul's name had also been used, and confessedly without reason; he would be glad to see all such names discarded; they were very inconvenient.

Dr. Pavy replied. He said he thought it was the liver, whose disordered function made the changes; but it was the nerves presiding over that function which caused the disease.

This closed the discussion, and the papers were then proceeded with.

Mr. Lockhart Stephens then related a case of simple stenosis of the œsophagus. A bougie encountered the obstruction at a distance of fifteen inches from the front teeth. The disease went on to a fatal termination, and on post-mortem examination the diagnosis was confirmed. The specimen was handed round, and the stenosis was seen to be of small extent, but to almost completely close the gullet, a glass rod about the size of a crow-quill being passed through.

Mr. Stephens also exhibited a specimen of congenital heart-disease and gave its history.

Dr. W. R. Thomas read a short paper on

THE INFLUENCE OF MALARIA ON THE PROGNOSIS OF OTHER DISEASES.

He had in Sheffield constant opportunities of observing that many diseased states were complicated by malaria, which was a frequent cause of anæmia and many other obscure maladies. In several diseases it would be found useless to treat merely by nourishing up the patient so long as he remained in a malarious district. If, however, the patient were sent to a high altitude, and at the same time were treated with quinine, a cure was not unfrequently rapidly brought about.

Dr. Wilks mentioned the case of a practitioner who used to give quinine in almost all cases of disease.

Dr. C. R. Drysdale read a paper

ON THE HYGIENIC TREATMENT OF PHTHISIS.

He said he had always believed in the unity of phthisis, and likened that disease in many ways with syphilis, so that the idea that it is a germ-produced disease seemed to him quite tenable, although not so clearly made out as Dr. Germain Sée would have the medical world believe. Whether, however, phthisis be a disease resembling syphilis or not, it is most fatal under all treatments, nor have we at the present moment any special remedy which exerts any marked influence on this malady, as we have in mercury and iodine in syphilis. Some thirty years ago consumption was believed by most men of experience to be quite incurable. A friend told him that Dr. Stokes used to say he had only had one case where the patient recovered from a well-marked attack of the disease. Modern physicians are far less despondent.

To take, for instance, the evidence of Dr. Austin Flint, we find that physician saying, at the Philadelphia Congress in 1876, that he had known of seventy-five examples of arrest of phthisis in a practice of thirty-eight years. All those who have of late years watched carefully their private cases of consumption, have been occasionally delighted to find that the disease is not necessarily so fatal as our predecessors thought. At the Worcester meeting he had heard of several eminent medical men who had themselves been consumptive, and had had a long arrest or cure of the disease. Such cures or arrest, too, took place under a variety of circumstances, and almost led to the view entertained by some, that the benefit derived from a change of climate in consumption is due not so much to climatic influence *per se*, as to the circumstances incidental to the change. Yet, in his experience, change of climate was by far the most important adjuvant in treatment. Long sea-voyages were excellent in many respects, and objectionable in others. The air on deck was pure and salubrious, but in the cabins far from wholesome. Sea-sickness was by no means uncommon among consumptive patients, and greatly added to their sufferings in rough weather. Life at sea was dull and monotonous; the society apt to be limited and unsuitable to the patients, and heart-burnings and squabbles might embitter his existence. Sailors, who were often so miserably lodged, when attacked with consumption, quickly succumb, and thus it was a mistake too often made, and of which he had sometimes been aware of too late, to send a patient, especially a lady, on a long sea-voyage. At the same time, when the ship was well appointed, and the berths roomy enough, a voyage to Christ Church, New Zealand and back, setting out from England in October and returning by Cape Horn in May next year, was a splendid feat in modern hygienic therapeutics, and sometimes arrests or cures the disease. There can be no doubt that various climates contain some of the requisites for the arrest of phthisis in varying degrees. These are absence from damp soil, asepticity of the air, and dryness and diathermancy of the atmosphere. Egypt, in the region of Cairo, was, on account of its dryness and warmth, an excellent winter resort for consumptives, who do not bear the cold well. The Riviera affords several agreeable winter resorts on the Mediterranean. Of these San Remo is commended by P. James; Dr. Hérard spoke most warmly of Algiers, which, he said, had arrested consumption in several able Parisian medical men. To those patients, however, who were not too much affected by cold weather, and who are in the first stage of phthisis, his experience, as well as theory, and the observation of many accurate observers (Weber, Denison, Williams), made him give the palm to residence in the Alpine districts of Europe or of the United States. The air was so pure in mountain valleys over four thousand feet in altitude in Switzerland, or a little higher in the Rocky Mountains, that, in the first place, the germs which caused putrefaction were absent, and the sun's rays were warm, even in January. If, then, the patient came to him in the early stage of the disease, before softening had taken place, he would send him at once to Davos, if in good enough circumstances, even in January. One gentleman this year went thither on January 2d, and returned wonderfully well in April. If the patient had to earn his own living—the lot of the vast mass of mankind—he advised him to go to Colorado, and, if possible, get some out-door employment in looking after cattle. This was very clearly curative in many instances. When these plans could not be carried out, we had still a resort to the Mediterranean shores, and a winter cruise in that sea for the well-to do. The workers should leave cities and work at out-door employments in the country. In this way a cure or arrest occasionally ensued. Life out-of-doors was obviously the best tonic in consumption, and cities are the hot-bed of the disease, which seemed rare in dwellers in mountain districts employed out-of-doors. The physician must not look on phthisis as incurable, but incite his patient hopefully to struggle for existence.

Dr. Wilks said that medical men were the best cases to inquire into as to the arrest of phthisis, and many students he had known with the disease had recovered and were now well.

Dr. C. R. Drysdale then read a paper on

THE TREATMENT OF SYPHILIS AND THE ALLEGED PREVENTION OF TERTIARIES.

The treatment of syphilis is still much disputed. In Paris and New York long, interrupted, continued courses of mercury are in vogue in all cases; in Edinburgh some treat all cases of syphilis without mercury: in London there is no clear rule laid down, and M. Diday treats some cases with, and some without, mercury. Whom shall we pin our faith to? By far the most important point in the treatment of the early stages of syphilis refers to the possibility of warding off the tertiary stage by the administration of courses of mercury. As a general rule, it may be said that any given case of primary or secondary syphilis may possibly come to the stage of tertiarism or gummy deposit. Diday asserts that when the early eruptions are light in color we may expect that tertiary symptoms will be absent; but in London and elsewhere this assertion has been adversely criticised, and the contrary opinion has even been put forward, *i.e.*, that slight syphilis at the outset is more apt to end in tertiaries than a copious eruption is. Few will now be found to endorse the opinion of the late Professor Hughes Bennett, that the chief cause of tertiary syphilis resides in over-dosing with mercury. Syphilis, of itself, it is now well known, is quite powerful enough to commit grave tertiary ravages. The very contradictory of that proposition, indeed, was maintained some years ago by M. Ricord at Birmingham, and has lately been restated by his eminent pupil, Dr. A. Fournier, of Paris. In a passage in *La France Médicale*, of May 23, 1874, M. Fournier thus speaks: "The chief cause of the passage of syphilis into the tertiary stage is doubtless the absence or insufficiency of treatment. . . . The consequences of expectation in syphilis are truly disastrous." Mercury, according to Fournier, acts on the poison, and ninety-five per cent. of well-treated cases under mercury will, he says, prove mild. Some English authors of repute, such as the late Mr. Solly, think that mercury given while the hard sore exists, may cause the disease alone. Mr. Henry Lee and Mr. Jonathan Hutchinson also speak in this way. Lancereaux again ("Traité de la Syphilis," 1873) denies that mercurial courses can ward off tertiarism, or the eruptive state, when given during the existence of the hard-sore. He puts it that it is bad enough for a patient to have syphilis without making of it a pretext of a treatment by mercury for years, since, after all, he says mercury is a very poisonous drug. A large number of syphilitics, he adds, get well without any remedy at all, and Lancereaux therefore concludes that mercury should only be given to treat eruptions, iritis, or other symptoms when present. Diet and regimen, which are so useful in other diseases, may be called in also to prevent relapses in syphilis. M. Mauriac, the able successor of M. Ricord at the Hôpital du Midi of Paris, holds the very same views as those cited from Lancereaux. Dr. Schumacher, junior, of Aix-la-Chapelle, sent me, a short time ago, an article of his on some recent experiments of M. Diday, of Lyons, on syphilis. These concern 74 cases of the disease treated by that gentleman between 1872 and 1882. Of these 49 were treated without mercury, and 25 with it. Diday concludes from these that mercury does not prevent the supervention of secondary symptoms, it does not seem to prevent the relapse of secondary eruptions. The disease is usually a mild one, and he seems to think the occurrence or non-occurrence of tertiaries is to be predicted by the severity of the case at its commencement.

Dr. Schumacher says that all cases which come to

Aix-la-Chapelle are grave syphilis, and therefore all require mercurial inunction for their cure. Dr. Edward Keyes, of New York (International Congress, 1876), is quite opposed to the view that mercury in small doses is injurious. On the contrary, Dr. Keyes holds that mercury is a tonic both to healthy and to syphilitic persons, and every case of syphilis should therefore be treated with long-continued courses of mercury, since prognosis is impossible. Mercury in small doses, he contended, increased the number of blood discs. He furthermore calls mercury an antidote to the poison of syphilis. Mercury is curative in all stages of syphilis, even in tertiaries, when iodide of potassium fails. Hence, Dr. Keyes gives mercury in small doses, as one-sixth of a grain of the green iodide, thrice daily, for three or four years; whilst Fournier leaves off the drug for a month at a time to resume it. The following propositions seem, in short, to be true, said Dr. Drysdale: The prognosis of syphilis is obscure. Mercury may be given in small doses without debilitating, and even in tertiary syphilis, now and then, in obstinate cases. Iodide of potassium is not of much use in early syphilis, but all-powerful in tertiaries. Mercury being a parasiticide is useful as a germicide in syphilis, but is rarely of much service in the tertiary period. Iodide of potassium is the sheet-anchor in tertiary disease, and should be given in doses of from five to twenty grains. It is not clearly proved that mercury given in the period of the hard-sore can ever prevent the appearance of secondary eruptions, alopecia, or iritis. Its chief use is to treat such symptoms when these are present. There is some evidence to prove that courses of mercury prevent tertiaries; but there is, on the other hand, much evidence against this view. Occasionally even tertiary symptoms are benefited by mercurial inunction, and in those where some affection of the nerves exists both iodide of potassium and inunction should be used. Finally, careful diet, climate, and other hygienic rules should be carried out in syphilis as well as in other chronic diseases, for the effect of time and régime is immense in all diseases where the system has been poisoned by some germ resembling that of syphilis; and above all, it must be borne in mind that experience has now shown us that syphilis at the present day is often a very mild disease.

Dr. Wilks asked Dr. Drysdale what his own actual treatment of syphilis was. He thought he had read some years ago that he had published cases of syphilis in infants which had recovered without any mercury.

Dr. C. R. Drysdale replied that at present he looked upon mercury as a parasiticide or germ-destroyer in the earlier stages of syphilis, and hence he had recently treated all his cases by small doses of mercury for periods up to a year or thereabouts, hoping thereby to prevent tertiaries. The cases mentioned by Dr. Wilks, of infantile syphilis treated successfully without mercury, were due to Mr. Allingham and Mr. R. W. Dunn. He himself had treated many cases of syphilis in adults without mercury, in most cases with good success, but in some tertiary symptoms supervened, and it was with the hope of, if possible, preventing these that he now gave small doses of mercury for a long time, like Dr. Keyes, of New York, and Dr. A. Fournier, of Paris.

Dr. Webster considered that the proper treatment of syphilis is the tonic treatment. He was in the habit of treating all his syphilitic patients with quinine, iron, and strychnia, and advising them to leave off all alcoholic drinks.

Dr. Payne, of London, said a large number of infants were treated with small doses of mercury for eruptions, which either were distinctly syphilitic or might possibly be so. The mercury never did any harm to the non-syphilitic cases, while it was extremely beneficial to the syphilitic ones. He would like dearly to get from Dr. Drysdale a clear definition of the term *tertiary;* and would also like to hear what is the cause of tertiary syphilis. Is it scrofula, or bad diet, or excesses, or what is it? In one case a young man with rupeal eruption did not improve in treatment as out-patient. He was taken into hospital and well fed, and rapidly got quite well.

Dr. Bulkley, of New York, thinks that syphilitic eruptions are better studied in skin-disease hospitals than anywhere else. He had abandoned the term tertiary, because the lesions which were supposed to belong to the late period of syphilis were occasionally seen early in the disease. He agreed with Dr. Drysdale that no one of any experience would endorse Professor Hughes Bennett's view, that tertiary syphilis was a product of syphilis and mercury, at least in modern times. When salivation was in vogue it might possibly have acted as a cause of that period. He agreed with Dr. Webster that patients with syphilis should neither drink alcohol nor use tobacco. His patients were quite debarred from the use of either. There was one point in the treatment of syphilis, and that was that it should not always be treated merely by mercury and iodide of potassium. The patient must be treated in every case. It is not necessary to give much mercury in the early stage of the disease; but if iritis occurs the dose should be raised, and iodide of potassium had occasionally its uses in the early period of the disease. He entirely agreed with Dr. Keyes' views as to long courses of small doses of mercury for two years or more daily. Dr. Drysdale had said that he was astonished at hearing from Dr. Henry, of New York, that some physicians in the States gave three hundred grains of iodide of potassium daily in bad cases. This was by no means the largest doses, for some gave two drachms of the salt five or six times in the twenty-four hours.

Dr. Rabaghate, of Bradford, said some cases of syphilis appeared to him to be quite incurable, and he mentioned a case which he had treated for a long time for ulceration of the feet, which would not be healed by blue pill, iodide of potassium, or any other remedy. He had not, it was true, tried Aix-la-Chapelle. Some syphilitic ulcers would heal up to a point and then suddenly break down. He sometimes thought there might be variations in the virulence of syphilis, as there was in the seeds of other diseases.

Dr. Rabaghate, of Bradford, made a criticism of the late work issued by the Royal College of Physicians of London, on the nomenclature of disease, which he considered was faulty in its classing such diseases as hydrophobia in a wrong group. That disease should be placed along with syphilis and the exanthems.

Dr. Payne defended the work. It had been issued in the same way as a dictionary, *i.e.*, to give an expression to the present use of medical language, not to make a new one.

Dr. Wilks also defended the work. It was, of course, absurd to place apoplexy in the class with diseases of the nerves, because it was a disease, not of the nerves, but the vessels; but still that was the usual way in which it was described, and the use of nomenclature was for describing the disease as known to the bulk of medical practitioners.

The Section then adjourned.

Quinine in Greece.—The Grecian Government has become alarmed at the increase in malarial fevers among the inhabitants of that country, which investigation has shown to be in a measure due to the poor quality and high price of quinine. It has therefore removed the duty from this drug, a measure which has already led to a reduction in its price, and has further determined to withdraw its sale from private hands and confine it entirely to government stores. It will buy only from the best and most reliable makers and sell at a very slight advance above the manufacturers' price, sufficient to defray the cost of transportation.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, June 5, 1885.

ALONZO B. BALL, M.D., PRESIDENT, IN THE CHAIR.

DR. BEVERLEY ROBINSON presented a patient, a woman, thirty-five years of age, married, who came under his observation at the out-door department of the New York Hospital, April 25th, when she said that for five or six months previously she had been scarcely able to breathe through her nose, she could scarcely sleep, and had apparently asthmatic trouble dependent upon the nasal affection. There was complete loss of smell, and the voice had nasal intonation. No air could be forced through the right nostril, and only a very small amount through the left. Dr. Robinson used Dr. Weir's gouge-forceps on the right side, and removed as much of the septum as he could tear off readily, and since the operation the patient had been considerably relieved. In these cases such an operation was not always necessary to obtain a cure, because there was considerable granulation tissue which could be removed by cauterization and other means milder than the use of the forceps. As occurs in all these cases after such an operation, there was a tendency on the part of the passages to close up somewhat, and the patient wore a rubber tube for four or five days. Dr. Robinson had also been obliged to cauterize the granulation tissue a few times, and also to apply monochloracetic acid.

The case was also interesting in the fact that the patient had not at any time suffered from impairment of hearing, although there had been nearly complete obstruction upon one side and complete upon the other. Again, she had not seemed to be very much annoyed with catarrhal trouble from the condition of the nasal mucous membrane, which, as a rule, was present under such circumstances. Furthermore, the asthmatic trouble had been very much improved. By means of cauterizations and the application of the acid, Dr. Robinson hoped that recovery might be completed without further use of the forceps.

The case was also interesting in the fact that while little or nothing was done in the left nostril, through which she could before scarcely breathe, at the present time she could breathe more freely through the left than through the right nostril, and the explanation which Dr. Robinson gave was that the tissues taken from the right side allowed the septum to fall toward the right, and in that way open up the left nasal passage.

The operation was performed under the local application of a ten per cent. solution of cocaine, which diminished the pain a good deal, although it did not remove it entirely. No perceptible effect was produced on the amount of the hemorrhage, and it was quite profuse.

DR. A. A. SMITH asked if there was any impairment of taste.

The *patient* responded that taste seemed to be impaired, as it seemed to her at times that she did not taste anything.

DR. ROBINSON further remarked that he did not regard the use of the burr and the dental engine as at all necessary in the treatment of such cases, and that the forceps were just as useful and much more easily obtained.

DR. A. A. SMITH directed attention to

THE SKIN ERUPTION AFTER THE USE OF ANTIPYRINE,

and asked if any of the members had observed cutaneous eruptions after the use of this drug.

THE PRESIDENT had seen very marked effects from it in one case, where the entire body was covered with a profuse, fine, papular rash, looking very much like the ordinary heat-rash. He thought it was by no means uncommon to see skin eruptions following the use of antipyrine.

DR. SMITH said that the eruption to which he referred consisted of large red welts, elevated above the surface, with perfectly white skin between them, resembling the urticaria which comes from taking quinine or eating shell-fish, and first appearing upon the extremities. In the first case in which he had noticed this form of eruption the patient had taken forty-five grains. In that instance the eruption was rather a purplish red, and looked not unlike that of measles, which began upon the upper extremities and extended over the entire body. At the same time, in the cases which he had noticed, perspiration was quite active.

DR. SAMUEL SEXTON then read a paper entitled

CATARRHAL INFLAMMATION OF THE HEAD, AND ITS EFFECT ON THE MIDDLE EAR.

The Society then went into executive session.

Correspondence.

OUR PARIS LETTER.

(From our Special Correspondent.)

DR. FERRÁN'S EXPERIMENTS—THE BLIND TO TAKE PART IN TELEGRAPHIC WORK—ESTABLISHMENT OF MORTUARIES—THE CRAZE FOR STATUES.

PARIS, July 24, 1885.

As must have been anticipated, the report of Dr. Brouardel's mission to Spain has led to much controversy, to which, however, I can do no more than refer here. The enthusiasm which attended Dr. Ferrán's anti-cholera inoculations at the commencement waned somewhat, but it has again revived, and no wonder, as the population, terror-stricken by the gradual but decided daily increase of the number of cases affected by the disease, and the great mortality therefrom, would resort to anything that would offer even the shadow of a chance of a remedy, whether preventive or curative, for such a dire disease. The consequence is that Dr. Ferrán and his coadjutors are as busy as they can be, for, from the reports which reach us, they inoculate from five hundred to six hundred daily.

The Spanish Government, after having interdicted Dr. Ferrán's inoculations, has again authorized him to continue them. Encouraged by this permission he has expressed his intention of coming to Paris, with the view of submitting his method to the Academy of Sciences, as he is a candidate for the Bréant prize, which is one hundred thousand francs, or twenty thousand dollars, and which was offered some twenty-five or thirty years ago for the best remedy against cholera.

At the meeting of the Academy of Sciences, on Monday last, M. Gosselin, reporter of the commission of the above prize, declared that before expressing any opinion on Dr. Ferrán's communication it will be necessary for the commission to be in possession of official and complete statistics relating to the inoculations already practised by him.

A great deal has been said about Dr. Ferrán's secret, but this physician himself declares that when a thing has been confided to another party it remains no longer a secret. Thus the Paris Academy of Sciences has been in possession of the secret for the last three months without being aware of it. In fact there is no secret at all, and if there is one it consists simply in the attenuation of the cholera virus, which is effected by the action of time, of air, or of heat. To another French mission, from Algiers, which is said to have been received by Dr. Ferrán with great courtesy, the doctor declared that the proper moment at which the cultures present the degree of attenuation necessary for inoculation is when the liquid contains granular corpuscles and commences to lose its alkalinity.

Whatever be the outcome of Dr. Ferrán's anti-cholera inoculations, there is one thing certain—the epidemic in Spain continues its course, and singles out its victims

with unrelenting rigor among the inoculated as well as the uninoculated. The reports that have reached Paris from reliable sources give as the total number of deaths from the disease for the whole peninsula, from the commencement of the epidemic to the 22d inst., twenty-two thousand!

The journal *L'Electricite* announces that apparatus are being prepared to enable the blind to take part in telegraphic work, which, it is remarked, will not be more difficult for them to manage than to play on a piano or an organ. It is also remarked that from the delicacy of their touch and their steady application to the occupation on which they are engaged, they would be quite competent to discharge such duties satisfactorily. It is strange that this idea has not been put in execution before now.

The Municipal Council of Paris has decided upon the establishment of mortuaries in different parts of the town for the use of persons dying in such conditions that it would not be convenient for their families to retain the corpse in their lodgings for the time required by law before interment. The aspect of the building, though simple, is to be elegant and in good taste. Each mortuary is to be composed of a rotunda, which will be freely ventilated by a central chimney. In one portion of the building there will be arranged ten double cells. In each pair one cell is destined for the corpse, while the other is intended for the friends, who will be separated from the former by a glass wall, through which it can be seen. Each double cell is separated from the others.

There seems to be a rage for statues and busts just now in this country. I do not mean to say that the men whom they are intended to represent are not deserving of the honor, but there have been so many erected lately that it can be no longer considered a mark of distinction. In one week alone during the present month there have been unveiled three statues in Paris—one for Voltaire, the great satirical writer and philosopher; another for Béranger, the greatest lyric poet that France has produced; and the third for Pinel, the eminent French physician, who particularly distinguished himself for the important improvements in the treatment of lunatics.

THE "COUNTRY DOCTOR" AND THE INTERNATIONAL MEDICAL CONGRESS.

To the Editor of The Medical Record.

Sir: There is a class of men in these United States known as "country doctors," who have a great interest in the International Medical Congress. They have watched the organization and the re-organization, read the various journal and other comments, but have kept silence. I hope, in speaking as one of them and for them, that I correctly represent them.

Thoreau says of the Concord farmers: "They are greater men than Homer, or Chaucer, or Shakespeare, only they never got time to say so; they never took to the way of writing." This may not be strictly true when applied to city *vs.* country doctors; nevertheless, on account of numbers and talent, they deserve to be heard on this question of organization of the "Congress."

The doctors of the towns, villages, and country places of this land outnumber those of the cities; they are, perhaps, not so scholarly and scientific, they don't have time to write books and journal articles, and do many other legitimate and illegitimate, honorable and dishonorable, things by which to gain notoriety, as do their city friends; but they do as much hard work, more actual study of cases, and in their treatment display as much common sense, and attain as great success in practice. Nor do they concern themselves much about codes of ethics. They have learned that when men are not ethical, codes cannot make them so; and when they are, codes are unnecessary.

This class of men (country doctors) has been missed entirely by both committees. Not even so *small* a compliment has been paid them as a membership of a council. But no complaint has been heard. They are content, and preferably so, to see their friends shine.

In 1884 the American Medical Association selected a committee of talented, wise, honorable, well-known, and competent men. It knew and trusted them, hence gave them unlimited power. They acted. Their report (which can no doubt be somewhat improved) was a most excellent one. We joyfully accepted it and anticipated a grand international meeting. We were glad to see no code, or sectional or other embittering elements introduced to disturb peace and harmony.

Some *city* men, not glad to be unnoticed, as were their country compeers, and having no better right to representation, have disturbed this peace and harmony by getting the American Medical Ass. (a very appropriate name), to set aside its work of 1884; to insult the committee, by not receiving its report; and to insult the members of the Association of 1884, by condemning their action in thus giving so much power to the committee.

This undoing may be legally correct, as Mr. Randall says, but it is not honorable, nor even *ethical*, if we examine the code carefully.

The code has been made to bear the responsibility of this trouble, which is a cowardly ruse. The poor thing never did any harm or any good; it is imbecile, and why abuse it?

I think I state the truth when I say that the "country doctors" of the United States oppose the introduction of the code question *at all* in the "make up" of the congress. What virtue has the code when its adherents conduct themselves so disgracefully as they did last winter in the New York Academy of Medicine? True, the code exists as a printed form, but not as a working fact. It ought to be buried with the transactions and deceased members of the Association.

The country doctors want the congress. They desire to see and hear the men whose works they study. They wish the membership to be on a broad basis, so that they can all attend. They want no code or other embittering thing to be mentioned. They want to be represented by the few who lead the profession and are "known and read of all men," not by the mediocrity (unknown) who are no better than themselves. They therefore ask the return to the original committee and its arrangements; or, that the profession of the United States (not the American Medical Ass.), in whose name the congress was invited, have a meeting, appoint a new committee, and organize the entire programme anew. If neither of these can be accomplished, let the congress be held in another land than ours.

Spencer M. Free, A.M., M.D.

Dagus Mines, Pa., August 24, 1885.

HYPODERMIC INJECTIONS OF QUININE IN MALARIAL FEVERS.

To The Editor of The Medical Record.

Sir: The article in The Medical Record of July 25th, entitled "The Success of Hypodermic Injections of Quinine in Malarial Fevers," has led me to send you a brief account of my experience in the treatment of malarial fevers by this method. About a year after my arrival in India I was placed in charge of a general hospital and dispensary situated about seventy miles from Madras, in a town which, with its suburbs, contained a population of over thirty thousand inhabitants. In the year 1876 I was induced, by several articles published in the British and Indian medical journals, to try extensively the treatment of intermittent and remittent fevers by the hypodermic injection of sulphate of quinine. As over nine thousand patients were annually treated in this hospital and dispensary, I was enabled to try this treatment on a large scale.

At first I employed a solution made with ordinary sulphate of quinine and dilute hydrochloric acid, and I was astonished at the wonderful effect produced by these hypodermic injections. Cases that had been taking twenty and thirty grains per diem by the mouth without any apparent effect were cured at once by the injection of from eight to twelve grains. In the first 100 cases subjected to this treatment I had 5 cases of abscess following the injections. Not being satisfied with this result, I determined to try a solution of the quiniæ sulph. solubil. (an English preparation very similar to our bisulphate), prepared with a little tartaric acid. I found this a great success, I might almost say a perfect success. I have used this injection in over two thousand cases without any bad effects, with the exception of one case of small abscess. Even in this case I am inclined to think there would have been no abscess if the patient's arm had been firmly held, and if the operator had not been interrupted by the violent movements of the chill.

During the last three years of my residence in India I was settled on the Neilgherry Hills, where I had a good opportunity of carrying on this mode of treatment by hypodermic injection, and of ascertaining that it was as efficacious with Englishmen as it had proved to be with the natives. Near the tops of these Neilgherry Hills, at an elevation of about six thousand and seven thousand feet above the level of the sea, are situated the two large sanitaria of South India, with an English population of from five thousand to ten thousand, according to the season of the year. The climate on these hills at this elevation being cool and healthy, Europeans are able to live there in comfort and bring up their families. A great number of English gentlemen are residents upon these hills, being engaged in the cultivation of coffee, tea, cinchona, or "planting," as it is termed. To work their large and valuable estates great numbers of native laborers are employed. These plantations are situated on the slopes of the hills, at an average elevation of three thousand five hundred feet, and are therefore below what is called "fever range;" that is, the hilly or mountain tracts of South India are generally infested with malaria until you reach an elevation of over five thousand feet. At certain times of the year it is unsafe to sleep even for a single night on these estates. The native laborers are obliged, however, to live down there, and are therefore constantly prostrated with fever. I have frequently been called to visit one of these estates, and in a single morning would often have to administer hypodermic injections of quinine to over fifty of these native laborers. In addition to constantly and regularly employing hypodermic injections of quinine in the treatment of malarial fevers, I administered quinine in this way quite frequently in puerperal septicæmia, where I found it had a very beneficial effect.

A considerable number of cases of puerperal septicæmia occurred in the lying-in ward of the General Hospital and Dispensary already alluded to. The native doctors and midwives have no real knowledge of anatomy and physiology, and they often employ most violent means to hasten difficult labors. It is therefore not at all surprising that many cases of septicæmia and peritonitis result.

I have already mentioned that the solution generally used was composed of quiniæ sulph. solubil., tartaric acid, and distilled water, the strength of the solution varying from fourteen per cent. to twenty per cent. With adults I usually injected two syringefuls (that is, from five to eight decigrammes) into the upper and outer part of the arm, or on the back of the shoulder, pushing the needle well down into the subcutaneous tissues and even into the muscle. The pain produced was always trifling and of short duration. Sometimes a little redness and very slight swelling occurred, but soon disappeared. I once administered to an English army officer, taken suddenly with a congestive chill, eight syringefuls of a sixteen per cent. solution in twelve hours, with the very best of results, except that he was somewhat deaf for a day or two. Of course, I do not mean to assert that this treatment by hypodermic injection always drove the malarial poison entirely out of the system or effected a permanent cure; but one or two injections nearly always broke up the fever and effected a cure at the time so that a patient would have no return of the fever, unless he exposed himself anew by visiting a locality where malarial fever was rife or allowed his general health to run down. I had two patients—wealthy English gentlemen—who were accustomed to come every few months and get me to give them a hypodermic injection of quinine as a prophylactic measure when they were about to visit a notoriously feverish locality. During the eighteen months that I have been practising here in Chicago, I have made use of hypodermic injections of quinine several times with perfect success. In conclusion, to show what perfect confidence I have in this mode of treatment, I have only to mention that I have had quinine injected into my own arm on two occasions.

H. Martyn Scudder, M.D.
206 Twenty-eighth Street, Chicago, Ill.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 22, 1885, to August 29, 1885.

Cronkhite, H. M., Captain and Assistant Surgeons Relieved from duty at Fort Reno, Indian Ter., and assigned to duty as Post Surgeon, Fort Hays, Kan. S. O. 129, Department of the Missouri, August 26, 1885.

Powell, J. L., Captain and Assistant Surgeon. Relieved from temporary duty at Fort Leavenworth, Kan., and assigned to duty as Post Surgeon at Fort Lyon, Col. S. O. 128, Department of the Missouri, August 25, 1885.

Kane, John J., Captain and Assistant Surgeon. Granted leave of absence for one month, to take effect when his services can be spared. S. O. 195, A. G. O., August 26, 1885.

Ebert, R. G., Captain and Assistant Surgeon. Assigned to temporary duty with U. S. Troops at Riverside Park, N. Y. S. O. 179, Department of the East, August 24, 1885.

Stephenson, William, First Lieutenant and Assistant Surgeon. Granted leave of absence for one month, to take effect September 1, 1885. (Fort Niobrara, Neb.) S. O. 79, Department of the Platte, August 20, 1885.

McCaw, W. D., First Lieutenant and Assistant Surgeon. Assigned to temporary duty at the camp of the troops near Kiowa, Kan. S. O. 128, Department of the Missouri, August 25, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 29, 1885.

Jones, William H., Surgeon. Detached from the Wachusett, and waiting orders.

Precocious Menstruation.—Dr. Denver reports in the *Gazeta Medica di Bahia* the case of an infant who began to menstruate at the age of two months. The menses appeared regularly every four weeks, and continued for four or five days. On one occasion they ceased for a period of three months, and the child became ill, but recovered her usual good health upon their restoration. She was examined when two and a half years old. She weighed forty pounds, and her face was that of a girl ten or twelve years old. The breasts were the size of small apples, the mons veneris was covered with hair, and the labia minora and majora were well developed.

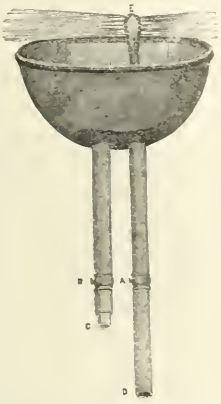
New Instruments.

AN INTRA-VAGINAL CUP SYRINGE.

By E. P. FRASER, M.D.,

PROFESSOR OF GYNECOLOGY, MEDICAL DEPARTMENT, WILLAMETTE UNIVERSITY, PORTLAND, ORE.

THE proper administration of therapeutic vaginal injections, in the dorsal recumbent position with hips elevated, is almost impossible, owing to the discomfort and annoyance attending the use of the various contrivances for receiving the injection fluid as it leaves the vagina. These are entirely overcome by the simple instrument shown in the accompanying woodcut.



The instrument consists of a soft rubber cup, through the bottom of which pass the afferent tube (D), with hard rubber nozzle, and the efferent tube (C), to which is attached a waste pipe two and one-half feet long for conveying the fluid into a receptacle under the bed or table. These tubes are supplied with simple stopcocks (A and B). The nozzle (E) may be removed from the cup when desired.

The cup is readily introduced into the vagina, and when there it exerts pressure on the vaginal walls sufficient to prevent the escape of the fluid except through the efferent tube. The nozzle of any style of syringe may be inserted into the afferent tube, and any quantity of water may be injected with perfect comfort to the patient.

The patient lying on the back, with hips slightly elevated, the fluid will dilate the upper portion of the vagina, and come in contact with the entire surface, while the more sensitive parts of the vagina, vulva, and perineum are completely protected in case very hot water is used.

When it is desired to make an application of glycerine or other fluid substance to the cervix, the nozzle (E) must be removed, and then, the efferent tube being closed, the fluid is introduced through the afferent tube and allowed to remain as long as required. If preferred, the instrument may be allowed to remain *in situ* after the application has been made, thus serving as a temporary support to the uterus in the place of cotton or oakum tampons.

I have derived much satisfaction from the use of this instrument, and gladly give it to the profession, believing that it needs only to be tried to be appreciated.

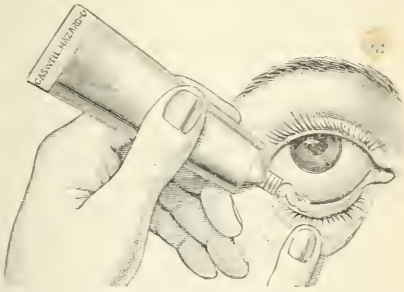
These instruments are manufactured by Geo. Tiemann & Co., New York City.

COMPRESSIBLE TUBES FOR APPLYING OINTMENTS TO THE CONJUNCTIVA.

By JOSEPH A. ANDREWS, M.D.,

NEW YORK.

PATIENTS to whom is intrusted the application of an ointment to the eye are not usually careful to cover the vessel containing the former; consequently, in a few days the ointment contains dust or other foreign material, which it is objectionable to apply to the conjunctiva. Also the brush with which the ointment is applied, is rarely kept clean. By means of the simple contrivance pictured above, these objections are quite overcome. These tubes are similar to those in which artists' pigments are put up, and they really are a great convenience; for the tube being made of a thin compressible metal, the ointment is readily squeezed out upon the conjunctiva, and the application becomes as simple as dropping a fluid into the eye; and when the little cap is



screwed on over the mouth of the tube, the latter is secure against the entrance of any foreign material, and may be carried in the pocket. The most convenient size is that which holds about two drachms of ointment. The application is made by directing the patient to look upward, and while you draw down the lower lid with the index finger, the ointment is squeezed out upon the lid. They are manufactured by Mr. Ford, of Messrs. Caswell, Hazard & Co., New York.

40 WEST TWENTY-FOURTH STREET.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending August 29, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
Aug. 29, 1885.....	0	37	14	4	5	23	0	0
Deaths.								
Aug. 29, 1885.....	1	8	4	2	6	14	0	0

TREATMENT OF BOILS.—Halle recommends the following application in furuncle. Tannic acid. 1 part: powdered gum acacia, 1 part; tincture of arnica flowers, 2 parts. This is to be painted over the boil and for a little distance around it, several coats being applied until it forms a thick and firm covering. Halle states that this mode of treatment quickly relieves the pain and diminishes the swelling. When taken in time, the boil disappears without the formation of pus; and when this has already occurred, the application causes the extrusion of the core and prompt healing of the furuncle.

REMARKABLE FECUNDITY.—A correspondent of the *Deutsche Medicinal Zeitung* reports the case of a peasant woman, married, at the age of eighteen years, in February, 1873, who has since that time given birth to ten living children, besides having had two miscarriages. At the time of writing, July of the present year, she was in the sixth month of her thirteenth pregnancy.

A FACE WASH.—M. Vigier proposes a lotion of one part boracic acid to one hundred of rose-water, perfumed as desired, as suitable in the treatment or prevention of pimples, acne, or roughness of the skin. It is harmless and can be used for an indefinite period. The face is to be moistened with it morning and night.

The Disinfection of Sleeping Apartments.—Professor König, of Göttingen, in an article on this subject in the *Centralblatt für Chirurgie*, says that at one time, while he was practising medicine in Hanau, he suddenly discovered that his bed-room was thickly inhabited by bugs. A friend assured him that he could speedily rid him of the pests, and proceeded to fumigate the apartment with corrosive sublimate. The success of this measure was most gratifying, and when the room was opened the dead bodies of various kinds of insects were seen strewn about the floor. This incident led the writer to hope that the same means would be effectual in destroying the infectious elements of contagious diseases, and a trial in private houses after scarlet fever or measles, and in hospitals after erysipelas or pyæmia, gave most satisfactory results. Since adopting this method, he has never seen a second case of a contagious disease which could be attributed to infection remaining in the room in which the patient had been confined. The mode of procedure is very simple From one and one-half to two ounces of corrosive sublimate are put on a plate over a chafing-dish, and then the windows and doors of the room are closed. At the expiration of three or four hours the windows are opened, and the apartment is thoroughly aired. The person entering the room should take the precaution to hold a sponge or a cloth over the mouth and nose in order not to inhale the vapor. The following day the windows are again closed and some sulphur is burned in order to neutralize any of the mercurial fumes which may still linger about the furniture and other articles. The room is to be again aired and cleaned, and will then be ready for occupancy.

Suicides in Lyons.—There were 99 cases of suicide in Lyons during the year 1883, of which 72 were men, and 27 women. The means employed were, in the order of their frequency: strangulation, 35; drowning, 26; poisoning, 13; fire-arms, 13; asphyxia from charcoal fumes, 6; jumping from a height, 5; cutting implements, 2.

The Treatment of Lupus in Prague.—Dr. Charles C. Ransom, of Richfield Springs, N. Y., writes from Prague, giving an account of the treatment of lupus as practised by Professor Pick of that city. This method is founded upon the theory that lupus is an infectious disease, due to the presence of a bacillus, probably the tubercle bacillus, which finds lodgement in the corium. The absolute proof of this theory is wanting, since, as yet, experiment has failed to show that lupus can be produced by inoculation of the tubercle bacillus in the skin. But the weight of evidence from clinical observation and histological investigation is so strong as to leave little doubt but that lupus is a form of tuberculosis. The indication for treatment, based upon this theory of the etiology, is plainly to destroy the bacillus. Since no agent has yet been discovered which will directly kill the parasite without at the same time producing the death of the tissue in which it resides, it is necessary to work for this end indirectly by the production of cicatricial tissue at the seat of disease, and thus cutting off the blood-supply upon which the bacillus depends for its existence and development. But it is desirable, while occluding the capillaries, to avoid disfigurement in those cases in which the face is the seat of the disease. Professor Pick has found, after a long series of experiments with different chemical caustics, that potassa is the best, as the resulting scar is less richly supplied with blood-vessels than that following the employment of other caustics, such as arsenious acid, corrosive sublimate, nitrate of silver, and the like. This is accordingly used by him in parts where the deformity is not a matter of importance. In lupus of the face, however, in cases in which the disease itself has not already produced irremediable disfigurement, he employs the method of scarification, with the three- or four-bladed lupotome of Veiel, in combination with the galvano-cautery. The patient is subjected to the scarification every other day, a new part being selected at each sitting until that first operated upon is healed. The incisions are carried just through the diseased part into the firm healthy tissue beneath. The amount of surface operated upon each time depends much upon the endurance of the patient. When the part first scarified is healed, the operation is repeated, the cuts being made so as to cross the first ones. The wounds made by the lupotome are dressed with an antiseptic solution. The first part of the treatment is continued until the entire surface involved in the morbid process is converted into cicatricial tissue. In this will now be noticed numerous little lupus nodules, the size of a mustard-seed, which are destroyed with the galvano-cautery needle. But little use is made of anæsthetics as they have been found impracticable; cocaine was extensively tried last winter, but gave little or no satisfaction. Dr. Ransom reports a number of cases in which he was able to verify the favorable results claimed for this mode of treatment. They were some of the more severe cases which he saw at Professor Pick's clinic, and in every one the result was most satisfactory. The ulcerations, when they existed, were healed, and the nodules and points of infiltration were completely eradicated. The resulting cicatrix was smooth and flexible, of a lightish color, and in no way deforming, except, of course, in those cases in which there had been loss of tissue prior to the commencement of treatment. The permanence of the cure is shown by numerous patients, who report from time to time, upon whom the scarifications were practised ten or even fifteen years ago.

The Way to Prepare Surgical Sponges.—The following is Mr. Lawson Tait's method of preparing the sponges, and but one person is trusted to do this: New sponges are first put into a large quantity of water with sufficient muriatic acid to make the water taste disagreeably acid. They remain in this mixture until all effervescence has ceased and all the chalk is removed. For this purpose it may be necessary to renew the acid several times. The sponges are afterward carefully and thoroughly washed, to make them as clean as possible and free from every rough particle. After being used at an operation, they are first washed free from blood, and then put in a deep jar and covered with soda and water (one pound of soda to twelve sponges). They are left in this about twenty-four hours (or longer if the sponges are very dirty), and then they are washed perfectly free from every trace of soda. This takes several hours' hard work, using hot water, squeezing the sponges in and out of the water and changing the water constantly. Leaving them to soak for a few hours in very hot water greatly assists in the cleansing. When quite clean, they are put in a jar of fresh water containing about one per cent. of carbolic acid, and after being in this for twenty-four hours they are squeezed dry and tied up in a white cotton bag, in which they are left hanging from the kitchen ceiling (being the driest place in the house) till they are wanted. —*American Journal of Obstetrics.*

How to Abort Typhoid Fever.—Dr. Jacob S. Horner, of Lanesville, Ind., sends his testimony to the value of the abortive treatment of typhoid fever, as sketched in The Medical Record of August 4, 1883, by Dr. J. O. Davy, of Springfield, Ohio. He writes that, at the time the article appeared, he had under his care a personal friend suffering from a very grave attack of typhoid fever. The disease was threatening to terminate fatally, despite the doctor's care and skill, but immediately upon beginning with Dr. Davy's remedies an improvement was noticed, and the patient eventually recovered. Dr. Horner adds: "I have used cohothedra compound in my practice since the latter part of August, 1883, and it has in my hands proved itself almost, if not actually, a specific in the treatment of enteric or typhoid fever. It gives speedy relief to all the distressing symptoms, such as high temperature, foul and dry tongue and mouth, delirium, etc. If the treatment is commenced

before the bowels are distended with gas, there will be no tympanites, and but slight tenderness and gurgling in the iliac fossa. Indeed, I can say I have had no case in which my patients were not quite or comparatively comfortable within twenty-four hours. All the febrile symptoms subside and convalescence is fully established in from five to eight days if the plan of treatment, as given in Dr. Davy's letter, is faithfully carried out. I should now feel that I was guilty of criminal neglect to my patients were I to attempt to treat a case of typhoid fever without this new American antipyretic, cohothedra compound." Dr. Horner adds that he has not hitherto kept records of his cases, but intends henceforth to do so, in order to demonstrate in a convincing manner the value of this remedy in typhoid and typho-malarial fevers.

Short Notes of Wounds of the Heart with Survival for an Appreciable Time.—Dr. E. Stirling, of Cleveland, O., sends us the following: "I made a post mortem before Coroner Young, in the case of a man killed by a stab in the heart. After receiving the blow he ran out by the open door on to the street, forty-one feet, before falling dead. The cut was into the left ventricle, of size sufficient to admit the forefinger. In 1856, while in San Francisco, I saw a man who after receiving a pistol-ball through the heart ran seventy-five feet before falling. I visited the spot a few minutes after the occurrence but did not witness the examination. One of the doctors present informed me that the ball passed through the upper and outer portions of the left auricle. All are conversant with the case of Jim Pool, the pugilist, who carried a pistol-ball in his heart for many days. The heart of a deer was shown me, by a doctor in Michigan, that contained well imbedded in the ventricle a rifle-ball, of forty to the pound size. It was positively known that the deer received the wound two years before, and had carried the ball this length of time."

How can we Raise the Standard of Medical Education?—Under this caption a correspondent sends to The Record his views of what is necessary to elevate the average of medical attainments. He writes that he was present at the last meeting of the State Society, when the bill "to regulate the licensing of practitioners of medicine or surgery and to further regulate the practice of medicine or surgery," came up for discussion. And he "listened with feelings of painful regret," because he was "forced to recognize as distressingly prominent in the remarks of some speakers a selfish jealousy amounting to a mere trade instinct." He thinks that it is proper to ask the State to protect the feeble against the ignorant greed of charlatans, but that it is ignoble to beg protection for the profession itself. The solution of the problem is in our own hands, and it is evidently by us alone that the standard can be raised. We should see to it that those are not admitted who embrace the profession of medicine from base motives, just as men of a similar kind are excluded from the ranks of the ministry. "The lack of moral force and intellectual character, which is sometimes complained of in our profession, is the result of our own sins. We at least ought to know the requirements for our profession; other qualities than erudition are necessary to make a physician. The very age at which a young man is supposed to enter a physician's office to read medicine for three years, as is the custom, is the one in which the habits are formed or forming. A little care and observation on the part of the preceptor at this time will enable him to perceive pretty accurately whether the candidate is possessed of all the qualities necessary to make the true physician. If we send to the colleges only gentlemen, in every sense of the word fitted to become physicians, our colleges will necessarily be raised to a much higher standard without seeking State aid. On the other hand, if the proposed law were enacted, the feeling of individual responsibility, which is our only safeguard, would be removed; and we should delegate the keeping of our conscience to the State Board of Examiners, who, from the very nature of their functions, would exclude all considerations of the moral fitness of the applicants." At the same time our correspondent deprecates any steps which would tend to diminish the value of competitive examinations. "Ours is a profession calling into action all the acute perceptions of the human intellect; but not one whit less than learning and science does it require an innate common sense."

A Dutch Account of Hottentot Pathology.—A Dutch practitioner who has lived for twenty years in South Africa sends to an Amsterdam medical journal some particulars of native customs and beliefs. The uterus is supposed to have a great tendency after parturition to fly upward, and consequently after the second stage of labor the funis is carefully tied to one of the woman's great toes, so as to prevent the placenta from slipping away, and as soon as the third stage is completed she is tightly bound with a cloth or a cord at the level of the umbilicus, for if not the restless uterus would ascend into the breast. After the birth of a still-born child nothing can prevent the womb from betaking itself into different regions, and then performing unpleasant and painful gyrations. The writer mentions an old native woman who came to him with a scirrhus of the mamma. She complained of occasional pain in the abdomen, but was not seriously concerned about it, for said she: "I know what that is; it is the womb going round; have I not had a still-born child? From that time there can be no rest for the womb; he (the womb) keeps springing round and round, not always, but at times, perhaps for three months, and then for a fortnight he is still. Sometimes he sits here (indicating the spleen); sometimes here (touching the right breast); sometimes he sits behind my shoulder-bone, and then he burns like a coal of fire." The uterus has to answer in the native mind for most of the ills to which female flesh is heir; has she a colic, sickness, or any abdominal trouble, it is always the old story—"the womb is going round." When listening to a gesticulating patient describing her malady and enunciating her diagnosis of the cause, it is frequently somewhat difficult for a medical man to keep his countenance. It is utterly useless for him to attempt to reason with the woman or explain to her the absurdity of the position she has taken up. She will only doubt his skill, and scornfully reply: "Doctor must not say it is not so, for I know that it is." Among the natives the new-born babe is treated to a purifying draught of the father's freshly-passed urine. The whites, some of whom are nearly as ignorant and superstitious as the natives, employ a quack "wonder-essence" as a substitute.—*London Lancet.*

Fatal Paraplegia Due to Sarcoma of Vertebræ.—Dr. G. W. H. Kemper, of Muncie, Ind., reports the following interesting and rather unique case: Mrs. B——, aged forty-four, married, with three children, came under his observation in August, 1884. Six years previously a carcinoma had been removed from the left mamma, leaving half the gland. About five years later (May, 1883) this remnant had become painful and indurated and was also removed. Soon after a third tumor appeared in the cicatrix, followed by enlargement of axillary glands. A perceptible prominence was observable over the eighth and ninth dorsal vertebræ. At this time she came under Dr. K——'s observation. She had a very slight temperature; pulse, 85. Functions of bladder, rectum, and uterus normal, with occasional pains in extremities. She was lying upon her back with her lower extremities extended. She had the power, rather feebly, however, to flex and extend the lower extremities, and could very well control the movements of the upper extremities. She already had lain in this position for six weeks when we saw her, and had been treated by a homœopathic physician for rheumatism. She was utterly unable to raise her head or turn in bed; in fact, it was at the cost of very great pain that she

could be even carefully turned or lifted temporarily from her supine position. The spine showed upon pressure considerable tenderness over the greater portion of its extent, and was so inflexible that the least curving in any direction gave rise to distressing pains, especially cervico-brachial. A peculiar symptom that she dwelt upon at this and other times in the course of the disease, was "a feeling as if the contents of the abdomen would fall out through the abdominal walls." This sensation was disagreeable rather than painful, and had annoyed her for some weeks. The history of the case, together with the result of examination, suggested a diagnosis of spinal irritation, complicated possibly with congestion and due to malarial origin, as she gave a malarial history. A general tonic course with quinine for the malaria benefited her but little. The spinal symptoms gradually became more pronounced, and finally paraplegia, accompanied by neuralgic pains, invaded successively the right arm, hip, thigh, and leg. Increasing numbness, especially in the lower extremities, led to the conclusion that the previous diagnosis was incorrect and that the trouble was really due to spinal compression, resulting from a malignant vertebral growth, secondary to the previous mammary neoplasms. In December the patient died, having suffered for some weeks previously from dyspnœa, loss of normal action of rectum and bladder, "girdle" pains and various abnormal sensations. One small bed-sore formed. Toward the end the pulse grew more rapid and intermitted occasionally. An examination of the vertebræ above mentioned revealed a neoplasm consisting of round and spindle cells of a typhoid type, so arranged that the spindle cells were so placed as to form trabeculæ with intervening alveolar spaces. Within the latter were the round cells. In other words, the growth was an *alveolar sarcoma*.

Useful Agents in the Treatment of Scarlet Fever.—When lecturing upon scarlet fever Professor Da Costa mentioned the following agents as being of use: 1. Carbolic acid, gtt. ½, a dose for child two years of age; give in mint water. 2. Ammonium carbonate, gr. ij., every two hours, to child ten years of age. 3. Potassium chlorate, ʒ j., in water, ♁ j.; patient to drink this in twenty-four hours. 4. Salicylic acid when high temperature is present. 5. Small doses of chloral. Always keep skin active, and if heart be weak, give digitalis—if arterial tension be high, give aconite. When much exudation has occurred, he prescribed, for its solvent action: ℞. Ammonii carb., gr. x.; Liquor. ammon. acetat., f ʒ ss. M. Sig. Every four hours. If there is much depression, prescribe also quinia and digitalis in combination.—*Col. and Clin. Record.*

Buckwheat Flour in the Treatment of Diabetes.—Dr. Y. H. Bond, of St. Louis, Mo., writes: "Some time since I read an article in your journal upon the subject of 'Diabetes Mellitus,' in which buckwheat flour was said to have been used, as the exclusive bread diet, with the result of a disappearance of the sugar from the urine. In support of that observation, I herewith report my experience in the trial of the same agent on the only patient that I have treated for that trouble since reading the article referred to. On May 11, 1885, I was consulted by Mr. W——, aged sixty-three, of Scotch descent, possessed of fine physical development and a stable nervous system, resident of the State of Vermont. His only ailment consisted in the passage of an excessive amount of water, which he stated had troubled him for more than a year past, and that the amount of water passed was about the same every day. He passed from 9 P.M., May 13th, to 9 P.M., May 14th (twenty-four hours), three quarts of water. On examination sugar was found in abundance. I continued to examine his urine at varying intervals up to June 15th, discovering little or no variation in its quantity or character up to that time, pursuing this course with the view of determining the constancy of the sugar, amount, etc., uninfluenced by treatment, in order that I might know what, if any, effect was produced by my management of his case. On June 15th I instructed him to discontinue the use of Irish potatoes; and, in place of bread made from wheat flour, or corn meal, to use buckwheat flour, prepared as his taste might prompt. I am satisfied that my instructions have been faithfully complied with. The quantity of urine passed grew less in a very short time, the amount passed from 5 P.M., July 7th, to 8 A.M., July 8th, being one pint only—and on examination was found to contain no sugar. I examined his urine again on the 11th ultimo, with the same result—no sugar and the same reduced quantity."

A Substitute for Carbolic Acid.—The extraordinary power of naphthol as an antiseptic and disinfectant has been known for a long time, but its disagreeable smell, and the difficulty of preparing it in a pure state, with the occasional toxic action of the crude naphthol, have hitherto prevented its general adoption as a remedial and antiseptic agent. Justus Wolff, a chemist interested in coal-tar products, has recently succeeded in producing it in a pure and odorless state in well-defined crystals, and he claims its antiseptic action is much greater than that of carbolic acid. Recent research has demonstrated that the toxic effects of crude naphthol were due to the impurities it contained. Dr. Shoemaker, of Philadelphia, in a paper read before the Philadelphia County Medical Society, on the "Medical Use and Value of Naphthol," conclusively proved the non-poisonous character of the purified or odorless naphthol by taking large doses internally. It has no corrosive action on the skin, and will not injure textile fabrics. As a remedial agent it is said to act with greater efficiency than carbolic acid, and if so, the fact of its being absolutely odorless will make it a desirable substitute for the latter. It is expected that it will shortly be manufactured in large quantities and introduced as a substitute for carbolic acid.

More about the International Congress.—"It [the new committee] has, however, performed, in our judgment, the most stupendous work of supererogation ever exacted from a body of intelligent men. We are totally unable to see how the fortunes of the Congress have been a tithe benefited by the changes made. On the contrary, it has suffered immensely in the eyes of all unbiassed thinkers by this unnecessary controversy about representation on Sections and 'New Code' principles. As the Congress now stands organized, we much doubt its ability to attract that attention as a scientific body it was entitled to. How can those men interested in pure science feel that same interest in the fortunes of an organization handicapped with contentions for offices and ethics, and weighed down with that ponderous body, the American Medical Association?"—*Maryland Medical Journal.*

"The committee did the work expected of it, and with less malice than would have seemed possible, but with sufficient thoroughness, we fear, to put an end to the prospects of a successful and creditable *international* congress, and adjourned to meet in St. Louis on the first Monday in May, 1886. . . . These gentlemen proposed to aid and participate in the discussion of questions of medical science, not of medical ethics, medical politics, or of square miles of territory. There will, however, be more offices, although less congress, for those who prefer such discussions and such distinctions to a harmonious gathering of scientific men searching for truth; and we hope somebody may be happy, if it be only for a short time.—*Boston Medical and Surgical Journal.*

Trichloracetic Acid.—This substance is said to be an excellent antiseptic agent. Dr. Filipovich has employed it with success, in an aqueous solution of the strength of 2½ to 5 per cent. in the treatment of wounds, erysipelas, soft chancre, etc. He has also given it internally in gastric catarrh and cancer, in doses of 2 to 4½ grains (0.12 to 0.30 gramme) for adults.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 11 NEW YORK, SEPTEMBER 12, 1885 Whole No. 775

Original Articles.

THE MODERN METHODS OF TREATMENT OF GUNSHOT WOUNDS.

A CONSIDERATION OF THE PRINCIPLES OF NON-ANTISEPTIC OCCLUSION; PRIMARY ANTISEPTIC OCCLUSION; PRIMARY, INTERMEDIARY, AND SECONDARY DRAINAGE; RESECTIONS, ETC.; EARLY VERSUS LATE ANTISEPSIS IN MILITARY SURGERY, AND THE PRACTICABILITY OF ANTISEPTIC METHODS IN WAR SURGICAL PRACTICE.

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THERE seems to be an impression almost universally prevalent among the laity, and widely so among the medical profession, that a gunshot wound calls loudly for some one or all to do something.

To combat this indiscriminate tendency on the part of surgeons to be "overmeasurely busy" (übermässig geschäftig) in the treatment of gunshot wounds, is in some measure the purpose of this article. To this end it is desired to set forth the claims of the several methods of treatment; to endeavor to assign to each its relative precedence; to compare the relative value of early and late antisepsis, inquiring as to whether the application of the former is optional or obligatory for securing the further favorable course of the reparative wound processes; to consider the practicability of the antiseptic methods in war surgical practice where the surgeon has to deal with a multiplicity of wounded under the conditions of bad hygiene and haste, incident to the exigencies of field service; and finally, to consider the claims of the several primary methods of treatment as adapted to injuries of different parts and regions of the body, and the wide range of applicability of the method by primary antiseptic occlusion. The recent marked advancement in this branch of surgery is largely owing to the lessons drawn from the practical experiences of military surgeons in our late wars and campaigns.

Scarcely till the time of the Franco German war had it begun to be recognized as an established principle of practice that a gunshot wound might heal without drainage and without apprehension of pus secretion. In the riots that occurred in the streets of the French metropolis subsequent to the war of 1870–71, a number of cases was observed by surgeons, after healing was complete, in which the repair of the wound-track had taken place under a blood-scab or crust, by the *laisser faire* treatment which befell them, owing to the guilty fears of the wounded rioters to present themselves before the Parisian surgeons.

In the War of the Rebellion, but two decades gone by, antiseptic occlusion was not practised at all, and primary occlusion without antiseptic precautions, when practised, was not, in the main, founded on well-understood or determined principles of war surgical practice as later developed in the comparatively recent European wars.

Before going on, it behooves us to start out with technical phrases clearly defined, and methods of treatment simply classified, so as to avoid all ambiguity of words or meaning.

These methods may be severally classified and defined as follows:

1. *Non-antiseptic occlusion*—*i.e.*, the healing of a wound under the simple blood-clot, scab, or crust, without the intervention of surgical aid or appliances—hence, without instrumentation and without antisepsis or drainage. It is Nature's best effort, unaided. It is a better effort in many cases than a misguided surgical interference.

2. *Primary antiseptic occlusion*, or the immediate application of an occlusive covering to the wound on antiseptic principles. The *immediate* application implies at the earliest possible moment after the injury, for although several hours, or even a day or two might intervene without injury between the time of reception of the wound and its occlusion, yet inasmuch as this time or interval is only a relative one and cannot be determined *a priori* in any given case, the occlusion should take place at once, to preclude the possibility of infection from without.

In testing the merits of antiseptic occlusion, it seems not to be enough to declare that wounds were closed on the same day or the next day at farthest, for some wounds become unsuitable for occlusion even a few hours after their infliction; hence in so far do reports of unsuccessful cases lose assurance where an interval of time is permitted to elapse before occlusion is practised. This is not denying that a wound may heal by occlusion, even if the dressing is applied for the first time hours or days after the injury, but such cases present no tokens by which they may be recognized *a priori* by the surgeon; hence the emphasis upon the immediateness of the occlusion, and hence also the importance of considering how this necessity is to be met in war—*i.e.*, how the primary antiseptic occlusion and the other primary methods can be made practicable upon the battle-field.

In considering this point farther on, the writer shall, of course, owing to his inexperience in actual warfare, although it has fallen to his lot to test in a measure the principles whereof he speaks—isolated cases in hospital and military practice—disclaim any spirit of dictation, but shall give what he has learned from a study of the subject as handled especially by the German military surgeons who figured prominently in recent European campaigns. In this second method, not only should the occlusion be immediate with regard to the lapse of time, but also in respect to affording neither time nor place for practices of probing, digital examination, extraction or attempt at extraction of bullet, disinfection, or drainage. There exist only these indications: to cleanse antiseptically the superficies in the immediate vicinity of the wound, and at once apply an occlusive covering of antiseptic material. To make any given case authentic, as having been treated under the second method, it may not be immaterial, at any rate not undesirable, to state in the report of the case the negative assertion that no internal examination of the wound was made, either with the sound or with the finger.

The best-informed surgeons found it difficult to impress the paramount necessity of this simple precaution upon their associates in the war, so that these latter should sufficiently realize its imperativeness, and hence arose the limited opportunities of getting hold of the cases sufficiently early, *i.e.*, before a surgeon or assistant, or meddlesome "sanitar" had internally examined the wound-track with the finger, or its extension the probe; thus laying open a hitherto practically subcutaneous injury, infecting a hitherto non-infected wound, and thereby precluding its occlusion.

In such an instance, the golden hour for its occlusion

having passed, the virtually subcutaneous and surgically clean wound of an hour ago, so well adapted for healing *per scab*, with its comparative immunity from the destructive processes to which open wounds lay themselves liable, must be treated as an open, gaping, and if not a visibly contaminated, at least a surgically unclean wound—such a one as must needs be disinfected and drained, *i.e.*, treated according to the third method of treatment of gunshot wounds, namely, primary antiseptic disinfection and drainage.

Although primary drainage is not the worst accident that can befall a gunshot wound, and although probably it takes precedence of all secondary methods (which point will be further on considered), yet let it be remembered that experienced military surgeons abroad (Esmarch, Langenbeck, Reyher) and at home give their firm advocacy to the primary occlusion in all cases to which it is applicable, as the best method, and consider that the cases to which it could be rationally applied would largely increase if surgeons would hold inviolate the negative precepts (unless the indication to the contrary were clear) of no probing, no digital examination, no extraction of or "search after" the bullet, etc.

Sir Wm. McCormac, in his visit to this country a short time ago, took occasion in a lecture delivered, by invitation from the Professor of Surgery, before the students of Bellevue Hospital Medical College, to caution them against the indiscriminate use of the probe or finger in gunshot wounds, affirming the soundness of the modern views and precepts upon the treatment of gunshot wounds, given by such eminent military surgeons as Esmarch and Reyher, "not to do any damage," and to treat in all respects sparingly, etc.

To excessively and painfully diagnosticate a gunshot wound, for instance, of the knee-joint, is as harmful and unwarranted a procedure as percussion of a chest of one sinking with pneumonia for the purpose of locating more definitely a patch of hepatized lung. It is fairer that our vanity should forego the exhibit of our diagnostic acumen than compromise, yea, jeopardize, the chances of our patient's recovery. It is better that our patient recover his joint without anchylosis, though he may be ignorant of its involvement, than that he should go maimed through life, through his surgeon's excessive diagnostic inquisitiveness.

3A. *Primary antiseptic drainage, i.e.*, the scrupulous disinfection of a wound visibly contaminated or specifically or septically infected, from any cause whatsoever (surgeon's probe or finger, particles of dust or foul air, pieces of clothing or other foreign bodies, exclusive of the bullet, which is usually innocuous, and if it cause disturbance can be removed later, when the dangers of septic phlegmon, erysipelas, pyæmia, etc., are past), and the removal of all irritating secretions the very moment they are formed through some provision for drainage, to make which complete it may be necessary to resort to extensive incision—cuts and partial resections, etc.

The primary drainage is intended to prevent the accession of inflammation, to dispel all apprehension of pus formation, which process can serve no useful purpose, but drains off, in its ichorous secretion, the highly vitalized organic tissue elements intended for the constructive processes of wound repair. Esmarch formulates his practice in infected wounds thus: "An early antisepsis, a radical disinfection, and an infrequent repetition of the cleansing and dressings."

Referring[1] to Esmarch's permanent aseptic dressing the *Medical and Surgical Reporter* states that "Esmarch has carried asepticism to its logical conclusion, maintaining that if a wound is once well and completely dressed antiseptically, it should heal without much further attention, and that changing the dressings is merely incurring new dangers needlessly." And Lister, speaking of this "Dauer Verband," characterizes the accumulation beneath it of bloody serum and foul secretions of a week's standing as "surgically clean because it is aseptic," and the "æsthetically cleanly water" he declares to be "surgically dirty because it contains elements that give rise to septic changes in wounds."

The drainage, then, in the third method, should coincide with the formation of the first wound secretions, which are at that time, to be sure, not septic or virulent, but physiological in their vital properties and composition, but very prone to take on putrefactive decomposition, and if no provision is made for their seasonable conduction from the wound, decompose and set up irritation and consequent inflammation.

In this sense is the drainage primary, and, when done with antiseptic precautions, constitutes the third method, which, however admirable it may be in its operation and results, is not comparable with the simplicity of application and the beautiful results obtainable by the preceding method.

3B. *Primary resections and amputations;* surgical interferences which take place immediately that the injury is done, and have for their object the securing of better drainage or the conservation of a limb or other body member and the preservation of its proper function, or the saving of life at the cost of a limb from the amputation—cut which partakes of the character of a large incision—cut in that it affords ample drainage for the secretions.

4. *Intermediary drainage, resections, and amputations;* operative measures introduced after the acute stage has passed and before the approach of the suppurative stage. These operations are usually done upon infiltrated parts, and, like secondary methods, should be followed by the open treatment of the wound or stump, so as to make ample provision for the profuse discharges from the infected and infiltrated tissues.

5. *Secondary drainage, resections, and amputations;* surgical procedures introduced after the setting in of suppurative action.

The latter partake of the character of a forlorn hope, and awaken in one's mind the consciousness of a lost or unheeded opportunity. The relative merits of the primary and secondary drainage still remain to be considered in subsequent paragraphs.

To recapitulate, now, the several methods of treatment of gunshot wounds: 1, Non-antiseptic occlusion; 2, primary antiseptic occlusion; 3, primary antiseptic drainage, resections, and amputations; 4, intermediary antiseptic drainage, resections, and amputations; 5, secondary antiseptic drainage, resections, and amputations. We may now go on to consider the subject of early *versus* late antisepsis in military practice.

Given, a gunshot wound that is certainly infected and hence cannot be occluded, but must be disinfected and drained, the query arises, Does experience teach that an early antisepsis is obligatory or optional? If optional, *i.e.*, if secondary antisepsis will afford us as good results as primary, then the problem, how to make primary methods practicable upon the battle-field need not present itself to our minds for solution. It were then already solved by its abnegation as not being necessary, and hence to be dispensed with, and late methods of antisepsis substituted therefor.

Upon this point, strangely enough, the experience of the Prussian military surgeon, Oberstabsarzt Hahn, in the Roumanian war, is at variance with those of Reyher and Bergmann.

Hahn declares that he experienced a complete antisepsis in cases admitting of a radical disinfection and subsequent complete drainage, even in patients wounded at Plevna and Ratowa, who had to pass through a three to five days' transportation. He further declares that under his care he did not perceive a single case of septicæmia, pyæmia, gangrene, or erysipelas.[1]

[1] Braithwaite's Retrospect.

[1] Fischer: Kriegschirurgie.

Von Scheven distinctly states that the efficacy of an antisepsis depends less upon the interval of time elapsing between the receipt of the injury and the disinfection than upon the configuration of the wound, *i.e.*, whether or not the wound will permit of a thorough disinfection and subsequent effective drainage. His experience seems corroborated by the testimony of other Prussian surgeons, who claim to have observed an antisepsis in cases not coming under a radical antiseptic disinfection until after the first week subsequent to receipt of injury. According to Reyher's experience, an early antisepsis seemed imperative, and the problem for military surgery seemed to be, how could a primary (early) antiseptic *régime* be made practicable upon the battle field, "seeing that an engagement does not usually terminate before nightfall, that the wounded must be gathered in and await their turn, and in order that the antiseptic disinfection be made radical and effective, it must be done with system and care." [1]

Naturally enough, the success of Hahn and Von Scheven with a late antisepsis raised high hopes in the expectations of military surgeons, and would, indeed, have inaugurated a happy era in war surgical practice, had not their experiences been set over against those of two such eminent surgeons as Reyher and Bergmann. The statistics of these latter two show a large per cent. of recoveries in early over late antiseptically treated shot-wounds of all kinds, and emphasize the importance and necessity of an early antisepsis. On the other hand, Hahn asserts that an early antisepsis is not imperative; but a late disinfection, if it be done with scrupulous care, so that it shall be radical, will prove equally efficacious.

This is a startling assertion in the face of facts and figures given us by Reyher in his Turko-Russian campaign; and Fischer does not attempt to reconcile or explain such glaring differences from equally reliable sources.

I cannot withhold Reyher's tables, which speak with no uncertain sounds as to the marked precedence of primary over secondary methods of wound-treatment, both in joint-shot injuries and shot fractures. I, therefore, insert his tables Nos. xi., xii., xiv., and xv.[2]

TABLE XI.—*Seventy-eight Joint-shot Injuries Treated by Secondary Antisepsis.—Conservative-expectant Therapy.*

	Healing under the scab carried out.			Drainage after an unsuccessful attempt at healing under the scab. This secondary drainage was carried out.			Intermediary and secondary resection after unsuccessful secondary drainage.			Intermediary and secondary amputation after unsuccessful secondary drainage.			Intermediary and secondary amputation after unsuccessful resection.			Total of all joint-shot injuries treated by secondary antisepsis.		
	Number of cases.	Number of those that died.	Mortality per cent.	Number of cases.	Number of those that died.	Mortality per cent.	Number of cases.	Number of those that died.	Mortality per cent.	Number of cases	Number of those that died.	Mortality per cent.	Number of cases.	Number of those that died.	Mortality per cent.	Number of cases.	Number of those that died.	Mortality per cent.
Shoulder-joint	..	..	..	1	..	..	6	3	50.0	..	..	....	..	..	....	7	3	42.8
Elbow-joint	2	..	.	1	..	..	6	2	33.3	..	..	....	2	1	50.0	11	3	27.2
Wrist-joint	..	..	..	..	..	..	4	..	....	..	..	....	1	1	100.0	5	1	20.0
Hip-joint	1	1	100	1	1	100.0	2	2	100.0	..	..	....	..	..	....	4	4	100.0
Knee-joint	..	..	..	19	18	94.7	..	..	....	21	16	76.1	..	..	....	40	34	85.0
Ankle-joint	..	..	..	1	..	..	4	1	25.0	1	1	100.0	..	..	....	6	2	33.3
Tarsal-joint	..	..	..	2	..	..	2	1	50.0	..	..	....	1	..	....	5	1	20.0
	3	1	33 3	25	19	76.0	24	9	37.5	22	17	77 2	4	2	50.0	78	48	61.5

TABLE XII.—*Eighty-one Knee-joint Injuries Treated Conservatively.*

	Conservative treatment not interrupted.						Conservative-operative.		Conservative treatment interrupted.				Whole number of cases treated.			The extremity was retained.			
	Treatment by seclusion to the end.		Primary drainage uninterrupted.		Secondary drainage to the end.		Secondary resection.		Through intermediary amputation.		Through secondary amputation.					How many times.	In what per cent. of the cases, not running a lethal course.	With mobility in the joint.	Without mobility in the joint
	Number of cases.	Deaths.	Number of cases.	Deaths.	Number of cases.	Deaths.	Number of cases.	Deaths.	Number of cases.	Deaths.	Number of cases.	Deaths.	Number of cases.	Deaths.	Mortality per cent.				
Primary antiseptic treatment	10	..	6	3	2	..	.	..	.	..	..	.	18	3	16.6	15	100.0	15	..
Secondary antiseptic treatment	..	..	..	..	19	18	..	..	9	7	12	9	40	34	85.0	1	16.6	..	1
Non-antiseptic treatment	2	..	..	..	7	6	1	1	..	..	13	11	23*	18	78.2	2	4.0	1	1

* Only one life was saved of these 23 cases. This case healed definitively under the scab. The mortality per cent. is, therefore, not 78.2, but 95.6 per cent.

FRACTURES.

TABLE XIV.—*Twenty-two Fractures Treated by Primary Antisepsis.*

	Antiseptic occlusion.			Primary antiseptic drainage.			Conservative treatment interrupted through intermediary amputation.			Conservative treatment interrupted through secondary amputation.			Total of all fractures treated by primary antisepsis.		
	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.
Arm	2	.	....	2	.	....	.	..	....	..	..	....	4	.	....
Forearm	1	..	....	2	1†	50.0	..	..	....	.	..	....	3	1	33.3
Metacarpal bones	..	..	....	.	.	....	..	..	....	..	..	....	..	..	....
Thigh	1‡	1	100.0	2	2§	100.0	..	.	....	1	1	100.0	3	3	100.0
Leg	4	..	....	8	.	....	..	.	....	..	..	....	12	..	....
Tarsal and metatarsal bones	..	..	....	.	.	....	.	.	....	..	..	....	..	..	....
	8	1	12.5	14	3	21.4	..	..	....	1	1	100.0	22	4	18.1

† Shell injury. ‡ Interrupted through secondary drainage. § Interrupted through secondary amputation, hence also counted in this column. ‖ Once interrupted through secondary drainage.

[1] Fischer: Kriegschirurgie.

[2] Sammlung Klinischer Vortraege. No. 142–143

TABLE XV.—*Sixty-five Fractures Treated by Secondary Antisepsis.*

	Treatment under the scab carried out to the end.			Secondary drainage carried out to the end.			Secondary drainage interrupted through intermediary amputation.			Secondary drainage interrupted through secondary amputation.			Total of all cases treated by secondary antisepsis.		
	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.	Number of cases.	Deaths.	Mortality per cent.
Arm	2	..	....	7	4*	57.1	3	1	33.3	..	..	....	12	5	41.6
Forearm	..	..	....	3	..	....	..	..	....	..	..	....	3	..	....
Metacarpal bones	..	..	....	1	..	....	..	..	....	..	..	....	1	..	....
Thigh	4	..	....	16	8	50.0	5	5	100.0	..	..	....	25	13	50.2
Leg	..	..	....	19	3	15.7	2	2	100.0	1	..	....	22	5	22.7
Tarsal and metatarsal bones	..	..	....	2	..	....	..	..	....	..	..	....	2	..	....
	6	..	....	48	15	31.2	10	8	80.0	1	..	....	65	23	35.3

* In these, two were complicated through other injuries (shot injury of lungs and spinal marrow).

Probably the weight of authority declares in favor of an early antisepsis. At any rate, it was instructive to observe how small a per cent., in Reyher's experience, of those who died under primary antisepsis, as compared with those who died under secondary antisepsis, succumbed to pyæmia and septic phlegmon.

In favor of an early antisepsis, I may find an argument in some facts communicated to me in a letter by Dr. Adler, who furnished me with an extract from a communication by Professor G. C. Bon, entitled, "Properties of Antiseptic Remedies and the Value of the Products of Decomposition."

The salient points *apropos* to our present argument were: 1. That no parallelism was observed between the power to prevent the commencement of a decomposition and that of arresting the same after it had once begun. Alcohol and carbolic acid, which are so efficient conservatives, possess but a small influence over a decomposition once commenced; and as carbolic acid has such an extraordinary success in surgical practice, this effect must be ascribed solely to its power of preventing decomposition. Professor Bon concludes from his experiments that carbolic acid is a powerful preventive to decomposition, but a weak germicide. Indeed, he regards carbolic acid as a substance very much adapted for a long preservation of bacteria (!!!).

He has in his possession solutions of carbolic acid, four months old, which contains an abundance of bacteria. He found that if 10 ctm. of a normal solution—a watery solution containing one-tenth of its weight of chopped meat was accepted as a normal liquid—be mixed with fifty or a hundred centimetres of a saturated solution of carbolic acid, it would result as follows: Most of the bacteria would lose their movability, while the smaller ones would remain alive and would be fruitful.

2. No parallelism exists between the disinfecting power of an antiseptic and its action upon bacteria.

Professor Bon found permanganate of potassium—one of the most excellent disinfectants—to have no effect upon micro organisms, while alcohol, which retards the development of microbes for a considerable length of time, acts disinfectantly only in a very slight degree upon putrescent substances.

3. The power of an antiseptic becomes weaker the further decomposition has advanced. For example, should a watery solution containing one-tenth of its weight of chopped meat be accepted as a normal solution, a putrid odor will develop in the first days of the decomposition, which smell can then be removed by small quantities of an antiseptic; if, however, the putrid odor is permitted to develop further, a proportionally large quantity of an antiseptic is required to dispel it.

Now, if the virtue of carbolic acid, as the representative of a class, lies in its power to prevent decomposition, it would seem reasonable to infer that to insure its full benefit it should be applied early—primary disinfection, *i.e.*, before the putrid stage has set in, the stage of bacterial development.

Do not, then, these experimental data of Bon in the laboratory tend to confirm the practical results of Reyher on the battle-field, and incline one to favor the application of antiseptic treatment at the earliest practicable moment.

The scientific labors of Dr. George M. Sternberg, surgeon U. S. Army, in this direction, and their practical teachings, are sufficiently well known to American readers to need no reference here.

Assuming, then, what is altogether probable, that better results are brought about in war surgical practice, through an early, *i.e.*, primary antiseptic *régime* than through a late antiseptic treatment, the question of the practicability of primary methods in military practice may well come up for consideration.

In order that these methods shall, in actual warfare, be strictly primary, it is essential that provision be made so that these methods can be applied upon the battle-field.

Recognition must there and then be taken of the principles of antisepsis, and nothing should be done contrary to those principles, either through the ignorance or meddlesomeness of assistants or negligence or want of information on the part of the surgeons. The former should be instructed, so far at least, in the underlying principles of antisepsis, that they shall do no damage, for example, by roughly handling a compound penetrating fracture in transportation, so that the wound be made to gape, and by a suction force draw air within, and by pumping movements cause it to infiltrate the interstitial tissues; or by rough manipulations set up a profuse primary hemorrhage in such a fracture, making it necessary for the surgeon to go into the depth of the wound and ligate, and hence causing the wound to become unfit for occlusion, to which it was till then in every way suitable.

Or again, the assistant may act contrary to the principle of antisepsis by examining the wound internally with probe or finger, before the most experienced and best-informed surgeons shall decide that the wound was previously infected, and was from the moment of receipt of injury an unclean wound, as, for instance, in large shell-wounds which from the very nature of the injury are open and infected from the start.

Although (thanks to the rifles and projectiles of modern warfare) a large number of wounds can be readily disposed of without much loss of time under the treatment by primary antiseptic occlusion, which is so simple in its application that unskilful hands may apply it, if only guided by the principles of antisepsis, yet there remain over a considerable number of wounds which demand at the hands of the surgeons immediate antiseptic cleansing, disinfection, and drainage, and not a few that require primary resections and primary amputations.

How shall all this be done with system and care upon the battle-field? How was it brought about, as Reyher asserts, that he "was enabled to carry out in his flying hospital a treatment fundamentally different from that possible in the Russian military hospitals?" He tells us that under the protection of the Caucasian Committee of the Society of the Red Cross, a field hospital of one hundred and fifty beds, and a flying hospital of forty beds were placed under his direction. These hospitals were supplied with all apparatuses and materials necessary for the complete carrying out of the essential principles of

Listerism, and attached to each was a surgical staff thoroughly informed in, and in accord with, the principles of antisepsis, and also a corps of nurses (Sisters) trained at the Dorpat clinic, and hence intimate with the antiseptic methods of wound-dressing.

Translating from his pamphlet: "The flying hospital, with the headquarters, attended the movements of the operations directed against Kars; the field hospital followed the same at a distance of 20 to 40 kilometres (1¼ to 2½ miles). Thus it was in the position, in connection with the division hospitals, to possess every time, at the main dressing-place, my own operation-tent, and to be able to carry out in it everything after Listerian principles. As the flying hospital further possessed its own transport train of two-wheeled and large ambulances, it was further possible for me to direct the cases taken up on the dressing-ground, and cared for after Lister, with my own ambulances and my own *personnel* into the flying hospital, and thence, after a few days' rest, into the field hospital. In this way were assured to me the first dressing, and a continuation of observation and treatment."

Such paramount importance does Reyher attach to this "continuity of observation and of treatment," that he considers it advisable that the same medical *personnel* should be active in the field hospitals as attended the wounded upon the first dressing-place. To this end he would have the rear-hospitals follow constantly in turn the movements of the army, in lieu of transporting the wounded through a series of hospitals to the rear-hospitals, making discontinuous the observation and treatment.

How far this may be practicable, he leaves to the administrative to determine.

Again quoting from his pamphlet: "Thus only will be assured to the observation the continuity so extremely important to the welfare of the treatment, and thus only will be afforded to the surgeon the possibility of perfecting himself in the surgery of war. Of the transient impressions on the battle-field and at the principal dressing-place, there remains to the surgeon only the picture of the severity of the injuries and their multiplicity; he sees and learns there nothing of the most important thing, the course of the wound and the process of healing."

In another paragraph, speaking of the greater length of time required for the antiseptic care of wounds over non-antiseptic therapy, and admitting that an hour's time or more may be taken up in the radical disinfection of a single knee-joint, he concludes in these words: "But if one considers that the majority of shot-fractures from small arms, and shot-wounds of the soft parts will require only an antiseptic occlusive dressing, which any voluntary assistant can apply; that the application of the tin-splints (Volkmann's), cut and on hand, can be done by any surgical assistant; that ligation of arteries is very seldom indicated upon the dressing-place, and then even is an operation consuming the least time, thus then only the primary amputations indicated through tearing apart by large shot, and the joint-shot injuries and fractures which call for a primary disinfection or resection, remain over for the activity of the operating surgeons. The number of these, to be sure, can be very large if each of the injuries has already been probed or examined with the finger before it comes under treatment at the principal dressing-place. But it will certainly not be large if from the battle-field up to the principal dressing-place the surgical activity shall confine itself to provisionary measures, and as wide a play as possible be given the occlusive method upon the dressing place.

We come now, naturally enough, to consider the merits of the several methods and their adaptation to uncomplicated gunshot wounds of the soft parts, and to such wounds, complicated with fracture, simple and compound, or complicated with injury to the blood-vessels, or by lodgement of foreign materials visible to the eye, causing palpable infection, or by microbes macroscopically invisible, but, nevertheless, surely infectious, etc., and, further, to gun-shot wounds of the joints and the large body cavities.

It may justly be premised that no method is so universally applicable to the generality of gun-shot wounds, in civil or military practice, or so fruitful in good results as to preservation of life, limb, or function, or so favored in immunity from untoward results and accidents of surgical repair, as primary antiseptic occlusion.

This method, when applicable, is superior to all others, because it is the simplest, the least annoying to the wound, the patient, and the surgeon; it prevents swelling and pain, it does not interfere with the appetite, for the secretions are not perverted, and the bowels locked up by morphine for relief of pain; it heals in the shortest possible time, it is attended with the minimum rise of temperature, and requires so very little after-care.

Apropos, the writer could mention one case in particular, treated by him and reported to THE MEDICAL RECORD of December 2, 1882, of a very serious gun-shot wound from a cylindro-conoidal bullet of .45 calibre, penetrating the thorax beneath the clavicle in front, and making its exit through the shoulder-blade, causing the pulsations of the subclavian artery to become visible to the surgeon's eye, and lacerating the rich plexuses of veins and lymphatics that abound in the cervical region. This wound-track, five inches in length, healed almost its entire length in seven days under a single permanent aseptic dressing.

It sometimes requires a nice effort of discrimination to decide, in the case of a wound that stands on the border line between infection and non-infection, whether or not it is adapted to the occlusive treatment. But even in these doubtful cases the possible formation of pus after occlusion could be determined by the thermometer and the pulse-beat before any danger should arise to the patient, and drainage could then be instituted.

By observation in an Indian country, and upon inquiry from commissioned officers of companies of Indian scouts, I have learned that the Indian when shot allows the fibrin of the blood to occlude the stomæ of his wound, while he applies a cooling lotion or some mother earth to the injured member, or places alongside of the limb an innocent twig or branch from the cotton-wood, and then proceeds with his incantations and other harmless ceremonies, in the meantime the wound-track knitting under a primary occlusive covering.

One may say the splendid result obtained is due to the Indian's magnificent physique, but the writer has obtained similar results in soldiers wounded after being greatly fatigued by following up trails in an Indian country, and who were four days' march from base of supplies, without suitable food or medication, with absolutely nothing but the application of the all-potent principle of primary antiseptic occlusion, and a splint of plaster-of-Paris to steady a compound fracture, which had to be conveyed for ninety miles in travois over a country that seemed made up of the odds and ends of creation. Here was a compound gunshot fracture of the humerus, an injury sufficiently ominous under the most favorable surroundings, not to mention the deprivations that beset this individual case; but the early occlusion robbed it of its serious omens by rendering it subcutaneous by an artificial skin, and thus transforming it into a simple fracture.

A wound so treated does not invoke the trinity of evils of many non-occluded wounds, namely, suppuration, granulation, and cicatrization. The robustness of the constitution is not so pertinent a factor in a simple fracture or in a compound one, that can be rendered subcutaneous, as in open wounds that drain away highly vitalized fluids; hence, in a weak constitution, the occlusive method is doubly to be desired.

I have a time or two congratulated a patient on his rapid recovery—all honor due to the occlusive method, which shut out the germs that would have tried a robust

constitution and might have caused a weak one to succumb—but invariably I have met with the self complaisant response: "Oh, doctor, I have such a good constitution, or I should not have recovered." Your constitution to the dogs! Aren't you an inveterate tobacco-user, haven't you had the clap now for the third time, and were you not under treatment for stricture at my hands, and bladder complications, when you were shot down!

I cannot forbear to translate here a few paragraphs bearing upon this most important method of treatment of gunshot wounds—the antiseptic occlusive, by which in doing so little so much is accomplished—from the admirable pamphlet of Karl Reyher, already quoted from:

"Where the conditions are suitable for healing *per scab*, it is of essential importance that the internal examination of the shot-canal be omitted, *i.e.*, that the already closed wound-canal be not again opened, and that its opening in the skin be occluded as quickly as possible. It is of only relative and subordinate value whether one permit the blood in the skin wound to dry up without a dressing, and thus allow the blood-crust—the blood-scab of Hunter—to become the antiseptic preventive against infection from without, or whether one, in order to hasten the drying up, make use of a particular agent, as clean charpie, wool, antiseptic gauze, or hæmostatic wadding; or, finally, whether one cover with protective the small coagulum filling the skin wound, and thereby assign to this the rôle of a scab. Since, however, the occlusion through the protective is not a complete one, as the coagulum lying underneath, for the time being, remains moist, the filling around with antiseptic materials must follow for the perfect protection against decomposition. The essential thing in all these different methods of treatment under the scab consists in the not-probing, in the not-draining, and in the occlusion of the skin wound, and the motive thereto lies in the principle of antisepsis."

And Reyher quotes from von Langenbeck's famous address, "Upon the Shot-fractures of Joints and their Treatment," as follows: "It one intends to adopt the conservative treatment of knee-joint injuries he cannot be too urgently warned against probing of the shot openings with the sound or finger."

Reyher gives his firm advocacy for occlusion in penetrating gunshot wounds of the thorax, and once applied the method successfully in a case of penetrating pistol-shot wound of the abdomen upon the duelling ground, in which the ball lodged in the parietes.

The writer has seen a case of penetrating pistol-shot wound of the lung and pericardium, complicated with pneumonia and pericarditis, recover under an occlusive dressing, *i.e.*, without drainage. Reyher declares that the beautiful results of the occlusive method of treatment of penetrating gunshot wounds of the chest are sufficiently well known, making it (at least) a justifiable procedure.

The method of hermetically sealing gunshot wounds of the chest was given a trial in the War of the Rebellion by Assistant Surgeon Howard, United States Army. It differs in some particulars from primary antiseptic occlusion, in which there is no paring or suturing or disturbance of the blood-crust. If the aspersions of Surgeon Derby, U.S.V., published in the *Boston Medical and Surgical Journal*,[1] are intended to apply alike to "hermetically sealing" and "primary antiseptic occlusion," the writer cannot free himself of the conviction that the language is too severe and the condemnation too sweeping. The language referred to appears in the following paragraph: "In July, 1864, it came in my way to see six cases at one time treated in this manner (hermetic sealing) at the field-hospital of the Eighteenth Army Corps before Petersburg. All six promptly perished. The verdict of army surgeons who have tried this method, I think, is unanimous. Can we not then be done with it—banish it from our books of military surgery, and let it rest with the multitude of exploded theories which have preceded it? A writer in the London *Lancet* some time ago clearly showed that it was unphilosophical. Experience has proved it fatal."

There is a class of gunshot wounds that may be considered unique, and in which, according to the teachings of the lamented J. Marion Sims and many surgeons now living, there is no time for folded hands, and from which cases operative surgery may snatch some of its brightest laurels. I refer, of course, to gunshot wounds of the abdomen. But we must not be unmindful here that we are treading upon hotly contested ground, and that many experienced surgeons assume in these cases an attitude of "expectancy."

A localized hypersecretion is the inevitable and legitimate result of the infliction of any wound. This serous transudation, when it takes place within the peritoneal cavity of the abdomen, seems for some reason more virulent than when it occurs elsewhere, and, according to the experience of J. Marion Sims, readily induces septicæmia and kills through septic blood-poisoning, and not from peritonitis. It fell to the writer's lot to take down notes in a case of post-mortem from gunshot wound of the abdomen, some five years ago, and he distinctly remembers of jotting down the fact, which seemed to him then foreign and irrelative, that the abdominal cavity contained a pint of bloody serum. Death was ascribed to peritonitis. We had not then learned that peritonitis does not kill in the rule; that the exudation of lymph was simply reparative or conservative.

In case, then, of a gunshot wound of the abdomen, especially when septic infection threatens, it would be held by many to be good surgery and a justifiable procedure—perhaps an imperative duty—to open the abdominal cavity, repair any damage done to its contents, and then thoroughly disinfect the cavity and close its parietes.

To the *Medical News* of February 14, 1885, Dr. William T. Bull contributed an article on "A Case of Gunshot Wound of the Intestines, treated Successfully by Laparotomy with Suture of the Intestines," which, together with its discussion before the New York Surgical Society, was full of suggestion and instruction.

It remains to consider the permissibility or non-permissibility of the occlusive method to shot wounds complicated with injury to a blood-vessel. If, in such a case, the hemorrhage is excessive, the blood spirting forth in a full stream, the only indication that exists is, of course, to go down into the wound and ligate and then disinfect and drain. But experience has established the clinical fact that a blood-vessel of large size may be seriously injured by a bullet in its course, and still give rise to no symptoms of hemorrhage, healing taking place per scab, and the diagnosis verified by post-mortem, death having resulted from some cause other than injury to the vessel.

In the writer's own case of gunshot wound of the chest (referred to in preceding paragraphs), the bullet passing just below the subclavian artery and making visible its pulsations, the possibility at least existed that, had the wound not been occluded, but disinfected and drained, the possibly injured coat of the artery might not have been able to recover itself, and by a process corresponding to caries in bone might have lost its vitality and induced secondary hemorrhage. Had such taken place in spite of occlusion, a key and assistant were at hand for employing instant compression of the subclavian behind the clavicle.

One more word for occlusion in gunshot wounds of the joints. The report already quoted from of the Surgical Committee of one of the State Societies contained also the emphatic but erroneous statement that "penetrating gunshot wounds of joints are invariably attended with suppuration." And surely we can say "almost invariably" when the surgeon has had recourse to the probe or finger, or bullet-forceps, but seldom when his

[1] Medical and Surgical History of the War of the Rebellion.

guiding precept has been[1] "*sans* probe, sound, or finger; *sans* extraction of bullet; *sans* drainage; *sans* everything except disinfection of the exterior of the wound, and occlusion of the same," at the earliest practicable moment after its infliction. By this method Reyher obtained beautiful results in penetrating gunshot wounds of the knee-joint (with projectile wedged into the condyle) preserving the function and mobility of the joint.

Much discredit, the writer fears, is brought upon this most admirable method of wound treatment—the primary antiseptic occlusive—by its misapplication to wounds manifestly unsuited for occlusion, by reason of infection, it may be, from foreign bodies, or from having previously been internally examined, or possibly from the nature and configuration of the wound itself.

If the wound is not a fresh and clean one; if the canal has not been shut off from the external world by shifting of the soft parts immediately that the injury took place; or if the wound-track, that has been virtually occluded from the start, is laid open now for the first time by the surgeon's examining finger; or if of necessity the surgeon must go into the wound for the purpose of ligating a bleeding vessel or of removing some palpable object of infection—let not such a wound be occluded. It is an open infected wound, and must be treated as such by drainage and disinfection. These should, if possible, in the interests of such wounds, be primary and radical. Here the maxim aptly applies, "What is worth doing at all is worth doing well." To insure a radical disinfection and subsequent complete drainage it may be necessary in one case to do a partial resection, in another to slit up pockets where fluids may accumulate or pus burrow, to remove splinters of bone, which, if allowed to remain, may intercept the drainage-canal, or it may be that the vitality of the parts is so threatened that drainage must be provided for conducting off large quantities of effete material when nothing less than the large amputation-cut itself may suffice.

The thoroughness of our efforts with which we should strive after complete drainage of infected gunshot wounds is exemplified in a case of compound fracture of the arm, with shattering to pieces of the os humeri from its surgical neck down to its lower epiphysis, causing the arm, to dangle by the side, the soft parts forming a sac in which the crushed fragments could be moved to and fro; other long spiculæ projecting from the patulous shot entrance.

The surgical procedure is thus related by Reyher:

"To the not little surprise of the bystanders I divided the soft parts of the arm in the sulcus of the long head of the biceps muscle, from the shot entrance down to the epiphysis of the elbow-joint, and thus laid bare the shot canal and fracture in its whole length. The wound surface, when the margins of the incision were spread out, was enormously great. In it lay, like a carpet, the separate fragments adherent to the periosteum. I took away those that were entirely released, I removed the blood from every nook and corner; drainage, antiseptic dressing, etc., all on the dressing-place. Healing complete in five weeks."

In gunshot wounds of the thigh where the canal of the projectile lay obliquely, and was hence of considerable length, the almost unsurmountable obstacles against securing adequate facilities for complete drainage quite discouraged Reyher in his attempt to secure through disinfection and drainage an aseptic course to such wounds. Hence his earnest protest and caution against the too ready resort to internal examination of these gunshot wounds of the thigh, when possibly by a judicious conservatism healing may be brought about under an occluding scab—so utterly bad is the prognosis in open shot wounds of the thigh.

On anatomical grounds alone the disinfection of joints and of epiphyseal fractures is much easier of accomplishment than of shot wounds of the soft parts or of the diaphysis of a bone. In the two latter cases the amount of blood poured out is absolutely greater than in the two former instances, owing to the relatively greater vascularity of the bellies of muscles and the shafts of bone through which the nutrient artery runs, than the almost bloodless condition of the tendons and component parts of a joint. Not only so, but—what is of more practical importance—the effused blood in a joint cavity is bounded and restricted by definite limits—the joint capsule; while in a diaphyseal fracture the blood may widely infiltrate the intercellular tissues and wallow beneath and among the muscular planes. How simple to puncture and evacuate the contents of a joint capsule, how many and what extended incisions may be required to cleanse a fracture of a diaphysis!

Seeing, then, that extensive incisions or a resection, or possibly an amputation, may be necessary to insure perfect drainage in an open gunshot wound, it is the duty of the surgeon to have in readiness instruments and dressings suitable for these operations, and on hand at the time the internal examination of a given wound is decided upon, so that these operations may proceed forthwith, immediately that they are found to be indicated, else the examination shall be to no purpose and may prove hurtful rather than beneficial. The partial resection of healthy and uninjured epiphyses of joints may have to be done, and how this can be effected so as to best conduce to drainage, can only be learned from an intimate acquaintance with the anatomical construction of each joint severally.

The clinical and didatic teaching of the subject of handling gunshot wounds—a subject of so great and preponderating interest and importance—should be afforded greater prominence in the curricula of the medical schools of our own country.

[1] Fort Gaston, Cal.

[1] The Medical Record, October 20, 1882. Article by the writer.

OBSERVATIONS ON SOME OF THE MORE UNCOMMON SYMPTOMS AND COMPLICATIONS OF MALARIA.[1]

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In offering the following remarks the writer is well aware that they are far from covering the entire subject of the complications and irregularities of malarial disease. He simply wishes to put on record a series of cases occurring in the course of his practice, which may serve to illustrate the subject denoted by the title of this paper.

1. *Hemorrhages.*—Epistaxis, more or less copious, I have seen in five cases of febris intermittens. It took place in the sweating stage and during the intervals of the malarial paroxysms, and was, in three of the cases, severe enough to require plugging of the nares. Frequent relapses were the rule until the fever was under control and the patient's general condition improved by tonics and change of air.

Of three cases of hæmaturia of renal origin which I have seen coming on with the paroxysm of intermittens, I will give the history of the following as particularly striking:

Major P——, from Georgia, aged fifty-eight, of apparently good constiution, and not, as far as he knew, suffering from malaria before he left home, came to this city in August, 1882. While here he would join his friends and go quite frequently to the horse races on Coney Island. In the afternoon of September 2d I was sent for to see him at his hotel. I found him free of fever, but looking pale, feeling weak, and complaining of pains in the hypochondriac and lumbar regions. During the preceding night he had passed at least a pint, he thought, of fluid blood with his urine, and had voided some more a few hours before I saw him. He had never done so before,

[1] Read before the German Medico-Chirurgical Society.

though he felt somewhat chilly the day before, he does not remember having had malaria for many years.

General examination and exploration of bladder negative. I had the patient put to bed, and prescribed a solution of gallic acid. Saw him again the next morning early. He had passed some more blood during the night, and had now a temperature of 102.5° F., head- and back-ache, etc. At noon he perspired freely, and his temperature became normal soon after. An acid solution of 3 ss. of quinine was administered in the course of the morning, and neither fever nor hemorrhage returned. The quinine was continued in smaller doses, and a week later the patient was able to return to his home in apparently good health.

2. *Hemorrhagic nephritis.*—Of the hemorrhagic form of nephritis in the course of and through the influence of malaria, I have seen but two cases, both in adults. Neither of them had any symptoms of renal disease; they contracted malaria before, but showed the unmistakable symptoms of hemorrhagic nephritis soon after.

In neither case was there much difficulty in eliminating the malarial element by the proper remedies and change of air. Nevertheless, the subacute nephritis passed into a chronic form of Bright's disease. Albumen and casts in small numbers can be found in the urine, and slight hæmaturia occurs from time to time. The man's case is now of three, the woman's of six years' standing. The late Professor Bartels, in "Ziemssen's Cyclopædia," lays much stress upon this grave complication or sequela of malarial disease.

In this connection I may also relate two cases of *acute purulent urethritis*, first coming on together with the malarial attacks in two young men. Both patients presented symptoms of neurasthenia of sexual origin, but were entirely free from gonorrhœal infection. The urethral discharge was painful and accompanied by frequent micturition, and gave them more uneasiness and discomfort than the malarial fever. Mild injections of sulpho-carbolate of zinc did no good, but quinine and Warburg tincture cured them of both evils. Of this rare freak of malaria, Bartels also mentions one or two instances.

3. *Malarial hæmatemesis.*—Of hæmatemesis, in all probability independent of gastric ulcer, I have seen one case. Mrs. W——, about forty-five years of age, stout, but strong and active, had been repeatedly under my treatment for recurrent attacks of parametritis of puerperal origin; her stomach had always been in good condition. Four years since, during her convalescence from one of these attacks, she was taken with intermittent fever, and in the algid state of one of the paroxysms vomited about six ounces of dark fluid blood, intermingled with some soft coagula. This was immediately followed by a dangerous collapse, which it took some hours to overcome by hypodermics of brandy and other remedies. Sulphate of chinin and bromide of sodium (āā gr. v.) given in wafers every two hours until thirty grains of each had been taken, prevented a relapse of the intermittens and the hæmatemesis as well. The patient had another attack of parametritis last year, associated again with malaria, but no bleeding occurred at that time.

I have the record also of two cases of intermittens, concerning young and somewhat delicate women, complicated by repeated paroxysms of rather severe hæmatemesis, which yielded to quinine only. In neither case had any previous symptoms of ulcer or other organic lesion of the stomach been noted.

Intestinal catarrh, characterized by frequent watery, slimy, sometimes bloody stools, and constituting the principal feature in certain cases of subacute malaria, I have seen quite often in children and young persons of both sexes. Of late I have given in such cases quinine and ipecac during the day, and from ten to twenty grains of salicylic acid immediately after meals, prescribing a careful regime as to diet, etc., and have had better success in relieving the patients rapidly, and often permanently, than by giving quinine alone or quinine or opiates, as I did in former years.

4. *Apneumatosis, i.e.*, more or less complete collapse of limited portions of pulmonary tissue in the course of bronchial catarrh, I have seen to accompany the acute or subacute forms of malaria in upward of thirty cases, concerning mainly children and adolescents. The clinical picture of this condition, one example of which will serve as an illustration of all the others, may be described about as follows: We are treating a case of malaria in a child of neither robust nor exactly delicate condition; the patient is better of the fever, but troubled with a slight cough accompanied by little, if any, expectoration; no constitutional disturbance, none of the signs of capillary bronchitis or pneumonia are present; yet we examine the thorax carefully, and find pretty well marked bronchial respiration, posteriorly, above and below the spina scapulæ, on one or both sides. The percutory sounds are not in harmony with the auscultatory phenomena; they may be somewhat dull, but are more often only shorter, of higher pitch, and less full than the normal non-tympanitic sounds. The patient has no dyspnœa. After being relieved of malaria and improved in general health, the bronchial breathing diminished in force and extent rapidly, or more often slowly, and finally gives place to the normal respiratory sounds. It may be two, three, four, and more weeks before this is accomplished, but in every case of this kind—uncomplicated by organic disease—I have observed complete recovery as the final result. Not until I had read a short article on apneumatosis in general, in "Reynolds' Encyclopædia," could I get rid of the bugbear of some alveolar exudation or peribronchial inflammation in trying to understand the above disturbance of the respiratory organs. It is simply a mechanical process, the inspiratory current not being strong enough in such patients to overcome the obstruction caused by the presence of viscid catarrhal secretion in the smaller bronchi, the alveolar residual air becomes gradually exhausted, and a certain area of lung tissue is rendered apneumatic, and more or less completely so.

With the recurrence of respiratory vigor and the removal of the liquefied catarrhal secretions, the collapsed lung tissues are gradually reinflated and brought back to the normal condition. That apneumatosis may occur in the course of constitutional disturbances other than the malarial, I do not deny; I simply want to put it on record that I have seen what I described much more often in the course of that disease than of any other. In the treatment of it, after careful elimination of the malarial element by chinin and stimulants, I have found the tepid half-bath, with cool affusions of thorax, lung gymnastics, fresh air, and tonics containing iron, bark, and strychnia the most serviceable remedies to facilitate recovery.

5. *Sexual disturbances in women.*—With reference to disturbances of the reproductive system in women affected by malaria, I have seen abortion directly traceable to that cause several times, and have on record the case of a strong and healthy woman, the mother of healthy children, who suffered two premature deliveries and came near losing her life by uterine hemorrhage during parturition. All other causes of miscarriage have been excluded in this case. I also remember the case of a woman suffering from intermittens going to her full time and giving birth to a female child that showed unmistakable symptoms of its mother's disease during the first two weeks of its life.

That intermittens will frequently attack lying-in women in malarial districts, and if so, produce rather formidable paroxysms, has been well shown by F. Barker and others, and is often seen by practitioners in this city and vicinity, and generally successfully treated by large doses of chinin together with the bromides.

6. *Disturbances of the cerebro-spinal system.* — The cerebro-spinal system may get into a state of asthenia in those suffering from malaria for some time, particularly

in neurotic or debilitated constitutions. I have seen several such cases of malarial neurasthenia, and found a change for one or two months to the sea or mountains—the selection to be made suitable to the individuality of the case—most beneficial in the restoration of these cases.

Intermittent neuralgias are by no means rare. They affect with preference branches of the fifth pair, particularly the supraorbital, but may also select the sciatic nerve. An efficient dose of aloes and jalap, followed by quinine, grains 15 to 20 to 30, with as much or more of bromide of potassium two or three hours before the attack, I have found most serviceable to effect a cure. A somewhat prolonged course of pil. ferr. cinchonid. et arseni will probably insure the patient against relapse.

A few cases of insanity traceable to malaria have been published, but malarial psychosis in persons free from acquired or inherited neurotic disposition is rare. In this connection I have the history of the case of Henry R——, aged forty, German, married, plumber, twenty years in the United States, resident of Hudson City, N. J., for fifteen years. No hereditary taint, no acquired disposition to cerebral disease by trauma or alcoholism or otherwise was made out; both his parents alive and well, his sisters and brothers also. He contracted intermittens in 1878, suffered frequent relapses, and began to show symptoms of acute insanity about January 1, 1882; became maniacal, and was removed to the New Jersey State Asylum, where he died on January 24, 1882.

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Progress of Medical Science.

Abscess of the Abdominal Wall, containing the Rib of a Rabbit, healing without Intestinal Fistula.—Dr. Jagot reports (*Le Progrès Médical*) that a patient came to him with two pouting fistulous openings in the left groin; there was here also an inguinal hernia. Some two years before, the patient, a baker, aged forty-seven years, was taken with cramps while at his work; this was followed by vomiting; he was confined to his bed for several months. An abscess formed in the location mentioned, was opened, but had never healed. On probing, a foreign body was felt, and with dressing-forceps two pieces of bone were removed, together six centimetres in length, which proved to be the rib of a rabbit. Patient was at the time obliged to eat his meals hurriedly. In five days the fistulæ was closed, and a complete cure followed. The hernia may have assisted in the arrest of the bone; localized peritonitis followed, abscess of the abdominal wall, etc. The fistula discharged at no time anything but pus.

Blackwater Fever.—We are indebted to French naval surgeons for almost all we know of this particular form of fever, which they describe under various names—*e.g.*, *Fièvre bilieuse melanurique*, *F. pernicieuse ictérique*, *F. bilieuse nephrorrhagique*, *F. ictrodes remittens*, etc. English writers on the diseases of tropical climates are singularly silent on the subject. Dr. Farrell, acting colonial surgeon of the Gold Coast Colony, whose pamphlet is printed for the government of the colony, gives a very good account of this fever, with cases and temperature charts. He strongly maintains its paludal or malarial origin. The peculiar clinical features of the fever are that it only attacks those already deteriorated in health. It is very often preceded by simple attacks of intermittent fever, with progressive anæmia and sallowness. The onset is invariably sudden. The quality of the vomit and urine is peculiar. The jaundice is uniformly distributed, not in patches of varying degrees of intensity; it is seen from the very first onset of the disease, and varies with the general condition. The type of accompanying fever is remittent or intermittent, even in the worst cases. The appearance of the face is dejected; the conjunctiva is yellow, but not injected. There is tenderness of the gastro-hepatic region. The pulse follows the fever. It is not contagious. In all these respects it differs from yellow fever. The urine gives no reaction of bile; but, on the contrary, the spectrum of hæmoglobin. Microscopy shows a few altered blood-corpuscles, amorphous granules, a few epithelial casts, triple phosphates, and acid urates. Heat and nitric acid give a variable proportion of albumen. Sodium chloride and acetic acid show the characteristic crystals of hæmatin. The prognosis is necessarily grave. As regards treatment, the author recommends large doses of quinine, calomel at the onset, and occasionally afterwards, in doses of from ten to twenty grains, not only for its action on the liver and as a sedative on the stomach, but as an antiseptic, which may serve to minimize the self-infection which is apt to occur in fevers of this kind.—*London Medical Record*, July 15, 1885.

Postural Method of Treating Dilatation of the Stomach.—Dr. Tytler records the case of a woman who suffered from excessive dilatation of the stomach, producing attacks of vomiting every two or three days. The author tried various remedies to give relief, but none succeeded, until he made the patient lie on her back for two hours after every meal, with a small pillow placed below the buttocks, and kept her on a diet of milk and beef-tea. The vomiting attacks soon ceased, and after a time the patient went about as usual, wearing a tight abdominal belt, and continuing the postural treatment. In the course of a few months her health was completely restored. The *rationale* of this treatment is obvious. Owing to the relaxed and flabby condition of the walls of the over-distended stomach, the food, by its weight, caused a bulging below the level of the pylorus. When the lower end of the abdomen was elevated, the contents of the stomach were brought on a level with the pylorus, and thus they passed on in the natural way.—*British Medical Journal.*

Amount of Sugar in Blood.—Dr. Otto finds arterial blood richer in sugar than venous, the total reducing agent being the same in both, so that there is a reducing agent in blood in addition to sugar. There is a marked increase in the reducing agent contained in the blood of persons under the influence of chloroform, chloral, and morphia. The blood of the child at birth contains about the same quantity of sugar as that of its mother.—*Pflüger's Archiv.*

Nocturnal Incontinence of Urine.—Dr. A. L. Ebermann, of St. Petersburg, in discussing the pathology and treatment of noctural incontinence of urine in children, insists on the necessity of a strict individualization of the cases. He divides the latter into five categories: 1. Incontinence of urine from failure of sphincter; 2. Incontinence from increase of contractile strength of the detrusor; 3. Incontinence from diminution of capacity of the bladder, which diminution results from the patient's adhering to the infantile habit of very often voiding urine; 4. Incontinence from atony or hyperextension of the bladder; 5. Incontinence from irritation of the vesical cervix by stones. The first variety of the cases may be recognized on the ground of—*a*, inability of the patient to retain urine also during daytime; and, *b*, easy penetration of a *bougie à boule* into the bladder. The second form may be determined by—*a*, powerful ejection of water injected into the bladder; and *b*, pain felt by the patient when he tries to retain urine in presence of a call for micturition. The third category is diagnosed also by means of injecting water into the bladder; when the capacity of the bladder is diminished, the viscus admits only a certain small quantity of fluid, corresponding to the usual quantity of urine voided by the patient at a time; on injection of a surplus, the fluid flows back more or less rapidly, according to the degree of pressure on the piston of the syringe. Atony of the bladder is easily recognized from the escaping of a large

quantity of urine through a catheter introduced immediately after spontaneous micturition. The fifth group of the cases is diagnosed by the sound. As to the treatment, Dr. Ebermann recommends for the first group the administration of nux vomica or strychnine, the ascending *douche* to the perinæum, and, above all, electricity in the shape of faradization, or, in obstinate cases, interrupted galvanization, the cathode being placed at the perinæum, the anode at the hypogastrium or sacrum; for the second group, belladonna in increasing doses (beginning with 6 centigrammes five or six times daily); still better, chloral, and in anæmic children solution of perchloride of iron; for the third group, exercise of the patient's control over the bladder, intravesical injection of warm water in gradually increasing quantities; for the fourth, frequent catheterization, vesical injection of water, and electrization; for the fifth, lithotomy or lithotrity.—*London Medical Record*, July 15, 1885.

Rupture of the Aorta.—Two cases of rupture of the aorta are reported in the *Bristol Medico-Chirurgical Journal*, July, 1885. The first case, recorded by Mr. A. Prichard, was that of a man, aged fifty-eight years, who, while turning round in bed in the middle of the night, felt something give way in his chest. He became sick and faint, and continued so until he was seen the next afternoon, when the vomiting was accompanied by the ejection of a thin bloody fluid. The surface of the body was cold and the patient was collapsed, yet restless, like an individual suffering from hemorrhage. Death took place the next day. At the autopsy the pericardium was found to be distended with clotted blood, and a rent was detected in the convexity of the arch of the aorta. The rupture was an inch and a quarter long. The edges of the rupture of the outer and middle coats were ragged, but the division of the inner coat was clean cut. There was no notable dilatation of the aorta, but the tissues were thin and soft, and some apparently fatty patches were seen through the lining membrane. There was no general atheroma. The heart was large and flabby, and infiltrated with fat externally. The cardiac valves were healthy. The second case, reported by Mr. Paul Bush, was that of a young postman, aged eighteen years, who had been rowing and was sitting down in the end of the boat, when his companions noticed that he looked very ill. Death took place before he could be put ashore. There was no blood in the pericardial sac. The heart weighed nearly fourteen ounces. The muscular walls, valves, and orifices appeared to be healthy. A rupture was found extending through the internal and middle coats of the aorta immediately above the anterior aortic valve. The rent appeared to start from this site and spread spirally round the aorta in an ascending direction; its entire length was equal to one complete circumference and a quarter. The fibrous coat of the great vessel had been separated from the middle coat, both upward and downward. Sections of the aorta and cardiac substance appeared to be normal when examined microscopically.

Puerperal Convulsions without Albuminuria.—Dr. N. Vuccino gives the case of a lady usually enjoying excellent health, except for occasional hysterical attacks, who in the fourth month of her first pregnancy was seized with a severe frontal hemicrania of quotidian type. At the end of the sixth month she was awakened one night with intense pain in the head, followed by a slight convulsion affecting the upper extremities. In the morning the writer found her suffering from general convulsions, consciousness being lost, and a bloody froth issuing from the mouth; the pulse was small and hard; but the urine was then, and continued to be, perfectly normal. Various methods of treatment having proved fruitless, it was decided to bring on the labor, which was done by injecting hot water (32°). After this had been continued for three hours and a half, the os uteri became fully dilated, and a dead child was shortly afterward expelled. The convulsions ceased as if by magic, and in twelve days she was able to resume her household occupations. She afterward enjoyed good health till the eighth month of her second pregnancy, when convulsions reappeared with greater intensity than before. Chloral and chloroform proving inefficacious, the continual hot vaginal douche was again employed. In consequence of the irregularity of the contractions of the uterus, forceps were required. The convulsions ceased five hours after delivery, and in seventeen days she was again in her normal condition. She subsequently became pregnant for the third time, and during the second month suffered from some premonitory convulsive symptoms, which were increased by vaginal examination; these came to an end on the patient aborting. The author considers the case interesting, as showing how convulsions, due, as he believes, to a highly nervous condition of the uterus, may simulate those connected with renal and urinary mischief. —*The Lancet*, July 18, 1885.

Death from the Sting of a Bee.—The *Medical Press*, July 15, 1885, announces that an ironmonger died recently from the sting of a bee, which attacked him while walking in his garden a fortnight previously. The insect stung the deceased in the neck, and soon afterward the parts swelled considerably and progressively, with the result given. It is rare for such accidents to have a fatal termination, though it is not difficult to conceive such a constitutional state as should render any one so poisoned locally liable to risks affecting even life itself. In this case, probably, inflammation extended along the lymphatic system into what Mr. Bryant very properly terms the dangerous region of the neck, where œdema and possibly suppuration into the cellular tissues around led to interference with the respiratory process.

Latent Pericarditis and Sudden Death.—Drs. Sturgess and Wilkin report a case of fatal pericarditis in which the symptoms were so latent and obscure (*The Lancet*, July 25, 1885) that no suspicion of disease was entertained up to the moment of death. Harry E. B——, a dark, rosy-cheeked boy, aged seven years, and one of a large family, with a perfectly healthy history, had never suffered from rheumatism, scarlatina, or in fact from any illness except chicken-pox, and was accustomed to indulge freely with his brothers in athletic games, no suspicion having ever crossed the minds of his parents that he was not in perfect health. On May 6, 1884, after returning from morning school, he dined heartily at 1 P.M., and immediately afterward commenced to play cricket. This he continued to do until it was time to go to afternoon school, about 2.15 P.M. He then ran with two of his brothers a distance of about a quarter of a mile, and on arriving in the playground he suddenly fell down. The master, who saw him fall, ran to pick him up, and, finding he was insensible, carried him into the house and laid him flat on a table, undoing his collar and bathing his face with cold water, while medical aid was sought. Dr. F. Sturgess arrived about five minutes afterward and found him apparently dead, and, perceiving the many difficulties of the case, sent for Dr. Wilkin, meanwhile performing artificial respiration by Silvester's method. A few minutes later Dr. Wilkin arrived, and after about ten minutes artificial respiration was given up, there being no sign of returning life. The physicians were told that the boy had breathed heavily two or three times after he fell. This fact negatived the momentary surmise of possible complete occlusion of the larynx by some foreign body. Death from the brain must also be excluded in a subject so young. Sudden failure of the heart's action was therefore the only conclusion they could come to under the circumstances. But why the heart should fail in this boy, who looked the picture of health and vigor, they could not explain, and there was no history or reason to suppose he had sustained any blow or shock over the solar plexus. At the autopsy, on opening the abdominal cavity a full stomach was found; the colon was distended with flatus, and the sigmoid flexure was

loaded with fæces; the kidneys and other abdominal organs appeared healthy. On opening the pericardium a fibrous band was found, about an inch broad and the same in length, forming a connecting link between the left apex of the heart and the pericardium, covering the surface of the diaphragm. Numerous other string-like adhesions were seen, particularly on the left side and base of the heart, and there was also some recent lymph, but no serous effusion. These bands were evidently of recent date, as the heart required careful handling to avoid breaking them down. The left ventricle was decidedly hypertrophied, making every allowance for rigor mortis; it was completely empty, as was also the left auricle. The right side of the heart contained some liquid blood, but there was no clot either there or in the pulmonary artery. The valves were all perfect, and there was no endocarditis. The lungs were normal in every way. The cranium was not opened. They were not able to obtain any urine for examination, though there was no reason to suppose it would have given anything but negative results. The immediate cause of death in this case must no doubt be attributed to defective innervation of the heart, which was very greatly embarrassed, not only by the adhesions and impediments within the pericardium, but also by the loaded and distended condition of the abdominal organs, and thus it succumbed under the unfortunate strain it was subjected to.

Bicarbonate of Soda in Tonsillitis.—In the *Australasian Medical Gazette* Dr. Kendall, in referring to this subject, says that he has been in the habit of using the drug for the last four years, and as yet it has never failed to pròduce a good result. The remedy was introduced to the profession by M. Gine, of France. He claimed that by the use of the drug he was able to cut short an attack of tonsillitis twenty-four hours after the application of the powdered salt to the tonsil. Such a rapid cure has, however, never occurred in Dr. Kendall's practice, but he has had very good results in thirty-six hours and forty-eight hours, although in elderly people the attack has lasted five or six days. The drug is, he thinks, well worthy the attention of the profession on account of the absence of baneful properties, and is without doubt useful in cases of inflammatory sore throat due to the influence of cold on an exhausted nervous or muscular system.

Congenital Tuberculosis.—Professor Johne remarks that, though the occurrence of tuberculosis had often been observed, both in the human infant and the calf, so soon after birth as to lead to the conclusion that it was inherited from a parent known to be tuberculous, it had rarely been possible in the human subject to obtain a *post-mortem* demonstration of the presence of the bacilli early enough, or, in either case, to otherwise exclude the possibility of extra-uterine infection by means of the milk. The author having requested a number of his friends to send him any fœtuses of tubercular cows that might come under their notice, received, on February 20th, of this year, from Mr. Misselwitz, a veterinary surgeon at Chemnitz, the lungs and liver of an unborn fœtal calf, in the eighth month of intra-uterine life, whose mother had been slaughtered on account of advanced pulmonary tuberculosis. In answer to his inquiries, Mr. Misselwitz assured Dr. Johne that the uterus and placenta were free from the least trace of tubercle, and that all the fœtal organs, with the exception of the lungs and liver, were quite healthy. Dr. Johne found the lungs of normal size, color, and consistence throughout, except that in the hinder side of the upper lobe of the right lung there was a yellowish-gray well-defined nodule, of the size of a pea, the overlying pulmonary pleura being somewhat clouded; and on section, four more nodules, not larger than millet-seeds, were seen, cheesy, and partly calcified, embedded in a grayish, firm, and apparently homogeneous material. The bronchial glands, larger than hazel-nuts, were mottled superficially, and filled with cheesy, partly calcified yellowish nodules, of the size of small peas. The liver, otherwise normal, was studded throughout with countless miliary tubercles, the smaller gray, the larger cheesy within and partly calcified externally. The condition of the portal glands was the same as that of the bronchial glands, though more advanced. The naked-eye appearances were unmistakable; but the microscopic examination and staining of the various preparations displayed in the most characteristic manner the typical structure of bovine tubercle, as well as the presence of the bacilli in the giant-cells, and most abundantly where the caseated parts were in contact with the outer layers of epithelium-cells. In no part were any spores detected. Dr. Johne believes that this is the first unequivocal case of intra-uterine tuberculosis on record; even Dr. Croker's case, three weeks after birth, having been conceivably one of infection. The more advanced state of the tubercular process in the liver and adjacent glands than in the lungs would naturally follow the entrance of the bacilli with the placental blood by the umbilical vessels. Dr. Johne supposes that they were transported from the maternal to the fœtal circulation through the walls of the placental vessels, by the penetration of the latter by the leucocytes in which they were contained. Soon set free by the breaking down of the leucocytes, they lodged themselves in the lymphatic structures around the portal vessels, setting up multiple tubercles, comparatively few being carried onward to the lungs, and there only at a later period.—*London Medical Record.*

Antidotes for Strychnine.—Lewin states that nitrite of amyl is not a true antidote to strychnine, it only retards the fatal issue, and as soon as its effects pass away the tetanic spasms recur. Faucon and Debierre have recommended the employment of iodine and of tannin. These drugs form, with strychnine, a very slightly soluble substance, so that the action of the poison is suspended for a time. Then an emetic can be administered, and immediately afterward hydrate of chloral. The latter can be given in very large doses. Faucon and Debierre gave, in one case of strychnine poisoning, nearly two ounces of chloral in the course of fifty-nine hours.—*Annales de la Société Médico-Chirurgicale de Liège*, July, 1885.

Resection of the Ankle.—Dr. P. Liebrecht, of Liège, describes an operative procedure which he has recently devised for resection of the tibio-tarsal articulation in cases of fungous arthritis (*The London Medical Record*, July 15, 1885). The methods that have hitherto been practised are all, he states, attended with much labor, in consequence of the difficulty in exposing and dividing the numerous ligaments of the ankle, and are apt to cause injury to the tendons, vessels, and nerves around the joint. The following is a description of the author's method, which, however, has up to the present time been performed only on the cadaver. The skin incision is made from the middle of the posterior border of one malleolus to the middle of that of the opposite malleolus. The tendo Achillis is then divided on a director. A second division, perpendicular to the first, is now made along the inner border of the tendo Achillis. This is about two and one-half inches in length, and, passing downward, almost reaches the inner tuberosity of the calcaneum. The soft structures between the tendon and the bone are now dissected away, so as to expose the capsule of the joint and the posterior peroneo-astragaloid ligament. On excision of these ligaments, the astragalus and the lower extremity of the tibia are exposed to view, and also the line of articulation between these bones, and, below this, the astragalo-calcanean line. The tendon of the flexor longus pollicis is then displaced inward from the posterior surface of the tibia, and all the tendons, vessels, and nerves situated behind the two malleoli can now be easily pushed forward, so as to expose the whole of the posterior aspect of the joint. If the bones be hard, as is mostly the case in the cadaver, the

posterior surface of the astragalus, at one of its borders near a malleolus, should be attacked with chisel and mallet. A notch should first be made along the whole width of the bone, so that by subsequent action of the chisel the upper portion of the astragalus may be removed in one piece. If necessary, one or more slices of bone may be afterward removed. The end of the tibia, if diseased, may be excised in a similar manner. If the diseased bone be very soft, it may be scooped away. The articular surfaces of the malleoli having been exposed, they may be scraped or removed with the chisel. The lateral ligaments may now be divided with a blunt-pointed bistoury. If any fragments of the astragalus remain adhering to the capsule or ligaments, they should be torn away with forceps. A large cavity is thus formed, at the bottom of which is found the articular capsule of the front of the foot, which may be readily scraped, or, if necessary, excised with scissors. If the loss of bone be not very great, and particularly if the malleoli have been partially preserved, the cavity may be left to become filled up by granulations; and then, after recovery, the patient will have a foot that is almost normal. When it has been found necessary to remove much bone, the opposed osseous surfaces of the leg and tarsus should be fixed together, so as to attain osseous ankylosis. Finally, the divided extremities of the tendo Achillis and edges of the external wound should be brought together by sutures. Dr. Liebrecht claims for this operation the following advantages: It does not cause any serious primary lesion, or necessitate any useless sacrifice; the soft parts and the periosteum are not bruised in the course of the operation. It offers more chances than the other methods of preserving a limb of normal form, and better assures the integrity of its functions. It may be easily and quickly performed. Owing to the position of the wound, the discharge of secretion will be effected without any difficulty, and the process of repair will be carried on much more rapidly.

Destruction of the Cochlea without Loss of Hearing.—The loss of the cochlea is usually supposed to be equivalent to a complete loss of the power of hearing, but a case related by Grüber to the Vienna Medical Society would seem to prove that this is not so. A youth, fifteen years of age, came under Professor Grüber's care on account of chronic otorrhœa and polypi in the left ear. He had much pain, and there was paralysis of the left facial nerve. The polypi were removed, and during the operation the necrosed cochlea also came away. Soon afterward the patient's condition began to improve, pain ceased, and the facial paralysis diminished. The left ear not only regained the power of recognizing sounds, but even of distinguishing musical notes. Two similar cases have been reported, one by Cassels, of Glasgow, and the other by Christinneck, of Halle. The labyrinth has hitherto been regarded as a sort of *noli me tangere*, but these cases prove that the entire cochlea may be lost, and still the power of hearing be preserved. —*Gazetta Medica di Roma*, July 15, 1885.

Tricuspid Stenosis.—Professor Torres Homem relates, in the *Revista dos Cursos Praticos e Theoricos do Rio de Janeiro*, vol. i., No. 1, a very rare case of stenosis of the right auriculo-ventricular valve unassociated with insufficiency. The patient was a man, thirty years of age, who had suffered from two attacks of acute articular rheumatism, and was also a hard drinker. He had never had syphilis nor any pulmonary affection. He was obliged to handle heavy sacks of coffee, and on one occasion, after severe muscular effort, he noticed a slight œdema of the lower extremities. This continued to increase until, at the time of admission to the hospital, there was excessive general anasarca of the entire body. Dyspnœa was not very pronounced, and there was no severe cough. A few subcrepitant râles could be heard at the base of both lungs. The urine was free from albumen. The pulse was small but regular. The jugular veins were large, and undulatory movements were noted in them, but there was no true venous pulse. There was a very pronounced increase of the precordial area. On auscultation a short and plainly diastolic murmur was heard during the first two days of the patient's stay in the hospital. But on the third and subsequent days, up to the time of his death, the murmur was presystolic, being heard just at the end of the period of rest, and immediately before the commencement of the ventricular systole. Its seat of maximum intensity was just at the union of the sternum with the ensiform cartilage, and was propagated along the right of the sternal border and slightly also to the left. Nothing else abnormal could be heard in any part of the heart. At the autopsy there was found to be a fibro-cartilaginous ring encircling the base of the tricuspid valve, narrowing it so as hardly to admit the extremity of the little finger, but there was no insufficiency. The other valves were normal. The lungs were œdematous. This case is very interesting as a pathological curiosity, for uncomplicated stenosis of the tricuspid is such a very rare lesion that both Peter and Constantin Paul have denied its existence, and other writers have expressed doubts as to its possible occurrence.

Treatment of the Hysterical Attack.—Dr. Albert Ruault relates, in *La France Médicale* of July 25, 1885, a simple method which he has found very efficacious in controlling an hysterical fit. It consists in making firm and constant pressure over the supraorbital nerve at its point of emergence from the supraorbital foramen. The head is held securely between the palms of the hands, while pressure is made over the nerve on each side with the thumbs. The writer says that the patients under this treatment first contract the facial muscles with an expression of pain, cry out, and then take several quick successive inspirations. The breath is held for a few seconds, and then, with a long expiration, the muscles relax, and the attack is ended. The pressure of the thumb should now be relaxed, otherwise it may have the opposite effect and excite another convulsion. Pressure over any nerve-trunk at the point where it becomes superficial will have the same effect; but the supraorbital nerves are chosen because of their convenient situation.

The Differential Diagnosis between Indurated Chancre and Herpes.—It sometimes happens that herpes of the penis presents itself under the form of a single patch of superficial ulceration, accompanied by some induration of the underlying tissues; there may be also a swelling of the inguinal glands, so that the diagnosis between this so-called chancriform herpes and some forms of indurated chancre is very difficult in the early stages. Dr. Leloir, however, calls attention to the fact that when a herpetic ulcer is pressed between the fingers a drop of serous fluid is squeezed out (*The British Medical Journal*). This manipulation can be repeated several times with the same effect; in the case of chancre, on the contrary, a little fluid is seen on the surface, but the quantity is not increased by pressure. When the base of the herpetic ulcer is indurated, the hardened tissues can be flattened between the fingers, while, in chancre, no amount of pressure can change the shape of the nodule. This difference is explained by the fact that in herpes there is a localized œdema of the tissues, while in chancre the chief lesion is a hard infiltration, sometimes accompanied by sclerosis of the connective tissue and of the vessels.

Bedside Testing for Albuminuria.—Mr. G. P. Best describes, in the *British Medical Journal*, an ingenious plan for testing urine. He dips a syringe into the chamber-utensil and draws up a small quantity of the urine, and then, inserting the nozzle of the syringe into nitric acid, sucks in a drop or two of that fluid; the well-known hazy line at the touching point of these two fluids indicates the presence of albumen.

Poisoning by Extract of Conium.—*The Lancet*, July 25, 1885, gives the following account of a case of poisoning by conium. It concerned an infant, aged eight months, who, with the exception of irritability from teething, was in good health at the time the fatal dose was given. To allay the fretfulness, a physician ordered a mixture containing one drachm of extract of conium, one drachm of bromide of potassium, and an ounce and a half of chloroform water, one tablespoonful to be given every four hours until sleep was induced. The prescription was taken to a chemist's, who, recognizing the unusual dose for so young a patient, contented himself with cautioning the father against giving too much of the mixture, remarking at the time that "no doubt the doctor meant a *tea*spoonful, and not a *table*spoonful." Accordingly, a drachm of the mixture was given at eight o'clock P.M. The effect soon became manifest, and by half-past eleven the symptoms were so alarming that another physician was hastily summoned. On his arrival he found the lower extremities completely paralzyed, occasional twitchings of the arms and head, but no decided convulsion, marked dilatation of the pupils, lividity of the face, and diaphragmatic breathing. At that period he appears to have recognized the hopelessness of the case. Mustard poultices were applied, and attempts made to induce vomiting, but without effect. Death occurred at three A.M., on the following day, seven hours after the medicine was taken. There was no vomiting. At the inquest, the physician first in attendance admitted that he had made two mistakes in the prescription: first, in writing a tablespoonful instead of a teaspoonful for a dose; and, secondly, in ordering the extract of conium instead of the succus. He could in no way account for this. In his opinion death was due to asphyxia from idiopathic convulsions, and not from the action of the drug. He quoted from the writings of Harley and Farquharson to show that the *extract* is comparatively inert and totally unreliable. Mr. Pepper, who conducted the post-mortem examination, and analyzed the mixture and contents of the stomach, deposed that the body was well-nourished and showed no traces of organic disease. The organs generally were much congested. The brain presented marked increase of serous fluid in the ventricles and beneath the arachnoid. The membranes of the spinal cord were strongly injected. The right side of the heart was distended with semi-coagulated blood. The bases of the lungs were gorged with blood, and the surface marbled with patches of congestion, collapse, and acute emphysema. The surface of the liver presented numerous groups of punctate extravasations. The bladder was empty. The alimentary canal was free from all signs of irritation. In the stomach were about eight ounces of thick, grayish-yellow, pultaceous matter, consisting, apparently, in chief part of altered milk. There was no noticeable odor beyond the ordinary sour smell of gastric contents. On adding some liquor potassæ, and boiling, however, a strong smell like that of mice was developed. An ethereal extract yielded on evaporation green oily drops, consisting of vegetable coloring matter and the alkaloid conia. The latter gave, with hydrochloric acid, an abundance of acicular and stellate crystals. Several other tests furnished affirmative results. Mr. Pepper, whilst admitting that the extract of conium was of uncertain composition, and therefore untrustworthy in its administration, and, further, that a much larger quantity than the officinal dose was required to produce the characteristic effects, could but conclude from the evidence tendered by Mr. Freeman, the physician last in attendance, that the actual cause of death was asphyxia from paralysis of the respiratory muscles. The maximum dose for a child eight months old would be about one-twelfth that for an adult; consequently the deceased took ten times the full quantity ordered by the Pharmacopœia. The fact that the stomach contained a considerable quantity of food explains the somewhat protracted course of the symptoms, whilst the absence of vomiting conduced to the fatal issue. *The Lancet* believes that the above is the first recorded case in which death has ensued in the human subject from an overdose of any of the authorized preparations of conium.

Respiratory Croaking of Babies.—Dr. Samuel Gee has seen about a dozen cases of what he calls respiratory croaking in babies ("Saint Bartholmew's Hospital Reports," vol. xx., 1884). Breathing is accompanied by a croaking noise, which seemed to Dr. Gee to have the characters of stertor more than of stridor; or, in other words, the sound seemed to be produced in the fauces and not in the larynx. The croaking usually accompanies inspiration only, but in one of the cases it accompanied expiration only. The noise is constant, both when the child is awake and when she is asleep; yet it may cease for a short time now and then. The tone of the cry is natural, and this is another reason for believing the noise not to be laryngeal. No dyspnœa, no recession of chest-wall during inspiration. Fauces look natural. The noise continues when the nose is pinched. The croaking has nothing whatever to do with the crowing of laryngismus stridulus; the two disorders resemble each other in no respect, except that there is a noise produced in each. The ages of Dr. Gee's patients ranged from three to nine months. It is a remarkable fact that all of them were girls. The general health of some of the children was good, but most of them were weak and sickly. Two children suffered from congenital disease of the heart, and one was an idiot. In some of the children this croaking began at or soon after birth, and in no case did it last much beyond the end of the first year. There is no special treatment; indeed the disorder causes more annoyance to others than to the child herself.—*The Boston Medical and Surgical Journal*, August 13, 1885.

Changes in the Eye in Cholera.—Even in the early stages of cholera there is cyanosis of the eyelids, and when this condition becomes general it is always more marked in the lids. Difficulty is experienced in closing the eyes, and there is almost always a space between the upper and lower lids, leaving exposed a portion of the sclerotic. The lachrymal secretion is greatly diminished, so that even in the agony caused by the cramps no tears are seen to flow. In all grave cases in which palpebral occlusion is difficult there is an injection of the lower portion of the conjunctiva corresponding exactly to that portion which is left uncovered by the lids. In the stage of reaction there is sometimes seen a general hyperæmia of the conjunctiva, due to the presence of an actual catarrhal inflammation. Dr. Joseph has occasionally observed ecchymoses in the inferior portion of the conjunctiva, which he has learned to regard as foreshadowing a fatal issue. In some very severe cases, toward the end of the algid stage, a lesion is seen in the lower portion of the cornea, which may be regarded as a partial necrosis. There is a loss of substance in the cornea, producing a small round ulcer of a gray opacity, which may increase later. Graefe regards this as a neuro-paralytic keratitis. Of fatal prognostic import are the black or dark-bluish spots in the sclerotic along the inferior border of the cornea. They are of irregular shape and may be discrete or confluent. These are independent of the ecchymoses in the conjunctiva and may appear suddenly without any previous conjunctival affection, and even in parts covered by the lids. In the algid stage, according to Graefe, the pupils are moderately contracted, a phenomenon which he attributes to paresis of the sympathetic. Finally, the alterations observed in the retinal circulation consist in an extreme contraction of the arteries. The veins are indistinct, but unchanged in their calibre. There is, however, never complete ischæmia of the retina, and it is uncertain whether the transitory blindness, occurring at the commencement of the algid stage, can be explained by the changes in the retinal circulation.—*La Crònica Médica*, July 20, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, September 12, 1885.

ENDOWMENTS FOR MEDICAL INSTITUTIONS.

IN an article published in the September number of the *Popular Science Monthly*, under the title "The Present Aspect of Medical Education," Dr. William Gilman Thompson makes an earnest plea for the endowment of medical institutions, and he gives us some interesting statistics on the topic, abstracted from various educational reports of recent date. The history is traced of the emancipation of exact medical science from the superstitions of mediæval times, and there is shown the wonderful revulsion of public opinion which has occurred in regard to some of the aspects of practical medical work. One hundred years ago it was impossible, the writer tells us, to obtain bodies for dissection except by stealth, and even now, in some of our Western States, occasional outbreaks of body-snatching occur. Contrast with such a state of affairs our present well regulated law in New York, where, under full legal protection, an abundant supply of material is easily obtained.

From the article in question we learn that the endowments of our medical institutions are comparatively small. Eighty-seven "regular" colleges report funds amounting to $350,000, with an annual income of $20,000; sums most meagre in comparison with the endowments of our classical institutions, and relative to the importance of medical work. There is, however, we think, a well-defined reason for this difference. Most of the endowments of our great colleges have come from graduates thereof, whose generosity has been the outgrowth of a sort of feeling of personal affection for their Alma Mater. This personal feeling springs from several different sources. The strong social element in the undergraduate life of our academic institutions, and the formation of lifelong friendships, contribute more perhaps to the establishment of this Alma-Mater feeling than does the sense of benefits received. This may argue a very low estimate of educational advantages, but we believe that these facts are essentially true. Now, in the course of medical instruction as it is at present, and doubtless always will be, carried on, there is no soil in which such a feeling may take root. There is no social side to the college life in the academic sense. The personal relation between instructors and instructed are more distant. Hence the powerful incentive to giving before mentioned is absent.

It is true that, on purely ethical grounds, it is for the advantage of the wealthy classes in any community to equip its medical institutions as thoroughly as possible. Much more, even for their personal interest, should such be the case; but the average man of means regards his own responsibility in this direction as so remote that it soon ceases to be any responsibility at all.

Dr. Thompson decries the establishment of so many small medical colleges, particularly in the West. No less than fifty-one have been started and given up during the last century. Some of these, in former decades, did good work. They filled a then existing want. Having accomplished their purpose they vanished. The expansion of the country brought about a new educational environment, so to speak. Under this change of conditions the old principle of the survival of the fittest operated with its usual result. Let us not underestimate the value of some of these earlier institutions. They turned out well-balanced men who could and did successfully grapple with the problems of their times; who better estimated, perhaps, the physiological factor of disease than some of us whose attention seems wholly bent on its physical aspects.

We think that before the community becomes fully alive to the necessity of endowing medical institutions, the faculties thereof must initiate the spirit of self-sacrifice. Many of our medical colleges are essentially chartered companies, the faculties being the stockholders who draw their dividends out of the students' fees. Too often, the principle of competition, a veritable "cutting of rates," comes in to hinder any advancement toward a higher plane of scholarship: the more students, the more fees and larger dividends. The low standard of graduation is only too painfully apparent. Students are allowed to enter at too early an age and with insufficient preparations. True reform in all these directions means, for some years at least, a diminution in the number of students. For contracting this lessening of receipts, and for conducting the institution properly, must the endowment fund suffice.

We do not think it entirely erroneous that a medical college can flourish apart from a large city. There are several institutions in the country, apart from those in the cities, which have always been noted for the excellence and thoroughness of their theoretical instruction. Their graduates generally supplement this by a season's residence at some large medical centre, where they well attest the superiority of their previous training.

We regard the signs of the times as most cheering, in regard both to the ultimate raising of the standard of graduation, and to the realization by the community of its own individual relation to the medical college. The history of endowments well illustrates the Scripture truth, that "to him that hath shall be given." May we not hope that the tide of benevolence will soon more strongly set in to placing our well-matured institutions on a solid, independent financial basis?

RESULTS OF INVESTIGATIONS REGARDING SOME NEW DRUGS.

THE Connecticut State Medical Society has undertaken a work of collective investigation which is likely to lead to results of some practical value. A committee appointed by the said Society has issued circulars of in-

quiry on the subject of certain new drugs which have lately been put on the market with more or less strong endorsements. The answers so far obtained relate to convallaria maialis, piscidia erythrina, cascara sagrada, and certain of the oleates.

The conclusions reached are by no means positive, but are at least valuable and suggestive.

With regard to convallaria maialis, fifty replies were received. The testimony was to the effect that convallaria does not have any cumulative effect, that it rarely disturbs the stomach. It appears to be milder and less certain in its action than digitalis. It is doubtful whether it has much diuretic effect.

Piscidia erythrina, or Jamaica dogwood, has been announced as a drug having hypnotic and anodyne effects. The thirty-two answers received by the committee show it to be very doubtful whether any such properties exist to a sufficient extent to warrant its introduction into medicine. The specific effects are sometimes obtained, but not with any certainty. On the other hand, it is possible that too small doses were given on account of a supposed danger in its use.

Cascara sagrada is a remedy that has been widely used and well spoken of. Its effects are those of a stomachic tonic and laxative. The forty-seven replies obtained by the committee hardly sustain the view that this drug is a superior one for use in habitual constipation. Many find that it is useful, but few think it in any wise specific. A majority did not find its effects diminished by constant use. Dr. Thomas H. Russell, who made a number of careful observations speaks most highly in its praise. He advises its use in doses of from fifteen to thirty drops of the fluid extract three times a day. On the whole, it is safe to affirm of cascara sagrada that it is one of the best medicines for habitual constipation.

The contributions to the subject of the oleates are sufficient to justify any conclusions as to the special superiority of these preparations.

The Connecticut Medical Society has entered upon a useful line of work, and we trust it will continue its investigations. Well-organized medical societies can by means of collective investigations in certain lines do as much as the city professor with his hospital wards. There needs to be only a careful selection of subjects, and, so far as possible, some personal knowledge of the character of the workers. Some men have no power of weighing evidence and reaching sound conclusions. It is this fact that limits the usefulness of collective work, and makes it necessary for those conducting it to be extremely careful.

CORPORATE MEDICAL TREATMENT.

In a thoughtful address delivered by Mr. Rawle, a prominent Philadelphia lawyer, before the Phi Beta Kappa Society at Harvard, attention was called to the fact that in the law a great deal of the work formerly thrown in the hands of young lawyers is now done by corporations. The fact was used to illustrate the greater difficulties now encountered by educated young men in gaining a foothold in a profession.

Medicine, to a greater extent than the law, has of late broadened its opportunities and extended its work. Despite sanitary science there seem to be just as many ill, and perhaps there is much more of introspective invalidism and trivial doctoring. But, like the law, medicine is tending to do more and more of its work through corporations; and the young doctor, as well as the young lawyer, soon runs afoul of these. In great cities nearly one-fourth of the population is treated annually through the beneficence of incorporated dispensaries. Hospitals for every class of diseases are being built, and there is an increasing tendency for those even who are well-to-do to go to such institutions when taken ill.

It is not, however, these institutions, but a new phase of corporate medical development to which we wish to call attention. A correspondent has sent us a number of documents setting forth the existence, purposes, and mode of procedure of a certain quack "Remedial Agency" that is flourishing in this city. It consists of a "medical consulting board of seven members," a business manager, a corps of stenographers, etc. The medical men include one or two who have formerly been known in the ranks of the regular profession. This interesting corporation advertises itself liberally, appealing, it appears, mainly to the sexually distressed. Upon application for treatment being made by a patient, an answer is promptly given inclosing a blank form for the patient, to be filled out, asking for a sample of urine, and assuring the inquirer that a cure can be made "after a course of treatment." The data being obtained, another letter and a variety of medicines and appliances is forwarded along with a circular form containing explicit directions as to treatment.

This latter is a highly interesting document. "You will," it says, "by direction of the Medical Director use the remedies as follows:

"No. 1 course every night, No. 2 course, every morning. Pre-marital course, every morning and night. The cradle-compressor to be worn during the day." An "abdominal electro-girth" is to be worm *pro re nata*, a "tissue is to be applied to the glans penis night and morning," a magnetized voltaic pile, a "developmental lotion," and certain blood and liver pellets are among the resources of this interesting establishment. The patients are sagely advised to bathe at least twice a week, and dumb-bells are recommended as advantageous.

Accompanying this document is an itemized bill, by which we learn that the cradle-compressor costs $6, the pills $14, and the "courses" respectively, $20, and $15, making a total of $55. This seems certainly more profitable than selling patent medicines at a dollar a bottle.

It is needless to say that such institutions as the above are an injury to the public and not a whit better morally than the "sawdust-swindlers."

If they are found to be increasing, it will be the duty of those concerned in public welfare to expose and denounce them.

THE INTERNATIONAL CONGRESS.

The Committee on Organization of the International Medical Congress held its special meeting in this city last week. The meetings were held in secret, and secretiveness seemed to have been the essential feature of the proceedings. Doubtless the gentlemen thought they were

acting very wisely; but they need hardly have taken so much trouble. When members, supposed to represent the interests of the profession, meet at a critical time, with mystic rites, refusing all information except to members of their own clique, they at once simply overreach themselves.

There is but one inference as to last week's work. The Committee has done a foolish thing, and it prefers to cloak its folly until it can be set forth as wisdom in the gilded rhetoric of the chosen organ.

The Committee, we have every reason to believe, made no concessions which can be accepted as such. They filled the one hundred and twenty odd vacancies with gentlemen sufficiently unknown to fame to have escaped nomination by them before, and presumably sufficiently poor in spirit to accept belated honors.

THE NEW DIVISIONS OF APHASIA.

Probably most of our readers were taught and still remember that aphasia is divided into two types—the amnesic, in which there is loss of memory of words; and the ataxic, in which there is loss of power of co-ordinating the articular movements. The significance of aphasia, its pathological anatomy, and the two divisions of it above referred to, were first made out by Bouilland, Trousseau, and Broca. For many years the teachings of these men and their pupils were accepted, and became part of medical pathology. The French school appeared to revere the utterances of their older leaders too much to investigate further. It fell to the Germans, therefore, to find new phases of this peculiar disorder. Marcé, Kussmaul, and Wernicke, called attention to the fact that in some cases patients could speak or write perfectly well but could not understand spoken, or, perhaps, written words. There were, in other words, defects in the receptive part of the language faculty. They called these defects sensory aphasia, and divided this into the two forms of "psychical deafness" or "psychical blindness" according as the patient was unable to understand spoken or unable to read written language.

The French school at first viewed with doubt and distrust these contributions to a subject which seemed to belong especially to themselves. Some four or five years ago, however, Charcot met a typical case of sensory aphasia in his wards at La Salpêtrière. He at once began to study the subject with his accustomed energy and penetration. His labors, together with those of his pupils, have added greatly to our knowledge of aphasia, and Gallic prestige has been quite restored. If the French observers have not yet mastered the subject, they have at least got sufficient data to formulate a clear and definite doctrine of aphasia. According to this school, aphasia is to be divided into two grand types: the motor and the sensory, or as Charcot prefers to call them, aphasia of transmission and aphasia of reception.

Motor aphasia is of two kinds, aphemia or loss of the memory of the co-ordinated movements necessary to speech, and agraphia or loss of the co-ordinated movements of writing. Aphemia is caused by a lesion of the foot of the third left frontal convolution. The lesion in agraphia is very probably at the foot of the second left frontal convolution.

The sensory aphasias are similarly divided into psychical- or word-blindness, and psychical- or word-deafness.

The patient in the first instance can talk and understand what is said to him, but cannot understand or read written language. It is all Greek to him, though it may be his native tongue. He sees the signs, but cannot interpret them. The lesion here is in the left inferior parietal lobule, and the aphasia is accompanied by hemianopsia.

In psychical deafness the patient can talk and read, but does not understand spoken language. The lesion here is in the first left temporo-sphenoidal convolution.

The sensory aphasias, more especially psychical deafness, corresponds measurably with the older amnesic aphasia, while aphemia corresponds to some extent with ataxic aphasia. It is just as well, however, to drop for the present the terms amnesic and ataxic, and use the newer terms, motor and sensory.

It will be seen that a careful study of speech disorders may reveal a good deal with regard to the seat of the lesion. First of all, if there is aphasia, the lesion in a right-handed man is on the left side. Then, according as the particular form predominates, the seat of the disease may be inferred.

It must not be supposed, however, that all cases of aphasia can be sharply classified and assigned to one type or the other. Very often the symptoms are mixed, or change with the progress of the disease.

Again, the classification which we have given is by no means complete or final. A careful study of cases and of the mechanism of language enables the enthusiastic scientist to multiply the forms of aphasia almost indefinitely, so that Lichtheim, for example, gives us seven or more varieties.

These subdivisions, however, have only a theoretical interest.

The classification and forms which we have given, should be known, because a knowledge of them will be helpful in diagnosis.

Ohio Physicians and the International Medical Congress.—The President of the Ohio State Medical Society, Dr. William Morrow Beach, called a meeting of the physicians of the State "to take counsel respecting the situation, and offer suggestions or give instructions to the State representative." In response to the call some twenty or more physicians met in secret session at Columbus, on August 27th. What these gentlemen decided to advise their representative we do not know, nor does it matter, since neither technically nor morally had they the slightest right to instruct their State representative on the Executive Committee.

The New York Polyclinic.—The Winter Session of the New York Polyclinic for 1885–86 opens on Monday, September 21st next. For the year which closes on that date, 235 physicians have attended the clinics of this school, making a total attendance for the first three years of the Polyclinic of 578. No changes will be made in the methods of teaching which have made this institution so attractive to practitioners.

News of the Week.

THE CONTROVERSY ABOUT CODES, AND THE INTERNATIONAL MEDICAL CONGRESS.—Dr. H. D. Noyes, of this city, has kindly sent us the following letter to Professor Hansen-Grut, of Copenhagen, and the reply thereto by that gentleman:

"The enclosed letter came a few days ago in reply to certain questions which I had asked. Professor Hansen-Grut was president of the Section of Ophthalmology in the Congress at Copenhagen, he resides and has a clinic in that city; he is a well-known man. He took an active part in the preparations for the Congress, in its conduct, and in getting out the Transactions. His statements as to the rules which governed its composition are authoritative.

"He is perfectly familiar with all that was said and done, and intended and understood, when the invitation to hold the next Congress in Washington was accepted. The views he expresses are those which were in the minds of the European members, and especially in the minds of the responsible executive officers of the Copenhagen Congress, when the next place of meeting was decided upon.

"I put the question to him in my letter of inquiry, about the admissibility of homœopathists, to more than cover the ground of dispute among us about the Code of Ethics. His statements completely put all those questions at rest, and demonstrate that there is absolutely no reason for any ethical distinctions, and moreover, that no body of men or any organizing committee have the right to impose any such qualifications upon members, nor in the choice of officers. With this letter, this element of discord in the organization of the Congress of 1887 should go out of existence.

"Professor Hansen-Grut was in this country in 1876, as a member of the International Ophthalmological Congress in New York. His remark about not expecting to find such exclusiveness in our country, is a most natural expression which will rise to the lips of every intelligent foreigner, and conveys to us an unintended rebuke which may well make us wince. The italics in the letter are by the author. Professor Lange, of whom he speaks, was Secretary General."

"HUMMELLAFT, DENMARK, August 21, 1885.

MY DEAR DR. NOYES:

"I am sorry you have so much bother about the Congress. The spirit that is at the bottom of the dispute is to me a proof of such exclusiveness as I would not have expected to find in your country.

"I will answer to question

"(1) That the controversy about Codes was never thought of, as we have nothing resembling your Codes of Ethics.

"(2) The invitation was decidedly given for the *whole* medical profession, none of us thought of or even mentioned the American Medical Association.

"(3) The *only* qualification required was that the member be a *legally acknowledged* medical practitioner in his country. *Our* homœopathists, who were legally acknowledged practitioners (Drs. Siemsen, Ferich, and others), were actually members, and undisputed members of our Congress.

"I have sent your letter to Professor Lange, who will no doubt corroborate my statements. To my knowledge he has already had similar questions addressed to him from America, and answered them in the same way as I have now done.

"The way across is long, the fear of the sea is strong. I do therefore firmly believe that it is injurious to the interests of the Congress to have too many restrictions put for admittance. Yours sincerely,

"EDWARD HANSEN-GRUT."

THE CHOLERA IN SPAIN, FRANCE, AND ITALY.—Up to August 28th the total number of deaths from cholera in Spain had reached 81,489. The number of cases at date of writing is over a quarter of a million. In those provinces of Spain which were first affected, the plague is diminishing, but in other parts of the country it is still spreading. On September 1st the number of cases reported was 3,669, with 1,120 deaths. This shows a diminution in the mortality-rate, which has a favorable significance. The returns for the whole of Spain show that there has been, during the past week, a slight diminution in the number of cases and in the mortality-rate. Cholera has appeared at several different places in Italy during the past week, viz., in the provinces of Alessandra and Genoa. Between twenty and forty new cases of cholera occur daily at Toulon and at Marseilles. The number does not seem to be on the increase. With such an immense hold as the cholera has got upon Europe, it seems almost impossible that it should not reach this country before its epidemic career is ended.

SUICIDE OF A PHYSICIAN.—A young Doctor, named Curry, living at Red Bank, N. J., committed suicide on September 1st, by shooting himself. The immediate cause was a love affair. Dr. Curry graduated in medicine at Philadelphia.

THE PHILADELPHIA VETERINARY SCHOOL AND HOSPITAL.—The new buildings of the Veterinary Department of the Pennsylvania University were opened on September 1st. It stands on a large tract of land given by the City Council to the new department. It has a frontage of over two hundred and fifty feet, and is built of stone and brick. There is stabling for forty horses, and accommodations for other animals. The "crazy" stall is circular and padded for delirious horses. The students' quarters include a commodious amphitheatre and museum, anatomical room, sixty-six by twenty feet, lighted both sides; histological laboratory, forty by twenty feet; pharmaceutical laboratory, and four private laboratories.

THE UNITED STATES HAY FEVER ASSOCIATION held its annual meeting at Bethlehem, N. H., beginning September 1st.

BIBLIOGRAPHY FOR "PHYSIOLOGISCHE OPTIK."—Dr. Arthur Koenig, of No. 16 Neue Wilhelm Strasse, Berlin, who is editing the bibliographical department of this work, asks for such notices from his colleagues as may assist him in presenting an exhaustive statement.

DRUGGISTS IN CONVENTION.—During the past week the National Retail Druggists' Association, the Pennsylvania State Board of Pharmacy, and the American Pharmaceutical Association held their annual meetings at Pittsburgh, Pa.

The Medical Society of Virginia.—The Sixteenth Annual Session of the Medical Society of Virginia will be held at Alleghany Springs, Montgomery County, Va., commencing Tuesday night, September 15, 1885.

Microscopic Relics of General Grant.—Dr. George R. Elliott, the microscopical expert in General Grant's case, has had the specimens upon which the diagnosis of "epithelial cancer" was based, carefully prepared for permanent keeping in his office. There are eighteen of these slides, which are placed in a mahogany cabinet, upon which are two silver plates, engraved as follows: "General U. S. Grant cabinet of microscopical slides, reported upon as epithelioma, February 20, 1885, by Dr. George R. Elliott. Consulting staff: Dr. Fordyce Barker, Dr. J. H. Douglas, Dr. Henry B. Sands, Dr. Geo. F. Shrady. This cabinet is placed in a larger one made of cocobolo wood, upon which stands a bronze bust of the General.

The Small-pox in Canada.—The epidemic of small-pox in Montreal has finally become a serious matter. On September 7th the Provincial Board of Health held its first meeting to take action in the matter. A public meeting of citizens was also held on the same evening, when resolutions were passed calling upon the authorities to erect a new small-pox hospital at once. Dr. Covernton, of the Ontario Provincial Board of Health, submitted a proclamation, issued by the Ontario Government, prohibiting rags, dry goods, and other merchandise from entering that Province, unless accompanied by a certificate to the effect that they are free from contagion. Four medical men have also been appointed to travel between Montreal and the borders of the Province to examine passengers, and if they have not certificates of vaccination, to vaccinate them at once, if thought necessary, or within fifteen days. These officers have also power to question passengers minutely as to districts from which they come, and if not satisfied with the replies can send them back to the place they came from.

Will the Congress Meet in America?—It would be idle to attempt concealment of the fact that not only is the success of the proposed meeting of the International Medical Congress at Washington imperilled by existing dissensions in the profession of America, but that it is a serious question whether the gathering can be permitted to be held there at all. We are alive to the possibility that the curious arrangements entered into by the clique of the American Medical Association may be fully carried out; but at the same time we are perfectly certain that a congress convened under such circumstances will not be international in any sense of the word, but will develop into nothing more imposing than a magnified mutual admiration society. There is no longer any doubt that all the leading members of the profession in America will at such a gathering be conspicuous by absence, or that European practitioners will fail to find any recompense for this fact in receiving attentions from gentlemen whose names they are unable to associate with the extension or perfection of scientific knowledge or the advancement of the art of medicine. . . . The whole history of the International Congress has nothing so unfortunate as this episode to show, and we are deeply grieved that a great country like America, a country that is closely united to us by the holiest ties of blood and community of thought, should be the first to stir the deep waters of science by the introduction of a miserable and unworthy quarrel about—*ethics*, forsooth! In truth it is a mean and miserable bone that is the cause of contention. What is it to the sacred light of science whether its followers are members of this, that, or the other Association? and who outside the arena of local politics will care a straw for the ethical opinions of men with whom he is associated in common pursuit of a great and honorable profession? We want to meet the doctors of all nations at an international congress; and so that they be doctors and honest men, what other right or title to be present need they have? Possibly, nay, even probably, such catholic invitations as the Congress naturally extends may give admission to a few whose claims to be regarded as doctors *and* honest might be open to criticism —*Medical Press and Circular*.

Dr. Ferrán in Spain.—The cholera continues slowly to abate. It has already attacked about 200,000 persons, of whom about one-third have died. Dr. Ferrán continues to inoculate at $3 a syringeful. Those who can prove themselves poor he inoculates gratis. He urges the necessity of a second "massive" inoculation on the tenth day. Total, $6.

The American Academy of Medicine.—The next meeting of the Academy will be held at New York, on October 28th and 29th.

Dr. P. O. Hooper, of Little Rock, Ark., a general practitioner of long experience, has been appointed to succeed Dr. C. C. Forbes as Superintendent of the State Insane Asylum, of Arkansas.

Preventive Inoculation of Yellow Fever.—In a letter of Dr. Freire, of Rio de Janeiro, to Dr. Ramirez, published in *La Crónica Médica*, of Lima, the writer states that he has vaccinated over three hundred individuals with gelatine cultures of the yellow-fever microbe. The inoculations are made by means of five or six punctures in the arm. As a general rule, a few hours after the operation the subjects experience a slight headache, with bruised feelings in the extremities and lumbar region, and rachialgia. There is an elevation of temperature of 1° or 2° F., and in rare cases there was nausea or vomiting. These symptoms continue for two or three days, but never become dangerous in their severity. The inoculations were practised upon persons living in the very heart of the infected districts, and not one of the subjects died, and only very few suffered from a mild form of the disease, although of their non-vaccinated neighbors two hundred died within a period of three months.

The Congress of the French Association for the Advancement of Science held its annual session at Grenoble, beginning August 12th. M. Verneuil presided, and pronounced a discourse upon "The Surgery of 1885." It was a keen and witty criticism on the prevalent mania for operating—the *prurigo secandi*. In the seventeenth century there was a rage for transfusion; in the eighteenth, every man who fell on his head was trepanned; later, during the wars, every injured limb

was amputated. When Verneuil began his career tenotomy was all the rage; a little later there was a *réséco* mania; now, when one specialist operates, all operate. A prevalent mania at present in France is the application of the cautery. The world, says Verneuil, has been too much transfused, too much trepanned, too much tenotomized, resected, amputated, and far too much *travaillé dans le petit vassin de la femme*. In the medical section, presided over by M. Henrot, M. Landowsky reported cases of epithelioma cured (?) by applications of the juice of *Euphorphia leterodexa*. M. Chauveau made a report upon preventive inoculations for cholera, in which he claimed that the possibility of the efficacy of such inoculations could not be negatived on scientific grounds. M. Lepine read a paper on nephritis. M. A. Voisin reported success in the treatment of mania by hypnotism. M. Paul recommended warm sublimate injections in the treatment of gonorrhœa.

Cholera and the Importation of Rags.—A report from the United States Minister at The Hague states "that in view of the existence of cholera in Spain, the Government of the Netherlands has prohibited the importation of rags, old clothing, linen, and unwashed bedding after June 24th. The law applies also to the transportation of such goods through the country, but does not apply to the baggage of travellers." A very great diversity of opinion exists among sanitary authorities relative to the danger to be apprehended from the importation of rags from cholera-infected ports. A paper was read at the Sanitary Congress in Holland last year, wherein the author claimed that there were instances on record where epidemics of cholera could be traced to the introduction of rags. Many other authorities, on the contrary, deny the persistence of the contagion of cholera for any considerable period in rags, and insist that they should be admitted without restriction. All agree, however, that precautions are necessary to prevent the spread of cholera, and there is a widespread feeling among the people in all countries that the indescribable filth often found in old rags which are from time to time received in all countries from cholera-infected districts are liable to be the bearers of the disease. The English authorities, many of them, are either very skeptical on the subject or openly opposed to taking any action in this matter, though in response to the prevailing feeling, the importation of rags, etc., into England from Spanish ports, except on certain conditions, was interdicted for several months. In April last, however, the embargo was raised, and the whole matter relegated to the local authorities at the several ports. It is worthy of note that the English representatives appointed on the committee on disinfection and disinfectants, by the Cholera Congress recently held in Rome, all of whom have become experts in the treatment of cholera during a residence in India, are said to have abandoned the theory of the infectious or contagious character of the disease, except as it is wafted from place to place in the air. In our own country the action of the Treasury Department in dealing with the subject has been uncertain and vacillating. At one time an order is issued prohibiting absolutely the importation of rags from infected or suspected ports; then the order is modified so as to admit rags that have been disinfected in one of three or four ways; and finally all orders are revoked, and, following the example of the British health authorities, the control of the introduction of rags is turned over to local health officers. The feeble and vacillating course of our Government is in strange contrast with the decisive policy of foreign nationalities. This is the more remarkable in view of the fact that we have a National Board of Health capable of advising the Treasury Department as to the questions relating to the public health involved in the importation of rags. As far as we can learn, that Board has never been consulted previously to the issue of any of these various and often contradictory orders. In any event, the action of the Government in the matter of the importation of rags has been unworthy of an enlightened country, whose commerce extends to the remotest parts of the globe. It was to enable it to adopt a wise policy on all questions affecting the public health of the United States that Congress organized the National Board of Health. But the purpose of Congress has been largely thwarted by officials connected with the Treasury, who aspire to usurp the functions of the Board, and to expend the public funds properly belonging to that body. It is for this reason that our Government now occupies a position inferior to that of any European government in all its acts designed to protect and promote the public health. Its policy is dictated by those who are not only ignorant of the principles of public hygiene, but whose motives are transparently selfish.

Canada Medical Association.—The Eighteenth Annual Meeting of this Association was held at Chatham, Ontario, on Wednesday and Thursday, September 2 and 3, 1885. Hon. Michael Sullivan, M.D., the President, occupied the chair. The attendance was large and thoroughly representative in character. A goodly number of American physicians were present, and were heartily welcomed to all the privileges of the meeting.

The President, in retiring from the chair, congratulated the Association on the excellent arrangements which had been made for the meeting, and the programme which had been provided. He referred in the highest terms of commendation to the part taken by the members of the medical profession during the recent rebellion in the Northwest. He had had every opportunity of judging in the matter, and was highly pleased with the admirable manner in which the sick and wounded had been cared for. The different ambulance corps which had been formed were most useful, and had assisted most materially in the campaign. The surgeons had performed their work in a most excellent manner, though very often they were met with most discouraging circumstances, and were compelled to do their work in places not at all adapted for surgery. He concluded his address with a high compliment to the President-elect, whose scientific attainments had given him a world-wide fame.

Dr. William Osler, Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia, formerly Registrar of McGill College, Montreal, was then introduced as the President-elect, and delivered the annual address. It was an eloquent and highly interesting sketch of the history and progress of medical education in Canada.

The Secretary read a communication from Dr. Brodie, President of the American Medical Association, expressing regret at his inability to be present at the meeting,

and assured the Association that the arrangements for the coming meeting of the International Medical Congress were most complete, and that, notwithstanding the opposition met with, the meeting would be a great success. The wish was also expressed that the members of the medical profession in Canada would unite in promoting the success of the Congress.

The Association was then divided into sections.

In the Medical Section, Dr. Harrison, of Selkirk, Ont., was elected chairman, and briefly addressed the meeting. Dr. Grant, of Ottawa, read a highly interesting account of a case of aortic aneurism, illustrated with an exhibition of the specimen. The case had been under his care for over four years before death. The only treatment adopted had been complete rest and the occasional administration of large doses of potassium iodide. The exhibition of the pathological specimen was most interesting. Dr. Worthington, of Clinton, read a paper on cerebro-spinal meningitis, and Dr. Arnott, of London, presented a contribution on "The Sources of Malaria." Dr. Holmes, of Chatham, read a paper on "Observations on Puerperal Mania," and cited several cases in which it seemed that laceration of the cervix uteri was the source of the trouble. In these cases, as soon as the laceration was repaired recovery began. This paper was received with great interest, and the cases related by Dr. Holmes were certainly carefully reported.

In the Surgical Section, Dr. Edwards, of London, was elected chairman, and after a few appropriate remarks introduced Dr. J. H. Carstens, of Detroit, who read a paper giving an account of a successful case of fibroid removed by laparotomy. Dr. Fulton, of Toronto, presented a paper on "Subperiosteal Amputation," and Dr. Shepherd, of Montreal, read a paper on "Excision of the Tongue, with Preliminary Ligature of the Linguals." The cases cited by Dr. Shepherd, as well as his method of operating, were most interesting, and excited considerable discussion, in which Dr. McGraw, of Detroit; Dr. Grant, of Ottawa; Professor McLean, of Ann Arbor, and others took part. Dr. Gardner, of Montreal, presented an interesting case of double uterus, the history of which was full of interest. The specimen was exhibited and excited considerable curiosity.

The members of the medical profession in Chatham tendered to the members of the Association and their guests a splendid banquet in the Garner House on Wednesday evening. The chair was occupied by Dr. Holmes, of Chatham, who presided in a most acceptable manner. The after-dinner addresses were most eloquent, and those delivered by the American visitors produced an impression which will be remembered with pleasure. The responses to the different toasts brought out the fullest expression of the good feeling that exists between the profession in Canada and the United States.

The first order of business on Thursday morning was the election of officers for next year. The recommendations of the Nominating Committee were unanimously adopted, and were as follows: President, Dr. Holmes, Chatham; Vice-Presidents—for Ontario, Dr. Sloan, Blyth; for Quebec, Dr. Colin Sewell, Quebec; for New Brunswick, Dr. Earl, St. Johns; for Nova Scotia, Dr. Wickwin, Halifax; for Manitoba, Dr. Butt, Winnipeg; General Secretary, Dr. J. Stewart, Montreal; Treasurer, Dr. Sheard, Toronto; Local Secretaries—for Ontario, Dr. Wishart, London; for Quebec, Dr. Bell, Montreal; for New Brunswick, Dr. Lunan, Campbelltown; for Nova Scotia, Dr. Almon, Halifax; for Manitoba, Dr. Good, Winnipeg. Quebec was chosen as the next place of meeting.

In the Medical Section, Dr. Graham, of Toronto, presented a pathological specimen from a case of dissecting aneurism of the thoracic and abdominal aorta. The specimen was carefully examined. Dr. Wilkins, of Montreal, read a paper of a highly interesting character, and made an exhibition of specimens—microscopical and macroscopical—illustrating the infectious character of tuberculosis. Dr. Stewart, of Montreal, presented a paper on the curability of the chronic form of infantile paralysis (polio-myelitis anterior chronica), which was most interesting. Galvanism was the only treatment pursued, and the internal use of medicine was not recommended. Considerable discusssion followed the reading of this excellent paper. Dr. McKeough, of Chatham, presented in very concise form the notes of several cases of puerperal eclampsia, in which he had used pilocarpine. The conclusions arrived at were, that under certain circumstances, the use of pilocarpine was most beneficial, but that it was a remedy which experience proved should be employed with great caution. Dr. Bethune, of Wingham, exhibited an interesting specimen, showing a parasite removed from an abscess in the thigh. Dr. Whiteman, of Shakespeare, Ont., read a paper on "Pelvic Peritonitis and Pelvic Abscess."

In the Surgical Section, Dr. J. Campbell, of Seaforth, who was unable to be present, forwarded a paper on "Trephining of the Mastoid." It was a report of a case in practice where a young boy had disease of the mastoid cells, accompanied by the usual symptoms, the attacks each time becoming more severe than the preceding one. The doctor trephined, using a gouge guarded by the finger in the operation. He dusted the wound in both bone and flesh with iodoform, and put in a leaden tube and left it three days, after which he syringed with carbolic lotion 1 to 40. The case was entirely successful; the boy's health and hearing improved, and the perforation in the drum-membrane healed up. The principal points made by the doctor were the following: 1. The operation should be performed early. 2. The gouge, used with a rotary motion and protected by the finger, is the safest and best instrument for perforating the bone. 3. The usual linear incision should be made exactly at the union of the cartilage of the ear with the scalp, commencing on a level with the upper wall of the meatus, and the bone perforated immediately beneath this. 4. The mastoid cells should be opened freely into, and numbers of them broken up. 5. With the foregoing precautions the operation was both safe and successful. 6. The operation advised by Dr. Sexton, of New York, should never be performed. Dr. Atherton, of Toronto, read the notes of two successful cases of laparotomy performed for the removal of uterine myoma. An interesting discussion followed. Dr. Rutherford, of Chatham, presented an interesting paper on "Suprapubic Urination." A number of papers were of necessity read by titles.

The Association adjourned on Thursday afternoon. The attendance at the different meetings was large, and the great success of the gathering was most gratifying.

Reports of Societies.

British Medical Association.

FIFTY-THIRD ANNUAL MEETING.

Held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1885.

REPORTS OF SECTIONS.

SECTION OF MEDICINE.

(Continued from page 275.)

FRIDAY, JULY 31ST—THIRD DAY

THE PRESIDENT took the Chair at 11 A.M., and the Section sat until 2 P.M.

DR. W. P. BIDEN read a paper on "The Climate of Hyères," a pleasant little town, and the one on the Mediterranean most easily reached, as it is not far from Toulon. The air is dry, bracing, exhilarating. There is plenty of sunshine. Orange trees are abundant, so are olives. For the last twenty years the place has been growing in importance as a winter health resort for persons in delicate health.

DR. F. W. PAVY, read a long and rather tedious paper on "Cyclic Albuminuria," by which he appeared to mean what is often termed intermittent albuminuria. It may occur in the apparently healthy, is, in fact, only temporary, but he wished to show that it observed definite periods—would be present, for instance, in the afternoon but not in the morning. This was important as to life assurance. A case was named, which the examiner of the office rejected as albuminuric, but who was subsequently passed by going for examination at the time of day when no albumen could be detected. A number of cases were read and details given, which excited some impatience, and one member said to his neighbor in your reporter's hearing, that a man who took up more than an hour the day before ought not to take an hour again.

THE PRESIDENT thought it very important to settle whether temporary albuminuria should be a cause of rejection for life assurance. He had often been himself called upon to decide this question, and it was to be observed that there was no time to watch the case and let events decide the import of the phenomenon. The office wanted an opinion—shall this life be taken?—and wanted it the same day. He asked Dr. Pavy a question as to the significance he attached to this albumen.

DR. PAVY replied to this simple question by relating another case, which he said had been also seen by Dr. Fothergill, who was present and could state his view.

THE PRESIDENT having asked Dr. Fothergill if he would like to remark upon the matter,

DR. FOTHERGILL said emphatically that he was very glad to observe that Dr. Pavy displayed an inclination to join those who rejected the prevailing notions. For his part he welcomed the help of anyone who would assist to lay the axe to the root of the tree of that demoralizing superstition that albumen was essentially a kidney disease.

DR. BARR, of Liverpool, thought that we should look to the circulation as much as to the kidney, or more. The propelling power of the blood must drive it through the glomeruli, and any failure to do this might result in the transudation of albumen. This mechanical transudation surely had more to do with the heart than the kidney. As to the danger of temporary albuminuria, he mentioned the case of a gentleman who had passed considerable quantities for some eighteen months, but recovered, and now, years after, was in excellent health.

DR. J. D. DAVIES, from Australia, having been asked by the President if these cases were common in the colonies, said that they were very frequent, and added, that he examined many for life assurance, and had hitherto felt obliged to reject them. He would be glad if this point were further cleared up, for what otherwise could he do than continue to reject them?

A MEMBER, whose name the President did not announce (in fact few names were distinctly announced—a very inconvenient thing for reporters, however it may seem indifferent to acquaintances of speakers) said he had observed that salts were always present at the same time, often phosphates. These were common in solicitors and others, whose work was mental and who took too little exercise. Some mechanical workers would get urates when overdone. Rest would clear off phosphates, urates, or oxalates, and the albumen with them.

DR. BULKLEY, of New York, could corroborate Dr. Fothergill from his personal experience. In 1868 he had himself had a severe attack of albuminuria. Casts were present in his urine in great variety and it became quite solid on the usual tests. He took a holiday and this passed away. He returned to hospital work and in a month had another attack. He rested again and got better. On returning to work the albumen again appeared. He went to Europe and recovered. He found in different parts of the day it occurred for some time, but he was now in perfect health and protested against the notion that albuminuria is not recovered from.

DR. TYSON said he could add a similar personal experience, for years ago he consulted the President as to albuminuria, which had attacked him after scarlet fever. He had fairly recovered, but still felt a degree of susceptibility. For example, exposure to a draught would always give him a pain in the left loin. The same pain would come on if he ate much meat. He believed his left kidney had been affected but was now well, though rather weak. He had come to the conclusion that with care he could do his work very well, and he was determined, above all things, not to have his urine examined again, for he did not believe it now contained albumen. [Laughter and applause.]

DR. GRIFFITH, of Swansea, said he thought the kidney was very much like other organs. One has one disease, and another has another. He attributed albuminuria to derangement of the vaso-motor centre. But if a certain quantity of albumen was persistently present in the urine he thought there was certainly something wrong with the kidney.

THE PRESIDENT, DR. WILKS, said he regarded Dr. Bulkley's and Dr. Tyson's cases as instances of real recovery from a definite disease.

A MEMBER, whose name was neglected to be given, said that five years ago he had pain in the region of the kidneys which laid him up for three weeks. It was so severe he feared it might arise from grit, though he also thought of gout. He completely recovered, and has experienced no difficulty about his food, but if he drinks a glass of beer or any stimulant he at once gets albumen in his urine.

DR. PAVY replied, commenting on several of the statements made, but said nothing he had not previously stated, save that he had not found anything special about phosphates or other salts.

The discussion was now closed, and the papers proceeded with.

DR. J. F. PAYNE, read a paper on

ALBUMINURIA COMING ON IN THE COURSE OF SECONDARY SYPHILIS,

full of matter carefully arranged, and to which justice cannot be done in a short report.

DR. COUPLAND read a paper on

PULMONARY GANGRENE,

and DR. T. D. GRIFFITHS another on

THE CAUSES OF THE LOCALIZATION OF TUBERCLE IN THE APEX OF THE LEFT LUNG.

Some remarks were made and questions asked in reference to points treated in these two papers, but there was no definite discussion, and the President called on

Dr. Prosser James to read his promised paper on "Pancreatic Digestion." This opened by an account of the physical and chemical characteristics of pancreatic juice when fresh from a recent fistula as contrasted with the secretion of a later period. This was followed by an account of the several ferments found in the juice, and the attempts made to isolate them, and this again by reference to the so-called pancreatines. The author produced some sensation by the announcement that sometimes, through insufficient care or skill in preparation, the ferments were not merely destroyed, but that decomposition had been suffered to set in, and that he had known the changing products of decay to do duty for the pancreatic ferment. The idea was disgusting and the consequences probably injurious. Dr. James then gave the results of his own experiments, and announced that he had succeeded in separating all the ferments in combination with an inorganic, and, therefore, stable compound. This was no other than chloride of sodium, which he had some time ago combined with pepsine. He replied to some *à priori* objections to the use of salt for this purpose, and said he hoped shortly his pancreatic salt might be made on a larger scale, and prove as useful as his "peptic salt" had done. He had placed specimens of these, as well as the products of other experiments of his, in the annual museum, where members could examine them for themselves. The remainder of this paper was occupied with the process of secretion of pancreatic juice, and the question whether there are any therapeutical means for influencing it, but the author read this so rapidly, no doubt because time pressed, and omitted some paragraphs, that it was difficult to follow.

The President remarked that the paper hardly invited discussion, unless any one had come prepared for the purpose, and would have to be read carefully in the *Journal*.

Dr. A. T. Harrison read a paper on the "Treatment of Tinea Tonsurans."

Dr. Milner Fothergill submitted to the Section, in his striking and agreeable style, the semi-paradoxical question

WHEN A PATIENT DIES OF EXHAUSTION, OF WHAT DOES HE DIE?

This might be supposed likely to produce an amusing discussion, but time was wanting. A general meeting was to immediately follow the sitting of the Section, to which some were bound to go. Lord Windsor's garden party would soon begin, yet the Section was in earnest and proceeded with the work. The following papers were either read, or their conclusions stated by the authors, or in some cases taken as read: Mr. G. Padley, "Case of Empyema Successfully Treated by Operation"; Dr. Shingleton Smith on "Intra-pulmonary Injections"; Dr. Tatham, "Registration of Chest Diseases as Carried on at Brompton Hospital"; Dr. Myrtle, "Syphilitic Eruptions and their Treatment by Mercury and Harrogate Waters"; Dr. Drummond on "Malarious Melanæmia and on the Influence of Geographical Position on Fever"; Dr. Haddon on "The Tropical Sea as a Health Resort in Pulmonary and Renal Diseases"; Dr. Harper on "Extraordinary Cornea in a Child" and "Abnormal Shape of Skull."

Some other papers announced in the programme of previous days, but not mentioned in the foregoing report, were taken as read, and will appear in the *Journal*.

The President then closed the Section of Medicine.

Making Business for the Alienists.—An Australian journal thus announces a forthcoming serial novel: "Of 10,000 readers of this fatal romance it is estimated that there were 422 cases of insanity, 977 of monomania, 894 suicides, and 1,315 cases of mysterious disappearance."

THE BERLIN SOCIETY OF INTERNAL MEDICINE.

Stated Meeting, June 1, 1885.

Herr Fraentzel in the Chair.

(Special Report for The Medical Record.)

Herr Remak presented a patient suffering from

DEGENERATIVE MUSCULAR ATROPHY.

The man, now thirty-five years of age, had had a hard chancre, twelve years before, followed shortly by an eruption of roseola. He had been married for eight years and was the father of two healthy children; his wife had had two still-births and one miscarriage. She had also been treated for syphilitic ulcerations. Six months ago the patient began to complain of pain in the neck and right shoulder, and of hoarseness in speaking. He had also had several exostoses, all but one of which had disappeared under treatment by iodide of potassium. Inspection showed considerable atrophy of the muscles of the neck and intrascapular space, of the trapezius, and of the muscles of both arms, especially the left. The diaphragm was also implicated, as evidenced by the epigastric sinking during a deep inspiration. Laryngoscopic examination revealed paralysis of the left recurrent nerve, and subsequently of the right also. The muscles of the palate and tongue were unaffected. Sensation was unimpaired, and the condition of the lower extremities and of the genito-urinary organs was normal. The author believed that there was an ascending lesion of the cervical enlargement leading to degeneration of the muscles which derive their innervation from that portion of the cord.

Herr P. Guttmann presented two specimens of

ANEURISM OF THE AORTA.

The first case was that of a man, fifty-six years of age, in whom there was flatness on percussion in the posterior and lateral portions of the left side of the chest. There were no signs pointing to a lesion of the heart or great vessels. Within twenty-four hours after coming under observation the patient had an attack of syncope, accompanied by a frightful hemorrhage from the mouth, and died immediately. The autopsy revealed an aneurism of the aorta, the size of a man's fist, at the level of the fourth dorsal vertebra. There was a communication with the œsophagus whence had come the hemorrhage that killed the patient. There was no atrophy of the left ventricle. The second case was one of aneurism of the arch of the aorta, which was readily diagnosed during life by the physical signs and by the evidences of pressure upon the neighboring structures. The autopsy showed the correctness of the diagnosis.

Herr Klaatsch then read an interesting paper on

RÖTHELN,

or German measles. After a historical review of the subject the speaker proceeded to describe the disease as he had observed it in two distinct epidemics. He found that a previous attack of measles or scarlatina afforded no immunity to rötheln. The symptoms were those of a benign affection of short duration. The eruption appeared first upon the upper portions of the body and extended thence downward; in some cases it covered the entire body, even the scalp and palms of the hands, in other cases it was limited to a smaller area. The skin was covered with spots of a bright red color, varying in size from mere points to patches one-fourth to one-half inch in diameter, equidistant from each other and separated by healthy integument, though sometimes the eruption was confluent. The eruptive period was from three to five days in duration. In about half the cases there was no fever; in the others the temperature averaged about 100° F. In some instances there was redness of the conjunctiva and pharynx, and the author occasionally observed a swelling of the cervical glands. The affection

was moderately contagious. The period of incubation was difficult to determine, but seemed to be usually from seventeen to twenty-eight days. It was not necessary to isolate patients with rötheln for a longer period than eight days.

The Society then adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

DOCTORS AND THEIR ANNUAL HOLIDAY—A REMINISCENCE OF SIR ASTLEY COOPER—THE RELIGIOUS QUESTION IN HOSPITALS—THE STATE OF THE THAMES—PURIFICATION OF THE SEWAGE—DIARRHŒA MORTALITY.

LONDON, August 17, 1885.

As most of the leaders in medicine and surgery are away taking their annual holiday, scientific medical work may be fairly said to be now carried on in London at the minimum rate for the year. The annual holiday has now become an institution for doctors as well as patients, and the present is the month chiefly favored by both. Some medical men contrive to combine business with pleasure, and select some continental health resort for an annual visit where they can take some of their patients with them. Few doctors are indifferent to fees, and they are usually as attractive to those who enjoy large practices as to those who vegetate on small ones. I fancy very few modern hospital surgeons in London would be tempted to imitate Sir Astley Cooper's behavior on one occasion. A distinguished orthopedist (still living and from whom I have the story) called on Sir Astley one morning by appointment at his request, to demonstrate to him a then new operation. More than an hour elapsed and Sir Astley was still busy with questions and remarks, being, says my informant, a man "always very keen after knowledge." The servant came several times to the door to remind him that numerous patients were waiting, but was put off time after time. Midday at last arrived and with it the surgeon's carriage to take him to his hospital. The footman again entered and announced the carriage. Sir Astley Cooper was rather taken aback for a moment, but recovering himself, said: "Bring the carriage round to the stable entrance and I will go out through the stable." This he did, leaving all his patients to go away without his having seen one of them. On leaving, he invited his friend to come again on the following day and renew the demonstration.

The religious question is again to the front in connection with hospital management. This time it is at University College Hospital where a scandal has arisen, owing to a dissenter having been refused admission to train for a nurse in that institution. The nursing in University College Hospital is conducted by a "sisterhood," who all belong to the Church of England and have pronounced tendencies toward the "High-church" party. The placing of the nursing in the hands of a "sisterhood" and giving them exclusive control has been tried at other hospitals, and in them also it has led to trouble. King's College Hospital was the scene of angry disputes some time back, and the more recent feuds at Guy's can scarcely be forgotten. The delegation of the nursing at University College Hospital to a sisterhood belonging to the ritualistic party is the more remarkable because University College (and subsequently the Hospital also) was founded mainly by the exertions of Nonconformists, and the necessary funds were largely contributed by them. The English universities were then closed to Dissenters, as also was Trinity College, Dublin. As a protest against this the present College in Gower Street was founded. Out of this sprang the present University of London. I am not speaking without book, as it were, for a near relative of my own took, in conjunction with the late Lord Brougham and others, a very active part in founding the College. As no expression of religious belief was exacted from its students it was called "The Godless College" by the students of its rival in the Strand—King's College. "The Godless College," however, prospered, and is still largely supported by Nonconformists. Some of its professors and some of the medical staff of the hospital at present are, I know, dissenters. I need not dwell further on the subject. I have said enough to show that, great as have been the advances within the last fifty years, we are still far from enjoying complete religious liberty. In this, as in some other things, America is ahead of England. The Hospital Sunday Fund threaten to withdraw their grant unless the exclusiveness to which I have referred is modified.

The usual autumnal scare about the state of the Thames is now on. Its condition is certainly not one of which we can be proud. Although the metropolitan sewage is discharged some miles down the river, yet the tidal efflux carries polluted water far up into the intrametropolitan portion of the stream. During the present summer large quanties of manganate of soda and sulphuric acid have been used as disinfectants and deodorants. These have been freely poured into the sewers, and also used at the outfalls. The cost per week has been over three thousand pounds. As yet only a million gallons daily have been treated at the outfalls, but preparations are being made for treating eight million gallons daily. It is proposed that a portion of the sewage shall be treated by precipitation or otherwise on one of the islands of the Thames before being allowed to pass into the stream. In spite, however, of the unsanitary state of our river, the returns of the Registrar-General show the present mortality from diarrhœa in London (during the past few weeks) is equal to an annual death-rate of less than four per thousand. This is less than at most provincial towns, and is very greatly exceeded by that of most foreign cities.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE PROPERTIES OF TERPINOL—THE POSSIBILITY OF THE PASSAGE OF BACTERIA FROM MOTHER TO FŒTUS—SUBCUTANEOUS INOCULATION OF TYPHIC MICROBE—MORE CONCERNING CHOLERA INOCULATION.

PARIS, August 14, 1885.

About six months ago Dr. Dujardin-Beaumetz read a paper at the Société de Thérapeutique of Paris, on the properties of terpinol, a derivative of terpine, which latter is nothing else than the binhydrate of turpentine. Dr. Lépine, of Lyons, experimented with both these substances on hospital patients, and both these gentlemen came to the conclusion that the substances just named are most useful in bronchial catarrh. Professor Germain Sée has since experimented with terpine, and as his experience is not quite in accord with that of Dr. Lépine as to its physiological effects, he has thought proper to give the results of his own researches, which he laid before a recent meeting of the Academy of Sciences. The following is a summary of the learned professor's conclusions on the subject: 1. Terpine constitutes a powerful modifi cator of the mucous membrane of the air-passages, the excessive secretion from which it keeps under control. It diminishes and rapidly stops purulent expectoration in the catarrhal forms of phthisis, whether the muco-purulent secretion comes from the bronchial tubes irritated by tubercles or from the parietes of pulmonary cavities, whether the disease is at its commencement or at the stage of cavity-formations, terpine will be indicated whenever the formation of pus is sufficiently abundant to fatigue the patient, to reduce his strength, or to bring him to a state known by the term consumption. 2. It may be successfully employed in the hæmoptysis of commencing tuberculosis, that is to say, when the disease has not reached the development of large cavities with aneurisms of the pulmonary artery. 3. In the treatment of pul-

monary catarrhs, of chronic bronchitis independent of asthma, and the provoking of dyspnœa only by the blocking up of the bronchial tubes, terpine constitutes the best means by which the bronchial hypersecretion may be diminished. 4. Its prompt and certain action and being exempt from physiological inconveniences renders it preferable to the preparations of turpentine, of tar, or of other substances of that class which contain so little of terpine; the essence of turpentine is not tolerated by the stomach. Terpine even presents, owing to its perfect innocuousness and its perfect digestibility, advantages over creasote. 5. The best mode of administering this drug is in the form of pills or in an alcoholic solution, and the best dose is one gramme, or fifteen and a half grains per day. 6. In nervous emphysematous or catarrhal asthma, iodine and pyridine are incontestably superior.

A short time ago M. Koubassoff made a communication to the Paris Academy of Sciences through M. Pasteur giving an account of some experiments he had performed to illustrate the possibility of the passage of bacteria from mother to fœtus. He injected various cultivations of the bacillus of carbon under the skin of pregnant guinea-pigs. On examining the fœtus after the death of the mother it was found that the bacilli always passed from the mother to the fœtus, but that pathological conditions of the membranes of the placenta and fœtus prevented this passage. That inoculation of pregnant females with a too powerful vaccine nearly always caused the death of the fœtus; that inoculation after the mother had been protected by satisfactory vaccination nearly always killed the fœtus. From these facts M. Koubassoff concluded that the fœtus cannot be protected by maternal inoculation.

At a subsequent meeting a paper from the same author was read on the passage of the septic vibrion of the rouget and tubercular bacilli from the mother to the fœtus. He remarked that if the bacilli of the septic vibrion inoculated into the mother be found in the fœtus, one is induced to admit as very probable the passage of all microbes from the mother to the fœtus, and to suppose the existence, in the placenta, of direct communications between the vessels of the mother and of the fœtus. From these experiments M. Koubassoff concludes that the bacilli of the septic vibrion of the rouget and of tuberculosis also pass from the mother to the fœtus. The importance of this fact, if proved, cannot be overrated.

At the same meeting of the Academy of Sciences, M. Tayon read a note on the results of experiments performed on himself and on several persons who volunteered themselves for the purpose, which permitted him to affirm that the subcutaneous inoculation of the typhic microbe is not fatal in man; but whether this would confer immunity against typhoid fever is a question that he is not in a position to resolve, and must therefore leave it to others to do so.

In connection with preventive inoculations I may mention that M. Anglade forwarded a paper to the Academy of Sciences, signed by three physicians, giving an account of Dr. Ferrán's inoculations performed by him at Belfajo, and other documents have been promised by other Spanish physicians of the results obtained by them at the different localities at which similar inoculations were practised by them.

Dr. Paul Gibier, of Paris, and Dr. Van Ermengen, of Brussels, have just terminated a certain number of experiments which show that hypodermic injections of the cholera bacillus, even of a strong dose, do not prevent animals dying after they have been inoculated by the stomach. This must militate greatly against Dr. Ferrán's theory, who, however, is allowed to continue his inoculations on his own responsibility.

A delegation composed of MM. Peyron, Director-General of the Assistance Publique, and Michelin, President of the Municipal Council of Paris, accompanied by Drs. Desprès and Robinet, as well as by two or three other members of the Council, has proceeded to London to study the organization of the work-houses, fever hospitals, and other hospitals set apart for patients affected with contagious diseases.

ON THE REPORT OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION—A REPLY TO DR. STERNBERG.

To the Editor of The Medical Record.

Sir: I very much regret that the Chairman of the Committee on Disinfectants of the Public Health Association has thought it best to reply to the criticisms of Mr. McClintock and myself by certain personal remarks, that, even if true, would not have any bearing on, or affect in any way the truth of our statements. I think that every one will admit that this evidence of petty spite is unworthy of a scientific investigator, and if Dr. Sternberg thinks it a waste of printer's ink to discuss publicly the report of the committee, he should not use it to bring before the public personal details. However, since he has descended to a discussion of this character, he will find that I am by no means averse to it; except that I am sorry to take up valuable space with such matter, and would not be led into it except to defend myself from gross misstatements.

I desire to offer the following commentary on Dr. Sternberg's article, and I wish it distinctly understood that nothing is said by way of malice, but simply to correct the charges he has made.

As regards the report being a preliminary one, this fact was especially mentioned by us, and we stated that we considered the objectionable recommendations as simply evidence of hasty preparation. Besides, while lack of time would justify an incomplete report, it does not justify an erroneous one.

The criticisms were not made directly to Dr. Sternberg for several reasons. I did not see the report until it had been published both in the *Medical News* and in pamphlet form, and in this way given a wide circulation. The fact that my name had been associated with the work on which it was based seems to me to be sufficient reason for my interest in its correctness, rather than requiring my silence. Perhaps my principal reason for not communicating directly with Dr. Sternberg was that I felt convinced that any criticism made in this way would not reach the profession. I know that this statement requires explanation, which I can give only by citing a past experience.

Not very long since Dr. Sternberg published in the *American Journal of the Medical Sciences* some determinations of the germicidal value of certain agents, among which were zinc chloride and Squibb's liquor zinci chloridi. It was stated that two per cent. of the solid chloride was efficient, and that eight per cent. (this was by volume) of Squibb's solution failed, the same conditions being observed. Now this solution is warranted to contain fifty per cent. of zinc chloride, and has a specific gravity of about 1.5, so that this eight per cent. by volume was equal to twelve per cent. by weight, one-half of which was solid zinc chloride. Professor Roberts Bartholow, in a note in the *Medical News*, called Dr. Sternberg's attention to this great discrepancy in his results. Dr. Sternberg then obtained a second bottle of Squibb's solution, and asked me to make a determination of its germicidal value, which was found to agree pretty closely with his own. He then replied to Professor Bartholow, saying that he considered his methods sufficiently accurate to justify the belief that Squibb's solution was not of full strength. It will be seen that to harmonize his two results it would be necessary for this preparation to contain less than one-third of the amount of zinc chloride warranted by Dr. Squibb. Thinking this to be extremely improbable, I determined by analysis the amount of this salt present, and found it to be just fifty per

cent. I informed Dr. Sternberg of this, but I have waited in vain for him to publicly correct his error. Now I have not cited this to show that Dr. Sternberg made a mistake, for none of us are free from them, but to show why I adopted the method I did of correcting the errors in the report of the committee.

It is true that the disinfecting and antiseptic powder was withdrawn before the publication of our paper, but not until some time after it had left our hands. The note to which Dr. Sternberg refers stated not only that the powder was withdrawn, but that the solution containing potassium permanganate should be decolorized by the addition of a little chloride of lime or Labarraque's solution before use on clothing or walls. The following history of the article, by McClintock and myself, may throw some light on the appearance of this note. As the report of the committee was published in the *Medical News*, we thought it proper that, as it is customary, any criticisms should appear in the same journal. For this reason our paper was first sent to this journal. Not long afterward I happened to be in Philadelphia and called on the editor of the *News* in reference to the article. I found that it was in type ready to go to press, but was surprised to be told by the editor that he had changed his mind, and thought it best not to publish it. The reasons assigned for this were "that it would cast doubt on all the committee had done," and "that Dr. Sternberg's note had just appeared in the number of the journal issued that day." As to the first of these I assured him that, as stated in our article, we had no such intentions; and as to the second, I pointed out to him a dangerous error in the attempted correction, viz., that chloride of lime or Labarraque's solution would *not* decolorize the potassium permanganate in the solution, while it would precipitate the mercuric chloride, and in this way entirely destroy the value of the solution. I was at a loss to account for this rejection of our article after it had been put in type, and the sudden appearance of Dr. Sternberg's note, until later, when, in answer to a letter from me, the editor of the *News* admitted that he had informed the committee of the intended publication of the criticisms. Now, I cannot say that this caused Dr. Sternberg to write his note—of this every one is at liberty to have his own opinion. The action of the editor of the *Medical News* would also bear discussion, but this is not the proper place for it.

There is one other point connected with this note that deserves attention. If, as Dr. Sternberg claims in his latest, the permanganate solution does not stain clothing, and if, as he adds, "this possibility of staining was fully considered by the committee before the recommendation was made," what was his object in rushing out with a note saying that this color should be bleached out before use? This part of his note he does not refer to in his last paper. Questions of this nature are not decided by consideration, but by experiment, and every one interested can determine for himself whether or not the solution recommended will, under ordinary conditions, give a decided and indelible stain to white goods after two hours' immersion, as directed by the committee. The fact is, that rather than admit their error the committee seem inclined to add the color as first directed, and then to get it out in any way possible. If one will trouble to use impure water, as Dr. Sternberg suggests, this will probably remove the permanganate better than chloride of lime, and it also possesses the advantage of not precipitating the mercury.

I am not sorry that it becomes necessary for me to explain my connection with the work of the committee. The first of last December Dr. Sternberg asked me to join him in the work, to which I agreed, with the distinct understanding that I would only give what time I could spare from other experiments, and that whatever was published should be over both our names. The work was continued for about two months, when I gave it up of my own accord, at which Dr. Sternberg very kindly expressed his regrets. I did this simply because I preferred to publish my work independently, and not to have it thought that it was done under any one's advice or directions. My work on the hypochlorites was done at the expense of the committee, and to some extent by what is known as Sternberg's method; but it was taken up of my own accord, and carried out according to my own plans. My attention was first called to the value of this class of preparations by the commercial samples of Labarraque's solution I examined for the committee. Dr. Sternberg speaks of the use of his method as though he had a proprietary right in it. He might very well consider how much credit he gives to Koch and Pasteur for the constant use of methods devised by them. If better proof is needed to show that he considers his method of the cultivation of bacteria private property, it lies in the fact that during this work he required a "trusted assistant" to promise that if his services were asked for by a certain distinguished investigator he would not give them, as that gentleman was anxious to secure some one acquainted with his methods of work, and thus do work for which he (Dr. S.) ought to have the credit. We would suggest that this could be avoided by taking out a patent on his method, or at least he should never have published it.

The statement about my commercial work is so untrue as to require but little notice. More than a month after I had given up all work for the committee I was asked by a manufacturing firm to give some chemical advice about the manufacture of a disinfecting solution, and of course I complied with their request. The subject was not mentioned to me until March, while I gave up work for the committee in January. This statement can easily be verified by reference to the firm to whom the advice was given. From this it must be seen that the intimation that my services were dispensed with on account of my commercial work is absolutely false. I do not engage in investigations having secret "points." The prejudice of the committee against manufacturers did not cause them to refuse money from such as had been benefited by their report, and it was even intimated to me by one of them that a contribution from the firm that had asked my advice would be acceptable, since the report was in their favor. Had they received it, perhaps my commercial work would not have been so objectionable. I do not mean that this money was allowed to influence their report, but was simply used to carry on the investigation.

Dr. Sternberg seems to still insist on the point that mercuric chloride should be added to "whitewash" for disinfecting walls. It was not claimed by us that the yellow oxide of mercury formed would color the walls, for the lime is present in too great excess; but if he doubts that it is formed, he can easily consult some elementary text-book of chemistry.

Any one having read the report of the committee will see that there is no intimation that mercuric chloride should be dissolved before it is placed in vaults; and, in fact, this looks very much like an after-thought on the part of the chairman of the committee.

The committee claim, and Dr. Sternberg admits in his reply, that the *only* advantage of the hypochlorite solution is its rapid action. We merely called his attention to his former statement about the coagulating action of corrosive sublimate to show his inconsistency in stating that it was equally effective on longer action. We referred only to the use of these agents in the sick-room, but his former statement that mercuric chloride should not be used "when the germs to be destroyed are embedded in masses of albuminous material," seems to me to apply more especially to the material in vaults. It is not sufficient, as Dr. Sternberg argues, to use, under such circumstances simply an antiseptic, for many vaults or cesspools communicate, with underground watercourses, and by this means the germs present would be removed from the restraining influence of the antiseptic, and contaminate the water used for drinking purposes. That the

pump-water in some of our largest cities is in pretty direct communication with cess-pools is shown by analysis. Dr. Sternberg's experiment, in which the solution was stirred up with a little *semisolid* fæces in a beaker, can scarcely be held as applying to the masses in vaults, and which are to be estimated by the five hundred pounds.

The criticisms that have been made do not derive their force from the names of either Mr. McClintock or myself, but if they have any, from the fact that they are just. We leave the profession to judge of this, feeling that they will do so without regard to name or position.

J. R. Duggan.

August 24, 1885.

COINCIDENT CEREBRATION.

To the Editor of The Medical Record.

Sir: *The Lancet* for August 15, 1885, contains a communication from "Nelson B. De Sizer, M.D. and Bac. Sc." (Neo-Eboracensis), dated "Brooklyn, New York, August, 1884," on the comparative danger of various anæsthetics. With the exception of the four introductory lines, the letter is an almost literal transcript of the seventy-ninth page of a work on "Artificial Anæsthesia and Anæsthetics," published by William Wood & Co., A.D. 1881. Of this republication of those statistics in the form of an original article, I do not now complain; but I do regret that the gentleman did not improve the occasion by adding to those figures, whose collection cost me so much labor, a new series of observations compiled from the literature that has accumulated during the past five years—a literature to which I have not access. I remain, Sir, yours truly,

Henry M. Lyman, A.M., M.D.

Chicago, Ill., August 27, 1885.

RHUS AROMATICA IN THE TREATMENT OF ENURESIS.

To the Editor of The Medical Record.

Sir: Since the publication of the brief article in The Record of July 25th on rhus *aromatica* (not rhus toxicodendron) in the treatment of enuresis, I have received a number of letters from physicians in different parts of the country, asking for further information in regard to the remedy. For the benefit of those interested I will say that my experience with the drug has been confined chiefly to the treatment of children. For a child ten years of age I usually prescribe ten or fifteen drops—of a reliable fluid extract—three or four times a day—say a dose after each meal and at bedtime, to be given in a little glycerine and water, or other suitable excipient. No special nicety need be observed in regard to dosage, as it is regarded as harmless if given in any quantity which an intelligent physician would be likely to prescribe. In reply to your Boston correspondent (see Record of August 15th), I will say that I wrote rhus *aromatica* in the text of the article of July 25th, and either the editor of The Record or the printer supplied the headline, and erroneously wrote rhus *toxicodendron*. So far as I know the latter drug is of no benefit in enuresis. The good effects of rhus aromatica are usually manifested quite promptly—frequently giving relief within the first two or three days. I have also found the drug useful in the diarrhœas of both adults and children arising from intestinal indigestion.

Those desiring further information can obtain the same by referring to the *Therapeutic Gazette* for May, 1882. Yours respectfully,

George W. Willeford, M.D.

Glendale, Ind., August 20, 1885.

The Family Doctor.—Little Boy: "Please, I want the doctor to come and see mother." Servant: "Doctor's out. Where do you come from?" Little Boy: "What! Don't you know me? Why, we deal with you. We had a baby from here last week!"

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 30, 1885, to September 5, 1885.

Magruder, D. L., Lieutenant-Colonel and Surgeon. Granted leave of absence for fifteen days. S. O. 210, A. G. O., September 3, 1885.

Middleton, Passmore, Major and Surgeon. Assigned to duty as attending surgeon at these headquarters, vice Major J. V. D. Middleton, Surgeon, hereby relieved. S. O. 131, Department of the Missouri, August 28, 1885.

Girard, Alfred C., Captain and Assistant Surgeon. Assigned to duty as post surgeon at Boise Barracks, Idaho Ter. S. O. 142, Department of the Columbia, August 22, 1885.

Davis, William B., Captain and Assistant Surgeon. Having reported for orders from leave of absence, assigned to duty at Fort Porter, N. Y., as post surgeon. S. O. 183, Department of the East, August 28, 1885.

Kane, John J., Captain and Assistant Surgeon. Upon expiration of his present leave of absence, to be relieved from duty at Willet's Point, New York Harbor, and to report to Commanding General, Department of Texas, for assignment to duty. S. O. 201, A. G. O., September 3, 1885.

Banister, John M., Captain and Assistant Surgeon. Assigned to temporary duty at the camp of the competitors at Creedmoor, N. Y., arriving not later than September 4, 1885. S. O. 58, Division of the Atlantic, August 31, 1885.

Richard, Charles, Captain and Assistant Surgeon. To be relieved from duty in Department of the East, and to report to the Commanding Officer, Willet's Point, N. Y., for duty at that station. S. O. 201, C. S., A. G. O.

Kendall, William P., First Lieutenant and Assistant Surgeon. (Recently appointed.) To report in person to the Commanding General, Department of California, for assignment to duty. S. O. 201, A. G. O., September 3, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 5, 1885.

Stewart, Henry. Surgeon. Leave of absence extended one year from October 15th, with permission to remain abroad.

Steele, John M., Passed Assistant Surgeon. Detached, September 1st, from Constellation, and report for duty at Naval Academy, Annapolis, Md.

Bright, George A., Surgeon. Detached, September 1st, from Constellation, and wait orders.

Dickson, S. H., Passed Assistant Surgeon. Ordered to Naval Academy, Annapolis, Md., as relief of Passed Assistant Surgeon A. A. Austin.

Fitts, Henry B., Assistant Surgeon. Detached from Coast Survey Steamer Gedney, and wait orders.

Austin, A. A., Passed Assistant Surgeon. Detached from Naval Academy, Annapolis, Md., and ordered to Coast Survey Steamer Gedney, to relieve Assistant Surgeon H. B. Fitts.

Oleum Deelinæ, or deelina oil, is the name given by Dr. John Roberts, of Chester, England, to a refined petroleum, prepared on the banks of the Dee, and which is recommended for medicinal and surgical use, on account of its greater purity than vaseline. Although it is an oil, little or no greasiness is left on its application; it is readily absorbed, has no odor, and never becomes rancid. Dr. Roberts regards it as "almost a specific" in eczema and kindred diseases of the skin.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending September 5, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
September 5, 1885.....	0	37	11	1	8	28	2	0
Deaths.								
September 5, 1885.....	0	10	2	1	1	18	0	0

TREATMENT OF EPISTAXIS.—Introduce into the nostril, to a considerable distance upward, a piece of fine sponge cut to the size and shape necessary to enable it to enter without difficulty, previously soaked in lemon juice or vinegar and water. The patient is to be kept lying on the face for a length of time with the sponge in place.

SCROTAL CALCULI.—Dr. Schkott, of Moscow, has recently described, in a Russian medical periodical, the case of a patient, aged twenty-seven, who, when a child, was subject to some obscure disease of the scrotum, and noticed, later on, that he apparently had developed a third testicle, much harder than the two normal glands. For seven years before he came under Dr. Schkott's care in hospital, he frequently passed blood in his urine, and for two years micturition and coitus had been attended with pain. The third testicle reached the size of a goose's egg. Three months before admission he struck the scrotum, which inflamed and suppurated. The abscess burst, and left a fistulous track. On passing a probe into the track, three hard substances, which could be moved separately, were distinctly felt. On passing a catheter, a fistula was detected in the membranous part of the urethra. The scrotum was incised, and seven uric acid calculi were found in a capsule of connective-tissue, fitting closely against each other. Dr. Schkott excised the sac after extracting the calculi, and closed the urethral fistula first with catgut, and then sutured the scrotal wound with the same material. The fistula opened up again, but was successfully closed by a second operation.—*The British Medical Journal.*

POWDERED RICE AS A STYPTIC.—It is said that powdered rice as a styptic remedy has a great effect on fresh wounds, much superior to oxide of zinc. By mixing from four to eleven per cent. of it with lint, and using the lint thus treated as a compress, it is very effectual and more valuable than subnitrate of bismuth, salicylic acid, or carbolic acid.

SALICYLIC LEMONADE.—The *British and Colonial Druggist* says that as a "hospital beverage," which has lately been found of very great value in cases of typhoid and other fevers, scurvy, and gout, the following cannot be too widely known, it having been, we understand, first devised by a late medical officer attached to the Soudan expedition: ℔ss. Fruct. limon., No. 10; acid. citric., ʒss.; acid. salicylic., gr. cc.; sacch. alb., aquæ, ää q. s. Squeeze the lemons and put the juice aside; boil the fruit in half or three-fourths of a gallon of water for fifteen or twenty minutes; after standing six hours take out the lemons, and again press them before throwing the exhausted pieces away. Add the juice and citric acid to the liquid, boil five minutes, and strain. While hot add the salicylic acid, and stir until dissolved. Sweeten to taste with the white sugar, and make up the bulk to one gallon of water. Salicylic lemonade may be taken freely, either of the strength here given, or diluted with half its bulk of water. It should be freshly made every two or three days, unless it be permissible to "qualify" it by the addition of a little pure French brandy. If required to be in "bright" condition, add, when cold, a little beaten-up white of egg, boil for three minutes, and filter. If found rather too harsh for some tastes, dissolve in the boiling liquid, before straining, half an ounce of Nelson's Patent Opaque Gelatin, previously swelled for five hours in cold water.

OVARIOTOMY IN BELGIUM.—An interesting event was celebrated by a festival at Ghent recently. Dr. Boddaert, one of the most distinguished of Belgian surgeons, having completed one hundred cases of ovariotomy received thereupon the congratulations of many of his professional brethren. Sir Spencer Wells was to have been present, but was unavoidably detained in London. A letter from him was treated as the proposal of the toast of the evening, and a reply was sent by telegraph that the company were drinking his health in bumpers of champagne. Considering that Sir Spencer Wells performed ovariotomy in Brussels for the first time in 1865, and had a successful case in Ghent with Dr. Boddaert in 1871, when the operation was still a novelty, it is not a little surprising that one Belgian surgeon should already have had one hundred cases.—*The British Medical Journal.*

ATTEMPTED SUICIDE THROUGH DRINKING KEROSENE.—A patient was recently admitted into the Lariboisière Hospital, who had attempted suicide by drinking petroleum. She suffered from an intense burning sensation in the mouth, œsophagus, and stomach. She was very excited from the effect of pain and disappointment at having failed in her suicidal attempt; she exhaled a strong odor of petroleum. Two grammes of ipecacuanha, supplemented by several glasses of milk, provoked vomiting. The vomited matter was covered by a layer of petroleum, which presented the aspect of continuous grease-spots. After an enema was administered, she had a motion, which presented the same peculiarity as the matter vomited, and also smelled strongly of petroleum. She continued to take large quantities of milk. She gradually recovered, and ate the ordinary fare. Small doses of quinine-sulphate cured the pains in her head, which had caused her much suffering, and in ten days she was convalescent. During four days she exhaled an odor of petroleum.

CÆSAREAN SECTION IN CENTRAL AFRICA.—In a recent article on the postures adopted by women in labor in Central Africa, Dr. Breitmann gives an interesting account of the operation of Cæsarean section, as witnessed by Dr. R. W. Felkin at Kahura (*The Medical Press and Circular*, July 15, 1885). The case was that of a very handsome young negro woman, a healthy primipara, aged twenty years. He entered the hut just at the commencement of the operation, but was not permitted to convince himself of the condition of affairs by examination. By the side of the half-intoxicated patient stood a quantity of banana wine. A bandage of Mbugu, a stiff material made from the bark of a tree, went over the breast, and bound the patient firmly to the bed, another passed over the thighs; an assistant held fast the feet, and another, standing on the right side, held the skin of the abdomen on the stretch. The operator, holding aloft the knife, muttered a prayer. After the completion of the ceremony he thoroughly washed the abdomen of the woman and his own hands with banana wine, uttered a piercing cry, which was repeated by those standing without, and made an incision from the pubes almost to the umbilicus, and right into the uterus, so that the liquor amnii gushed out. Some bleeding vessels were successfully touched with the actual cautery. The operator quickly extracted the child, while a second assistant drew the edges of the uterine wound apart and compressed them. After division of the umbilical cord the child was handed to a woman, the operator laid aside the knife, grasped the uterus and compressed it with both

hands with all his might. He then dilated the cervix with two or three fingers, removed the blood-clots and the placenta, while the assistants were busy in arranging the intestines, and especially in preventing any portion getting between the edge of the wound. What bleeding still continued was stopped by the actual cautery, while the operator still compressed the uterus until it was firmly contracted. No sutures were inserted. The assistant who had before held the abdominal wall on the stretch grasped the angle of the wound and the whole wound was covered with an herb pad. The bandages were now loosed, the assistant grasped the patient by the arms and turned her over into a position in which the fluid in the abdominal cavity flowed out. She was then brought back into the former position, the herb covering was removed, the edges of the wound were carefully adjusted and fixed with well polished needles, similar to acupressure needles, and made fast by an encircling thread. A paste prepared from two different roots by chewing was laid over the wound in the place of plaster, over this a previously warmed banana leaf, and the whole fastened on with Mbugu bandage. Up to the moment when the needles were inserted the patient had evinced no expression of pain, and an hour after the operation was in good spirits. The temperature did not rise above 37.5°, C. except during the first night, when it reached 39°. Pulse 108. Two hours after the operation the child was put to the breast, but after about ten days, as the milk stopped, it was fed by another woman of the tribe. The first change of dressing was made on the third day, a needle was removed, then more followed on the fifth, and the remainder on the sixth. At every change of dressing fresh "ointment" was put on, and the secretion from the wound removed with a tampon charged with it. The dressing was always solid, and in nine days after the operation the wound was healed and the patient quite well. Beyond the interest which naturally attaches to a case of this nature, it is heightened in the present instance by the quaint native proceedings and the decidedly civilized method employed by the chief operator.

"Gall on the Liver."—During a consultation of physicians, a doctor, who, though lacking a college education, has the—to his mind—superior qualification of experience gained in fifteen years of practice, gravely stated his diagnosis to be "gall on the liver," and, judging from the amount of gas he had heard escape from the child's bowels, it was evident it also had a severe gastritis.

Cæsarean Section by an Ox.—Dr. J. Z. Scott, of Scandia, Kans., reports the following unique case: Mrs. P——, aged thirty-four, the mother of seven children, and near full term in her eighth pregnancy, on November 16th was gored by an infuriated ox. The horn of the beast entered at the anterior-superior spinous process of the ilium, and made a rent extending to the umbilicus, and involving both the abdominal parietes and the walls of the uterus. The child was extruded through the wound in half an hour after the occurrence of the accident. When Dr. Scott arrived on the scene he found the child fully delivered, but remaining attached to the cord, which he ligatured and severed. There being no dilatation of either the os uteri or the vagina, he delivered the placenta through the rent and applied a bandage. The patient was almost lifeless from hemorrhage and shock, and he placed her on morphine and whiskey. On the following day she was still alive, and Dr. Means was called in consultation at 9 30 A.M. The small intestines escaped from the wound on the removal of the bandage, and were returned with much difficulty. The wound was now closed with interrupted sutures, a carbolized compress was applied, and the morphine and whiskey continued internally. At 5 P.M. of the same day he found the pulse 130, and respiration 25 per minute. The abdomen was greatly distended, and the vital powers were fast becoming exhausted. On the following morning he found on his visit that the woman had expired at ten o'clock of the previous night. Dr. Scott believes this case to be the only authentic instance of Cæsarean section performed by a beast on record. It may be interesting to know that the child suffered little or nothing from the violent and unusual method of its delivery, and is alive to-day, a vigorous and thriving boy.—*The Medical Age*, August 10, 1885.

Teaching very Deaf Children at Home is described by an experienced teacher, Miss Warren. The deaf infant's attention is not arrested by the mother's voice as in the case of the hearing; it is thus not trained by degrees to enjoy sound. Its mind is a blank as to the "ba ba" and "da da," which early impress the unafflicted. The elements of spoken language are not found in its prattle; it is slow to associate the name with the object. A gradual improvement in the growth of speech-power in the hearing child is in proportion to the cultivation of the hearing power; the deaf child, however, is without that advantage unless direct teaching is given. Frequently a tube or trumpet is useful in arousing some latent hearing; the child gradually learns to recognize and repeat the various vowel sounds as they are spoken through it. Brightly colored pictures are shown and each object pointed out as its name is pronounced slowly, distinctly, and in a low voice near or in the pupil's ear; a loud voice will generally defeat the purpose, as its impact is so hard that it causes a shock at the expense of distinctness. The child is encouraged to repeat the word as well as it can. It may be long in remembering even one name. The lesson may be varied in many ways. Some sounds the child can learn only by placing the lips and tongue as those of the teacher are. This is the beginning of speech-reading. Variability in the hearing will often be noticed—when the child is tired, or neglecting to give attention, or when a catarrhal inflammation interferes with the equilibrium of the transmitting apparatus of the ear, upon which normal hearing depends, and which is sometimes subject to unexpected variations. Systematic instruction educates the amount of hearing that may exist, trains the eye to interpret for the ear, and awakens the young mind to the power and pleasures of speech. If hearing has been lost by illness after a child has begun to speak, it must be encouraged to use its voice until special instruction can be secured.

Longevity and Riches.—Joseph Körösi, of Buda-Pesth, in a paper read before the Association of Hygiene, in Berlin, last year, presents some figures regarding the effect of the pecuniary status of longevity. Excluding deaths in infancy, he finds, taking his observations from a period of eight years, that the rich class had a longevity of 52 years, the middle class of 46 years 1.1 month, the poor class of 41 years 7 months. In the matter of susceptibility to infectious diseases he finds that cholera, small-pox, measles, and typhoid are more prevalent among the poor, and diphtheria, croup, pertussis, and scarlet fever among the well-to-do. Zymotic diseases, as a whole, were sixty per cent. more frequent among those living in basements than in higher domiciles. But the increase in fatality in underground tenements applied only to certain diseases, as especially measles and whooping-cough, while diphtheria and scarlet fever were ten per cent. less frequent than in families living above ground.

Herpes Iris affecting the Conjunctiva.—Dr. Bergmeister describes a case of recurrent herpes iris of the conjunctiva in a stone-worker, aged thirty, who had suffered from eight attacks. The mucous membrane of the nose and mouth were free, but the skin of both arms and legs were affected with the characteristic rash. A croupous membrane was seen in the eyes; the lids were swollen, and there was much catarrhal secretion. Similar cases have been mentioned by Fuchs in 1876, and by Neumann in 1883.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 12 NEW YORK, SEPTEMBER 19, 1885 Whole No. 776

Original Articles.

HYDROBROMATE OF HYOSCINE—ITS USE IN CASES OF INSANITY.

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At meetings of the German Chemical Society, April 30, and July 26, 1880 (*Berichte der deutsch. chem. Gesellschaft*, vol. xiii., 909 and 1549), Professor A. Ladenburg reported some results of his researches among mydriatic alkaloids, particularly those of *Hyoseyamus niger*. At that time this plant was known to have two alkaloids, viz., crystallized and amorphous hyoscyamine. He derived a new alkaloid, hyoscine, from the latter, and it is not, as some suppose (Höhn and Reichardt), to be obtained from crystalline hyoscyamine. He finds that hyoscine, hyoscyamine, and atropia are actually isomeric, the formula for each being $C_{17}H_{23}NO_3$, and furthermore that each is separable into tropic acid, $C_9H_{10}O_3$, and tropine or pseudotropine, $C_8H_{15}NO_3$. He has also converted hyoscyamine into atropine, and atropine into hyoscyamine in his laboratory; though he has not thus far been able to transform hyoscine into either of the other mydriatics. He gave the new alkaloid to Professor Edlessen and Dr. Illing of the Kiel Policlinic for trial as to its medicinal effects. We condense the medical literature of hyoscine to the present time, as far as we know it, into the following:

Edlessen and Illing (*Centralb. für die med. Wissenschaft*, June 4, 1881) used the hydrochlorate and hydroiodate of hyoscine, preferring the latter, and giving it altogether by mouth in average doses of 1.2 milligr. They report beneficial effects in three of six cases of whooping-cough in children, six cases of asthma, two cases of enteralgia, and one of epilepsy; in the last diminishing the number of attacks. They consider it similar to atropine, but safer and more constant in its action; they also state that larger doses of hyoscine may be used without producing the constitutional symptoms common to both.

R. Gnauck, of the Charité psychiatric clinic (*Centralb. für die med. Wissenschaft*, November 5, 1881, and February 11, 1882; also *Charité Annalen*, 1882, 448), using it in both healthy and insane persons, says that it gives rise to the same physical disturbances as atropine and hyoscyamine, that like the latter it induces sleep and fatigue, but that unlike either it reduces the pulse. He further states hyoscyamine and hyoscine differ from atropine in tending to produce sleep, and that the sleep caused by hyoscine lasts but half as long as that from hyoscyamine. He employed it subcutaneously in doses of 0.0001 to 0.0025 gramme.

The above experimenters all pronounce hyoscine unusually uncertain in its effect upon different persons in the same dose, and even upon the same person at different times.

E. Emmert (*Corresp. Bl. f. schweiz. Aertzte*, 1882, No. 2) finds it much more rapid in its mydriatic action than atropine, and remarks that it should not be used in stronger than one-half per cent. solution, because of the danger of constitutional effects.

Fraentzel (*Charité Annalen*, viii., 1883, p. 301) used the hydroiodate in the night-sweats of phthisis, with marked benefit in ten cases out of twenty-nine experimented upon, in doses of one-half to one milligr.

J. A. Claussen (*Diss. Kiel*, 1883; *Centralb. f. d. med. Wiss.*, July 12, 1884) made use of the hydrobromate and hydroiodate in several cases where there was sleeplessness, without specially good, and in one with bad, results.

H. C. Wood (*Therapeutic Gazette*, January and February, 1885) has made the hydrobromate familiar to American readers by his excellent articles upon the subject. He finds hyoscine a spinal, centric respiratory and feebly cardiac depressant. The following is quoted from his first paper: "The peculiar therapeutic value which this physiological study leads us to look for in hyoscine arises from the union of decided hypnotic powers with a spinal sedative influence and a very feeble depressant action on the circulation. The experiments so far indicate also freedom from disturbance of the secretions and unpleasant after-effects."

Led by such praise, we tested the efficacy of the new and tasteless remedy in about sixty cases, some of which we here report. We sought chiefly to learn its hypnotic value. We have used some forty grains of Merck's hydrobromate of hyoscine, at seventy-seven cents per gram, both by mouth and hypodermatically. The largest dose we have given is gr. $\frac{1}{2\frac{1}{4}}$ by mouth, gr. $\frac{1}{4\frac{1}{8}}$ subcutaneously. In the appended reports of cases, the letters H. H. are an abbreviation of hydrobromate of hyoscine; doses are given in fractions of *grains;* where the method of its employment is not mentioned the doses are by mouth.

MELANCHOLIA.—CASE I.—A. A——, female, aged fifty-five; much depressed, moaning and crying aloud, delusions that her soul is lost, that she is damned, must be burned, etc., sleepless. Has slept from one to five hours nightly for the past month on two doses, each containing pot. brom., chloral, āā gr. xx. Prescribed H. H. for nearly a month, at first gr. $\frac{1}{6\frac{1}{6}}$ ter in die et $\frac{1}{4\frac{1}{2}}$ bis in nocte. The pupils were dilated on the second day, and there was also headache and dryness of the fauces and tongue. This, together with disturbance of accommodation, continued as long as the drug was used. At no time were constitutional symptoms severe. On the seventh day the dose was increased to gr. $\frac{1}{3\frac{1}{3}}$ t.i.d. On the tenth night the dose was increased to gr. $\frac{1}{6\frac{1}{0}}$ b.i.n. She had thus far slept some four to five hours nightly with these doses, but the amount of sleep seemed to diminish, and on the fifteenth night morph., gr. $\frac{1}{8}$, was added to the two night doses of H. H., gr. $\frac{1}{6\frac{1}{0}}$. From this time to the end of the month, she has slept five to six hours nightly. She is at present sleeping well on small doses of chloral and bromide. H. H. discontinued, because of disturbance to vision.

CASE II.—D. B——, female, aged twenty-eight; somewhat depressed, marked insomnia. Has usually required tr. hyos., 3 ij.; chloral, gr. x., to produce three to seven hours' sleep nightly. Prescribed H. H. for twenty nights, beginning with grain $\frac{1}{6\frac{1}{6}}$ b.i.n., increasing on the thirteenth night to gr. $\frac{1}{4\frac{1}{2}}$ b.i.n. During the latter half of the twenty nights the medicine seemed to affect her less. She slept fairly at first. A few constitutional symptoms appeared, the dilatation of pupils, disturbance of accommodation, dryness of throat, etc. On the twentieth day began to have nausea, abdominal pains and diarrhœa. The H. H., although not blamed for this, was discontinued. For a few nights she took Dover's powders b.i.n., which checked the looseness of bowels but caused no sleep. After that she slept well on chloral and bromide in small doses.

Case III.—A. H——, female, aged forty-six; great depression, sometimes excitement, sleeplessness. Has required usually tr. hyos., ʒ ij.; morph. sulph. gr. ⅜, for the past ten nights to produce three to six hours sleep. Prescribed H. H., $\frac{1}{30}$ t.i.d. et b.i.n., off and on for twenty-four days. Dilatation of pupils was the first effect. On the tenth night took gr. $\frac{1}{12}$ at 1 A.M., and was sleepless all night. Since beginning the H. H. she has slept very little. When she had sleep it came on from three-quarters to two hours after the doses were taken, and would last but two hours or so. She complains of thirst, her pupils are wide, skin cold, pulse 128, feels faint, has abdominal pains and diarrhœa. Is sent to bed and H. H. stopped. Eleventh day, pulse again normal; diarrhœa has ceased. For the remainder of the time she took gr. $\frac{1}{60}$ at night, without return of bad symptoms, but slept poorly. After the twenty-fourth day she refused to take the medicine, and has slept fairly well since without a hypnotic.

Case IV.—C. E. P——, female, aged fifty: restless, sleepless, walks up and down bemoaning her fate aloud. For a week previous was sleepless at home, and sleepless the first night of admission. Was put upon H. H., gr. $\frac{1}{30}$ b.i.n., for eight nights. The first two or three nights was sleepless, then for two nights slept four to five hours, after that sleepless and more excited. At the end of the eight days' trial was put upon tr. hyos., ʒ ij.; chloral, gr. x., b.i.n., with which she has slept from one to four hours nightly since. The constitutional symptoms from H. H. were present, but slight. When sleep seemed to be produced by it at all, from one to two hours were required before any effect was apparent.

Case V.—I. C——, female, aged twenty-four; excited, crying aloud at times, thinks she has killed her family; sleepless for some nights before admission. The first night in the hospital she slept three hours with tr. hyos., ʒ ij.; chloral, gr. x. Was put upon H. H., gr. $\frac{1}{30}$ b.i.n., for six nights, and slept four to six hours each night. A few slight constitutional symptoms were produced. Not caring to produce more, tr. hyos., ʒ j.; chloral, gr. x., one dose at night, has been prescribed since, resulting in from five to six hours' sleep nightly.

Case VI.—E. B——, female, aged fifty-three; restless, apprehensive; sleeps poorly, has præcordial fright and headache. Has slept sufficiently of late with tr. hyos., ʒ ij.; morph. sulph., gr. $\frac{1}{4}$. Prescribed H. H., gr. $\frac{1}{30}$ t.i.d., at different times through a month, and often H. H., gr. $\frac{1}{12}$; morph. sulph., gr. ⅜, at night. In two or three days she invariably became more nervous and excited, vision blurred, pupils dilated, præcordial fright greater, throat parched, and diarrhœa would set in, whereas she is naturally constipated and requires mist. aloes, ʒ j., every morning. Her bowels would move four to five times daily. As soon as the H. H. was stopped she became constipated; upon its renewal there was again laxity of the bowels. This was tried four times with the same result. The above dose of H. H. and morph. induced sufficient sleep.

Case VII.—S. N——, female, aged fifty-seven; constantly walking, talking, bewailing, picking and tearing her clothes. Up to within a few days has slept well without a hypnotic, but latterly has been out of bed and noisy the last half of each night. H. H., gr. $\frac{1}{30}$, was given for seven nights, gr. $\frac{1}{48}$ for fourteen nights subsequently. For the first few nights slept from four to five hours with this dose, but she gradually began to sleep less and to be more excitable through the rest of the time. Sleep would not come on until an hour or more had elapsed from the time of taking the dose. There was dilatation of pupils, dryness of throat, etc., from the beginning. Since abandoning the drug she has slept well without medicine.

Case VIII.—J. D——, male, aged twenty-two; confused, depressed, delusion that he is in every way ruined; paces restlessly to and fro during day. Has been for some weeks sleeping well at night. Prescribed H. H., gr. $\frac{1}{30}$ t.i.d. five days, gr. $\frac{1}{60}$ for six days, and gr. $\frac{1}{12}$ for fourteen days—twenty-five days in all. On the fourth day pupils were dilated, pulse feeble, and extremities cold. On the twelfth day pulse was 100 and irregular. No change in his restlessness or mental condition. On the twentieth day was much more agitated, wringing his hands, etc. At 8.45 P.M. pulse was 82; H. H., gr. $\frac{1}{30}$, was given hypodermatically. Nine o'clock, pulse 78, pupils much dilated. Says he feels "faint;" went to bed at 9.45 P.M., and slept the greater part of the night. The next day he was depressed as usual, lamenting, walking restlessly to and fro, pupils very widely dilated, mouth and throat dry. On the twenty-fifth day he was very much agitated and disturbed, and H. H. was discontinued and Brown-Séquard's mixture of the bromides substituted. On the thirtieth day he was much quieter, though depressed as before. His appetite, which became impaired while on H. H., has also improved.

Case IX.—C. C. J——, male, aged thirty-five; quiet, confused, depressed, has auditory hallucinations, and under their influence is at times violent. For several nights has taken potassii bromidi and morph. sulph. Prescribed H. H., gr. $\frac{1}{30}$ twice nightly for four nights, when the dose was increased to gr. $\frac{1}{12}$ b.i.n., and H. H., gr. $\frac{1}{30}$, was ordered t.i.d. With the exception of two hours during the first night, two hours during the fourth night, patient has had no sleep since he commenced taking H. H., his appetite has failed and he has become more confused. On the sixth day, after passing a sleepless night, his pupils were very widely dilated; pulse 42, small and almost thready; extremities cold; muscular tremor present, mouth parched; he was utterly dazed and bewildered. H. H. was discontinued and stimulants ordered. The next day his pulse was 78 and stronger. On the ninth day he was ordered H. H., gr. $\frac{1}{12}$; morph. sulph., gr. $\frac{1}{4}$; sp. frumenti, ʒ j., b.i.n. for fourteen days. For the first two nights this combination seemed to produce from five to seven hours' sleep, but after that the amount of sleep obtained steadily decreased. On the twenty-third day night medicine was changed to morph. sulph., gr. $\frac{1}{4}$; tr. hyos., ʒ ij., b.i.n. While taking H. H. at night pulse would usually fall to 50, appetite became impaired, and there was no improvement in his mental condition.

Case X.—M. B——, male, aged twenty-nine; noisy, garrulous, restless, unhappy. Sleeps well usually at night. Prescribed H. H., gr. $\frac{1}{30}$ ter in die. On the fourth day is much quieter; pupils dilated; throat dry. On the sixth day the dose of H. H. was increased to gr. $\frac{1}{12}$. On the eleventh day pulse was 78 and feeble, circulation poor. Appetite has been poor for past week, and for two days past has complained of nausea and pain in abdomen. Complains of shortness of breath; says he "can scarcely get his breath." Refusing to take his medicine it was discontinued. Continued quiet for two days and then became noisy and garrulous as before, when it was again prescribed, producing similar train of symptoms, viz., dilatation of the pupils, dryness of fauces and throat, anorexia, but marked diminution of his garrulity.

Case XI.—T. M.——, male, aged thirty; quiet, confused, sullen, suspicious, depressed. Is troubled with insomnia, but obtains three to six hours of sleep after taking chloral and tr. hyos., or morphine. Prescribed H. H., gr. $\frac{1}{30}$ b.i.n. Did not sleep any during the first two nights. On the third day there was increased excitement; he was noisy at times and destructive; pupils are dilated; throat is dry; says that he thinks one of the attendants jumped down his throat and is stuck there. H. H., gr. $\frac{1}{12}$, ordered b.i.n. for four nights. Slept for three hours the first of these nights, but did not sleep during any of the other three. H. H., gr. $\frac{1}{60}$ b.i.n., ordered for one night; pulse varied from 56 to 60 during the night; did not sleep. H. H., gr. $\frac{1}{48}$ b.i.n., ordered for ten nights. During this time but two hours of sleep a night were obtained; constitutional symptoms were

marked; pupils dilated, throat dry, there was considerable irritation of the skin, and an apparent sensation of heat; patient scratches himself much; much muscular tremor present. The next night two doses of H. H., gr. $\frac{1}{30}$, were now given, producing only two hours of sleep. The following night no H. H. was given, but took chloral, gr. xx., in whiskey punch; slept only one hour, and was noisy afterward. H. H., gr. $\frac{1}{15}$; morph. sulph., gr. $\frac{1}{4}$; sp. frumenti, ʒ j., was now ordered b.i.n. for three nights. The first of these nights he obtained two hours of sleep and was quiet. The following day he was greatly disturbed, was violent and treacherous and destructive. At noon his pulse was 88; H. H., gr. $\frac{1}{48}$, administered hypodermatically. Ten minutes after injection pulse was 96; ten minutes later pulse was 114. Five minutes later he became delirious, very noisy, incoherent, weeping and sobbing. This excitement continued for twenty minutes and then subsided, and he became very quiet and remained so for some hours, but did not sleep, and did not sleep during the succeeding night and the night after that. Is dazed, bewildered, tremulous, excitable, pupils dilated, staggers in walking; pulse feeble and rapid; looks haggard and general appearance is bad; scratches himself; tears off his clothing. Ordered H. H. to be discontinued. Prescribed Brown-Séquard's mixture during the day and chloral and tr. hyos. at night. The first night of the change he slept for six hours, and since then to the time of present writing, six days, he slept the greater portion of each night. Constitutional effects of H. H. have disappeared; appetite has improved; is not noisy or destructive.

Case XII.—B. S. K——, male, aged thirty; confused, depressed, excited. Has increased motility, walks much; has marked auditory and ocular hallucinations; thinks he is being persecuted by enemies and spirits. Pulse full, and at times rapid. Sleep irregular. Usually takes morph. sulph. and Brown-Séquard's mixture at night, and sleeps from six to seven hours, though occasionally will not sleep any, and occasionally will sleep all night without medicine. Is taking Brown-Séquard's mixture, ʒ j. t.i.d. Prescribed H. H., gr. $\frac{1}{60}$ ad nocte. Slept well the first night. The second night was restless and slept only two hours. Slept four hours the third night, and on the following day was very much disturbed, noisy, and violent; hallucinations of hearing prominent. On the fourth night slept but two hours, and was much excited after two o'clock. Noisy, shouting "Murder!" "Fire!" Was given a dose of potass. brom., ʒ ss.; morph. sulph., gr. $\frac{1}{4}$, and soon became quieter. Fifth, sixth, seventh, and eighth nights slept without medicine. Ninth, tenth, and eleventh nights took H. H., gr. $\frac{1}{30}$, at 10 P.M., and slept afterward. Pupils are now dilated, throat dry. Hallucinations much less marked; is quiet; says he is feeling better. Twelfth day was wakeful much of the night. H. H., gr. $\frac{1}{30}$, ordered b.i.n. Thirteenth day took doses at ten o'clock and at one o'clock; slept one hour after the first and two hours after the second dose. Fourteenth day slept half the night without medicine. From the fifteenth to the twenty-third night, with the exception of the sixteenth, when he slept three hours, he obtained seven to eight hours' sleep each night after taking one dose of H. H. Is now becoming more disturbed during day, and hallucinations of hearing are again troublesome, pupils are dilated and throat dry, pulse is normal. Brown-Séquard's mixture is discontinued, and H. H., gr. $\frac{1}{30}$, ordered t.i.d. Twenty-fourth day slept most of the night after taking H. H., gr. $\frac{1}{60}$, at ten o'clock. Thirty-fourth day: Has continued to take H. H., gr. $\frac{1}{30}$, t.i.d. et gr. $\frac{1}{60}$ ad nocte. Has been quiet during the day; is less confused and depressed; not so restless. With the exception of the twenty sixth night, when he was restless, the greater part of the time he has slept well for the past ten nights. Pupils are dilated and throat is dry. Of late there has been anorexia and medicine is discontinued.

Remarks.—We have tried H. H. in these cases more particularly to test its hypnotic effect and power to allay excitement, not so much with a view to ameliorate the psychic symptoms of melancholia, and find that it has no particular value for either.

Acute Mania.—Case XIII.—A. G——, male, aged forty; noisy, incoherent, destructive, and violent. Has hitherto slept well on one dose nightly of tr. hyos., ʒ ij.; chloral, gr. xv. Is put upon H. H., gr. $\frac{1}{60}$ t.i.d. et ad nocte. Sixth day: Has slept well thus far, but last night only three hours. Is more excited, jumping wildly about and shouting; pupils wide, extremities cold, face flushed, mouth dry. Eighth day: Quieter. Tenth day: Sleeps two to three hours now; pulse during night 56. Night dose of H. H. increased to gr. $\frac{1}{15}$ b.i.n. Eighteenth day: Sleeps two to three hours only; very excitable to-day, noisy and destructive; noisy at night when not asleep; pulse varies nightly from 78 to 64. At 2.50 P.M. to-day extremely boisterous; pulse 90. Is given H. H., gr. $\frac{1}{60}$, hypodermatically. 2.55 P.M., pulse 86. 2.57 P.M., pulse 92. 3 P.M., pulse 80. 3.15 P.M., pulse 80. Fought desperately against a second hypodermatic with a chair; said he felt drugged. Became very violent and furious, wrenching a strong chair from the floor and breaking it. This excitement was of short duration. 3.50 P.M., quiet and lying down. 4.05 P.M., pulse 120; again very noisy and excited. 4.45 P.M., took gr. $\frac{1}{60}$ by mouth; pulse 80; is quiet. 5 P.M., pulse 70; very quiet, face flushed, voice hoarse. 9 P.M., has slept until now; awake and quiet; pulse 62. Twenty-first day: Has slept two to three hours nightly since last note on usual doses; pulse varies nightly from 88 to 64, and is often variable by day. To-day is very much disturbed and violent; tears off his clothing, and seems to have an unnatural sensation of heat of skin. Pupils widely dilated and face flushed. Twenty-fourth day: Continues noisy and destructive of clothing; sleeps but two to three hours at night with usual doses; pulse varies nightly from 80 to 60. Night doses now increased to $\frac{1}{60}$. Twenty-fifth day: Slept but three hours last night. Night doses increased to gr. $\frac{1}{30}$. Twenty-seventh day: Slept but three hours the last two nights; more excited to-day; pupils widely dilated; scratches chest, back, and arms, and tears off clothing. The H. H. is now discontinued altogether. Thirty-fifth day: Has slept well every night since last note on tr. hyos. and chloral, and has grown quieter on Brown-Séquard's mixt. t.i.d. Now keeps his clothing on.

Case XIV.—H. A. B——, male, aged twenty-seven; noisy, incoherent, violent, excitable, and destructive by day. Has been sleeping well for the past ten nights on tr. hyos., ʒ ij.; chloral, gr. x., one dose nightly. Prescribed H. H., gr. $\frac{1}{120}$ t.i.d. et ad nocte. Fifth day: Has thus far slept as well as usual, but by day has been unusually disturbed; pupils slightly dilated, face flushed. Day doses increased to gr. $\frac{1}{60}$ t.i.d. Eleventh day: Does not sleep as well; quieter and confused by day; pupils quite dilated, throat and mouth dry, extremities cold, pulse 78 to 70. Night doses also increased to gr. $\frac{1}{60}$ b.i.n. Nineteenth day: Pulse has varied nightly since last note from 106 to 60. Has slept quite well, but is noisier by day; this afternoon and evening unusually excited. 8.30 P.M., is given H. H., gr. $\frac{1}{60}$, hypodermatically; pulse 96. 8.55 P.M., pulse 120, pupils widely dilated, face flushed. 9.40 P.M., hypodermatic of gr. $\frac{1}{60}$ repeated; pulse 104. 10 P.M., very noisy, raving, delirious; could not get at pulse to feel it. In a few minutes became quiet and went to sleep. Slept lightly one hour. Twentieth day: 1 A.M., took $\frac{1}{60}$ by mouth and slept three hours. Quieter to-day; pulse 102 and feeble; pupils greatly dilated. Twenty-second day: Night doses increased to gr. $\frac{1}{30}$ b.i.n. Twenty-fourth day: Sleeps but about three hours nightly with the two doses; pulse very variable, 56 to 102; is much more disturbed and noisy by day; seems also more erotic; masturbates much. Twenty fifth day: Slept but one hour on the two doses. Pulse feeble and rapid, eyes suffused, pupils large, muscular tremor marked, seems utterly dazed, wild and haggard, is delirious. The H. H. is now discon-

tinued and patient put upon Brown-Séquard's mixture t.i.d., and two doses nightly of tr. hyos. and chloral. Thirty-fifth day: Has been sleeping two to four hours nightly since last note. Patient is quieter and his appetite, which had become much impaired under H. H. treatment, is restored.

CASE XV.—S. H. B——, female, aged forty; noisy, incoherent, destructive, filthy. For the past ten nights has slept two to three hours with tr. hyos., 3 ij.; chloral, gr. v., one dose nightly. Very noisy when awake. Put on H. H., gr. $\frac{1}{6}$, at night. Ninth day: Has been sleeping two to five hours on H. H.; dose now increased to gr. $\frac{1}{4}$. Nineteenth day: Has been sleeping four to five hours every night; noisy when awake. Dose now increased to gr. $\frac{1}{3}$, which she took two or three nights, sleeping well. Since then (for three weeks) to present writing has been sleeping well all night without medicine; is quieter by day. The constitutional symptoms in her were very slight. It always required from half an hour to one hour for the H. H. to take effect.

CASE XVI.—J. A——, female, aged twenty-three; very noisy, incoherent, in constant motion; is exhausting. Is an idiot with acute mania. Is reported to have been sleepless for several nights previous to admission. First night in hospital was noisy all night; was then put on H. H., gr. $\frac{1}{6}$. Tenth day: Has slept from three to five hours every night with this dose; dose now increased to gr. $\frac{1}{2}$. Is growing stronger bodily; sitting up; pupils dilated and face flushed some days. For nine nights following was given this dose; sleeping well at first, but gradually sleeping less. Nineteenth: Dose increased to gr. $\frac{1}{6}$. Was sleepless for two nights, but, after that, slept so well for a week with this dose and improved so much, that it could be discontinued. She now sleeps without medicine.

CASE XVII.—M. E. R——, female, aged sixty. This case is the most instructive, and we report it in full. Her mania is but of few days' duration. Admitted August 19th. She has refused food and medicine, does so now, and permits no physical examination. Is extremely obscene, profane, violent, and destructive. Seems to be exhausting, and prognosis of death in a few hours is made. Is put in a camisole in bed. At 3.55 P.M., H. H., gr. $\frac{1}{6}$, is forcibly injected into her leg; 4.25, still furiously maniacal. A second gr. $\frac{1}{6}$ is now injected; 4.30, is quieter, but too resistant to take pulse. Pupils dilated; 4.35, pulse 88. Still tries to be noisy, but cannot articulate; to resist, but lacks the power. 4.40, pulse 88, respiration 16; is sleeping quietly. 7 P.M., awoke stupid and weak; 7.30, took a milk-punch. At 9 awake, but quiet. 10.30, took half a milk-punch, which contained H. H., gr. $\frac{1}{6}$, and also three-quarters of a glassful of milk. Was sleepless and noisy at times the rest of the night.

August 20th.—Very noisy most of the forenoon; will not allow pulse to be felt. 11.55 A.M., H. H., gr. $\frac{1}{2}$, forcibly injected hypodermatically. 12.10 P.M., got out of bed; staggered like a drunken person; talked thickly; voice hoarse; less noisy, but impossible to get at pulse; drank a little milk. 12.15 o'clock: perfectly quiet in bed; drowsy; took a pint of milk. 12.20 o'clock, is dozing; pulse 96. 2.25 o'clock, P.M., awoke and took nourishment; is quiet and stupid. 2.40 o'clock, went to sleep again. 9 o'clock, P.M., has been stupid and quiet all the afternoon and evening; has taken milk and beef extract. 10.30 o'clock, P.M., took a milk punch containing H. H., gr. $\frac{1}{6}$. Sleepless all night, and noisy after 3 o'clock; took milk at intervals.

August 21st.—5.35 P.M.: Has slept about three hours during the day, but has been extremely noisy the entire afternoon; impossible to induce her to take a single swallow of food or drink; H. H., gr. $\frac{1}{3}$, injected hypodermatically forcibly. 5.50 o'clock, quiet; beginning to doze; refuses nourishment. 6 o'clock, asleep; continued to sleep until 12.20 A.M. 1 A.M., took punch containing H. H., gr. $\frac{1}{6}$, and nourishment at different times afterward; slept no more; very noisy between 1 o'clock and 3 o'clock.

August 22d.—8 A.M.: Went to sleep after taking a pint of farina and milk. 11 o'clock, A.M., is awake and quiet, except when people enter her room, when she becomes furious. 5 o'clock, P.M., H. H., gr. $\frac{1}{2}$, injected hypodermatically. Has been extremely noisy all the afternoon. 5.15 o'clock, quiet, but not asleep. Took three eggs, a glass of milk, and 3 ij. meat extract, then went to sleep. 5.40 o'clock, sound asleep.

August 23d.—12.20 P.M.: Slept last night until 2.30 o'clock this morning. Very noisy after that until now, but took a punch containing H. H., gr. $\frac{1}{6}$, which had no effect; H. H., gr. $\frac{1}{6}$ injected hypodermatically. 1.10 o'clock P.M., stupid, but still awake; quiet; takes liberally raw eggs, milk, whiskey, and meat extract (one pint altogether). 1.25 o'clock, P.M., sound asleep. 2.25 o'clock, P.M., awake and noisy as ever. 5.20 o'clock, P.M., continues to be noisy, is furious whenever any one enters her room; a second hypodermatic injection of H. H., gr. $\frac{1}{6}$, is given. 5.35 o'clock, went to sleep. 7 o'clock, P.M., woke up; is well fed; went to sleep again.

August 24th.—Continued to sleep until 10.40 o'clock, P.M., last night; very noisy after that time. 12 o'clock, noon, has been as violent, profane, and obscene as possible, up to this hour; H. H., gr. $\frac{1}{4}$, is now given hypodermatically. 12.10 o'clock, P.M., asleep; is easily roused, and takes a quantity of food; pulse 80, tongue and lips covered with sordes. 4 o'clock, P.M., awoke and is fed. 5.40 o'clock, P.M., noisy for the last hour. H. H., gr. $\frac{1}{4}$, injected hypodermatically; went to sleep in a few minutes; slept for three hours, when she awoke and became exceedingly noisy; refused nourishment.

August 25th.—11.30 A.M.: Has been exceedingly noisy until this time; H. H., gr. $\frac{1}{4}$, injected hypodermatically, became quieter at 12 o'clock; took some nourishment but vomited part of it. 5.30 P.M., very noisy; second hypodermatic of H. H., $\frac{1}{4}$ gr., given. 6.10 P.M., has taken considerable nourishment to-day, is now asleep. 9 P.M., is still asleep.

August 26th.—Did not sleep after 10.30 P.M., noisy all night; took some milk but did not retain it, vomited several times; very quiet this morning; has taken nourishment voluntarily. 5 P.M., quite noisy this afternoon, H. H., gr. $\frac{1}{4}$, given hypodermatically; took a pint of liquid nourishment and went to sleep shortly after 6 o'clock. 9 P.M., still sleeping.

August 27th.—Slept until 12.45 o'clock this A.M., sleepless afterward; drank three glasses of milk without compulsion; vomited a little at 6 A.M.; quiet this morning and somewhat rational, but toward noon became noisy, when she was given H. H., gr. $\frac{1}{6}$, hypodermatically; slept about four hours. 7.30 P.M., a second hypodermatic injection of H. H., gr. $\frac{1}{6}$, given, went to sleep in fifteen minutes; has had some diarrhœa to-day. 9 P.M., sleeping.

August 28th.—Slept until 12.15 o'clock this morning, and again from 1 o'clock until 4.30 A.M.; took a fair amount of nourishment this forenoon; bowels loose. 11.30 A.M., very noisy; H. H., gr. $\frac{1}{6}$, given hypodermatically; slept about three hours. 5.30 P.M., second hypodermatic solution H. H., gr. $\frac{1}{6}$, given. Went to sleep at 6.30 P.M., and slept the greater portion of the night.

September 5th.—Has not been given any medicine since; has slept fairly well every night, and takes plenty of nourishment; is up and dressed, and goes out of doors; is quiet and pleasant, talks rationally of home and home-affairs; is neither profane nor obscene, and appears to be rapidly convalescing; the diarrhœa and vomiting ceased with the hypodermatics.

CASE XVIII.—P. H——, female, aged twenty-eight; noisy, violent, filthy, destructive, erotic, obscene, puerperal. Was sleepless and noisy nearly every night for a week preceding the prescription of H. H. Was given H. H., gr. $\frac{1}{6}$, for three nights without effect; the dose was increased to gr. $\frac{1}{2}$ for six nights; became more

noisy, and with the exception of two hours occasionally, was sleepless each night. The dose was increased to gr. $\frac{1}{4}$ for ten nights, but was as noisy and sleepless as before. The constitutional symptoms were now quite marked: pupils were dilated, face flushed, there was anorexia and diarrhœa. Was now put on two doses nightly of pulv. Dover, gr. x., for six nights, the H. H. being altogether discontinued. This checked the diarrhœa, and she slept well each night. Since then has slept fairly without any medicine.

Case XIX.—E. M. B——, female, aged twenty-two; noisy, destructive, violent, garrulous, incoherent, puerperal. First night after admission was sleepless and noisy all night. Was given H. H., gr. $\frac{1}{60}$, for the three following nights, inducing each night from four to five hours' sleep; dose increased to gr. $\frac{1}{12}$ for nine succeeding nights, during which she slept a little better than before. For five nights following this she took gr. $\frac{1}{60}$, but slept only two to three hours nightly, and is more noisy day and night than usual; pupils dilated; face flushed. The H. H. is discontinued, and for the past two weeks has been sleeping four to six hours nightly on tr. hyos., ʒ ij.; chloral, gr. x.

Case XX.—E. J. E——, female, aged twenty-six; sleepless, violent, noisy, destructive, profane, obscene, erotic, puerperal. Has usually slept sufficiently on tr. hyos., ʒ ij.; chloral, gr. x. Has taken thus far Brown-Séquard's mixt., ʒ j. t.i.d. All this is discontinued and patient is put upon H. H., gr. $\frac{1}{30}$ t.i.d., et ad nocte. For five nights she slept five to six hours nightly on one dose; became much more excited and noisy by day; pupils greatly dilated, face flushed and hot, voice hoarse; pulse rapid and weak. Day doses of H. H. discontinued. H. H., gr. $\frac{1}{12}$, given for nine succeeding nights, and gr. $\frac{1}{60}$ for five nights after, causing some four to five hours sleep nightly, but is more noisy, destructive, excitable, and violent than before taking the remedy. H. H. is discontinued; has refused other hypnotics since, but sleeps four to five hours nightly as before. It is now ten days since H. H. was given. Under Brown-Séquard's mixt., ʒ j. t.i.d., much of her excitement has abated in this time.

Case XXI.—B. J. B——, male, aged twenty-two; maniacal excitement in the course of imbecility; very noisy by day; has slept fairly of late with tr. hyos., ʒ ij. Took for six days H. H., gr. $\frac{1}{120}$ t.i.d. et ad nocte, without special change, when day doses were increased to gr. $\frac{1}{60}$ t.i.d. Tenth day: Has slept but little for several days; pupils much dilated, skin cold, pulse slow, but would not allow it to be counted, face flushed; unusually noisy and destructive to day; whistling and laughing much. Night doses of H. H. were gradually increased now until the fourteenth day, when he took gr. $\frac{1}{30}$, but his sleep became less. At night his pulse would vary from 100 to 64. Twenty-second day: Has taken gr. $\frac{1}{12}$ twice nightly since the fifteenth, generally sleeping but three hours. Is quieter now by day, but confused, and undresses himself, seeming to suffer from sensations of heat of skin. Got into the sink and started the cold water running over him. Pupils largely dilated, conjunctiva injected, and face flushed. Seems to have constant erections of penis which he had not had before. Twenty-seventh day: This symptom having become much aggravated, and his sleep growing less, the H. H. is now discontinued altogether. Had began to tear his clothes off. Is prescribed now tr. hyos., ʒ ij.; chloral, gr. x., with which he has slept four to five hours nightly for some time. Is again quieter by day.

Recurrent Mania.—Case XXII.—J. S——, male, aged forty-seven. His period of excitement has just commenced. Ordered H. H., gr. $\frac{1}{15}$ t.i.d. On the first day and night was very noisy, incoherent, violent, and treacherous. Second day: Slept all night. Pupils dilated, pulse 70, fauces dry; very much quieter. Fourteenth (time of present writing): Has slept well every night. Has had no further return of excitement. His attacks have always heretofore lasted three to four weeks in spite of all treatment employed.

Chronic Mania.—Case XXIII.—A. B——, male, aged fifty-three; destructive, violent, filthy, at times somewhat noisy. For several nights prior to taking H. H. had slept fairly well after taking chloral, gr. xv.; tr. hyos., ʒ ij. Prescribed H. H., gr. $\frac{1}{60}$ ad nocte, for twenty-nine nights. During this period he usually slept from three to six hours at night. There was some increase in his excitement by day, but no marked constitutional symptoms were noticeable except dryness of throat and dilatation of the pupils.

Case XXIV.—C. J——, female, aged forty-nine; filthy, obscene, profane, mischievous, violent, and treacherous. Is often sleepless and noisy at night. Prescribed H. H., gr. $\frac{1}{60}$ ad nocte, for five nights, on the sixth night the dose was increased to gr. $\frac{1}{30}$. Took this almost nightly for a month and usually obtained from six to eight hours of sleep. Would sleep some nights without medicine. With the exception of dilatation of the pupils, at no time has she exhibited any constitutional effects.

Case XXV.—H. N——, female, aged sixty-five; nervous, excitable, and sleepless. For ten nights previous to taking H. H. was sleepless each night, though she took chloral, gr. v.; tr. hyos., ʒ j. Took H.H., gr. $\frac{1}{60}$, for eight nights, producing from four to six hours of sleep each night. Dose was now increased to gr. $\frac{1}{30}$, upon which she usually slept about six hours. On the eighteenth day the dose was increased to gr. $\frac{1}{60}$. Pupils were now dilated, tongue and fauces dry, face flushed, but pulse normal. Not sleeping well, morph. sulph., gr. $\frac{1}{4}$, was added to H. H., gr. $\frac{1}{60}$, for the first three or four nights; slept about four hours on this. After that time till the present (eighteen days) has slept from six to eight hours each night on same.

Case XXVI.—L. V. S——, female, aged seventy-five; filthy, violent, and noisy. Previous to being put on H. H. she usually obtained from three to six hours' sleep every other night on various hypnotics. H. H., gr. $\frac{1}{60}$, was taken for eight nights, causing an average of six hours of sleep nightly. The dose of H. H. was now increased to gr. $\frac{1}{30}$, which she took for eleven nights. At first slept well on this, but the amount of sleep being afterward reduced to three hours, H. H., gr. $\frac{1}{15}$, was prescribed. Pupils have been dilated for several days, throat is dry; complains that she is losing her voice and says that somebody has been giving her ratsbane. The first dose of H. H., gr. $\frac{1}{15}$, caused her to sleep all night, but the amount of sleep obtained being again reduced to three hours, H. H., gr. $\frac{1}{30}$, was ordered on the twenty-sixth night, which she took for five nights, obtaining an average of five hours of sleep nightly. The amount of sleep now again diminishing, H. H. was discontinued and chloral, gr. x.; tr. hyos., ʒ ij., substituted, which, to the present writing (ten days), has produced nightly from four to six hours of sleep.

Case XXVII.—E. J. D——, female, aged fifty-one; exceedingly noisy, violent, filthy, and destructive; is excited night and day; is in almost constant motion, stamping and gesticulating. For ten days previous to taking H. H. took nightly chloral, gr. x., tr. hyos., ʒ ij., which produced occasionally one or two hours of sleep. H. H., gr. $\frac{1}{60}$, was now prescribed b.i.n. for nine days. The first night she slept but two hours. The succeeding two nights she averaged six hours of sleep. The fifth night she slept only two hours; the sixth night not any. On the tenth night H. H., gr. $\frac{1}{30}$ b.i.n., was ordered. On the fourteenth the dose of H. H. was increased to gr. $\frac{1}{60}$. On the seventeenth to gr. $\frac{1}{15}$. On the twenty-fourth to gr. $\frac{1}{30}$, and on the thirty-first to gr. $\frac{1}{24}$. Following each increase in the dose of H. H. (b.i.n.), for a night or two there would be a slightly increased amount of sleep, but after two or three nights she would be so tolerant of the increased doses that they would have no hypnotic effect. Constitutional symptoms appeared about the tenth day, and from that time till the

medicine was discontinued her pupils were dilated, her skin dry and hot; her excitement seemed to be increased by the H. H. On the twenty-sixth day two doses of H. H., gr. $\frac{1}{60}$, were administered hypodermatically, twenty minutes apart. Pulse at time of first injection was 86; twenty-five minutes after the second it was 112, and she was quiet and drowsy. Ten minutes later pulse was 104, and she was asleep; ten minutes later pulse was 94, and respirations were 18; was still asleep; slept for about two hours. As she was deriving no benefit from H. H., its use was discontinued on the thirty-third day, and chloral, gr. x.; potass. bromide, gr. xv., substituted. Has derived sufficient sleep from this dose for several nights past.

Dementia.—Case XXVIII.—O. M. L——, male, aged sixty-six; quiet, pupils contracted, pain and fulness in the head, marked paralysis agitans, senile dementia. Ordered H. H., gr. $\frac{1}{60}$ t.i.d. Third day: Says the pains in his head are gone. They had been there for a year. Seventh day: Pupils dilated; says he feels better. The paralysis agitans is less marked than for many months.

Case XXIX.—A. M——, male, aged sixty-nine; senile dementia. Talks through imaginary telephones in loud voice; very noisy by day, but sleeps fairly at night. Put on H. H., gr. $\frac{1}{60}$ t.i.d. Fourth day: Pupils dilated; sleepless and noisy for two nights. Began to have diarrhœa to-day: the latter growing worse, the H. H. was discontinued the next day, after which it ceased. Seventh day: Put on H. H., gr. $\frac{1}{72}$ t.i.d., as he is quite turbulent and boisterous, and also the same dose at night. The medicine is put in his food, because refused. Tenth day: Is sleeping well; is quieter by day; pupils dilated; throat dry; some anorexia. H. H. was discontinued a few days afterward because of failing appetite.

Case XXX.—J. P——, female, aged twenty-five; noisy and sleepless at night for the past week. Tr. hyos., ℥ ij.; chloral, gr. v., has had little effect. Took H. H., gr. $\frac{1}{72}$, for eight nights, sleeping the first few nights between three and four hours, but longer afterward. The following six nights slept well all night with gr. $\frac{1}{60}$. Generally sleep would come on in from one to two hours after taking the dose. On the fourteenth day the H. H. was discontinued. Thus far had moderate dilatation of pupils, some thirst, and had developed a tendency to tear off her clothes and be nude. Patient was too demented to say whether the skin was irritated or not. Twenty-fourth day, has been sleeping well on tr. hyos., ℥ ij.; chloral, gr. x. Does not tear clothes as she did.

Case XXXI.—M. A. J——, female, aged twenty-two; exceedingly filthy, destructive, violent, obscene, and noisy. For ten nights previous to taking H. H. was noisy much of the night, or all night at times. Was given H. H. for two weeks, beginning with gr. $\frac{1}{60}$ and increasing to gr. $\frac{1}{48}$, and slept on an average five hours nightly. Moderate dilatation of the pupils was produced, but no other constitutional symptoms.

Case XXXII.—E. H——, female, aged forty-seven; quiet, idle, and stupid by day; sleepless and out of bed all night. For the past ten nights has taken tr. hyos., ℥ ij., without effect. Was now put on H. H., gr. $\frac{1}{60}$, for twelve nights, sleeping the first ten of these nights very well all night, but the last two nights wakeful as usual. The dose was now increased to gr. $\frac{1}{72}$ for six nights, with which she slept from two to five hours nightly. Nineteenth day: Dose increased to gr. $\frac{1}{48}$, with which she slept five to six hours nightly for the following ten nights. On the twenty-first day of her taking H. H. complained of the increasing constitutional symptoms. Pupils widely dilated; pulse, 60; throat and mouth dry; dozes in the day-time; bowels relaxed and move three to four times daily. Thirty-second day: The last few nights she slept but two hours nightly on gr. $\frac{1}{48}$. The looseness of bowels continues; gait unsteady; anorexia, and other constitutional effects marked. Is evidently sleeping less with increase of dose and long continuance of the drug. Forty-fifth day: Since the last note has slept from four to seven hours nightly on pot. brom., gr. xv.; chloral, gr. x. This case illustrated particularly well the long time required for the remedy to take effect in some cases when given by the mouth. She invariably took the dose at 10 P.M., and as invariably went to sleep at 11.30 or 12 P.M., thus requiring one and a half to two hours to cause sleep.

General Paresis.—Case XXXIII.—F. H——, male, aged twenty-two; very restless, excited, *délires des grandeurs*, noisy, destructive. Has usually slept well after taking chloral, gr. xx.; tr. hyos., ℥ ij. Prescribed H. H., gr. $\frac{1}{72}$ t.i.d. et ad nocte. For three nights slept well, but continued to be excited and noisy by day; pupils are dilated, face is slightly flushed. On the fourth the night dose was increased to gr. $\frac{1}{60}$, and on the seventh the day doses increased to gr. $\frac{1}{60}$; on the eleventh day the day doses were increased to gr. $\frac{1}{72}$. Has been extremely noisy of late during the day. On the thirteenth gr. $\frac{1}{72}$ ordered b.i.n. On the nineteenth was very wild, noisy, and excitable; H. H., gr. $\frac{1}{60}$, was given hypodermatically at 2.55 P.M.; at 3 P.M. pulse was 96; at 3.05 P.M., 100; at 3.10 P.M., 100; pupils very wide; 3.20 P.M., pulse 100; 3.25, a second hypodermatic injection of gr. $\frac{1}{60}$ was given; pulse, 102; 3.30 P.M., 104; 3.35 P.M., 124, leaping suddenly twenty beats; now commenced feeling "faint and sick;" face flushed; eyes suffused; pupils very large; noisy, garrulous, excited; 3.40, pulse 110. Says he wants a drink; lips, tongue, and throat parched and dry; says he feels "as weak as a cat." 3.45 P.M., pulse, 116. Commenced destroying his bed. 4.05 P.M., pulse, 104; is not asleep, but is quiet, sitting up. 4.45 P.M., took gr. $\frac{1}{72}$ by mouth; 5 P.M., pupils very greatly dilated; articulation difficult; is hoarse; pulse, 96. 9 P.M., is sleeping, but readily roused; pulse, 69. Was awake at 10 P.M.; pulse, 88. Took gr. $\frac{1}{72}$, and slept for about an hour. At 1 A.M. took another gr. $\frac{1}{72}$, and slept two hours. Pulse varied during the night from 88 to 80. The next day was very noisy and excited. The following night the hypodermatic injections and night doses were repeated, producing not more than one hour of sleep. Twenty-fifth day: Doses at night increased to gr. $\frac{1}{60}$. For several days has denuded himself, and has had apparently a sensation of heat and irritation of the skin; scratches chest and limbs much. Twenty-seventh day: H. H. was discontinued altogether. Patient's excitement has been increased by it. Is now delirious, maniacal, and almost uncontrollable. Brown-Séquard's mixture ordered during the day, and chloral and tr. hyos. at night. For the past five nights, to present, writing, has slept all night, and is quieter by day.

Case XXXIV.—C. P——, male, aged forty-six; excited, restless, *délires des grandeurs*. Sleeping well on chloral, gr. x.; tr. hyos., ℥ ij. Ordered H. H., gr. $\frac{1}{60}$, b.i.n., for sixteen nights. Did not sleep any the first night. Had nausea and vomiting the latter part of the second night. Second to fifteenth nights inclusive, slept from three to five hours. Sixteenth, slept but one hour after the second dose. H. H. now discontinued, and chloral, gr. xv.; tr. hyos., ℥ ij., ordered. Pupils slightly dilated, but no other constitutional effects of H. H.

Case XXXV.—H. G. P——, male, aged forty; in stage of maniacal excitement. Has slept from three to five hours on chloral, gr. x.; morph. sulph., gr. $\frac{1}{4}$. Prescribed H. H., gr. $\frac{1}{60}$ b.i.n., for five nights and gr. $\frac{1}{72}$ b.i.n., for four nights. Obtained nightly from two to four hours of sleep. During the last three days had attacks of vomiting, and a diarrhœa, to which he is subject, coming on, the H. H. was discontinued and former hypnotic returned to. No apparent constitutional effects except dilatation of the pupils.

Case XXXVI.—J. F. E——, male, aged forty-three; delusions of exaltation; some restlessness. Has, as a rule, slept from five to seven hours at night after taking chloral, gr. v.; tr. hyos., ℥ ij. Prescribed H. H., gr. $\frac{1}{60}$ ad nocte, for twenty nights. Slept about the same number

of hours each night as he had been accustomed to after taking chloral and hyos. Pupils have been dilated; pulse has varied at night from 80 to 64. No other constitutional symptoms have been exhibited.

Epilepsy.—We have also given H. H. to twelve epileptics, six females and six males, whose seizures mostly occurred from daily to one in two weeks. Began with gr. $\frac{1}{36}$ t.i.d., and increased the dose in a few days to gr. $\frac{1}{12}$ t.i.d. In the females H. H. was discontinued after two weeks, and in the males after four weeks, because of anorexia and nausea, loss of accommodation, dilatation of pupils, flushing of face, dryness of throat, and general languor and malaise produced by the drug.

If anything, the seizures are made more frequent. We were led to try it in epilepsy by the one benefited case of Edlessen, and by the laudation of its isomeride, atropine, by Trousseau, and by the praise of its other isomeride, hyoscyamine, in the West Riding Reports, as remedies in this disorder.

Conclusions.—We had hoped to be able to add hyoscine to our hypnotics, because its tastelessness would have made it especially valuable. That, however, is no virtue in the remedy, because of its uncertainty of action and the length of time it requires to produce sleep (sometimes one to two hours) when given by the mouth.

Hyoscine is not, in our opinion, a real hypnotic, such as chloral, opium, and the bromides, although it disposes to sleep by causing muscular relaxation and a feeling of weariness, and does, in large doses, produce stupor.

The sleep apparently caused by it is of short duration, and is easily broken.

We think it should never be given by the mouth with the view of producing sleep. We shall use it hereafter only hypodermatically.

Its continued use is not advisable.

Constitutional effects appear in some cases sooner and more severely than in others.

The respirations are made shallower but not diminished in number (any more than by natural sleep).

The pulse is often considerably reduced, sometimes increased in frequency, and usually made very variable. It may reduce or increase arterial tension. The face usually flushes, and the extremities become cold.

There is dilatation of the pupils and loss of accommodation. There is, further, dryness of the throat and mouth, dizziness, and in many cases, anorexia and nausea, in some cases vomiting and diarrhœa.

In a few cases there is sensation of heat and itching of the skin.

The severer effects are muscular tremor, unsteadiness of gait, delirium, and stupor.

It seems in one or two cases to have increased erotism.

As to its use in insanity, we tested it chiefly, as before stated, in these cases for its value as a hypnotic. We think, as a rule, it increased excitement by continued use. It made our melancholiacs worse. It was no improvement in chronic mania, dementia, and general paresis, on chloral and hyoscyamus. It was of no value in epilepsy, but may not have been continued sufficiently long. It may prove of value in some cases of acute mania if given subcutaneously; but we doubt if it will supersede hyoscyamine.

Poughkeepsie, N. Y., September 1, 1885.

Oxygen, it seems, can, after all, be brought to the liquid state, under such easy conditions that the experiment is likely to become an ordinary laboratory one, in consequence of a recent discovery by M. L. Cailletet. He has found that formene, when slightly condensed and cooled in boiling ethylene under atmospheric pressure, is resolved into an extremely volatile colorless fluid, which, while again passing to the gaseous form, produces cold sufficient to cause the liquefaction of oxygen immediately.

OBSCURE AND EARLY SYMPTOMS IN GENERAL PARESIS.

Case, with Remarks on the Diagnosis, Causes, and Early Treatment of the Disease.[1]

By RALPH L. PARSONS, M.D.,

new york.

Early in July, 1879, I was requested to visit a man named Jacob K——, for the purpose of rendering my aid in placing him in an asylum for the insane. His wife said to me, that although his conversation and actions were such that the members of his own family had no doubt regarding the deranged condition of his mind, many casual acquaintances who saw him, including some practitioners of medicine, failed to observe any evidences of insanity.

On visiting the patient two important sets of symptoms were observed: *first*, certain peculiarities in his articulation, or rather in his whole manner of speaking, in his expression, and in his movements, especially the movement of his tongue and his locomotion; and *secondly*, certain defects of the memory and of the intelligence which were evidently inconsistent with the theory that these defects were natural, for he had been an active and successful man of business, and, moreover, his manner and expression were quite different from what are observed in cases of original defect.

None of these symptoms were strongly marked, and at times none of them would be noticed by ordinary observers. Indeed, the members of his own family do not appear to have noticed his physical defects until their attention had been sharply drawn to the subject by close questioning.

The symptoms observed were, more specifically, as follows, viz.:

There was a certain peculiarity in his *articulation* which it is difficult to describe, as it was manifested only in a slight degree at any time, and at times was hardly observable, but which when its existence can be made out, is the earliest and one of the most important of the physical symptoms of a grave and fatal disease of the nervous system. This peculiarity in articulation did not consist in stammering, nor an inability to enunciate difficult combinations of consonants, nor even in that slight degree of stammering which may be characterized as a slowness or hesitation in the articulation of the whole or part of a sentence, as though stammering were imminent, but avoided by especial painstaking at difficult points; but rather by a sort of drawl and lack of clearness in the articulation of difficult words and phrases, of the existence of which the speaker did not seem to be conscious. When his attention was aroused, the defect in articulation was diminished.

The *tongue*, when protruded, lacked somewhat in firmness and steadiness, as though the muscles were enfeebled, or not well under the control of the will, and at times slight fibrillary tremors at the edges were observed.

His manner of walking lacked in firmness and decision. He did not stumble nor stagger, but walked wide, and as though the muscles of the legs were rather slow in receiving and obeying the mandates of the will.

No inequality nor irregularity of the *pupils* was observed, but they seemed to be rather large, and rather slow in responding to the stimulus of light.

When questioned he gave revelant, rational, and apparently correct answers; at all events, this was the case when he was questioned by strangers, and when short replies only were required. In fact, under these circumstances, he appeared to converse naturally enough, and to give no especial evidence of mental impairment.

But when the conversation was prolonged, and carried on in a familiar way; and when he was allowed to converse in accordance with his own impulses, certain marked peculiarities were observed. He would talk of

[1] Read before the Yorkville Medical Association.

trivial matters, as though they were of great importance, and yet in a childish way. Indeed, a lack of intellectual ability was then observed in both the matter and manner of his conversation, which was not at all in accordance with what was to be expected of a man of his appearance, and who had been a successful business man. Again, not only were the subject-matter and manner of his conversation childish, but he would repeat the same unimportant statements many times within the duration of a short conversation of an hour, without seeming to realize or to remember that he was thus repeating.

Here, then, we have a patient presenting certain not very well-marked mental and physical symptoms, who is thought by his relatives to be of unsound mind, but who is considered as quite sane by many of his casual acquaintances. His relatives claim that he sometimes manifests much more convincing evidences of insanity; but, inasmuch as they wish to place him in an asylum for the insane, how can the examining physician be sure that they have no motives of interest to place him there, and that their statements are reliable? If he depends on their statements as the basis of his opinion, he may render himself liable to a suit at law for assisting in the incarceration of a sane man.

It is important, then, to inquire whether such obscure symptoms, as have been enumerated above, are sufficient as a basis for the diagnosis of mental derangement; and if so, to what particular category this derangement belongs.

The mental symptoms, in so far as their character can be expressed in language, denote general enfeeblement and nothing more. He comprehends rather slowly; he is rather slow in giving expression to his ideas; he talks about unimportant, childish matters, or about serious matters in a childish way, as though he did not appreciate their importance; he forgets the subject-matter of a short conversation to such an extent that he repeats the same story many times during his conversation, and, moreover, the whole manner of his conversation and expression are such as to convince the observer that the will-power is weak. He finds that the patient is easily influenced by the will of others, notwithstanding the fact that at the first he sometimes appears to be particularly obstinate in regard to matters which may be in question. The physical symptoms are such as denote a general impairment of nervous energy.

What, now, do all these symptoms mean, for it is at least evident that the patient is in an abnormal condition? In making out a differential diagnosis there are several possibilities which should be borne in mind and duly considered. It might be a case of acute alcoholism, or of chronic alcoholism, or of acute or consecutive dementia, or of epilepsy, or of cerebral tumor, cancer, or exostosis, or of partial recovery from cerebral hemorrhage, or of progressive muscular atrophy, or of labio-glosso-pharyngeal paralysis, or if neither of these, of that general impairment of the whole nervous system designated by the term general paresis.

The symptoms enumerated correspond very closely indeed with those manifested by certain cases of alcoholism, whether acute or chronic. But when it is found that the condition of the patient persists from the date of one visit to that of another, although the evidences of the recent imbibition of alcohol are wanting at each, the immediate effects of drunkenness may be excluded. So, too, the headache, the trembling, and the hallucinations peculiar to chronic alcoholism are wanting. Local brain affections, such as tumors, softening, hemorrhage, etc., may also be excluded, for the reason that in these cases the paralysis is unilateral, and has a tendency toward improvement, save perhaps in the later stages when death is impending or a considerable portion of the brain is involved. Epilepsy has its peculiar physiognomy, and the mental and physical symptoms are subject to marked variation in accordance with the time which has elapsed since a seizure. In dementia, whether acute or consecutive, the degree of stupidity is much greater than during the early stages of the disease in question; and, moreover, such defects as there may be in the articulation or locomotion in the simple dement evidently arise from the absence of an exercise of the will-power rather than from a lack of response to the volition which is actually exercised. In progressive muscular atrophy muscle after muscle is consecutively affected, and the intellect is rarely impaired otherwise than is likely to occur in connection with any disease attended by physical enfeeblement. In glosso labio-pharyngeal paralysis there is indeed a general muscular enfeeblement corresponding very closely with that of the disease in question, but the mental symptoms are wanting.

There is one other disease, the leading symptoms of which perfectly correspond with those presented by the case under consideration. These are, in the concise language of Dagonet, *a paralysis which is general, incomplete, progressive, and accompanied by embarrassment of speech and mental disorder.* These are the essential symptoms of general paresis, or, as the disease is often termed, of general paralysis of the insane; and all these symptoms were manifested by the patient whose case has just been related, and may be considered as sufficient to establish the diagnosis, although the more characteristic of the mental symptoms peculiar to general paresis were entirely wanting, and although the physical symptoms were not very well marked. That is, we found a paralysis which affected all the muscles as far as could be made out, but most noticeably the muscles engaged in articulation and in locomotion. It should be borne in mind that if the whole nervous system be equally weakened in all its parts, the weakness will be most apparent in those movements which are the most delicate and require the nicest co-ordination. The movements required in the process of articulation are the most delicate of any of the muscular movements; and hence the weakening of nerve-power in general paresis may be noticed in a disorder of the muscular movements required in articulation sooner than in any other of the muscular movements, so the peculiar defect in the articulation may be diagnostic before other movements are noticeably impaired. We observed, also, that the paralysis was incomplete, was, in fact, slight; also that it remained the same from the date of one visit to another, so that if it did not noticeably progress within the space of a few days it was at least persistent. The mental disorder was also present.

In the great majority of cases of general paresis the mental disorder is characterized by exaggeration of ideas of a peculiar and extraordinary kind. The emotions are expansive, or at least are not depressed. And, moreover, the exaggerated ideas are entirely lacking in precision and definiteness. The patient will at one moment say he is worth a million dollars, and the next that he is worth a thousand millions; or now that he can run a mile in a minute, and immediately afterward that he can run a mile in a second. The essential element in the mental disorder is a weakening of the judgment and of the reasoning faculty; the patient is not able to compare one of his statements with another and to appreciate their discrepancy. Hence if his emotions are expansive he is very likely to express extravagant ideas, which are very indefinite and changeable in character, or he may only express entire satisfaction with his condition, prospects, and surroundings, when the facts would warrant only dissatisfaction. In some cases the emotions are depressed, but in these cases also the essential element—the weakening of the intellect—may be observed no less than in the others.

In most cases the testimony of friends and acquaintances may be safely relied upon to aid or substantiate the diagnosis. In the present instance this testimony was not necessary, and hence has been omitted in order that the essentials might be the more prominently brought into view.

As, however, a knowledge of the causes of the disease

and of the early symptoms is of especial importance to the general practitioner of medicine, a brief reference will now be made to some of these. After the symptoms of general paresis have become well marked, the disease may be of great interest to the pathologist, but is of little to the therapeutist; for in its advanced stages it marches surely and steadily to a fatal issue, notwithstanding any remedial measures that may be employed. If therapeutic or prophylactic measures are to be of any avail, it must be during the earlier stages, when the symptoms are most obscure and least likely to be observed.

Among the earlier symptoms of general paresis the following may be mentioned as the most common and the most important, viz.: The patient is observed to make extravagant or silly expenditures in opposition to his usual habit, or he neglects his business, while, at the same time, he takes unusual business risks, or he indulges in idle, impracticable schemes. In all this there is manifested at the same time an exaltation of feeling and a failure of the judgment very much like what is observed in many men when somewhat under the influence of alcoholic drinks. He may talk rather disconnectedly and more excitedly than is in accordance with his usual habit, or commit small thefts of articles he does not want, or which he could readily procure by purchase or simply by asking for them. An observer who has been led to suspect the possible existence of the disease may also be able to detect a slight embarrassment of the speech, this being the earliest of the physical symptoms, or even a noticeable carelessness in his chirography, or the omission of letters or words in his writings, or even that the movements of his extremities are not well co-ordinated. The mental symptoms, however, are almost always the earliest to show themselves, and the most prominent during the accession of the disease. Usually these premonitory and early symptoms are of considerable duration—a year, a year and a half, and, in some cases, a longer period of time.

At this point it will be well to enumerate some of the more prominent causes of the disease, since a consideration of these in connection with the early symptoms above mentioned will very materially aid in arriving at a proper diagnosis.

The following may be considered as types of the causes of general paresis, viz.: great business success, or the long-continued and ardent expectation of great success; great business losses, or long-continued anxiety about impending business losses; or alternating hopes and fears of success or failure; the intemperate use of alcoholic drinks; and excessive venery. It will be observed that all these causes act very powerfully on the emotions. Even the use of alcoholic drinks, although a physical cause, is a powerful excitant of the emotional part of our nature, and when efficient as a cause of general paresis may act in essentially the same way as do the other causes mentioned. Assuming the theory to be true that the whole nervous system is impaired in general paresis, it is still not at all impossible that long-continued emotional excitement may be at least one of the most important of the causes of this disease. At all events, the emotional element seems to be well marked among the mental causes.

So, then, when the practitioner of medicine observes the premonitory and early symptoms above enumerated in the case of any of his patrons, and more especially if he knows or ascertains that the individual in question has been subject to the causes which in many cases produce general paresis, he may have a reasonable hope of attaining curative results which are rarely if ever attained during the later stages of the disease. The fact that, contrary to the general experience, some cases of general paresis do sometimes apparently recover from what seemed to be a well-marked and hopeless stage of the disease, fairly warrants the hope that if the general practitioner of medicine were able to recognize the obscure and premonitory symptoms at an early day, he might in some cases save his patient from a calamity which otherwise would be practically inevitable.

The first step would evidently be to convince the patient and his friends that a grave disease was impending, and that prompt measures must be taken to prevent its accession. This task, which will usually be found a difficult one, will in most cases be best accomplished by an authoritative statement, unsupported by reasons. The simple statement of a professional opinion often carries weight which it would lose if accompanied by the reasons on which the opinion is founded; for the facts adduced may not be perceived at all by the non-professional mind, or if the existence of the facts be granted, the conclusions deduced may not be acknowledged. Indeed, it is not possible for a skilled observer to make scientific facts clear to the unlearned as he himself perceives them.

The first step in the treatment of the patient will evidently be to remove the causes which have been efficient in producing the mental and physical disturbance, or if this cannot be done, to diminish or counteract the causes as much as possible. If he is engaged in engrossing and prosperous business pursuits or speculations, he should either relinquish business entirely for a time, or should at least diminish or change his business to one of moderate dimensions, in which the risks are insignificant, and the profits moderate and regular. If he has been subject to great business losses and anxieties, it is better for him to save all he can from the wreck and retire from business entirely, rather than run the imminent risk of destroying himself in the vain endeavor to retrieve his failing fortunes. When the judgment becomes impaired, as it always is in these cases, the successful accomplishmen of difficult undertakings is entirely out of the question. There is great risk of failure, even in the pursuit of routine and hitherto prosperous occupations, and for this reason the interests of his family require that all his business operations be in some way placed under efficient supervision.

If the intemperate use of alcoholic stimulants or excessive venery be the cause of the commencing disease, these habits must be relinquished. In fine, all pursuits and habits that strongly affect the emotions should be given up.

The difficult task having been accomplished thus far, the remainder of the treatment will be comparatively easy. His physician should direct a life of quietude and a strict observance of hygienic rules. And inasmuch as the nervous system has become generally enfeebled, he should enjoin a plain, nutritious diet, and should prescribe such nerve-tonics as in his judgment seem to be required. The food tonics seem especially to be indicated in these cases. But while prescribing a nutritious diet, the quantity of food eaten should be moderate, and particular directions will be needed in this regard, inasmuch as these patients are inclined to eat voraciously. So, too, a constipated state of the bowels is to be guarded against, as well as all other departures from a state of health.

The importance of this subject to the general practitioner of medicine is manifest, when it is considered that the condition of general paretics is often practically hopeless by the time the disease has so far advanced as to attract the attention of friends and ordinary observers, and also that during the early period of the disease the paretic is likely to waste his property and impoverish his family.

In conclusion, it may be of interest to briefly recount the prodromata, early symptoms, and causes in the case which has served as a text for the preceding remarks.

The patient, who had been a prosperous wholesale butcher about four years ago, met with serious business reverses. He was obliged to give up the house in which he lived and which he owned. He was greatly annoyed by his misfortunes, and was unwilling any longer to as-

sociate with the men who had known him in his prosperity. His emotions were depressed instead of being expansive, as is usually the case in general paresis. He moved from New York to Brooklyn, and opened a retail butcher store. It was soon observed, however, that he did not conduct his business with his usual discretion. He systematically bought greater quantities of meat than he could sell, notwithstanding the fact that his wife and children made constant remonstrances against his indiscreet purchases, and the fact that so much meat spoiled on his hands as to more than counterbalance the profits. He lost his trade altogether in less than a year, and removed to Williamsburg, where he opened another store, with a competent head-man in charge. Business went on well for a time, but then he began to buy excessive quantities of stock as before. He also began to change his workmen in the store every two or three weeks, although he had formerly kept the same men in his employ for years together. He was also rude to his customers, and would sell them meat that had already spoiled. His memory, as well as his judgment, was observed to be at fault, for he would often send meat away without making any account of the purchase, unless closely watched by his daughter, who acted as bookkeeper.

He was eminently social in his habits when in a state of health. He had now become disinclined to seek society, and complained that his former associates treated him with neglect after he became unfortunate. When his children were merry and laughed, he would reproach them for their light-heartedness.

His business failed in Williamsburg as it had failed in Brooklyn. So in January last he removed to New York, and again established himself in business there, but his lack of judgment was still more marked than before. He hired a store utterly unfitted for his business, and mismanaged his business to a greater extent than ever.

His friends had never suspected that his mental faculties were impaired until this time, but now his conversation and conduct became such that the members of his own family were convinced of this fact, although casual acquaintances even then failed to recognize evidences of insanity.

It is proper at this point to mention one other probable cause of his disease, that is, the frequency of his devotions at the shrine of Venus. This was inferred from evidence which was considered reliable, but which it is unnecessary to state.

The issue of the case was as follows: An unfavorable prognosis was given. On July 19th he had a series of epileptiform convulsions, such as usually occur at some time during the progress of general paresis. An overloaded and constipated state of the bowels was probably the immediate cause of the convulsions. Croupous pneumonia, with general pulmonary congestion supervened, and the patient died on July 24th.

THE PATHOLOGICAL RESULTS OF MIMICKING PASSION.—Mme. Bernhardt has written an interesting letter in defense of the sincerity of actors and actresses, seeking to prove that many of them really enter into the spirit of their parts. She declares that Croizette, after the famous poisoning scene in "Le Sphinx," used to remain for some minutes pale and with chattering teeth, that Beaulevet always wept real tears when performing *King Lear*, and that Mounet-Sully had veritable hallucinations when acting the madness of *Orestes*. Sarah herself seems to outdo all these celebrated examples. She says: "I have never played *Phèdre* without fainting or spitting blood, and after the fourth tableau of 'Théodora,' in which I kill *Marcellus*, I am in such a nervous state that I return to my dressing-room sobbing. If I do not weep I have a hysterical fit, which is much more disagreeable to those around me and more dangerous for the vases and other things near at hand."

SPECIMEN OF DECIDUA,

ILLUSTRATING THE RESEMBLANCE BETWEEN THE PHYSIOLOGICAL DECIDUA OF PREGNANCY, AND THE MENSTRUAL OR PATHOLOGICAL DECIDUA OF VIRCHOW.

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THE interest in this specimen depends upon the fact that it may help to settle the question regarding the pathology and etiology of *desquamative dysmenorrhœa*, so called, which is still an open question among pathologists.

FIG. 1.

I obtained this specimen from a patient who aborted in the second month of pregnancy. It consists of the ovum and the exfoliated uterine mucous membrane or decidua. Fig. 1 shows the entire specimen, the membranes being laid open at *A*, to show the ovum *in situ*. The dotted line represents a portion of the membrane which was broken; and although the shreds of the broken portion were obtained, they could not be put together to show the complete cast. *B* shows the opening in the cast which represents the os internum.

Fig. 2 shows the membrane laid open and the ovum turned upward, the dotted line again indicating the lost portion of the membrane. The membrane looks exactly like the membrane which has been obtained in so-called membranous dysmenorrhœa, except that it is thicker at the point where the ovum was located.

The microscopical examination of this decidua shows that the membrane resembles the lining of the uterus, hypertrophied in all its elements. On the uterine surface of the membrane there was evidence that fatty degeneration had taken place, which evidently was the cause of the abortion and complete exfoliation of this membrane or decidua.

FIG. 2.

I presume it is rather rare that a specimen of this kind is obtained, from the fact that the decidua is not always thrown off in mass in abortions, at this early stage of pregnancy. It, therefore, gave me an unusual oppor-

tunity for studying its resemblance to the pathological condition of menstruation referred to.

From this comparison I have received valuable evidence in favor of the views of Professors Simpson and Virchow, which I had already accepted as correct, namely, that the membrane exfoliated in this abnormal form of menstruation was the same in character as the normal decidua of utero-gestation. Taking this one fact regarding the decidua of pregnancy and the character of the decidua of a normal menstruation, it is more than probable that this menstrual decidua is the product of a heightened or excessive physiological process, which occurs out of time and out of season, a view which was entertained and taught by Sir James Simpson. It is also very valuable evidence against the theory entertained by others, that this membrane of menstruation is the product of an inflammation.

It appears, then, that in this disorder of menstruation the membrane repelled is a normal product of the uterus, which is pathological, because it occurs in the absence of pregnancy.

Now, let us take into consideration, at this point, the facts regarding menstruation as taught by Williams, of London, and Engleman, of this country: that the mucous membrane of the uterus attains its highest development at the period of menstruation, and that during menstruation it undergoes fatty degeneration, and is exfoliated either wholly or in part, that the exfoliation as it occurs in the healthy condition is in a granular or finely divided state; whereas in the pathological condition known as the membranous dysmenorrhœa, a fatty degeneration occurs in the deeper structures of the mucous membrane, and not in the whole of it; so that it is separated from the uterus by this stratum of fatty degeneration, and is thrown off in mass.

If, then, we draw our deductions from these facts, it would be proper to say, that in this affection of the uterus we have an excess of development of its mucous membranes, with a fatty degeneration limited to the deeper structures and not involving the entire membrane; which would account for it being thrown off entire, and not in the broken-down condition of normal menstruation.

If this, then, is the correct view of the subject, we can exclude inflammation as a factor in the production of this derangement of menstruation, and accept the fact that it is due to some abnormal excitation of the sexual organs, ovarian in all probability.

My clinical experience with some eight cases of membranous dysmenorrhœa would lead me to this conclusion as regards the etiology of the affection. In the majority of those where the cause has been noted I find that I have recorded that there was ovarian pain and tenderness in some of these cases, and in others it is recorded that there was no evidence of any inflammatory affection of the uterus itself.

To my friend, Dr. R. L. Dickinson, I am indebted for the excellent drawings of the specimens.

A Clairvoyant's Mistake.—The great skill in doctoring claimed by clairvoyants was fully illustrated recently by a circumstance which happened in Sharon. An estimable lady, who had been sick for a long time with a cancer, which good physicians knew to be incurable, was induced to try a clairvoyant doctor. The one selected was a certain "doctor" of North Easton. He professed to be able to tell the exact condition of the patient without seeing her, and sent medicine and a diagnosis each week. Every letter stated that she was getting better. A few days after her death he evolved the following, which was received by the family:

"North Easton, June 11th.

"Mrs. ——: I find you about the same. The acid in the blood has rather diminished. Use the medicine and bathe the same. Keep along with the poultice."

Clinical Department.

COCAINE IN HAY FEVER.

Dr. G. H. Simmons, of Lincoln, Neb., has used cocaine for the relief of hay fever with marked success in several instances. He relates the following case: "A farmer came into my office about three weeks ago, and, in a discouraged manner, asked me if there was nothing I could give him to relieve him of that terrible suffering and annoyance. His eyes were bloodshot, and his looks showed that he suffered all that he claimed to. Every little while he would have an attack of sneezing, which lasted three or four minutes, after which there would be profuse perspiration. He complained of great shortness of breath, exhaustion, and dimness of sight. There was intense itching of the nares, frontal headache, and severe pain in the eyes. It was the eye trouble that suggested cocaine to my mind, and as I had only a few minutes before been using a two per cent. solution in a case of cystitis (and with success), I without hesitancy concluded to try it in this case. I dropped two or three minims of the solution into each eye, and the effect was almost miraculous. I then with a camel-hair pencil applied a few drops to each nostril and well back into the posterior nares. The relief was immediate and complete. I gave my patient two drachms of the solution and instructed him how to use it. I saw him again in ten days, and his praises in favor of the remedy were very profuse. He had used it about three times a day, and thus kept off all symptoms of his annual trouble. It was the first time he said for years that he had been free from it during the latter part of July and the first two or three weeks of August. A second case in which the same remedy was used was hardly as severe, but the relief was just as complete and satisfactory. The patient is a married lady who has never found relief before without going either to the lakes or the mountains. In this case I used a four per cent. solution." Dr. Simmons has also employed cocaine in a five per cent. solution in equal parts of vaseline and castor-oil, as recommended by Dr. Gelston, of Limerick. He was successful, but nevertheless prefers the simple aqueous solution. He notes that Mr. John Watson, of London, has obtained relief in his own case by the use of tablets of cocaine inserted into each nostril.

THE TREATMENT OF TÆNIA BY CHLOROFORM.

Dr. W. H. Bennett, of Brooklyn, N. Y., sends us the following: As there has been some considerable discussion during the past year regarding the efficacy of chloroform in either killing or completely anæsthetizing tapeworm, so that its expulsion is rendered an easy matter by the simultaneous or after-administration of a brisk purgative, I beg to call attention to three cases where the drug mentioned was primarily successful in bringing about this result.

The first case was that of a girl, aged fifteen, whom I had previously dosed with most every known tænicide, with the result each time of bringing away a portion of the worm, but always minus the head. On July 10, 1884, I administered half a drachm of chloroform in two ounces of mucilage, and in half an hour afterward one ounce of castor-oil. At about noon the bowels moved freely and the parasite was expelled entire.

Case No. 2 was an adult, aged fifty-two. He had also been subjected to treatment by male fern and other drugs, but unsuccessfully. On January 25, 1885, I ordered him half a drachm of chloroform as above mentioned, followed by an ounce of castor-oil, and within four hours the whole worm was passed.

Case No. 3 had suffered from the presence of a tænia for a year and a half. Had tried many remedies without

avail. I gave him the same quantity of chloroform, but combined the castor-oil with it. The result was entirely satisfactory.

All three patients have remained well since. In each case the patient was allowed to eat a light supper and the medicine was given before the breakfast hour in the morning; no food being allowed till the bowels moved. The only disagreeable symptoms caused by the chloroform were in one case slight nausea and in all a trifling sense of intoxication with slight headache and somnolence, which passed off in a couple of hours after the oil operated. No further discomfort was complained of.

It will be noticed that half a drachm was the largest quantity of chloroform used. In case this should not prove sufficient, I would prefer, in subjecting the patient to treatment at a subsequent time to administer a second half a drachm some twenty minutes or half an hour after the first dose of a like amount of chloroform, or even several subsequent doses of a few drops each, at intervals of some minutes, than to give more than the maximum quantity here mentioned. By this latter method the effect on the worm might be equally as great, while the action of the drug on the heart would not be as likely to produce the alarming symptoms which have been reported where doses of one drachm or more have been given.

Progress of Medical Science.

Regressive Locomotion.—Dr. Luigi Mazotti relates' in *La Rivista Clinica* for June, 1885, the case of a man, sixty-six years old, admitted to hospital for scurvy. He had always been a hard drinker, but had enjoyed good health up to the age of fifty-five, at which time he had an illness which lasted for five months and left behind it a lowered general condition of health. In 1882 he suffered from an attack of sudden loss of consciousness of short duration. Since that time he had experienced dizziness occasionally, but had not fallen. He had been gradually growing weaker up to the period of admission to hospital. After being under treatment for scurvy for a time, his general condition began to improve, and orders were given that he should be allowed to get up and walk about the ward. It was then discovered that he could not take a step in advance, but walked backwards. When placed upon his feet he seemed a little unsteady, looking down to the ground and separating his legs as if fearing to lose his equilibrium. When taken by the arm and told to walk he responded that he was unable to do so, and when commanded to try, he took several steps backward, moving his legs with an appearance of exertion as though they were held. After having gone a short distance in this manner, the body became arched backward, and rotated from the right toward the left, and the man would have fallen if he had not been supported. At another time, after having been dragged forward by two of the orderlies, he was told to go ahead by himself. But as soon as his arms were released by the attendants he began to turn around in a circle with the right leg as the axis. When the patient was in bed he was able to execute all voluntary movements without difficulty, the special senses were normal, tactile sensation was good, though not very acute, and the tendon reflexes were a little exaggerated, especially on the right side. The patient died not long after of an acute intestinal trouble. At the autopsy was found a slight amount of leptomeningitis over the vault, evidently of recent origin. There was, further, marked atheroma of the arteries at the base of the brain, but beyond that nothing. The cerebellum, pons, medulla oblongata, peduncles, etc., were all normal, and bore not the slightest evidence of disease. Owing to certain legal difficulties it was impossible to secure the spinal cord, but a good portion of the upper end was examined with negative result. But the patient presented no symptoms of tabes dorsalis or of any other recognized spinal lesion. In view of these facts the author was forced to conclude that the phenomenon of regressive locomotion was dependent, in this instance, at least, to circulatory disturbances. The existence of these was rendered most probable by the fact of the extensive and marked atheroma, and were probably exaggerated by position when the patient rose to his feet. Dr. Mazotti therefore concludes with Nothnagel that the clinical symptom of regressive locomotion is of no value as a diagnostic sign in a localized cerebral lesion.

Ichthyol.—This is a bituminous substance, found in the Tyrol, and formed from the remains of antediluvian fishes. Its chemical constituents are carbon, hydrogen, oxygen, sulphur (ten to sixteen per cent.), and phosphorus (0.5 per cent.). It has the appearance of tar, is about of the consistence of vaseline, is slightly soluble in water, alcohol, and ether, and is miscible in all proportions in oils and vaseline. Owing partly to its large percentage of sulphur it is found to be of value in the treatment of skin diseases, and especially of acne rosacea. In the latter disease it is used externally and internally, and even sometimes hypodermatically. For internal use a solution is made of five to ten parts of ichthyol to twenty parts of distilled water, the dose of which is fifteen drops, gradually increased to fifty, twice a day in water. An ichthyol soap is also made, and recommended strongly by Unna (*Volkmann's Klinische Vorträge*, No. 252) in the treatment of acne. It is useful also in burns and other traumatic lesions of the skin. Lorenz (*Deutsche Medicinische Wochenschrift*, No. 23, 1885) has found it of value, externally applied, in relieving the pains of chronic articular rheumatism, using for this purpose an ointment of the strength of thirty per cent. Internally, ichthyol acts as an aperient, and has also been used with apparent benefit in gastritis in doses of two to three grains twice a day. The wide range of applicability of this medicament is to be explained by the property which it seems to possess in a remarkable degree of subduing inflammatory processes.

Double Renal Artery with Thrombosis of one of the Trunks.—Dr. Luigi Mazzotti reports in the *Bulletino delle Scienze Mediche di Bologna* the case of a woman, sixty-six years old, admitted to hospital suffering from very severe pains in the epigastric and hypochondriac regions, accompanied by a slight elevation of temperature, extreme thirst, dyspnœa, œdema, and delirium. The urine was albuminous and contained a considerable quantity of blood. The general condition improved somewhat under treatment, but about a month after admission the patient was seized with uncontrollable diarrhœa and vomiting, and died in a few days. At the autopsy the right kidney was found to be supplied by two arteries, and to have two ureters. There was but one vein, however. The supernumerary ureter was very small and united with its mate before entering the bladder. One of the arteries was pervious, while the other was closed throughout its entire extent by a thrombus. The right kidney presented in general a normal appearance, though of a somewhat redder color than usual. In the upper part, however, was a spot about two-fifths of an inch in diameter, in which the cortical substance presented a pale gray color. Microscopical examination showed that this was due to a granulo-fatty degeneration of the tubular epithelium. Examination of other portions of this kidney and of the one on the left side showed no pathological changes.

Succedanea of Cocaine.—Since the discovery of cocaine and its anæsthetic properties, numerous experiments have been made with other substances, but the only ones which have, as yet, been found to have a similar effect are apomorphine and menthol. Bergmeister and Ludwig (*Bull. Gén. de Therap*, July 30, 1885) found that in about ten minutes after the instillation of six to eight drops of a two per cent. solution of apomorphine

there was complete anæsthesia of the conjunctiva, lasting for from five or ten minutes to an hour. This was accompanied by dilatation of the pupils of somewhat shorter duration. But the first effect of the solution was to cause a sensation of pain and smarting. The hydrochlorate, lactate, and pure apomorphine were used at different times, and all had the same temporary irritant action. Another unpleasant symptom caused by the action of the drug was nausea. The subjects were also frequently left with a sensation of fatigue which lasted for several hours. Unless these inconveniences can be obviated in further experiments, it is not likely that apomorphine will ever become a formidable rival of cocaine as a local anæsthetic, but it is, nevertheless, well to know that it possesses this property, as cases may arise in which its employment would be of great utility. Rosenberg (*A Medicina Contemporanea de Lisboa*, August 2, 1885) has used menthol, in a twenty to thirty per cent. alcoholic or ethereal solution, with success. The effect of menthol is not of as long duration as that of cocaine; but the former seems to have a sort of cumulative action, as when the application is repeated, even at long intervals, the anæsthesia produced by the last application is of much longer duration than that following the first.

Belladonna as an Antidote of Iodide of Potassium.—In three cases in which iodide of potassium caused unpleasant naso-pharyngeal symptoms, Dr. P. Aubert found entire relief afforded by extract of belladonna in doses of three-fourths of a grain, morning and night. He found even that, after the use of belladonna for a few days, it could be discontinued without a return of the symptoms of iodism.—*La Independencia Médica*, August 1, 1885.

Decoction of Lemons in Gonorrhœa.—Dr. Rebatel recommends this simple remedy, first suggested by Mannino, and affirms that it quickly destroys the vitality of the gonococci. Three fresh lemons are cut up into small pieces and put into ten ounces of water, which are then boiled down to three ounces. The liquid is then strained and used as an injection repeated three or four times a day. The decoction should be freshly prepared every second day. Instead of this decoction may be substituted a solution of one grain of salicylic acid and twenty-five grains of citric acid in eight ounces of water. —*Rivista Clinica e Terapeutica*, August, 1885.

Albumen in Chronic Diarrhœa.—Dr. Celli speaks highly of albumen in the treatment of enteritis. The whites of a dozen to eighteen eggs are beaten up with about a quart of water, and the whole taken at different times through the day, a few drops of laudanum being added if there is very severe pain. The author has used this remedy with success in a considerable number of cases of chronic diarrhœa which had resisted the action of all other remedies.—*Il Movimento*, June, 1885.

The Operative Treatment of Club-foot.—In an article on this subject Dr. Lorenz reviews the different operations which have been proposed for the correction of talipes. Of these there are fourteen, exclusive of tenotomy, as follows: 1, Linear osteotomy of the scaphoid practised on the plantar surface (Hahn); 2, linear osteotomy of the tibia above the malleolus (Hahn); 3, enucleation of the cuboid (Solly); 4, enucleation of the astragalus alone (Lund, Maron); 5, the same with resection of the tip of the external malleolus (Maron, Reid); 6, excavation of the spongy portion of the astragalus, leaving the articular surfaces (Verebely); 7, enucleation of the astragalus and excision of a wedge-shaped piece from the anterior portion of the os calcis (Hahn); 8, enucleation of the astragalus and cuboid (Albert and Hahn) or of the astragalus and scaphoid (West); 9, enucleation of the astragalus, cuboid, and scaphoid (West); 10, enucleation of the cuboid and scaphoid (Bernet); 11, resection of the head of the astragalus (Lücke, Albert); 12, excision of a wedge from the outer half of the neck of the astragalus (Hüter); 13, excision of two wedges, perpendicular to each other, with bases at Chopart's articulation and the astragalo-calcanean joint (Rydygier); 14, excision of a wedge without regard to any individual bones (O. Weber, Davies Colley, R. Davy). Of all these the only ones which the author regards with favor are enucleation of the astragalus in young children, and No. 14 in adults. He says, however, that Rydygier's operation gives good results in certain cases.—*Lo Sperimentale*, July, 1885.

Napelline in Toothache.—Dr. Grognot relates a number of cases in the *Bulletin Général de Therapeutique* of July 30, 1885, in which he administered napelline internally for the relief of odontalgia. In most of the cases the pain was directly traceable to caries, but in some it seemed to be more purely neuralgic in character. The napelline was given in granules of one-twelfth of a grain each, repeated every fifteen minutes. In most of the cases reported, the pain had ceased after five or six granules had been taken. The author urges the necessity of using only pure napelline, and advises that not more than twelve doses, or one grain, be given.

Chloral in Albuminuria.—Dr. Barduzzi has obtained excellent results with chloral in daily doses of thirty to forty-five grains, continued for some time, in the treatment of nephritis. Under its use œdema is reduced and the albumen nearly or entirely disappears from the urine. The author regards it as of especial value as a prophylactic of eclampsia in the albuminuria of pregnancy. It is also useful in the so-called physiological or normal albuminaria.—*Il Movimento*, Nos. 9–12, 1885.

Plantar Hyperæsthesia.—M. Barbillion describes a singular affection characterized by an excessive impressionability of the soles of the feet to various external influences. In one case the patient, a grocer's boy who was obliged to be on his feet the entire day, began, shortly after undertaking this work, to have acute pain in both feet toward evening. Soon the pain became continuous and was felt in the whole plantar region. It disappeared as soon as the patient got into bed, but would be brought back whenever in movements of the legs the soles of the feet were brought in contact with the bedclothing. Cold, in this case, brought a certain measure of relief. The reflexes were normal and there were no symptoms of ataxia. There was no redness nor swelling of the integument, and the perspiration was not abnormal in quantity. Three applications of chloride of methyl, one of which caused vesication, brought about a cure. In another case a cure followed the application of a blister covering the plantar surface. The writer reports other similar cases, and concludes that the affection is an idiopathic plantar anæsthesia, distinct from other painful diseases of the feet.—*Journal de Médecine et de Chirurgie Pratiques*, July, 1885.

Progressive Tabetic Contracture—The following are the conclusions of Dr. E. Demange to an interesting article in the *Revue de Médecine* for July, 1885: 1, There is a special form of tabes with contracture, distinct from spasmodic tabes and from amyotrophic lateral sclerosis, but yet having many points of resemblance to these affections; 2, this form is observed in extreme age, after the seventieth year; 3, its cause is to be referred to a special manifestation upon the spinal vessels of generalized atheroma; 4, anatomically it is characterized by an interstitial diffuse sclerosis, of vascular origin, of different parts of the cord and more especially of the lateral columns, without, however, ever being limited to this system alone; 5, clinically it occupies a position intermediate between spasmodic tabes and amyotrophic lateral sclerosis.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, September 19, 1885.

EUTHANASIA.

"THE kindest wish of my friends is euthanasia," wrote Arbuthnot, and the longing of many a sufferer ever since the world began has been for the same blessed boon. Bedside experience has convinced many a physician that this question is not a mere theoretical one. The wider our acquaintance becomes with the pathology of disease the more importance it is assuming. There are certain forms and stages of disease before which we stand practically powerless, though the feeling that "where there's life there's hope," often inspires us to keep the spark of life flickering as long as possible. But how often do we know beforehand that our efforts will be fruitless! We are obliged to content ourselves with endeavors to make the physical aspect of death as easy as possible for the senses of the patient, and the feelings of his friends. In the majority of cases nature mercifully benumbs the senses at the approach of dissolution, which is sometimes so gradual that it resembles falling asleep, "like one who wraps the drapery of his couch about him and lies down to pleasant dreams," as the author of "Thanatopsis" beautifully expressed it. Death-bed utterances generally occur in books. Indistinct murmurings of a moribund person are often vivified by imaginative friends into veritable utterances of one on the threshold of another world.

In many cases, however, of incurable disease no such euthanasia comes. There is to the very last a bitter struggle between sense and pain, as dreadful almost to contemplate as to endure. At this point comes up the practical consideration of the question, which in years to come is going to claim our attention more than it has done in the past. The mind of the laity, as well as of the profession, has already changed upon this matter; the assumption in both cases being—as in all matters concerning man's relation to the hereafter—toward a more liberal standpoint. Particular attention was called to the subject by the case of the distinguished patient who now lies quietly at Riverside. Fearless in the presence of any earthly foe, and asking no quarter, he had that natural shrinking from the painful death which his malady might have occasioned. He asked for and was promised a quiet end. No one questioned either the reasonableness of the patient on this point, or the wisdom of the assurances of his medical attendants.

What is euthanasia in relation to the office of the physician. It has been formulated by a member of the Birmingham Speculative Club, as follows: "That in all cases of hopeless and painful illness, it should be the recognized duty of the medical attendant, whenever so desired by the patient, to administer chloroform or other anæsthetic, so as to destroy consciousness at once and put the sufferer to a quick and easy death, all needful precautions being adopted to prevent any possible abuse of such duty, and means being taken to establish beyond the possibility of a doubt that the remedy was applied at the express wish of the patient."

One of the daily journals recently reported the result of interviews on the subject with several of the leading physicians of this city. All agreed as to the soundness and humanity of the views above stated, but no one cared to express a frank opinion as to how they should govern daily conduct. It is claimed that such a code of principles in nowise contravenes the laws regarding the sanctity of human life. Any man who sacrifices his life, say its advocates, to save another from lingering pain, is always reckoned a hero. Why should he not do the same for himself? In his own case the motive is, of course, lower. It may be styled a form of selfishness. The mere act itself is, however, regarded as justifiable in both cases.

The opinions of those consulted were unanimous in regard to the serious risks incurred in the adoption of any such principle. The latter's rigid enforcement would not allow for possible errors in diagnosis. In cases of carcinoma and phthisis no room for such doubt would exist. But there are many cases where (granting even that euthanasia should be demanded by the patient) no such thing would be thought of by the medical attendant unless his own affirmative judgment should be sustained by the result of a consultation; this argues a much more advanced state of professional opinion than obtains at the present time. Patients supposed to be *in extremis* have often recovered. The patient himself might not be in that state of mind where he could rightly judge concerning euthanasia, though it might possibly be indicated in his own particular case. Its enforcement would have to be under legal restraint. The further settlement of this question depends on the growth of public opinion. We cannot hasten it. For the present the guide of each man must be his own conscience.

A NEW DIAGNOSTIC TEST FOR THE TUBERCLE BACILLI.

THE importance of the bacillus tuberculosis in the diagnostic study of phthisis is now universally admitted. The methods by which this parasite is recognized are not elaborate or difficult to put in practice. Many physicians throughout the country, not microscopical experts, can and do make examinations for the purpose of discovering them. When they are numerous in the specimen there is little danger of error, but when only a few can be seen, the problem is more difficult. The lepra and the lupus bacilli quite closely resemble those of tubercle. The French observers Alvarès and Tavel (*Prog. Medical*, August 22, 1885) have shown apparently that there exists in normal secretions a bacillus resembling in many respects that of tuberculosis. Microscopists find, also, that bits of horny tissue from the horny layer of the epidermis, or particles of feathers floating in the

air will stain like the tubercle bacilli. Hæmatin crystals, according to Lustig, also may be taken for bacilli. Thus there are some sources of error in examining secretions which are poor in the special organisms.

Professor Voltolini, of Breslau (*Allgemeine Med. Centr. Zeit.*, No. 65), has discovered a method by which these sources of error can be eliminated. This consists in acting upon the preparation with fuming nitric acid, so that an appearance of chain-like spores is seen in the bacilli. The sputum, for example, is spread upon a cover-glass and dried as usual. The cover is then taken up with pincers and slowly dipped into the strongest undiluted nitric acid—acidum nitricum fumans. It is then slowly withdrawn and washed with pure water. The preparation is then dried and colored in the usual manner; but it is important to leave the cover in the staining fluid for from twelve to twenty-four hours. The layer of sputum, or pus, or the section must be quite thin, and the acid must be fresh and fuming. The bacilli so treated retain their form perfectly, but their interior appears to contain a chain of spores. The appearance, however, is thought to be due not to spores, but to an artificial coagulation. It is characteristic of the bacilli of tuberculosis, and, as Voltolini believes, of no other bacillus.

THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS AND ITS WORK.

For the first time in its history the International Medical Congress has fallen into the sole management of a society of the country in which it is to meet. Although Sir James Paget, an ex-President, expressly affirms that this was not expected or desired when an invitation was given, yet it is evident from recent events that the society referred to intends to retain its hold, and force upon the Congress its own men and methods. The work of the Committee which met here in such secrecy on September 3d but too surely confirms this. Details of its mysterious labors are given elsewhere. These show some indications of adroit wriggling to escape the results of previous blunders, but no manly meeting of the issues, and no recognition of the real demands of the profession. The Committee have utterly eliminated and blotted out Drs. Cole and Shoemaker, trusting, we presume, to gain back Philadelphia by thus making scapegoats of these gentlemen. They have also filled the vacancies in the Presidencies of the Sections. Their list of names suggests both freshness and decay, but does not fairly represent American medicine. And the profession will very quickly ask who many of these new men are who thus take the seats which have heretofore been held only by recognized leaders? Is our country to be made ridiculous by their upheaval, and the Congress turned into a menagerie of unknown doctors and ethical sticklers?

However, though the appointments are weak enough, they need not kill the Congress. But a much more serious thing remains: no attempt was made to remove the Code issue from the Congress. It is still incumbent on an American physician to subscribe to the American Medical Association's Code of Ethics in order to hold any official position in the Ninth International Congress—if it meets in this country. The stupidity, as well as absolute wrongfulness, of failing to meet this point is certainly beyond parallel. The good Lord only knows, perhaps, what a number of nice, venerable, determined old gentlemen we have here trying to manage our little medical world; but many of us are getting some inkling of their immeasurable and fathomless fatuity. It appears, at any rate, that they are bound to destroy the Congress, for they persist in forcing upon it restrictions which cut off from the Congress and impugn the respectability of a large number of the most honored men in our profession. In thus doing they violate justice and right, break the pledges at Copenhagen, and affront their fellow-physicians here. Of course a bitter controversy is inevitable; and we are sorrowfully forced to the conclusion that there is at present no hope for the Congress whatever. The profession here and in other centres is almost a unit against the policy of the Association and its Committee, and it will continue to protest against the organization of a meeting which will be so thoroughly misrepresentative of American medicine.

A BEGINNING IN BACTERIOTHERAPY.

It is a fact well known to students of bacteriology, that certain forms of micro-organic life are inimical to each other, and will not thrive when together in the same culture-fluid. One form or the other, whichever is the stronger or the more suited to the medium in which it finds itself, will increase and flourish at the expense of the other, just as the weeds in a neglected garden grow up and choke the more tender plants, and appropriate to themselves the nourishment in the soil which the others need for their sustenance. Such being the case in cultures outside of the body, it is but natural to suppose that the same thing would occur within the organism. And if it be true that disease depends upon the presence of certain noxious microbes in the organs or tissues of the body, a rational means of combating the disease would seem to be to introduce other microbes which are fatal to the existence of the specific organisms.

This has actually been tried, with apparent success, in a case of pulmonary tuberculosis, by Dr. Arnaldo Cantani, of Naples, who describes his experiment in the *Giornale Internazionale delle Scienze Mediche*, No. 6, 1885. The patient was a woman, forty-two years of age, whose father had died of pulmonary disease. She presented the signs of a large cavity in the apex of the left lung, was suffering from hectic fever, and had an abundant purulent expectoration containing quantities of tubercular bacilli. She had been taking quinine, salicylic acid, cod-liver oil, etc., but continually grew worse and lost in weight and strength. Animals inoculated with her sputa became tuberculous. On May 4th, all the drugs which the woman had been taking were discontinued, and she began to inhale every day, by means of an ordinary atomizer, a mixture of gelatine and beef-broth containing a very rich, pure culture of bacterium termo. An almost immediate improvement was noticed, the expectoration became less, and the tubercle bacilli began to disappear, until on June 1st no more could be found in the sputa. As the tubercle bacilli became less numerous their place was taken by the bacterium termo. The tubercle bacilli had not reappeared at the time the report was made, and inoculations practised with the sputa upon animals failed to cause tuberculosis in them. At the same time with this apparent

local arrest of diseased action the patient's general condition improved, the evening rise of temperature was less marked, there was an increase of strength, and a gain of nearly a pound and a half in weight was noted.

Of course, one such case proves nothing. Patients with pulmonary tuberculosis, in common with sufferers from other diseases, are often dosed too much, and it is not uncommon to note a temporary improvement following the withdrawal of all medicine. Yet it is interesting as being the first attempt to fight microbes with microbes. And it opens up a large field of speculation to an imaginative mind in contemplating the future contests of the bacteria in the human battle-ground. Although, should such attempts succeed, we should behold one of the grandest achievements of this age of great discoveries, and Cantani, as the founder of bacteriotherapy, would rank among the immortals, yet there would be something humiliating in the thought that man could not cope single-handed with his infinitesimal foes, but was forced to call to his aid other invisible allies to fight his battles for him.

We shall look with interest for reports of further experiments of this nature, and we wish the bacterium termo success.

THE MONTREAL EPIDEMIC AND THE UTILITY OF VACCINATION.

THE present epidemic of small-pox at Montreal is furnishing incidentally some evidence as to the utility of vaccination. From August 1st up to September 14th, the total number of cases of small-pox at Montreal was close upon one thousand, and the number of deaths about three hundred and thirty. The very large majority of these victims were French-Canadian Catholics. Thus, out of one hundred and twenty-eight cases occurring last week, all but five were Catholics; while of the total number of deaths since August 1st, only thirty-four have been among Protestants. It appears that the Canadian Catholics, on religious grounds, do not allow themselves to be vaccinated. Hence, the force of the epidemic is spent upon them. No doubt uncleanly modes of life have something to do with the excess also.

THE AMERICAN MEDICAL PROFESSION *V.* THE ASSOCIATION.

THE real trouble in the case of the Washington Congress is that under the direction of a few gentlemen prominently interested in the American Medical Association, the local issue of the Code has been forced upon an international scientific body. There was no justice or right in this, and it was in violation of all precedent and of tacit pledges made at Copenhagen. The consequence of their action is that a large number of our country's best physicians are incapacitated from holding any position in the meeting, and, of course, cannot with self-respect take part in the work of a body which impugns their professional respectability. The profession has almost unanimously condemned this action. In proof of this we give here a list, which we believe is complete, of the journals in this country that have disapproved of the course of the Association: *New York Medical Journal*, *Boston Medical and Surgical Journal*, THE MEDICAL RECORD, *Chicago Journal and Examiner*, *Maryland Medical Journal*, *Medical Age*, *Philadelphia Medical Times*, *Louisville Medical News*, *Atlanta Medical and Surgical Journal*, *Virginia Medical Monthly*, *Indiana Medical Journal*, *Pacific Medical and Surgical Journal*, *American Practitioner*, *New Orleans Medical and Surgical Journal*, *Cincinnati Medical Journal*, *Columbus Medical Journal*, *Medical News*, *Kansas City Medical Index*.

We believe that there is not one of the few medical journals that defend the course of the present Committee which has not some official or close personal connection with the organization of the American Medical Association and the Congress.

There can thus be no doubt as to the sentiments of the profession. It is impossible that this sentiment should be changed by the mere fact that Drs. Cole and Shoemaker have been so completely effaced. This was a sop to the Philadelphia Cerberus; but it was a mean act and will win no support to the Committee.

News of the Week.

THE NEXT MEETING OF THE AMERICAN GYNECOLOGICAL SOCIETY.—The American Gynecological Society will hold its Tenth Annual Meeting at the Columbian University, in Washington, on Tuesday, Wednesday, and Thursday, September 22, 23, and 24, 1885. Among the papers announced to be read are the following: "The Natural Hygiene of Child-bearing Life," by Dr. S. C. Busey, of Washington; "Remarks on the Use of Tarnier's Forceps," by Dr. Ellwood Wilson, of Philadelphia; "Facial Paralysis in the Infant from the Use of the Obstetric Forceps," by Dr. T. Parvin, of Philadelphia; "The Genu-pectoral Posture in the Prolonged Nausea and Vomiting of Pregnancy, with Cases," by Dr. H. F. Campbell, of Augusta, Ga.; "On Two Rare Cases in Abdominal Surgery" (the President's Address), by Dr. W. T. Howard, of Baltimore; "The Care of the Perineum during Labor," by Dr. T. A. Reamy, of Cincinnati; "Report of a Case of Cæsarean Operation," by Dr. E. W. Jenks, of Detroit; "Puerperal Diphtheria," by Dr. H. J. Garrigues, of New York; "A Modification of Emmet's Cervix Operation in Certain Cases, with a Case," by Dr. R. S. Sutton, of Pittsburg; "Inflammation of the Parotid Glands after Ovariotomy," by Dr. William Goodell, of Philadelphia; "A Study of an Unusual Type of Puerperal Fever," by Dr. Fordyce Barker, of New York; "Peristalsis of the Genital Tract," by Dr. J. R. Chadwick, of Boston; "Four Cases of Oöphorectomy, with Remarks," by Dr. Joseph Taber Johnson, of Washington. Members of the profession are cordially invited to attend the meeting.

AN INTERNATIONAL PHARMACEUTICAL CONGRESS was held at Antwerp recently. The proceedings were opened by the Minister of Foreign Affairs, who in his address dwelt on the importance of the questions before the Congress to the well-being of the people. The following are the questions down for discussion: 1. Examination of the project of an international pharmacopœia, elaborated by the committee appointed at the last Congress in London. 2. Pharmaceutical instruction. What

instruction ought to be acquired previously to pharmaceutical studies? Pharmaceutical scientific studies. Professional applications. 3. Adulterations of human food, legislation, administrative service, etc. 4. Drinking water. The characteristics of potable water. What are, in the present state of science, the best practical procedures to be recommended for recognizing these characteristics?

The New York Post-graduate Medical School opened its regular session on September 12th. We learn that it already has an excellent class, and that there are the best prospects for a large attendance and active work. The school has spent a thousand dollars in fitting up its hospital, and much work has been done in preparing and equipping thoroughly the different departments.

A New Medical College is to be established at Los Angelos, in Southern California. The peculiarly great need of having one, or perhaps two medical colleges in Southern California has been long apparent.

British Comment on the International Congress.—The controversy in regard to the Washington meeting of the International Medical Congress in 1887 has entered on a new phase, by the publication in America of letters from Sir James Paget and Sir W. MacCormac, in both of which the writers expressly declare themselves in favor of the Congress meeting elsewhere than in Washington, unless an early modification of the existing state of things is brought about. Sir James Paget addressed his letter to Dr. Minis Hays, and, as the immediate predecessor in the presidency of the Congress of the lamented Professor Panum, his observations are likely to be received, even by the unfamiliar crowd of office-bearers at present nominated to posts in the next Congress, with attention, if not with respect. Sir James says decisively, "certainly it was not supposed that the Congress would be regulated, with any degree of exclusiveness, by the members of a Medical Association, however numerous; and I think it quite as certain that, if this had been thought possible, the proposal that the next meeting should be held in the United States would not have been adopted." Sir James farther expresses his belief, that without the support of the eminent men who now hold aloof from the Congress the meeting cannot be a success; and, though the proposition is too self-evident to need enforcing, it is perhaps as well that so high an authority should have thus spoken. A meeting is to be held this month by the innovating section of the American Association, and it is to be hoped it may be sufficiently impressed with the mischief it has already done to feel satisfied with the notoriety accruing from it, and agree to retire into that obscurity which is eminently becoming to its members, and out of which they have, this time at any rate, most unwisely emerged.—*Medical Press and Circular.*

Small-pox now prevails at Montreal, London, Paris, Bordeaux, Venice, Trieste, St. Petersburg, Warsaw, and Japan. A few cases have appeared in this city, and in several places in New England. The State Board of Health is making arrangements to furnish vaccine virus for the purpose of vaccinating persons all along the Canadian border of this State.

Cheap Medical Services.—A club of 4,800 members, in Berlin, recently advertised for six medical officers to attend them at a salary of $375 per annum. This would make the contribution from each member of the club about 75 cents a year for medical attendance. More than 400 doctors applied for the places.

The Work of the Summer Corps of Visiting Physicians.—The summer corps of visiting physicians visited this year 61,815 families, living in 15,832 tenements, and prescribed for 2,409 sick persons. The people were found to be in an unusually healthy condition, and the tenements were in better shape than usual.

Cholera in Japan.—Up to July 1st, there had been only sixteen cases of cholera in Japan. Recent reports show that the disease has become more active, and at one sea-port, Nagasaki, there were, between August 24th and September 1st, 300 cases. With both cholera and small-pox actively prevalent, Japan becomes a country to be carefully watched by our health officials.

The Cholera in Spain, France, and Italy continues to decrease in activity. Still, on September 14th, there were 1,075 new cases and 371 deaths reported. The disease has about disappeared from Toulon and Marseilles. But in little towns near those cities the mortality is even greater, in proportion to the number of inhabitants, than it has been at any time this year within the city lines. The disease is spreading in Italy. Rome has established quarantine against Sicily, in whose largest city, Palermo, the plague seems to have become fixed.

The Surgeon-General of the Marine Hospital Service.—There are several Republican Chiefs of Bureaus in the Treasury Department who have not yet been removed. Among them is Dr. J. B. Hamilton, Supervising Surgeon-General of the Marine Hospital Service. There is much talk at present concerning his place. Dr. Hamilton is reported, like his predecessor, Dr. Woodworth, to have the warm support of Senator Logan. There are several candidates for his position, all of them it appears from the West—Indiana having two, Kentucky, Michigan, and Illinois each one. Vice-President Hendricks is said to be supporting the claims of a Dr. Matthews, of Louisvile, while Messrs. McDonald and English are working for Dr. Walling, a physician and ex-druggist of Indianapolis, and son-in-law of Mr. English. Among the candidates named we hear of no worthy successor to Dr. Hamilton. The place, if made vacant, ought to be filled by some gentleman familiar with the Service, and having some professional standing. As an executive officer Dr. Hamilton has not been surpassed, and he has vastly improved the discipline and efficiency of the Service. A mistaken ambition to be more than the head of his Bureau has estranged the support of many members of his profession. This is the sole complaint that can be made against him.

The Methods of the American Ambulance Service, suspension harness and all, are warmly praised in Liverpool, where they have been in use for over a year. The record of the Northern Hospital gives the average time from the call to the departure of an ambulance at two minutes and fourteen seconds by day, and four minutes by night.

Advertising Medical Colleges in the Daily Papers.—Our attention has been called to the advertisement of a Colorado medical college in the Denver *Tribune-Republican*, also to that of a Chicago medical college in the *Leavenworth Times*. It is not generally considered proper or in good taste for medical colleges to advertise in purely secular papers. We regret that the practice seems to be endorsed by the esteemed and venerable Dr. N. S. Davis, Dean of the Chicago College referred to. As Partridge would say: *Nemo omnibus horis sapit.*

Small-pox in Japan.—Reports furnished us by the National Board of Health show that during the first six months of this year there occurred 4,472 cases of small-pox in Japan, with 1,191 deaths. There is need of extra precautions to prevent the introduction of this disease into our Western ports.

Mortality from the Cholera in Spain.—From March 4 to August 5, 1885, the National Board of Health reports 103,608 cases of cholera occurring in Spain, with 43,551 deaths, giving a mortality ratio of about forty-two per cent.

Dr. Hiram H. James, of Rahway, N. J., died at Saratoga, where he was being treated for liver affection, on September 11th. He was a graduate of the Jefferson Medical College, of Philadelphia, and was forty-six years of age.

Death of Dr. Guy, of London.—A cable despatch announces the death of Dr. William Augustus Guy, of London, at the age of seventy-five. He was educated at Christ's Hospital and Guy's Hospital, and at Cambridge, graduating in medicine in 1837. In 1838 Dr. Guy was appointed to the Chair of Forensic Medicine in King's College, London, with which department of medical science his name has been mainly associated. Dr. Guy wrote a series of essays on the Pulse and Respiration; on Statistics and the Numerical method, and on Health, Disease, Crime, and Vagrancy. These essays appeared in "Guy's Hospital Reports," the *Journal of the Statistical Society*, and in *Fraser's Magazine*. He also wrote "Principles of Forensic Medicine" and "Public Health." He was editor of Hooper's "Physician's Vade-mecum," of Walker's "Original," and of the "Evils of England." He wrote several tracts on social science questions and on the Eastern question, his signature, "A London Physician," being well known. Dr. Guy has devoted considerable time to sanitary reforms and other matters of public interest.

Dr. Francis D. Cunningham, of Richmond, Va., died on September 9th, at the age of forty-nine. Dr. Cunningham was born in Goochland County, Va. He graduated from the Medical College of Virginia in 1857, and afterward continued his professional studies in London and Paris. In 1870 he succeeded to his father's practice, which his own reputation as an ophthalmic surgeon had materially increased. Dr. Cunningham was a member of the Richmond Academy of Medicine, of which he was President in 1872; of the Virginia State Medical Society, of which he was President in 1875; of the American Medical Association, and of the American Public Health Association. He served as Professor of Anatomy in the Medical College of Virginia from 1867 to the time of his death. During the rebellion he was a surgeon in the Confederate Army, and in 1862 and 1863 he was Medical Director of the Trans-Mississippi Department.

Illness of Dr. E. G. Janeway.—We greatly regret to learn of the serious illness with pneumonia of Dr. Janeway. He is at Seabright, N. J.

A Doctor Assassinated.—Dr. Thomas Waugh, a physician of Chicago, Ill., was fatally shot on September 12th, while returning from a late visit to a patient. The assailant is said to have been a jealous husband.

Bismarck and his Physician.—It is certain that Bismarck's physician, though a charlatan, is no fool. It is related that when first presented the Prince was sick, and peevishly declined to answer questions. "As you like," said the doctor, "then send for a veterinary surgeon, as such practitioners treat their patients without asking them any questions." The Chancellor was captured.

A Successful Doctor.—A native of Madagascar who studied medicine in Edinburgh and returned home, now has seventy young men studying under him, and a large class of women whom he is training for nurses. He is in great favor with his Queen, and is about to marry the Prime Minister's daughter.

Memoirs of a Great Surgeon.—We learn from the *Allgemeine Wiener Medizinische Wochenschrift* that the late Russian surgeon, Professor Pirogoff, left an autobiography. Portions of this have already been translated from the Russian by Dr. Th. Bergmann, and have appeared in the journal referred to. The history of Pirogoff's early struggles is extremely interesting, and we should be glad to see the work made accessible to American readers.

California. — *The Pacific Medical and Surgical Journal* appears in a new and tasteful dress. We learn from its leading editorial that more serious efforts are apparently being made to enforce the medical registration laws and put down quacks.

Southern Surgery.—Our Southern brethren make good surgeons as well as physicians. We are glad to learn that Dr. Robert Battey, of Rome, Ga., has succeeded with his new hospital, and that since January last he has performed ovariotomy nearly every week, so far without losing a case.

Ozone as a Cause of Pneumonia.—Mr. Daniel Draper, Director of the Central Park Meteorological Observatory, has issued a circular in which he presents a number of statistics, showing apparently some relation between the prevalence of ozone in the atmosphere and the prevalence of pneumonia. To illustrate his observations, Mr. Draper takes the figures from January to May inclusive, for eight years. In 1878, during these months, there were 1,304 deaths from pneumonia, and the ozone percentage was 9.50 on 73 days. In 1882 the death-rate had increased to 2,056, and the ozone to 16.19 on 86 days. In 1884 the death-rate decreased to 1,608, and the ozone to 6.45 on 48 days. This year the death-rate increased to 2,308, and the ozone also increased to 13.26 on 87 days. The figures for 1882 and 1883 are

not quite so convincing. In the former the death-rate was 2,056, and in the latter 2,061. Yet in 1882 the ozone record was 16.19 for 86 days, and in 1883 12.73 for 85 days. The death-rates were about equal, though there was a difference of nearly twenty-five per cent. in the ozone ratings. Mr. Draper says, however, that he compared thousands of observations from the barometer, wet and dry thermometers, hygrometer, anemometers, and pluviometer with the mortuary statistics, and could find no continuous connection between these observations and the prevalence of pneumonia. It was only "when ozone was taken into consideration that there was found to be a very close connection between its observations and the death-rate from this disease." It has been very positively established by numerous observations that pneumonia prevails most at seasons when there are sharp variations in temperature, as, for example, in the Spring. We doubt very much if a case can be made out for ozone.

"The Courtesy of London Surgeons is phenomenal," writes Dr. Gay, in the *Buffalo Medical and Surgical Journal*. "I have never seen anything equal it, and have much admiration for it, and trust I have imbibed some of the spirit of it. At all events, I shall return home with the firm resolve that all strangers who may chance to come among us shall receive all the attention and courtesy that I may have in my power to extend to them."

New Medical Journal.—The *Quarterly Bulletin of the Clinical Society of the New York Post-Graduate Medical School and Hospital* is the title of a new medical periodical, edited by Drs. Seneca D. Powell, Thomas E. Satterthwaite, W. Oliver Moore, Charles Henry Brown, and Samuel Lloyd. It contains the proceedings of the Clinical Society of the School, and a number of original articles, college and hospital notes, etc. It is well edited and printed.

Experiments with the Microbe of Typhoid Fever.—At a recent meeting of the Academy of Sciences M. Tayon reported that he had inoculated himself and several of his friends with the microbe of typhoid fever. The general symptoms produced were insomnia, anorexia, pinched countenance, and liquid stools. There were also some local symptoms. A second inoculation, practised after complete re-establishment, produced no effect. No comment was made, but it was left to the Academy to form its own conclusions.

Good News for Pregnant Women.—Mr. John Bland, says *The Lancet*, has been letting his mind dwell on the case of women who have the misfortune to have to bear children in cold or temperate climates, as compared with their luckier sisters who have to discharge the same duty in the South of Europe or in Africa. He assumes that much of the difference is due to the mere difference of climate, the warm climate relaxing the tissues, and *vice versâ*. Upon this basis he has constructed a box with a heating apparatus, in which he proposes to place the lower part of the woman in labor. The heat of this box, he thinks, will bring the woman, at least in the lower part of the body, to the advantageous position of her more southern sisters. Again, it appears that a lady at the last Exhibition in Paris, in the seventh or eighth month of pregnancy, went up in a captive balloon, and before they could descend accomplished the whole of labor, including the expulsion of the placenta. He attributes this, not to the fright of the lady, but to the diminution of atmospheric pressure. He has therefore included in his invention a provision for exhausting the box of air on the approach of a pain. The process of labour is to be watched through a window!

Meeting and Work of the Committee on Organization of the International Congress.—The above Committee met in New York City on September 3d. Twenty-eight members, including their proxies, were present out of the total forty-six. The resignation of Dr. L. A. Sayre was accepted, and Dr. Austin Flint, Jr., was appointed in his place. Rules for the government of the Congress were then adopted. These are essentially the same as those governing previous Congresses. Section I. provides that the Congress shall consist of members of the regular profession . . . . who shall have inscribed their names on the register and taken out tickets of admission. The list of officers of the Congress is as follows: President, Austin Flint, M.D., LL.D., New York. Vice-Presidents, W. O. Baldwin, M.D., Alabama; H. I. Bowditch, M.D., Massachusetts; William Brodie, M.D., Michigan; Henry F. Campbell, M.D., Georgia; W. W. Dawson, M.D., Ohio; R. Palmer Howard, M.D., Canada; E. M. Moore, M.D., New York; Tobias G. Richardson, M.D., Louisiana; Lewis A. Sayre, M.D., New York; J. M. Toner, M.D., District of Columbia; the President of the American Medical Association, the Surgeon-General of the United States Army, the Surgeon-General of the United States Navy, the Supervising Surgeon-General of the United States Marine Hospital Service. Secretary-General, Nathan S. Davis, M.D., LL.D., Illinois. Treasurer, E. S. F. Arnold, M.D., M.R.C.S., New York. Chairman of the Finance Committee, Frederick S. Dennis, M.D., M.R.C.S., New York. Executive Committee of the Congress, Austin Flint, M.D., LL.D., President of the Congress; Nathan S. Davis, M.D., LL.D., Secretary-General; E. S. F. Arnold, M.D., M.R.C.S., Treasurer; Frederick S. Dennis, M.D., M.R.C.S., Chairman of the Finance Committee. Presidents of the Sections, A. B. Arnold, M.D., General Medicine; William T. Briggs, M.D., General Surgery; Henry F. Smith, M.D., Military and Naval Surgery; DeLaskie Miller, M.D., Obstetrics; Robert Battey, M.D., Gynecology; F. H. Tirrell, M.D., Therapeutics and Materia Medica; William H. Pancoast, M.D., Anatomy; John C. Dalton, M.D., Physiology; E. O. Shakespeare, M.D., Pathology; J. Lewis Smith, M.D., Diseases of Children; A. W. Calhoun, M.D., Ophthalmology; S. J Jones, M.D., Otology and Laryngology; A. R. Robinson, M.D., Dermatology and Syphilis; Joseph Jones, M.D., Public and International Hygiene; Henry O. Marcy, M.D., Collective Investigation, Vital Statistics, and Climatology; John P. Gray, M.D., LL.D., Psychological Medicine; Jonathan Tafft, M.D., Dental and Oral Surgery. The other officers of the Sections were not appointed, but power to fill vacancies was left with the Executive Committee.

Therapeutical.—Experience is the mother of therapeutics; physiology is the mother-in-law.

Reports of Societies.

THE AMERICAN DERMATOLOGICAL ASSOCIATION.

Ninth Annual Meeting, held at the Indian Harbor Hotel, Greenwich, Conn., August 26, 27, 28, 1885.

WEDNESDAY, AUGUST 26TH — FIRST DAY — MORNING SESSION.

THE meeting was called to order by the President, DR. W. A. HARDAWAY, of St. Louis.

DR. J. E. GRAHAM, of Toronto, Can., reported

A CASE OF TUBERCULO-ULCERATIVE SYPHILIDE OF HEREDITARY ORIGIN.

The patient was a girl, twenty years of age. On the right arm, from the wrist to the elbow, there was little but cicatricial tissue. The skin of the forearm presents elevations and depressions, and in places is covered with thin scales. The hand is not involved, and the affection does not extend deeper than the subcutaneous areolar tissue. For three or four inches above the elbow the arm is atrophied and covered with cicatricial tissue. At the upper border of the cicatricial tissue, there is an ulcer three-fourths of an inch wide, which encircles the arm. Above this there is sound tissue. No nodules are present. The left clavicle presents about its middle a swelling and ulceration about the size of a silver dollar. This was the result of a blow. There is no copper-colored appearance. Investigation of the family history showed that the mother was apparently healthy. Three of the patient's sisters, all younger than herself, were healthy. The father died of pneumonia when the patient was a child. It was subsequently learned that he had also had syphilitic ulceration of the throat. The treatment consisted in the local application of a mild mercurial ointment and the internal use of bichloride of mercury and iodide of potassium. The condition steadily improved, and in the course of six or eight weeks the ulceration had healed. The patient at that time passed from observation.

The speaker referred to the difficulties of diagnosis in this case, as there was a complete absence of specific history, the facts in regard to the father not being learned for some time after the case had been under treatment. There was no history of any previous evidence of hereditary syphilis, but taking all the facts into consideration, the doctor thought that there could be no doubt as to the correctness of the diagnosis.

Photographs, showing the condition, were exhibited.

DR. R. W. TAYLOR, of New York, remarked that it is now generally conceded that syphilis can be communicated to the child without infection of the mother, and he believed that he had been the first in America to call attention to this fact. He had seen this a number of times. The doctor had stated that he could obtain no history of early manifestations of hereditary syphilis. This is not uncommon, but that there is usually some indication of specific taint, although this may be so slight as not to excite notice, or its exact import is not recognized.

DR. GREENOUGH, of Boston, said that within the past two months he had seen a woman who had lost three children in succession from hereditary syphilis, yet she was strong and apparently perfectly healthy, and has never shown any signs of syphilis. This woman has been under observation for six or seven years.

DR. L. A. DUHRING, of Philadelphia, said that the result of treatment in causing a rapid cure in the case described would certainly incline one to the opinion that this was a case of syphilitic disease.

DR. J. N. HYDE, of Chicago, stated that he had seen cases which had convinced him that, while it is not the rule, still occasionally syphilitic children are born where, so far as observation can be made, no evidence of syphilis in the mother can be detected. As far as the general health is concerned, the women are usually pallid and weak, although there may be no symptoms which can be ascribed to syphilis. He had never seen inherited syphilis manifesting itself for the first time in advanced years. The more he saw of syphilis, the more he was satisfied that in its origin, heredity does not amount to very much. The accidental cases of syphilis are very common. He had seen the initial lesion of syphilis on the head of the penis, where it was unquestionably due to inoculation from the finger of the surgeon in catheterization. There was no doubt that the case described was one of syphilitic trouble, and as Dr. Duhring has said, the result of treatment unquestionably pointed in that direction. There are no cases which yield so readily as old cases of untreated syphilis. As to pronouncing it a case of hereditary syphilis, his experience would not permit him to do so.

DR. W. A. HARDAWAY, of St. Louis, considered it unwise to base our diagnosis on the results of internal treatment. Because a case gets well under anti-syphilitic treatment it does not prove that the affection is specific in its nature. Local treatment is often all that is necessary.

The next paper was entitled

CLINICAL NOTES ON PSORIASIS,

by DR. F. B. GREENOUGH, of New York. The paper was founded on the records of 394 cases of psoriasis. This number occurred in about 15,000 cases of skin disease examined, and represented about two and one half per cent.; 205 cases occurred in males and 188 in females. Several tables of statistics were presented, showing when the cases first come under observation, and the age at which the attack was first observed. A large proportion of the cases were first attacked with psoriasis between the ages of ten and forty years. In 97 cases the speaker had been able to get reliable evidence in regard to the family history. In 31 cases psoriasis had existed in a near relative, but in 66 cases, the patients felt sure that the disease had existed in no other member of the family.

As regards locality affected, where there is much development it is almost constantly found about the elbows and knees, and more frequently on the extensor surfaces than on the flexor.

Well-marked cases are readily diagnosed, but in some cases there is considerable difficulty in making the diagnosis. It is most frequently confounded with some form of eruption resulting from constitutional syphilis. When psoriasis affects the scalp, its appearance is often similar to that of secondary syphilis. In psoriasis, however, the patch consists simply of epithelial cells, and there is no hyperæmia connected with it. In syphilitic eruption the crust will contain other elements than epithelial cells, and on removal of the crust spots of moisture will be detected. A characteristic symptom of psoriasis of the scalp is a band of hyperæmia, about three fourths of an inch wide, extending around the forehead contiguous to the hair. This is a point of value in the diagnosis between eczema capitis and psoriasis. In the former affection this band is wanting. Psoriasis is not accompanied with enlargement of the post-cervical glands, as is eczema. The diagnosis from favus is made by the age of the patient, the evidences of destruction of the hair-follicles in favus, and the microscopical examination. The speaker had never been able to satisfy himself that psoriasis of the scalp ever caused permanent loss of the hair.

On the general integument syphilides are most apt to resemble psoriasis. The regions on which the eruptions appear is important. The syphilides are apt to affect the flexor surfaces, while the psoriasis affects more commonly the extensor aspects. Psoriasis begins as a mi-

nute point of hyperæmia, which may last for several days. In macula syphilide a crop of macules appear within twenty-four or forty-eight hours. When the eruption fades there is in syphilis a decided pigmentary change. In squamous syphilis the epithelial scales differ from those of psoriasis. In some cases of psoriasis there is severe itching, leading to scratching of the skin, and as a result scabs and crusts make their appearance, but here the cause of the condition is readily recognized.

The amount of pruritus complained of in psoriasis varies, but it is rarely a prominent symptom, although in exceptional cases it is very severe. He had never seen any eruption on the hands or feet resembling psoriasis, with the exception of eczema, which was not syphilitic.

In regard to treatment, some cases do well, while others do not. There is no specific. What will benefit one case may make another worse. In my experience, tarry preparations, especially the oil of cade, have been most efficacious. Great comfort may be afforded by the use of emollients. Cod-liver oil is one of the best applications. Cod-liver oil and oil of cade (equal parts) is a common prescription. Chrysarobin is a powerful remedy, but has the disadvantage of destroying the clothing. On the face and scalp it is apt to produce dermatitis. The internal administration of arsenic in some cases is of benefit. Even after apparent recovery there is great danger of relapse.

Dr. L. A. Duhring said the reader of the paper, in referring to the diagnosis, did not allude to the difficulty sometimes experienced in diagnosing seborrhœa capitis from psoriasis. He had found considerable trouble in the diagnosis, particularly in young girls. In these cases the eruption was confined to the scalp.

Dr. A. R. Robinson, in the diagnosis of favus and psoriasis, did not agree with the author in one of his points of diagnosis. In the early stage you do not find moisture when the crust is removed. There is a shiny appearance. It is only in advanced stages that ulceration is present.

He agreed with the speaker that psoriasis always occurs in small spots, at first not covered with scales. He considered it primarily an affection of the rete. While it is true that psoriasis often disappears without producing pigmentation, yet there may be discoloration found on the lower extremities, particularly where there is a varicose condition of the veins. In some cases where there are only a few patches of psoriasis, limited to the lower extremities, it is often difficult to make the diagnosis, unless there is involvement of other parts of the body or you have the history. There are other cases of acute psoriasis which closely resemble acute eczema.

Dr. J. C. White, of Boston, agreed with the previous speakers in regard to the difficulty of diagnosing between psoriasis of the scalp and seborrhœa. In some cases the diagnosis cannot be made for months. In all parts of the body pigmentation may follow psoriasis, but never over large areas.

He called attention to one termination which he had seen in three cases, and that was a degeneration into epithelioma.

Dr. R. B. Morison, of Baltimore, had seen many cases of psoriasis, and could only recall one or two cases of psoriasis in the negro. In such cases there is a loss of pigment.

Dr. G. H. Fox, of New York, had been very successful in the treatment of psoriasis and its management; he adopted the teaching of the late Tilbury Fox, who laid stress on the point that in psoriasis the first thing to do is to lessen the congestion of the skin. This is done by restricting the diet, giving fruits and vegetables in the summer, and in the winter giving a carefully restricted diet. Tea, coffee, tobacco, and stimulants of all kinds are to be cut off. By so doing more will be accomplished than is obtained by using arsenic and local applications at the start. In regard to local remedies, he never used tar in the treatment of psoriasis. With the application of chrysarobin, made at the proper time, there is no necessity for the use of tar. Sometimes the drug did no good, but this was because the application was made when the patches of psoriasis were in a congested condition. If the acute congestion is lessened, chrysarobin will produce beneficial results.

Dr. C. Heitzman, of New York, said one of the most important points after making the diagnosis is to decide as to the acuteness or chronicity of the affection. If it is acute, local applications are to be avoided. If the case is chronic, chrysarobin may be used with advantage, at least temporarily. It is not a cure. Tar cannot be dispensed with. Chrysarobin remedies the disease for a time, but in a few months it returns. There is nothing like tar to prevent the recurrence. No mention had been made of pyrogallic acid, which does good in some cases.

Dr. W. A. Hardaway believed that in psoriasis we have a disease situated in the skin itself. It is frequently hereditary. The same sort of skin may be transmitted, just as a certain color of the hair, or of the eye, may be transmitted, and then any exciting cause may develop the psoriasis. Traumatism is frequently the exciting cause. Psoriasis sometimes follows eczema. It is not unlikely that in seborrhœa of the scalp there may be the development of psoriasis. Internal causes may produce it. He had seen the excessive use of oat-meal produce typical psoriasis. As a local application he believed that chrysarobin, with salicylic acid, was very useful in chronic cases. Arsenic is useful on account of its action on the skin. He had employed chrysarobin in liquor gutta-percha, and in gelatine paste. This treatment may be followed up by the application of sulphur ointment. In psoriasis of the scalp sulphur is quite an efficient remedy.

Dr. J. C. White, of Boston, reported

TWO CASES OF ANGIOMA PIGMENTOSUM ET ATROPHICUM.

The first patient was a young man, seventeen years of age, and a Russian Pole by birth. Freckles appeared on his face before he was two years of age. These increased in number until the age of six. When the telangiectasic condition first appeared was not noted. When seen the patient was well developed, and apparently in good health. He had, however, grown slowly, and was then no larger than a boy of twelve. The hair of the head was abundant and intensely black. The eyes were also black.

Present condition, melanosis. The forehead and lower portion of the face were of a dark-brown color, and on close inspection small spots of a darker color were seen. The whole trunk was as dark as the skin of a dark Spaniard. The scrotum was very black, and the penis and glans presented dark spots. The arms and hands were thickly spattered. The legs were also affected. On the right thigh there was one spot of dark color, covered with rather long hair. The mucous membrane of the mouth and pharynx was free from melanosis.

The atrophic condition: On the right side of the face occupying one-half the surface, was a sharply defined area of white cicatricial-looking skin. Similar areas were seen on the other cheek, forehead, and about the mouth. A few white spots were seen on other portions of the body. The sensibility of the affected areas was decidedly lessened.

Telangiectasis: Over parts of the face there were bright red spots, varying in size from a pin's head to a pea. They were most noticeable in the atrophied portions. Within the lids there were two angiomatous new-growths. Several vascular twigs were also seen on the face. A few red points were found on the general surface.

The second case was a brother of Case I., aged three years, born in New York. When eighteen months old little colored freckles were noticed on the face. Since then the condition has been developing. His hair was

dark brown, and his eyes black. The face was covered with numerous dark-brown freckles. The spots were so close together that at a little distance the skin had a uniform color, in some places the spots were slightly elevated. The backs of the hands were covered with dark-brown spots, elsewhere the skin was clear. There were no leucodermic spots, and no angiomatous condition.

From a study of these cases Dr. White concluded that in the beginning the development of the spots could not be distinguished from ordinary freckles. Gradually the spots multiplied until they involved a considerable portion of the skin. It was probable that several years might elapse without other manifestation of the disease. The telangiectasic condition was probably secondary. In the first case it was most developed in the atrophic portion. It was probable that in this case there would be hypertrophy of the epithelium, and final transformation into epithelioma. This had been the result in the thirty-three cases which had been reported.

WEDNESDAY, AUGUST 26TH—FIRST DAY—EVENING SESSION.

DR. J. N. HYDE, of Chicago, read a paper on

RELATIONS OF LUPUS VULGARIS TO TUBERCULOSIS.

The following clinical facts were cited in support of the view that lupus vulgaris was not the result, as had long been taught, of tuberculosis or other systemic diatheses, but was the product of a local infection by bacilli, entirely unassociated with any constitutional evidence of diathesis or predisposition: 1. The unimpeachable character of the family record in by far the larger number of cases of lupus vulgaris. 2. The fact that the disease is, in its inception, a disorder of the period of childhood, when, for the most part, the habits of the child are favorable to infection. 3. The several sites of predilection are those most favorable to such infection. 4. The failure of the disease to spread by inheritance. 5. The remarkable tendency of lupus vulgaris to cutaneous limitation.

DR. J. C. WHITE, of Boston, read a paper entitled

THE TREATMENT OF LUPUS BY PARASITICIDES.

The doctor reviewed briefly the evidence in favor of the parasitic nature of the affection. All previous plans of treatment which had proven most successful were those which would have the effect of destroying any parasite which might be present.

A number of cases were then reported, in which the local use of corrosive sublimate, in the strength of two grains to the ounce of water or unguent, had been used with beneficial results. The ointment was especially recommended. It had been rarely necessary to prolong treatment over two months. As regards the permanency of the cure, the author was unable to speak, as the experiments had been continued for only eighteen months.

DR. SHERWELL expressed his profound disbelief in the parasitic nature of the disease.

DR. WIGGLESWORTH suggested that the oleates might be more efficient than ointments, on account of their penetrating power.

The next paper was by DR. W. A. HARDAWAY, of St. Louis, on

THE TREATMENT OF PORT-WINE MARK BY ELECTROLYSIS.

In the treatment of this affection the object is to excite sufficient inflammation to cause occlusion of the vessels. Electrolysis seems to be the most convenient way of doing this. At first the speaker had used a bundle of needles, but now he employed only the single needle. It is important to allow a period of some weeks to elapse between the applications. The histories of three cases were given in which this method had been employed.

DR. WIGGLESWORTH had seen good results from cutting the vessels in two places and using a preparation of iron, thus closing up the dilated vessels.

DR. FOX thought that better results could be obtained by electrolysis than by other measures, but it did not remove the trouble entirely.

DR. DENSLOW had recently seen a case of port-wine mark on the labia majora of an infant. This had ulcerated when the child was brought to him. As a temporary measure he applied liquor gutta-percha. In two days, without other treatment, the whole mark sloughed out, leaving nothing but a simple ulcer, which completely healed in the course of three weeks.

DR. HARDAWAY said that the advantage of the electrolysis was that it was manageable. A practical point might be referred to, and that was, if after the operation the part should be frequently mopped with hot water the inflammatory disturbance would be greatly lessened.

REMARKS ON A MOOT POINT IN THE ETIOLOGY OF PSORIASIS

was the title of a paper by DR. S. SHERWELL, of Brooklyn. The speaker had been struck by the great diversity of opinion in regard to the general health of those affected with psoriasis, and in order to arrive at something like a consensus of opinion on the subject, he had referred to the writings of most of the authorities on dermatological matters. Brief extracts from various writers were then given. The evidence thus obtained strengthened the doctor's opinion that the patients with psoriasis were generally in good health. He thought that the theory of Piffard, who believes that the rheumatic diathesis is a great exciting cause of psoriasis was the most rational theory that had been advanced.

THURSDAY, AUGUST 27TH—SECOND DAY—MORNING SESSION.

At the business meeting officers were elected as follows:

President—Dr. E. Wigglesworth, of Boston, Mass.

Vice-Presidents—Dr. I. E. Atkinson, of Baltimore, Md., and Dr. A. R. Robinson, of New York, N. Y.

Secretary—Dr. G. H. Tilden, of Boston, Mass.

Treasurer—Dr. H. W. Stelwagon, of Philadelphia, Pa.

Dr. E. B. Bronson, of New York, was elected to membership.

The next meeting will be held, beginning the last Wednesday of August, 1886, at Indian Harbor Hotel, Greenwich, Ct.

DR. G. H. FOX gave a brief description of two cases of

DYSIDROSIS.

The first patient, for want of a better term, he classed under this heading. The patient was twenty-nine years of age, and had always perspired freely. Four years ago the eruption began on the palms of the hand and had persisted. The soles of the feet had also been affected at one time. The skin of the hands was decidedly thick and had a dark hue, and was dotted with numerous elevations of epidermis, averaging in size that of a hemp-seed. The patient had never seen any moisture in connection with this. There had been no itching. The skin never peeled off. Puncture with a needle revealed no serum or fluid of any kind.

The second case was that of a woman, aged forty-five, a cook, whose general health was good. The present trouble began five years ago. The eruption is on the face and consists of numerous large and small vesicles containing clear fluid.

DR. A. R. ROBINSON, of New York, read a paper on

MYCOLOGICAL STUDIES IN TINEA FAVOSA AND TINEA TRICHOPHYTINA.

The speaker prefaced his paper with a few general remarks. The epidermis of different individuals differed in susceptibility to these parasites. Children were more apt to suffer with tinea trichophytina and favus, while adults more frequently presented tinea versicolor. All

children are not equally susceptible. In many cases of parasitic disease there is impaired vitality previous to the development of the affection.

The speaker then gave an account of his investigations to determine the exact anatomical seat of the parasitic diseases in question, and to determine the changes which they produced in surrounding tissues. The conclusion was that in favus the rete is not affected until the later stages, when ulceration had made its appearance. The parasite confines itself more particularly to the corneous layer. The parasite of tinea trichophytina in some cases passes down into the rete, while in others it does not.

A number of sections were shown under the microscope, which illustrated the points brought out in the paper.

Dr. White did not agree with the speaker in the importance of depressed general health as a factor in the production of these diseases. He had never seen any necessity for internal treatment in these cases.

Dr. Piffard agreed with Dr. Robinson that there was a relation between the condition of the general system and the rapidity of development and rapidity of cure.

Dr. Duhring had always held the view that a particular condition of the epidermis was necessary for the growth of the fungus. The majority of cases of obstinate ringworm that he had seen had been in individuals in poor health, but there were exceptions to this rule. What this peculiar condition of the skin was had not been determined.

Dr. Denslow had recently seen a large number of cases of ringworm of the head and beard, but all the patients were well-developed, muscular subjects. These were cured without internal treatment.

The next paper was,

ON THE STRUCTURE OF THE DERMA AND THE DEVELOPMENT OF ELASTIC TISSUE IN IT,

by Dr. C. Heitzman, of New York. The essayist drew attention to the fact that Professor Stricker, of Vienna, the acknowledged best microscopist of Europe, has now accepted his views concerning the life of basis-substance. Dr. Gartner (who was present at the meeting), Stricker's assistant, has brought from Europe an electric picture microscope, by means of which these newly discovered facts can easily be demonstrated to a large audience upon a screen. There are three varieties of basis structure, differing from each other in their chemical constituents, viz., the glue-yielding basis-substance proper, producing the spindles within the bundles of so-called fibrous connective-tissue; the cement-substance between the spindles; and the elastic-substance developing along the edge of the bundles in advancing age and in some tumors. All three varieties are traversed by a delicate reticulum of living matter in connection with the protoplasmic cords that fill the interstices between the bundles in the shape of a comparatively coarse reticulum. Thus it becomes intelligible that in morbid processes not only the protoplasm but also the basis-substance participates in an active manner. After the liquefaction of the solid fields of glue-yielding basis-substance, the bundles directly are transformed into inflammatory corpuscles, from which starts every physiological and pathological new-formation.

Dr. W. A. Hardaway described a case of multiple myomata of the skin, accompanied with severe pain. The patient was thirty-six years of age, married, with healthy children, and good family history. Never had syphilis. Present trouble began a year ago. Changes in weather produced pains in the parts which have since become affected. To relieve these, firm pressure was made with the hand. Between the paroxysms pain was not produced by pressure. Later the lesions presented themselves.

Present condition: A strong hearty man, a pedler by occupation. The pains still persist, recurring at intervals of one night to a week. Each attack lasts two or three minutes and does not return the same night. The growth is situated on the right side of the back, in the mid-dorsal region, and the course of the growths is obliquely outward. There are one or two of the elevations on the left side. Three of the growths are as large as peas, others are small. The epidermis is not abnormal. On passing the hand over these growths there is no hyperæsthesia, but on deep pressure in the neighborhood of the larger masses the patient sinks moaning to the floor. One of the larger growths was removed and microscopical examination showed it to be composed of smooth muscular fibre.

From a clinical standpoint the case bears a close relation to the cases of neuroma which have been reported. The speaker concluded that certain new-growths in the skin, accompanied with severe pain, may be widely different histological structures. We are not justified in assuming that a painful tumor of the skin is a neuroma or fibro-neuroma simply from its clinical history, without a microscopical examination.

Dr. R. S. Morrison, of Baltimore, Md., reported

AN UNUSUAL CASE OF TYLOSIS OF THE HANDS.

The patient was a negro, aged thirty-two, muscular, well developed, and apparently healthy. By occupation he was a fireman of a steamer, and had occupied this position for ten years, shovelling coal with the right hand grasping the upper portion of the shovel, and the left hand sliding up and down the handle. Two fingers of the left hand are worn off to the second joint, while the other two are going in the same way, the nails having nearly disappeared. On several occasions he has drawn pieces of bone from the fingers. There has been no pain at all connected with the affection. On this hand there are some large blisters, underneath which there are red granulating surfaces, which are painless. There is no history nor evidence of syphilis. Specific treatment has been used without effect. The man obstinately refuses to give up his work, so that little could be done in the way of treatment.

The speaker was led to consider it a strictly local affection from the fact that the hand which was most exposed to rubbing and to the heat of the furnace was the one most affected.

Dr. Duhring was inclined to consider the callosities a secondary condition. The occupation probably had something to do with the aggravation of the disease, but if the occupation had been different there would probably have been a similar change. He would regard it as dependent on some deep change in connection with the nerves, similar to what occurs in perforating ulcer of the foot.

Dr. Morrison could not admit that it was an affection of the nerves in the first place. It might be that the continued congestion of the skin, dependent on his occupation, produced changes in the nerves or other parts, which culminated in this affection. In referring to the literature of the subject, he had found similar cases attributed to mechanical irritation.

THURSDAY, AUGUST 27TH—SECOND DAY—EVENING SESSION.

Dr. L. A. Duhring, of Philadelphia, read a paper on

THE RELATION OF HERPES GESTATIONIS AND CERTAIN OTHER FORMS OF DISEASE TO DERMATITIS HERPETIFORMIS.

Dr. Fox exhibited a photograph of a case which might be mistaken for dermatitis herpetiformis, namely, erythema multiformis. This disease should be placed in strong contrast with dermatitis herpetiformis.

MYCOSIS FONGOÏDE,

was the title of a paper by Dr. G. H. Tilden, of Boston, Mass.

The speaker described the case of a man, aged twenty-eight. When he came under observation, three years be-

fore, several red desquamating spots had been observed on the elbows. Several months later erythematous spots, accompanied with pruritus, were noted. These lesions retained a dry, scaly character. There were no vesicles or pustules. At the end of a year several red nodules appeared on the face and throat; these, however, disappeared. Later a small papule appeared on the right thigh, and increased in size. From this there exuded a thin fluid. This was followed by the development in many parts of the body, particularly the axillæ, groins, and neck, of similar lesions, in some cases reaching the size of a hen's-egg. After a time there was superficial erosion of some of the tumors, but these excoriated tumors remained firm in consistence. But some of the masses which were covered with epidermis were soft, but there was no evidence of the formation of pus. There was also indolent enlargement of the lymphatic glands. The general health continued good. The patient passed from observation, and died at the end of three years and a half.

The report of the microscopist who examined the tumors was read. His opinion was that the growths consisted of the formation of lymph-tissue in corium.

Reference was then made to the literature of the subject, and the various cases, some thirty in number, which had been reported, were given, and the symptoms and course of the disease was described. Sections of the growth were also presented for examination.

Dr. White said that this patient was under his care during the last stages of the disease, and he presented the changes which have been described. Some of the larger growths disappeared. During the last months of his life the man was taking arsenic. Death resulted from the occurrence of diarrhœa.

Dr. Fox said one or two similar cases had been seen in New York. Should one come under his care, he should try the effect of Calamooga-oil. Judging from its effects in other cases it should be useful.

Dr. Heitzman remarked that the description of the microscopic appearance was that of a lympho-sarcoma, and the examination of the specimen confirmed him in the view that this was a case of lympho-sarcoma.

Dr. Sherwell, to show the amount of involution that may take place, reported a case of melano-sarcoma under his care. The man was treated with arsenic, mercurials, etc. After six months' treatment the tumors had almost entirely disappeared. There was not the slightest evidence of syphilis.

Dr. Fox had seen Calamooga-oil used in a case of leprosy. There was now not a trace of leprosy except the contraction of the fingers, which is, however, a secondary condition. It had failed in many cases, but there was sufficient to justify a trial of it in the chronic inflammatory affections referred to.

Dr. L. N. Denslow, of St. Paul, Minn., read a paper on

URETHRAL IRRITATION IN THE MALE AS A CAUSE OF CERTAIN NEUROSES AND OF ACNE.

He prefaced his remarks by a brief review of the cases of contracted meatus reported by Dr. Otis. He then gave an account of a number of cases coming under his observation in which there were reflex conditions associated with conditions of the urethra, such as contracted meatus, stricture, and excessive sensitiveness of the prostatic urethra. In these cases removal of the urethral trouble produced an alleviation or cure of the affection, to which attention had been directed. He also reported four cases of acne, in which the same treatment had been followed by marked improvement or cure of the skin disease. In some of the cases ergotin was also employed. The speaker said that he simply reported the cases as so many observed facts, and did not express any theory. He would keep the cases under observation, and at a subsequent meeting give a further report.

Dr. Hyde said many of these cases with urethral trouble associated with acne were patients who probably had been taking for some time balsamic preparations, and as a result they had the development of acne. He would suggest to Dr. Denslow, that he take this point into consideration.

Dr. Denslow said in all the cases reported the acne had existed since puberty. The patients were not hypochondriacs, and they were not masturbators. He was satisfied that no drugs had been used in any of them.

Friday, August 28th—Third Day—Morning Session.

Dr. C. Heitzman, of New York, read a paper entitled

REMARKS ON ELECTROLYSIS AND OTHER PRACTICAL TOPICS.

The reader spoke very highly of electrolytic depilation. For this purpose he uses the Leclanché battery. Six cells of this battery have the advantage of steadiness, lack of pain, and lack of reaction when applied to the face of the patient. He employs a needle devised by Leiter, of Vienna, which permits the depth to which the needle penetrates to be measured. He has had good results from electrolytic destruction of dilated blood-vessels in the face, less satisfactory results in the treatment of port-wine marks, where a permanent cure is only exceptionally attainable. Sodium ethyl is highly recommended by some for the destruction of angioma of the face, but it is in no way superior to nitric acid.

The speaker maintained, after observing two hundred cases of falling off of the hair, caused by seborrhœa, that the method he recommended in 1876 gave fair results. This is the application of a ten or twenty per cent. ointment of crude oleum rusci in vaseline and paraffine.

For the removal of freckles, the doctor used an ointment recommended to him by Wertheim, of Vienna. The preparation is as follows:

℞. Hydrarg. ammon. muriat.. 3.75 grammes.
Magist. bismuthi ..... 3.5 "
Ungt. glycerina ..... 30.0 "
M.

This is to be applied in a thin layer, every other night and in four or six weeks the result is highly satisfactory. As to the permanency of the cure the doctor was unable to state.

In regard to the reappearance of hair after removal by electrolysis, the speaker considered it to be due to the growth of the fine hairs, which was increased by the transference to them of the nutrition which should have gone to the hairs removed.

Dr. Hyde thought that Dr. Heitzman had touched upon the important point in the removal of hair by electrolysis. The question was not what will the result be at present, but what will it be in the future. The electrolysis produces a hyperæmia which tends to stimulate the growth of the remaining hair.

Dr. Fox had used nitric acid in the treatment of angioma, making the application in the form of small dots one-fourth to one-half an inch apart, with great advantage. In one case in which a nævus occupied half the body, he used this treatment with much success. He did not think that the removal of hairs increased the growth of others. In one case, that of a young woman with a strong beard, he removed, by actual count, eight thousand hairs. This process required two or three years. Since then it had been necessary to remove only a few dozen hairs.

Dr. Robinson had used a similar ointment for the removal of freckles, but its effect was only temporary.

Dr. Wigglesworth remarked that for the past fifteen years he had used the following ointment, which was almost identical with that mentioned by Dr. Heitzman:

℞. Hydrarg. ammon ..... 10 parts.
Bismuthi subnitratis ..... 10 "
Vaseline ..... 100 "
M.

Dr. Hardaway had performed the operation of electrolysis for ten or twelve years. He employed the iridoplatinum needle, which could be bent and was not likely to pass through the follicle-wall. The moment the follicle was entered there was escape of serum. One case, that of a woman with a heavy black beard, had been entirely relieved. Electrolysis with a fine needle affords a method of getting rid of freckles. The plan is to dot the needle over the surface covered by the freckles.

Dr. Heitzman said that the percentage of recurring hairs is greater in some situations than in others. In the submaxillary region it is greatest.

Dr. R. W. Taylor, of New York, read a paper

ON SYPHILITIC REINFECTION.

The speaker first referred to the literature of the subject, and gave a brief review of the authentic cases on record, giving the names of the reporters. The number of cases previously reported number between thirty and forty. To these the speaker added the histories of three more. A fourth case had been observed by him, but as the complete history was not prepared it was not given.

Case I. was a barkeeper, twenty-five years of age. Was first seen 1868, suffering from gonorrhœa. Three years previously had had indolent enlargement of the lymphatic glands in the groins. Examination showed the presence of lymphatic enlargement in certain regions. Inquiry into the history showed the existence of a chancre three years before, which had been slow in healing. About two months later, he became sick and suffered with a roseollar eruption, sore throat, falling off of the hair, and rheumatic pains, worse at night. Under treatment he improved, but afterward exhibited a papular eruption. He was then seen by Dr. Van Buren, who pronounced the case one of syphilis, and ordered mercurial treatment. He recovered after two years, but of his own accord continued the treatment two years longer. He then remained well until the attack of gonorrhœa. In February, 1870, he again appeared presenting a typical indurated chancre on the cutaneous aspect of the pubes. It presented every evidence of a primary infection. Later a papular syphilide appeared, over the body. There were several mucous patches on the pillars of the fauces, and the throat was red and swollen. The joints soon became the seat of nocturnal pains. The patient also presented a form of syphilitic epididymitis. Under mercurial treatment there was some improvement, but a year later there were some tertiary manifestations. By 1874 he seemed very well. During the next three years there were no evidences of syphilis, but he continued the mixed treatment. He was again seen in the fall of 1882, when it was learned that his good health had continued, and that he was the father of a healthy child. The child was examined and no evidence of hereditary syphilis detected.

Case II. had in June, 1873, a typical indurated chancre, followed by distinct secondary symptoms, which disappeared under treatment. He then passed from observation. In February, 1874, he presented several ulcero-tubercular lesions on the outer aspect of the forearm. He then remained under treatment six months. In January, 1875, he had spots of thickening of the periosteum of both tibia. He was again treated with benefit. In June, 1876, there was a typical indurated nodule on the prepuce, from which indurated lymphatics extended to the inguinal lymphatic glands. The incubation of this sore had been about twenty days. This was followed by malaise, sore throat, swelling of the post-cervical and epitrochlear glands. Over the body and arms there was a fine mottling of light pink color. The patient then went to Europe and was not seen until March, 1885, when it was learned that the symptoms had been well marked, and that he had been under treatment for them with several Continental physicians.

Case III., aged forty-one, had had a typical indurated chancre in 1874. There had been inguinal adenitis, followed by roseola, falling off of the hair, and later by severe iritis of the right side. He was treated with mercury. In February, 1882, he returned with a typical hard chancre. In April he became sick, had rheumatic pains and a mixed eruption of erythematous and papular syphilide. In May, inflammation of the iris of the right eye again appeared. In 1883 he had a late secondary rash.

These cases were reported with the object of throwing some light upon the natural history of second infections of syphilis. In all these cases relapsing indurations were carefully excluded.

Dr. W. H. Stelwagon, of Philadelphia, reported some

OBSERVATIONS ON THE OLEATES.

Of all the oleates, those of mercury, zinc, bismuth, and lead had a place in the treatment of diseases of the skin, and in view of their costliness, the seeming unavoidable frequency of badly made preparations, the disagreeable oleic acid odor, and the irritation so frequently observed following their use, it was probable that of these four the mercuric oleate alone promised to retain a permanent value. This last was especially valuable in ringworm of the scalp, but for inunctions in the treatment of syphilis it was of doubtful utility, as it was questionable whether it was absorbed. Oleate of copper, which had been so highly recommended for ringworm of the scalp, was not comparable in that affection to oleate of mercury, or to tar and sulphur preparations.

Dr. Wigglesworth had practically renounced all oleates except the oleates of zinc, lead, and mercury, as parasiticides.

Dr. Duhring's experience with these preparations was in accord with that of the reader of the paper. He had employed the oleate of copper in varying strengths in thirty or forty cases of ringworm, but it seemed to exert no influence whatever. These were, however, obstinate cases. As to its efficiency in acuter forms of ringworm he was not prepared to speak.

Dr. Heitzman had tried the oleate of copper in chronic cases of ringworm without any result, but in the acute cases it cured after a time. It was not as efficient, however, as the preparation recommended by Dr. Taylor, that is, four grains of bichloride of mercury to the ounce of tincture of myrrh.

Dr. Fox remarked that it had been claimed that the oleic acid and animal oils were better absorbed than these other preparations. As a matter of experience, he had found that vaseline made a better base for the majority of ointments than the animal oils. Vaseline was a most soothing application to the skin.

Dr. L. N. Denslow, of St. Paul, Minn., reported

A CASE OF SYPHILITIC APHASIA AND PARAPLEGIA, FOLLOWED BY DEATH—WITH AN ACCOUNT OF THE AUTOPSY.

The object of the author was simply to put on record a case in which an autopsy was obtained in early syphilitic cephalgia. The patient was seen in consultation April 29, 1885. Two months previously the patient had begun to suffer with severe headache, worse at night. There was also a papular eruption. He acknowledged the existence of a sore six months previously. Iodide of potassium with chloral had been given two weeks later; the patient was free from pain, but it returned one month afterward when the patient stopped taking medicine. Iodide of potassium was again given with the effect of relieving the pain. Aphasia and paraplegia then developed, and the patient died four days later, and within nine months of the initial lesion.

At the autopsy the dura mater along the superior longitudinal sinus was thickened and adherent, there were numerous small gummata in the pia mater situated along the right border of the longitudinal sinus, and extended back to the fissure of Sylvius. The pia mater exhibited the evidences of simple acute inflammation.

The Association then adjourned.

Strabismus.—Dr. Samuel W. Francis says that squinting is caused by micro-cock eye!

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

SPECIALISM—THE OPPOSITION TO IT AND THE ARGUMENT FOR IT—THE BRITISH MEDICAL MEETING—ECHOES OF DISCONTENT.

LONDON, August 29, 1885.

THE subject of specialism is again being discussed, and, as usual, with some animus. It is one of those questions which is always coming to the front and being argued afresh, though each sucessive discussion usually does no more than leave matters *in statu quo*. *The Lancet* decided against specialism and specialists years ago, but the specialists continue to live and thrive in spite of *The Lancet*. The profession, at last, finding that they could not put down specialism, finally made some concession by establishing special departments at the general hospitals. Specialism was thus in a manner recognized and taken under the wing of the general hospitals. Eye diseases had long been acknowledged to constitute a legitimate specialty, but by this step other specialities were recognized as such. The "special departments" gradually increased in number and efficiency, until now most of the general hospitals in London—at any rate, most of those attached to medical schools—have them in the chief special branches. This has not, however, in any way lessened the number of special hospitals; the latter flourish in undiminished numbers. The fact is the public believe in specialism, and go to the specialists. They will, doubtless, continue to do so, whatever the general physicians and surgeons may say. From one point of view their argument is unanswerable. How, say they, can a man who practises all branches of medicine or surgery know as much about one particular branch as a man who devotes his whole time to that branch? In the case, at any rate, of those branches of practice which require considerable manipulative skill—such as ophthalmology, otology, laryngology, and, I might add, urethral surgery and operative obstetrics—the answer is self-evident. In the case of ophthalmology the question has long been settled in favor of the specialists. Take one of the others, though: a patient suffering from an aural exostosis, say, would naturally prefer to be operated on by an aurist who had previously done half a dozen or more similar operations, rather than by any general surgeon—however good as a general surgeon he might be—who had never done one. A patient suffering from a severe stricture, too, would rather have a bougie or catheter passed on him by a specialist who passed a score or more daily, rather than by a general surgeon in whose practice urethral cases did not form a tithe of those seen. The profession, too, believe in specialism. Many of them do, at any rate, for they send their patients to the specialists, and this not only among the general practitioners, who might perhaps be accused of not knowing any better, but also among consulting physicians and surgeons who have plenty of colleagues living within a few doors of them whom they might call in consultation if they would. In truth, many general physicians and surgeons are themselves more or less of specialists. They would, doubtless, repudiate the term with scorn. Yet a very large number of them have, without becoming out-and out specialists, devoted a disproportionate attention to some special branch, have perhaps written on it, and finally find that their practice largely consists of certain groups of cases. Look, for instance, at the number of physicians who have written on chest diseases. Many such have found their practice become mainly, if not exclusively, a chest practice. Are not these specialists? Certainly they are, to a limited extent.

Moreover, every general physician and every general surgeon is really a living example of specialism, paradoxical as this may sound. Yet this is so. They differ from the so-called specialist merely in degree. The thorough-going specialist would say that that he renounces the pursuit of general medicine and surgery in order that he may study one department more profoundly. He digs within a narrower area in order that he may dig deeper. Is not this what a general physician does, though his specialism is not so exclusive? Every pure physician renounces the practice of surgery and obstetrics, *i.e.*, he restricts himself to one-third of the healing art. Similarly, the pure surgeon relinquishes medicine and obstetrics. Each of them narrows his field of observation that he may explore it more minutely. Most people would admit, that, given two men of equal ability and, at the outset, equal professional attainments, and let one of them become a general practitioner and the other a pure physician, that, at the end of ten years, the latter ought at any rate to know the most *medicine*. The specialist merely carries the subdivision a little further.

Specialism is, however, open to great abuses, and these have justly been denounced. There is always the temptation, whatever the case may really be, to claim it for the particular specialty the consultant cultivates, and where the latter is unscrupulous, this has, no doubt, often been done, and in some cases to the detriment of the patient's interests. It is certainly not legitimate specialism for a laryngologist to retain a case of aortic aneurism even with laryngeal symptoms present, or for an ophthalmologist to keep a patient with Bright's disease even if albuminuric retinitis be present, or for an otologist to treat a case of Ménière's disease. If the practitioner is competent, it may be legitimate practice, but it is not *bona fide* specialism. It is, of course, possible for him to be a good general practitioner, and, in addition, a good specialist in his own specialty. It is, though, to be feared that the assumption of specialism has been occasionally a cloak for ignorance—that, in fact, a specialist has put himself forward as such, simply because he knew nothing else, and, perhaps, not even his own specialty. The abuses to which specialism is liable do not, however, detract from the arguments in favor of it, neither are they confined to specialism alone.

Now that the Cardiff meeting is receding from view and becoming a mere memory of the past, some signs of discontent are being manifested. Those who, when at Cardiff, were too busy in feasting, are now speaking out their minds—some in public, many more in private circles. One gentleman writes to the *Journal*, to complain that many who had promised to take part in discussions failed to appear, and that consequently the said discussions had to be brought to an untimely end. This is very sad, but not novel, and where is the remedy? Another gentleman complains that he has been misrepresented in the *Journal*, and states his case at some length in a rival journal. Dr. Jacob seems so far to have had the best of it. The editor of the *British Medical Journal* has, at any rate, deemed it wisest to maintain a judicious silence on the subject in his own columns. Many are the plaints, as usual, against the Council. It is stated that they can, by concerted action, carry anything. No doubt they can. Well-organized committees usually can. One very evident reason why any matter discussed at the annual meetings is usually settled in the way the Council wishes, is that most of those present apparently care little about the matters discussed, and are willing to leave it to the Council. This was very plain both at Cardiff and at Belfast. On each occasion considerable discussion took place over a proposal to pay the travelling expenses of members of the Council. On each occasion the proposal was negatived by a large majority, but it was painfully apparent on each occasion—and with respect to other questions also—that most of the members present cared nothing about the matter, one way or the other. Some opposition was evinced at Cardiff, to the proposed outlay on new premises, though it was finally sanctioned.

THE ABUSE OF MEDICAL CHARITY.

To the Editor of The Medical Record.

Sir: I have noticed with much interest the discussions in The Medical Record concerning the abuse of medical charities in this city, and it is to be hoped that the agitation will not abate until much of this abuse abates also. The existence of this misuse and perversion of what has been dedicated, in benevolent intent, to the benefit of the *really destitute* is well authenticated in all our large cities. A recent careful investigation made in Philadelphia shows that in one year about two and a half per cent. of the whole population received free in-door hospital treatment in that city, and nearly sixteen per cent., or 150,000 persons, received free dispensary treatment. Repeated tests in New York and Philadelphia, made to a somewhat large extent, have satisfactorily proven that fully two-thirds of this free treatment, in dispensaries at least, was bestowed upon persons fully able to pay a moderate fee to a regular physician. In the face of these facts, are the managing boards of our hospitals and dispensaries not guilty of unpardonable neglect of duty and misapplication of trust funds in permitting such miscarriage of charity?

The attendant disadvantages, also, in the over-taxing of the attending physicians, the injustice to the younger and struggling members of the profession, the disadvantage to the patients in hasty diagnoses and treatment, and especially in the corrupting effect upon the self-respect and independence of the poor, are too patent to require emphasis. The great need is a practicable remedy.

It must be borne in mind that the terms of medical relief should not be the same as those for other departments of charitable aid, inasmuch as the physical suffering, even of the most unworthy, cannot be ignored or neglected, and also because the relief dispensed cannot be readily pawned or traded for drink. The question of the right bestowal of medical relief will turn upon the applicant's pecuniary ability and not upon moral character.

A practicable remedy seems to be offered in New York in the near future, in the methods and system of the Charity Organization Society, a society organized by the State Board of Charities for the very purpose of offering a ready means for the proper protection, regulation, and adjustment of benevolent relief. When this society, which as yet covers only about one half the area of the city, shall be co-terminous with it, it is understood that it will be ready to undertake the investigations of all applicants for medical relief, and to report in ordinary cases upon the same before the second visit. It is even now willing to undertake such examinations within the territory already covered by it (Houston Street to Seventy-ninth Street on the East Side, and Houston to Fifty-third Street on the West Side), expecting that the institutions benefited thereby be willing to contribute correspondingly to the society's support. The results of the experience of the German Hospital and Dispensary in availing itself of the society's co-operation (as shown in The Medical Record of June 13, 1885) are sufficient to show the benefits and the thoroughness of the latter's methods. It is also understood that this society is at present willing to contract with a number of the medical charities to investigate over the whole city for a price sufficient to pay for the actual cost of the work. Its system of central registration of all applicants for relief, now three years in operation, gives an indispensable requisite for intelligent work. It already has registered about 70,000 families of seekers of charitable relief, or over 250,000 persons.

The general plan would be that all applicants for medical relief should apply primarily to the medical charities direct, and be treated upon the off-hand judgment of the medical attendant; and afterward be by him referred, with a card in proper form, to the society for report as to ability to pay before being treated a second time, the report to be made upon the same card. The report is to be a discriminating one, based upon the family income and number and condition of the members; and to state whether the party can pay any fee, or can pay a modified or an ordinary one. Any small *fixed* fee is as indiscriminate and as unjust to the medical institution and its benevolent supporters as no fee at all, and quite as liable to abuse. Under such a plan as is thus briefly outlined, it is believed that the co-operation of the Charity Organization Society could be equitably secured, and this flagrant abuse and perversion of medical charity seriously hindered, if not nearly altogether counteracted.

It may also be added that the same co-operative system of "Charity Organization," so technically called, is gradually spreading all over the country and now exists in nearly fifty of the large cities and towns of the Union. The kindred societies in all these localities are so closely allied that almost daily exchanges of information are made between some of them. This gives each city valuable protection against fraudulent relief askers from all the other towns.

Two examples from the Second Annual Report of the Society in question are to the point.

"Defrauding Hospitals.—Information was received by the Charity Organization Society of the coming to New York, from an interior city of Pennsylvania, of a wealthy man assuming the guise of great poverty, for the purpose of securing free treatment and surgical service for his eyes, for which he was able to pay liberally. The information having been carefully verified by real estate and tax searches, it was immediately sent out to every hospital and dispensary to which he would be likely to apply. He was thus discovered at a leading eye hospital, and in due time confronted with the facts and compelled to pay.

"Another.—A poorly-dressed woman applied to a hospital for surgical treatment, and was reported to the Society.' Investigation showed that she was the wife of a prosperous liquor dealer, who owned a valuable corner building in a choice location, the main floor of which was his elegant saloon, and the floors above rented out for high-priced flats. The hospital declined further treatment, and the other hospitals were duly warned."

Yours truly,

For Wisdom and Accountability in Charity.

COMPLICATIONS OF MALARIA.

To the Editor of The Medical Record.

Sir: Dr. Weber, of this city, a painstaking observer, published a paper in The Medical Record, of September 12th which is readable and interesting, also showing good treatment; but it seems to put forward as novel what has been known for a long time, namely, that in all febrile conditions, or fevers, there may be a succeeding determination to the viscera of head, chest, or abdomen; this causing hemorrhages or inflammations.

In the *New York Medical Gazette*, of January 7, 1882, p. 2, is an article by Dr. Thomson, on "Temporary Albuminuria, caused by Malaria;" which albuminuria was dependent on temporary renal congestion from malarial poisoning; intermittent hæmaturia was concomitant. This completely covers the ground taken by Dr. Weber as far as renal hæmaturia is concerned.

Other hemorrhages, of course, are also noted, such as epistaxis and hæmatemesis; I have had such (malarial) cases myself.

The apneumatosis (although prettily differentiated by Dr. Weber) and psychosis can, no doubt, be explained by internal determination. It is well known that malarial patients often temporarily lose complete memory, only retaining partial.

C. E. Nelson, M.D.

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Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from September 6, 1885, to September 12, 1885.

McKee, J. C., Major and Surgeon. Sick leave still further extended three months on surgeon's certificate of disability. S. O. 204, A. G. O., September 7, 1885.

Patzki, J. H., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon, Jackson Barracks, New Orleans, La. S. O. 192, Department of the East, September 8, 1885.

Polhemus, A. S., First Lieutenant and Assistant Surgeon. When relieved at Fort McDermit, Nev., assigned to temporary duty at Presidio of San Francisco, Cal. S. O. 87, c. s., Department of California.

Kendall, William P., First Lieutenant and Assistant Surgeon. Relieved from duty at Presidio of San Francisco, Cal., and assigned to duty as Post Surgeon at Fort McDermit, Nev., relieving Assistant Surgeon Polhemus. S. O. 87, Department of California, August 31, 1885.

Medical Items.

A Clever Impostor.—A Russian, who has been going about New Haven, Conn., soliciting alms on the strength of a badly swollen hand, which he told people was caused by rheumatism, was arrested a few days ago. At the hearing it was developed that the culprit was not afflicted with rheumatism at all, but had tied tightly a bandage around his arm, near the elbow, so as to make the blood settle in his hand and produce the swelling. A German present at the hearing said it was a regular trick of ordinary beggars in European cities. The prisoner was sent to jail for sixty days.—*The Medical and Surgical Reporter.*

The Cold Douche in Insomnia.—The following is recommended as a very efficacious means of producing sleep in insomnia associated with eruptive or continued fevers: The patient's shoulders are covered with a cloth and the ears plugged with cotton. Then the head being held face down over the edge of the bed, a fine stream of cold water is dropped upon the neck and occiput. The water should should fall from a height of eighteen inches during a period of three or four minutes. The head is then dried, and the patient made comfortable in bed. As a general rule, sleep follows in a very short time.—*Concours Médical.*

A New Cardiac Sedative.—Dr. G. Bufalini gives an account in the *Gazzetta degli Ospitali,* of August 12, 1885, of some experiments with coptis teeta or mameeran upon the heart of the frog. This plant is a native of China, belonging to the family of ranunculaceæ, and is used as a stimulant of the digestive functions. The author found its effects upon the heart to consist principally in a slowing of the pulsations, leading finally to complete arrest of cardiac action in systole. And he, therefore, classes it in the same pharmacological group with digitalin.

Floating Liver.—Maack relates the case of an unmarried woman, thirty-five years of age, who complained of pains in the right side of the abdomen. She had suffered from these for the past eleven years. Examination showed a tumor, of the shape and size of the liver, situated in the right iliac fossa, and the liver was also found not to be in its proper place. The cause of this mobility was thought to be an old echinococcus cyst of the suspensory ligament.—*Annales Médico-Chirurgicales.*

A Well-preserved Family.—There is an Arab family in Algiers, according to the *Gazette Médicale de l'Algérie,* which consists of Simon Lucas Gimenès, one hundred and eight years old, the father of François, seventy-eight years old, the father of Lucas, forty-six years old, the father of François, twenty-six years old, the father of Lucas, one year old. They are all in good health and all working with the exception of Simon Lucas and his great-great-grandson.

Oranges as a Galactogogue.—A case is reported in *The North Carolina Medical Journal,* of an increased secretion of milk caused by oranges. The patient gave little or no milk, and the child was fed artificially; but soon after eating some oranges she found that the secretion was markedly increased. When the fruit was omitted for a few days the milk was suppressed, but returned again upon the patient's returning to the orange diet.

The Evil Spoken of Physicians.—M. Witkowski has been collecting all the wicked things written about physicians, and has published them in a book bearing the title of "Le mal qu'on a dit des médecins." That we have had to suffer from a rather undue share of slander is evidenced by the fact that two volumes of between three hundred and four hundred pages each have already appeared, and are to be succeeded by still a third.

The Cocaine Habit.—A case is reported by Dr. Love in the *St. Louis Medical Journal* of an opium eater whom he treated with cocaine. He was successful in curing the opium habit, but found that his patient had simply exchanged that for the cocaine habit, and that he was as much a slave of the latter drug as he had been of opium.

Formula for Infantile Coryza.—Dr. Filatow recommends a solution of one part of hydrochlorate of quinine in fifteen parts of glycerine, in the treatment of infantile coryza. Two or three drops are to be applied by means of a camel's hair pencil to the nasal mucous membrane, three or four times a day.

It is said that manufacturers in Paris are imitating cod-liver oil by soaking herrings in olive oil. The olive oil quickly takes up the fishy odor, and closely resembles light cod-liver oil. Brown cod-liver oil is imitated by allowing the fish to soak in the oil for eight or ten days.

The Health of the French Soldiers in Tonquin.—Reports in the French journals of the health of the army in Tonquin continue to be unfavorable. The greatest mortality is from malarial diseases, which are very prone to assume a pernicious form.

Tuberculosis and Vaccination.—It is asserted by Straus that the proportion of tuberculous calves does not reach 1 in 100,000. If this statement be correct, there would seem to be but very little danger of tuberculosis in obtaining vaccine from these animals.

Oxide of Zinc, according to Professor Peterson, of Kiel, is much preferable to iodoform in the treatment of wounds. It is cheaper, not poisonous, has no offensive odor, and is equally effective as an antiseptic application.

To Arrest Hiccough.—Dr. Ramos asserts that hiccough may be at once arrested by wetting the lobe of the ear with cold water or with any fluid which by its evaporation will produce a slight degree of refrigeration.

Vaccination for Cattle-plague.—The success of Pasteur's method of vaccination for the cattle-plague in India is said to have been brilliant. It was used for elephants, cattle, horses, and sheep.

Honors to Billroth.—Professor Billroth has recently had the exceptional honor of receiving the gold collar and star of the order of St. James from the king of Portugal.

A Free College of Pharmacy has been established in Rio de Janeiro under the auspices of the Pharmaceutical Institute of that city.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 13 NEW YORK, SEPTEMBER 26, 1885 Whole No. 777

Original Articles.

ON CEREBRAL HEMORRHAGE.

By IRVING C. ROSSE, M.D.,

WASHINGTON, D. C.

As an indispensable prerequisite to the study of intra-cranial hemorrhage, it is important to know something of the details of the vascular distribution of the brain, and especially of the arterial distribution at its base. The subject has lately been elucidated by Stewart, Duret, Wernicke, and others.

At the outset, it is well to bear in mind as fundamental notions, that the cerebral vessels supplying the convolutions receive their blood from a set of arteries different from those that supply the ganglia and the neighboring parts in the encephalon; that the supply to these ganglia being much more direct, the vascular pressure is here greater than it is in the cortex; and that the vessels of the ganglia and of the cortex do not communicate; each ultimate branch supplying its own area, and for that reason known as terminal. The next point touches the origin and terminal distribution of the groups of nutrient arteries principally concerned in cerebral hemorrhage. The vessels of the antero-median group, given off from the anterior communicating artery and from its proximal parts, ascend into the cerebral substance and supply the front part of the head of the caudate nucleus; the posterior-median group, arising from the posterior part of the posterior communicating arteries and from the posterior cerebrals near their point of origin from the basilar, supplies the internal surface of the optic thalamus and the walls of the third ventricle; the right and left antero-lateral groups, given off from the Sylvian or middle cerebral artery of each side, pass into the brain substance and supply the lenticular nucleus and the adjacent parts of the internal capsule and anterior part of the optic thalami. One of its branches of relatively larger size enters the substance of the caudate nucleus by crossing the upper part of the internal capsule and spreads forward to the anterior part of the nucleus. This branch is known as *Charcot's artery of cerebral hemorrhage*. The nutrient groups, known as the right and left posterior lateral groups, given off from the posterior cerebrals after they have turned the crura cerebri, supply the greater portion of the optic thalami.

The cortex receives its arterial supply from the vessels that form the angles and sides of the circle of Willis; the middle cerebral being the most important of these vessels, since it is this artery and its branches that supply the convolution specially associated with aphasia and the great motor centres of Ferrier, and they are, moreover, the ones most subject to embolic and thrombic processes.

When a rupture of one of these arteries occurs, there results an effusion of blood into the lacerated brain substance or into the ventricles. The hemorrhage is in most all cases from a ruptured artery. It rarely occurs from a vein, and only from traumatic causes or from secondary invasion of the veins. In rare instances the obstruction caused by venous thrombosis may give rise to capillary hemorrhage, and it is also thought that a hemorrhage into the pia mater may ensue from the rupture of varicose veins. In the case of capillary or very minute hemorrhage, there is merely a separation of the cerebral fibres; but when the hemorrhage results from a ruptured artery it is followed by disintegration of a portion of the brain-tissue; by compression; by subsequent irritation and inflammatory changes; and by softening of the portions irrigated by the vessel. The effused blood forms for itself cavities varying in size from that of a pea to an orange, and they generally contain from fifteen to five hundred grammes of blood. The clot is large when the hemorrhage occurs in the ventricles, in the hemispheres, or in the cerebellum; small when in the motor tract. Its seat is more frequent in the right than in the left brain, and the hemorrhage occurs oftener in the corpus striatum and the optic thalami, or in this immediate vicinity, although it may take place in any part of the brain. Next in the order of frequency are the middle, the anterior, and the posterior lobes of the brain; then the cerebellum, the pons varolii, and the peduncles.

It sometimes happens that the effused blood tears through the white tissue and escapes under the pia mater and the arachnoid. It may escape further and be effused into the space between these membranes and the dura mater, or the extravasation may take place into the lateral or the fourth ventricle. The clotted blood, of a dark-red color, of gelatinous and homogeneous consistency and surrounded by a zone of reddish-yellow lacerated brain-tissue, undergoes a gradual change in consequence of the reabsorption of its coloring matter and the disarrangement of its elements. If the hemorrhage has not been very extensive, at the end of one or two months a part of the material of the clot is absorbed by the vessels of the vascular cyst enclosing it, leaving either a linear cicatrix, a reduced discolored clot, or a small cyst filled with reddish serosity or albuminoid gelatinous matter. In the case of a cicatrix resulting from the union of the cyst-walls, it is thought that such a result is owing rather to softening than to hemorrhage. When absorption does not take place a new hemorrhage into the same cavity may occur, or a secondary lesion or an abscess may result. The lesion in cerebral hemorrhage is sometimes multiple, double, triple, quadruple, and even more lesions having been observed, but as a rule in recent extravasations there is only one. Whether a clot be single or multiple, its varying dimensions form a basis for speaking of the hemorrhages as large, small, or medium. The small hemorrhages, resulting from the rupture of capillary vessels, now known as punctiform hemorrhages, are invariably multiple, while those in which the extravasated blood is collected into a mass, or the massive hemorrhages, are generally single. It is rare that the ruptured vessel causing the hemorrhage can be discovered. A miliary aneurism may, however, be found if the hemorrhagic mass be carefully washed out under water.

The history of what are known as secondary changes is so incomplete that a pathogenitic theory of these degenerations cannot be formulated. The secondary changes following hemorrhagic foci of long standing occur, not only in the brain and the cerebellum but in more remote parts, as the pons, the medulla, and the cord, and the change consists essentially of an atrophy of the nerve-fibres and the substitution of connective tissue. General atrophy of the brain is a common variety of secondary change accompanying extravasation into the cortex. There are also found in the paralyzed limbs,

alterations of the nerves, muscles, and the articulations. An interstitial inflammation may occur in the nerves of the paralyzed limbs, the volume of the nerves being increased to twice the size of those on the healthy side; degenerative changes are reported to have occurred in the tactile corpuscles of the skin, and atrophic changes involving the outer and subcutaneous tissue sometimes occur. Muscular atrophy and arrest or retardation of growth in the paralyzed limbs occur in some cases. In the first case the primitive fibres are atrophied; sometimes they have lost their striation, or have undergone fatty degeneration, and the nuclei of the muscular sarcolemmæ are increased. These changes are believed to be consequent upon secondary degeneration in the fibres of the anterior tract implicating the motor cells of the anterior horns of the cord. The articulations of the paralyzed side may suffer inflammation, either acute or chronic, and often occurring as acute synovitis with exudations, or as semi-dislocation of the shoulder-joint, attended with stiffness, pain on pressure, and atrophy. Hyperæmic conditions, or hemorrhages into the pleura or the lungs, the substance of the kidneys and suprarenal capsules, the endocardium, and mucous membrane of the stomach often accompany cerebral hemorrhages; but as these facts touch the changes occurring in these organs, they may be mentioned rather as predisposing causes of the disease.

As regards the etiology of cerebral hemorrhage, experimental investigations so far teach nothing, and the help from physiology is of little or no importance. The chief predisposing causes are to be found in diseases of the walls of the cerebral arteries or of their surrounding tissues; in increased blood-tension, and in certain changes in the composition of the blood. The existence of miliary aneurisms, the result of arterial sclerosis, is the most frequent cause of intracranial hemorrhage. Either primary or secondary fatty degeneration of the arteries, especially the branches of the Sylvian artery, is assigned as the most common cause of massive hemorrhages into the brain. Arterial tension as a cause of rupture is probably a pathogenetic element of secondary importance, an adjuvant or occasional rather than an efficient cause, since it is doubtful whether cerebral hemorrhage can occur from tension without vascular degeneration. In cerebral hemorrhage and albuminuria with hypertrophy of the left ventricle, the arterial tension is considerably increased, owing to the diminished renal circulation, and the arteries are, moreover, diseased in consequence of the dyscrasia. Tension of the cerebral arteries by collateral fluxion may cause hemorrhage on sudden exposure to cold. The tension may likewise be sufficiently raised to produce vascular rupture by all obstacles to the depletion of the encephalic veins. The same action may occur in consequence of a thrombosis of the sinuses, in compression of the jugulars or of the superior vena cava, in alterations of the right heart, and in obstructions to the pulmonary circulation, although it is probable that in these instances the hemorrhage is produced by vascular changes, a proof of which seems to lie in the fact that intracranial hemorrhage is almost unheard of in whooping-cough, epilepsy, and in labor, in all of which conditions the venous stasis reaches a great intensity. Embolism and thrombosis may nevertheless result in softening; and owing to the changed condition of the brain tissue and mobility of the vessels to resist the pressure of the blood, the state of brain-softening may influence the genesis of certain hemorrhages.

In exceptional cases cerebral hemorrhage is met with in leucocythæmia, pyæmia, hæmatophilia, scurvy, icterus, and the adynamic fevers. In the latter case, no alteration being shown to exist in the vessels, it is supposed that the red globules traverse the walls of the capillaries. Hemorrhages from pyæmia and leucocythemia are supposed to be caused by the obstacle which the accumulated white corpuscles oppose in certain points to the circulation and to the resulting excess of tension.

Cerebral hemorrhage, rare before the fortieth year, is most common in the male sex, and occurs generally between fifty and seventy.[1] Exact statistics on the subject are, however, wanting, since hemorrhages have not been made the subject of inquiry, but rather the occurrence of the symptoms traditionally known as apoplexy. An inherited tendency, occupation, climate, altitude, the abuse of opium, alcohol, and tobacco, gout and syphilis, the circumstance of a previous attack, and all causes that momentarily increase the circulation and increase the pressure of the blood, or retard its exit from the head, may equally favor the production of a hemorrhage.

There are striking differences in individual cases of cerebral hemorrhage; but almost all cases present two essential features, namely, suddenness of onset of the initial attack, and subsequent evidences of local cerebral disease with hemiplegia.

Many writers speak of the so-called prodromata of cerebral hemorrhage, which bear a similarity to the group of symptoms that accompany cerebral hyperæmia, or symptoms of diffused vascular lesion that may lead to softening. These symptoms are headache, vertigo, ringing in the ears, muscæ volitantes, vomiting, slight confusion of mind with dysphasia, numbness of a limb or of one side of the body, and various motor and sensory disturbances. Agoraphobia is reported to have been a premonitory symptom in some cases. Disturbances of the vision, as diplopia, neuro-retinitis, and amaurosis, have also been observed to precede attacks of cerebral hemorrhage, and the presence of miliary aneurisms upon the retinal vessels incline to the belief that the same alterations exist in the encephalon, and are therefore a presumption in favor of hemorrhage.

As a rule, the irruption of blood upon the brain is sudden; the patient, in apparent good health, being suddenly struck down by the shock, which causes total abolition of the encephalic enervation, with paralysis of all the limbs, stertorous respiration, deviation of the eyes to one side, and loss of the reflex movements, with the exception of deglutition, respiration, and the movements of the heart. After this state of sopor, the victim of the seizure may die sooner or later. It is rare that cerebral hemorrhage is instantly fatal, unless the extravasation be in the medulla oblongata, or in both hemispheres. In the slighter forms sudden loss of consciousness gives place to other symptoms, a simple onset being attended by paralysis or tonic spasms of the extremities. Epileptiform convulsions sometimes accompany the onset of the extravasation, but this is rare. Other features of an attack are variations of the bodily temperature, the pulse, and the respiration; the appearance of the face, and the condition of the pupils. In the fulminating form, the temperature sometimes sinks to 95.5° F., and may remain lowered until death. In some fatal cases the primary depression may rise steadily until 108° F. is reached. A slow, irregular pulse is most often observed; sometimes it may be just the opposite, and the tension may vary with the case. The respiration is not always stertorous, being sometimes as quiet and regular as that of ordinary sleep, and in some cases it takes on the Cheyne-Stokes character, owing to the depressed action of the respiratory centre. The face is sometimes injected and cyanosed, owing to incomplete hæmatosis; at other times it is quite pale, and the features are expressionless. Occasionally there is nystagmus, and if the hemorrhage has taken place into the pons a high degree of myosis. A marked degree of inequality in the size of the pupils points to unilateral affection of the brain. A temporary symptom in some cerebral hemorrhages is conjugated deviation of the eyes, with rotation of the head toward the side not paralyzed. The deviation does not hold good in all cases. As a diagnostic aid to determine the

[1] It is met with in the lower order of animals, having been observed in monkeys.

site of lesion, it is thought that lateral reflection of the head and eyes, or of the latter alone, points to hemorrhage in the territory of the posterior cranial fossa, or rupture into the ventricles. On the other hand, deflection toward the opposite side points to the hemispheres. Cerebroscopic appearances, such as dilatation and tortuosity of the retinal veins with serious papillary infiltration or retinal hemorrhage, indicate sudden interruption of the interior circulation of the brain.

The further history of cases that survive is that of the disturbances following permanent destruction of the brain-tissue. The most prominent of these focal symptoms is paralysis of voluntary motion, the so-called cerebral hemiplegia. Other permanent symptoms are contractures or hemispasms, hemianæsthesia, hyperalgesia and persistent neuralgic pains, affections of the special senses, trophic and vasor-motor disturbances, such as œdema of the skin and change in its perspiratory function, the pulsus differens, bed-sores, etc.; and more or less impairment of the intellect. The electrical reaction of the muscles of the paralyzed parts remains unchanged, or nearly so. Movements of an athetoid character are sometimes noticed in the limbs. Disturbances of the special senses occupy but a secondary place in the symptomatology of the chronic condition. Anosmia never occurs as a consequence of cerebral hemorrhage; taste and hearing are but rarely affected; and but little definite is known regarding the disturbances of vision. Optic neuritis seldom occurs, but hemiopia or hemianopsia is, however, often present. A lesion of the first temporal convolution on the left side is said to give rise to an auditory disturbance in which sounds are heard distinctly; but the patient does not understand what is said to him, and gives wrong answers to questions. Secondary implication of the corpora quadrigemina is also thought to be a probable cause of such symptoms as amblyopia amaurosis, and mydriasis.

Full mental vigor is seldom regained after an attack of cerebral hemorrhage. Failure of memory is generally the first noticeable mental symptom. Aphasia sometimes occurs; the emotions are under bad control, the patient laughing at inconsiderable trifles, and sobbing at the slightest irritation; and in some cases the intellect declines into childishness and oblivion.

From many of the foregoing symptoms, it is possible, in the presence of certain definite conditions, to decide the position of the hemorrhagic lesion in the brain, if not positively, at least approximately. The science of localization is new, and writers, though agreeing in the main, are not in accord on this subject. In a general manner it has been determined that deviation of the eyes and rotation of the head away from the paralyzed side, indicate which hemisphere is attacked; that convulsions and contractures denote whether the lesion be in the excitable part of the encephalon, that is, the peduncles, the pons, or the cerebellum, and whether the irruption of blood be in the ventricular cavities or on the surface of the encephalon; that the antagonistic paralysis of the limbs, and of the parts supplied by the cranial nerves, permit the localization of the focus in the bulb, the medulla, or the cerebral peduncles, according to the implicated nerve. Beyond this the possibility of locating a hemorrhagic lesion is largely a matter of conjecture. Moreover, it is often embarrassing to differentiate cerebral hemorrhage from embolic or thrombic softening of the brain, which is characterized by many of the same phenomena.

Patients may live for many years after an attack of cerebral hemorrhage, but sooner or later the hemorrhage reappears with fatal effect, or an intercurrent malady, generally pneumonia, may end the life. Others succumb to the enfeeblement brought on by long repose in bed, and the unfavorable hygienic condition resulting from the hemiplegia; paralysis of the bladder and rectum may ensue, with bed-sores, and death occurs from adynamia.

There should be no difficulty in diagnosing cerebral hemorrhage after becoming acquainted with its symptomatology: but there are, nevertheless, several conditions of insensibility that may prove misleading, such as those resulting from intoxication by alcohol or opium, the coma uræmia, or of epilepsy, and the profound insensibility following injuries of the skull cerebra hyperæmia, arterial obliteration, encephalitis, meningeal hemorrhage, and intracranial tumors. An attack of syncope, of asphyxia, or of hysteria may often complicate the diagnosis. To distinguish the foregoing affections from cerebral hemorrhage, it is necessary to compare their fundamental symptoms with those of hemorrhage in connection with attending circumstances and the patient's antecedents. Nevertheless, it is often impossible to diagnosticate a cerebral hemorrhage with effusion into the ventricles or under the meninges from a subarachnoid hemorrhage without alteration of the encephalon, since the symptoms of a cerebral hemorrhage are sometimes reproduced in meningeal hemorrhage, and convulsions and contractures may be observed in both affections.

The grave consequences of cerebral hemorrhage are in a measure indicated by the character of the initial symptoms, the seat and extent of the lesion, and the age and previous health of the patient. The lesion is probably very extensive, and the issue of the attack correspondingly grave in the fulminating cases, when there is sudden and complete resolution, abolition of reflex excitability of the pharynx, and considerable fall in bodily temperature. If this state be prolonged and convulsions and contractions be added to the symptoms, the extravasation has probably made its way into either the brain cavities, the cortex, or the mesocephalon—an event that almost invariably leads to a fatal determination. Hemorrhages of this class being more frequent in middle-aged and in old people, the prognosis at the outset is less favorable than it would be in the young. The existence of a bed-sore shortly after an attack is a sign of fatal significance; so are great depressions or rapid rises of the bodily temperature, and reactive inflammations, with headache and contractures of the paralyzed limbs. A sad result is likewise to be feared if the patient has previously had one or several attacks; and the ultimate prognosis is equally bad in all cases of physiological ruin or decay, as in senile degenerations, chronic kidney diseases, and the like.

If the patient do not die in the attack, and he should resist the subsequent phenomena of the disease, he is always subject to another attack, unless carried off by adynamic symptoms or an intercurrent malady, as encephalitis or pneumonia, and he is left with an incurable infirmity, and often with a weakened mind.

The prognosis, on the contrary, is usually pronounced as favorable if the attack has come on in a young person as the result of muscular or mental strain; nevertheless, hemorrhages occurring in infants and children often leave them in an idiotic condition. It is also held to be a favorable augury when there is no loss of consciousness and but little paralysis. Even in the mildest cases it is doubtful whether a patient ever completely recovers. Such an event is probably rare, and the question is open to much discussion.

There are no absolute rules for the treatment of this affection, and the symptoms are usually uninfluenced for good, even after the most energetic and well-considered efforts.

In attempting to avert a threatened attack, it must not be expected that a prophylactic influence can be exerted in such conditions, as the presence of miliary aneurism or granular disease of the kidneys with cardiac hypertrophy; but many of the exciting causes, which are identical with those found in cerebral hyperæmia, may be removed or prevented by proper measures. When the state known as agoraphobia is thought to be a predisposing cause of cerebral hemorrhage, therapeutic measures should be taken accordingly.

During the occurrence of the hemorrhage, the tendency of physicians in times past was to do too much. The attack is best treated by judicious inaction, such as perfect quiet in a cool room; elevated position of the head, the removal of a tight collar or any other cause of passive congestion; cold to the head, dry cups to the surface, and the employment of such derivative agents as diminish the cerebral hyperæmia. Although the former advocates of venesection have laid down rules for its employment in this affection, and claim with a certain degree of probability that intra-cranial pressure is diminished thereby, its employment should be resorted to with great caution, even in the cases that correspond to the indications for blood-letting, since in most cases it only hastens the final result by weakening the cardiac action.

The use of stimulating agents is advisable, to counteract the failure of the heart and of the respiration, resulting from incomplete hæmatosis and paralysis of the respiratory centre. Dashing cold water in the face; cutaneous irritation by various methods; ammonia to the nostrils or administered internally; the administration of coffee, wine, and musk—which may be given by enema if the patient cannot swallow—are each useful in arousing the depressed action of the respiratory action of the cardiac aud respiratory centres. Cold is effectual in checking the convulsions. A laxative enema may be administered if the bowels are constipated, and if necessary, the catheter should be used.

After the attack is over, the less that is done to allay excitement during the inflammatory reactive stage that follows the better. Enforcement of intelligent hygienic rules and the occasional administration of a sedative are about all that we are justified in doing.

The symptoms of irritation having passed, the object of treatment is to promote the absorption of the extravasated blood and to improve the condition of the paralyzed nerves and muscles. Galvanism is the most useful agent we know of to bring about this object. It should be applied to the brain, to the cervical sympathetic, and to the muscles, in conjunction with massage and hydro-therapeutics. It does not appear that much benefit has resulted from the faradic current.

The cures reported to have taken place after the application of strong magnets and other metallic appliances, are probable instances in which the lesion was mainly situated on the optic thalamus. Hemiplegia following a lesion of this organ, being more or less transitory, it is impossible, in the absence of a convincing number of clinical cases, to separate the specific influence of the magnet from what may be mere coincidence or the result of strong mental suggestion. It would, therefore, be premature to formulate an opinion as to the merits of a plan of treatment as recent and imperfect as that employed in the metallo-therapeutic method. Nevertheless, from the great number of interesting facts in connection with the subject, it merits further inquiry.

The Vatican Hospital.—A correspondent of the *Allgemeine Wiener Medizinische Zeitung* describes the new hospital, built by the Pope, for use in time of epidemics. It has 200 beds, and is provided with every improvement which modern experience has been able to suggest. Over the main entrance is the inscription: Munificentia Leo. XIII. Upon admission to the hospital, the patients suffering from cholera or other epidemic disease, are first taken into a large reception room, where their clothes are removed and thrown into a disinfecting trough. They are then carried to the upper floors by a hydraulic elevator. In each room is a metal tube through which either warm water or steam is conducted, and for every floor is a large, light and airy bath-room. For patients in the algid state of cholera there is an apparatus made of glass in which they may receive a vapor bath. The rooms are light and well ventilated.

A MODIFICATION OF THE PROCEDURE OF WIRING BONES,

With a Description of New Instruments devised for that Purpose.

By WILLIAM F. FLUHRER, M.D.,

Professor of Clinical and Operative Surgery in the New York Post-Graduate Medical School, Visiting Surgeon to Bellevue and Mount Sinai Hospitals.

To overcome the difficulties in the wiring of bones, I devised the instruments and have for several months practised the procedure described in this paper.

The drill, which is shown in Fig. 1, *a* and *b*, is made of one solid piece of steel. Its handle is octagonal, one-fourth of an inch in diameter and four inches long to the shoulder, which tapers quite abruptly to the shank.

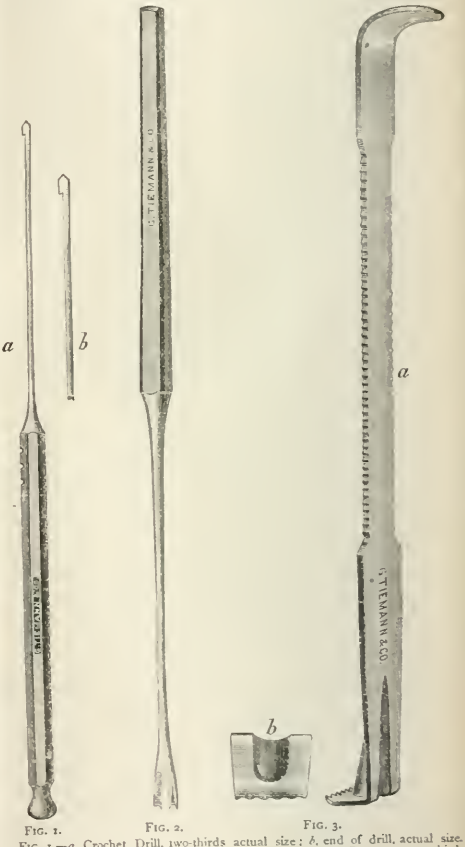

Fig. 1. Fig. 2. Fig. 3.

Fig. 1.—*a*, Crochet Drill, two-thirds actual size; *b*, end of drill, actual size. Fig. 2.—Fork, two-thirds actual size. Fig. 3.—*a*, Grooved Retractor, two-thirds actual size; *b*, front view of end of retractor, actual size.

The shank is one-sixteenth of an inch in diameter, two and three-quarters to four inches long, of fine spring temper, and terminates in a flattened head which is a little wider than the diameter of the shank. The peculiar feature of this drill is a shallow notch cut into one side of the head and forming the end into a hook. It is important that the notch shall not be made too far from the point, that it shall not be too deep, that the side of the head beyond it shall have exactly the shape shown in the figure, and that whatever the other dimensions of the drill it shall always be constructed just as described. Three transverse grooves upon the handle, near the shoulder, are an index to mark its position with reference to the circumference of the instrument.

The FORK is shown in Fig. 2. It is also made of one solid piece of steel and is finally annealed. Its flattened handle, four inches long, is continuous with the shank, also four inches long, which gradually tapers to a diameter of one-eighth of an inch, and which terminates in a double fork. The prongs of the primary fork are three-eighths of an inch long, and at their ends are notched one-eighth of an inch deep, forming secondary forks.

FIG. 4.—Wire Suture, two-thirds actual size.

The GROOVED RETRACTOR is made of German silver or other metal, and is shown in Fig. 3, *a* and *b*.

The WIRE is of pure silver, annealed. It is used of different thickness, and, if practicable, it should be large enough to nearly fill the drill hole. A large-sized wire is not apt to cut through the bones, and forms a strong bond of union between them. The ends of each length of wire are tapered for about two inches and bent at an acute angle as shown in Fig. 4.

The procedure is as follows: The bones to be wired are sufficiently bared, but need not be completely denuded. The withdrawal of the soft parts for drilling through the smallest possible incision is effected by means of the grooved retractor, which not only retracts but at the same time depresses the obstructing tissues. The drill is passed along the channel of the retractor directly to the bone, cutting its way through any overlying soft tissues by an incomplete rotary motion. When the bone is reached the drill should never be withdrawn in any degree for fear of fouling, but should be urged onward by a rotary motion with continuous and light pressure. The drill being made in one piece, and larger at its head than in the shank, its progress, like that of a probe, can be nicely felt as it passes through the bone, which would not be the case were the mechanism for drilling a complicated one or were the drill driven at high speed. In drilling transversely through a bone, as in the case of the upper end of the tibia, the passage of the head of the drill through the proximal portion of compact bone, through the cancellous structure, the striking of the distal portion of compact bone and its passage through it can all be clearly discriminated.

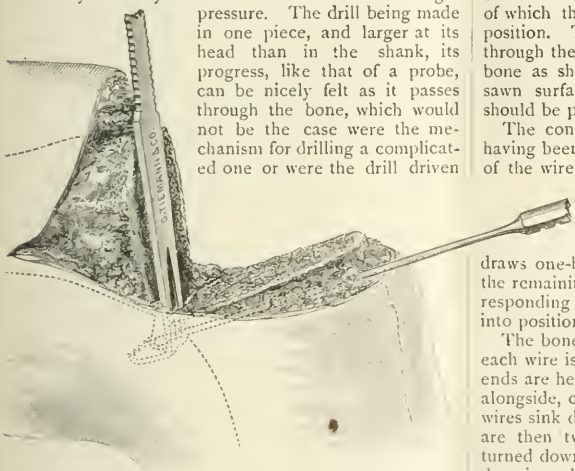

FIG. 5.—The grooved retractor in use, to expose the notch of the drill in wiring after an excision of the knee-joint.

The emergence of the point of the drill having been detected by the finger watching at the presumed place of exit, or being known by the change in resistance, the next step is to pass a loop of silk through the bone to serve as a conductor for the wire suture. The silk should be of a thickness barely large enough to fill the notch in the drill. When the end of the drill is far below the surface, the fork is needed to deposit the thread in place. When the soft parts crowd upon the buried end of the drill, they should be pressed back by using the retractor, as shown in Fig. 5; then the end of the drill is received into the groove of the retractor, and is easily accessible to the fork carrying the loop of thread. When the silk has been lodged in the notch, it is held there by gentle counter-traction, while the drill is cautiously withdrawn without rotation, leaving the thread in its place. When the end of the drill is far below the surface the counter-traction may be exerted through the medium of the fork. By a dexterous movement the loop may be shifted from the secondary forks (Fig. 6, *a*) into the crotch of the primary fork (Fig. 6, *b*) around which it plays as a pulley as it is drawn through the bone. It is essential that the closed ends of the loops should lie between the bones to be wired. If, therefore, a loop needs reversing, a second thread is passed through the existing loop, by means of which the new loop is pulled through the bone into position. The free ends of the thread are then passed through the loop and drawn tightly across the face of the bone as shown in Fig. 7, thus lining off the broken or sawn surface, and indicating clearly where the drill should be passed through the opposing bone.

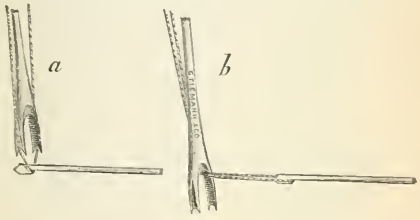

FIG. 6.

The conducting loops, or guides, for the wire sutures having been lodged in place, the next step is the drawing of the wires into position. The bent end of the wire suture is hooked in the end of a loop of thread which has been freed, and under a little counter-traction is fed to the opening, while the operator pulls upon the conducting loop and draws one-half the wire through the bone. The end of the remaining half of the wire is then caught into a corresponding loop through the opposing bone, and is drawn into position.

The bones having been brought into close apposition, each wire is embedded before being twisted. While the ends are held in their future position the scalpel is drawn alongside, cutting the subjacent soft parts and letting the wires sink down to the bone. The tightly drawn ends are then twisted and cut short to the twist, which is turned down. The slits in the soft parts are closed over the wire, which is to remain permanently, by a fine catgut suture.

By proceeding in the manner I have detailed, the wiring together of bones is a precise, easy, and expeditious operation. It can be done without extruding the ends of the bones through the soft parts, it being only necessary to cast the guiding loop of thread over the end of the drill, no matter how deeply the latter may be situated. It is easy to carry the wire transversely through the whole extent of bone, thus securing an effective hold upon it. A suture only dipping into the cancellous structure, as is the case in the usual mode of wiring after an exsection of the knee-joint, may be regarded as a slack wire. It

generally cuts partly through the soft bone tissue before the surgeon can apply retentive apparatus to the limb. On the contrary, when the sutures have been passed completely through the bones in the manner just described, they alone hold the bones firmly in apposition, and the grating formed by the wires prevents the intru-

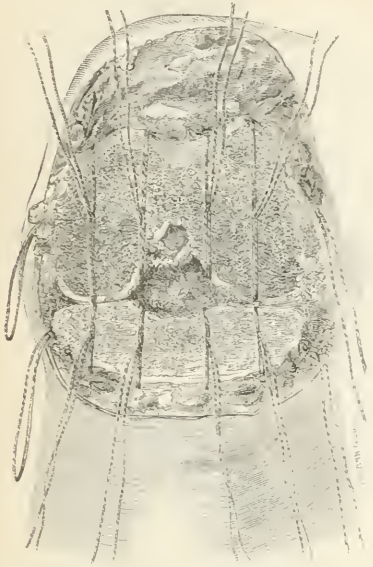

Fig. 7.—The loops of thread in position preparatory to inserting the wire sutures, after an excision of the knee-joint.

sion of the soft parts. In an exsection of the knee-joint, in addition to four wires passed antero-posteriorly, I also bind the bones together by a wire passed transversely, which acts as a substitute for the lateral ligaments. In simple fractures of the patella, exsections of the knee-joint, and compound fractures, I have passed the drill more than thirty times, besides being present when others have operated in the same manner, and I have never seen a failure or miscarriage in the execution of any step of the procedure.

What some Great Men thought of the Corset.—Napoleon Bonaparte said to Dr. Corvisart, speaking of the corset, "This wear, born of coquetry and bad taste, which murders women and ill-treats their offspring, tells of frivolous tastes, and warns me of an approaching decadence." Joseph II. of Austria was very severe upon the corset, and made a law confining its use to abandoned women. The last King of France embodied his opinion of this abomination in this stinging epigram: "Once you met Dianas, Venuses, or Niobes; nowadays, only wasps." The great naturalist Cuvier was walking one day with a young lady, who was a victim of tight-lacing, in a public garden in Paris. A lovely blossom upon an elegant plant drew from her an expression of admiration. Looking at her pale thin face, Cuvier said, "You were like this flower once; to-morrow it will be as you are now." Next day he led her to the same spot and the beautiful flower was dying. She asked the cause. "This plant," replied Cuvier, "is an image of yourself. I will show you what is the matter with it." He pointed to a cord bound tightly round the stem, and said, "You are fading away exactly in the same manner under the compression of your corset, and you are losing by degrees all your youthful charms, just because you have not the courage to resist this dangerous fashion."

INTRACRANIAL CEPHALHÆMATOMA.[1]

By E. S. McKEE, M.D.,

CINCINNATI, O.

A physician's library will, in many instances, give him no information concerning cephalhæmatoma. A large list of text-books may be searched to no avail for a mention of "intracranial cephalhæmatoma." Has the searcher after medical knowledge a well-ordered and extensive public library at hand, well supplied with bound journals, diligent search may be rewarded by a few hidden points. The word "cephalhæmatoma" comes to us from the Greek. It is an effusion of blood occurring in newly born infants, forming a tumor of the head.

The intracranial variety, the subject of this paper, is divided into (*a*) those situated between the skull and dura mater; (*b*) those occurring in the arachnoid cavity.

As causes of intracranial cephalhæmatoma may be enumerated most of the causes of the external variety, as, for instance, the reception of some injury to the child during parturition.

One can, however, find many instances where the external variety occurred, the labor being light. They are mentioned in breech cases, and, in Vienna, have been noticed on those delivered by Cæsarean section. It is quite possible that through the crushing of the parts of the head together during delivery, there occurs tearing of the periosteum and bone blood-vessels. This pressure being released, the parts are again suddenly freed. Emptied by the diapedesis, caused by the crushing which they had undergone, hyperæmia and engorgement are the results of the removal of this pressure. Thus, from nature's horror of a vacuum, we have a sudden rushing of blood. The sources of the hemorrhage are probably the tender blood-vessels. These enter the bone from the dura mater, and are immediately after the release of the pressure overfilled and ruptured. Possibly it might be due to a varicose condition of the vessels. The hemorrhagic diathesis might be a cause. The tendency in some instances is probably inherited. In cases of fracture of the bone, cephalhæmatoma on the dura mater may be due only to the hemorrhage from vessels wounded by the broken edges of bone. Feist and others decline to recognize as cephalhæmatoma those instances where effusions of blood occur after fracture. The fact should be borne in mind that cephalhæmatoma, both external and internal, occurs without the coexistence of fissure of the cranial bones. Admitting that the extravasation of blood results from its escape out of the blood-vessels which are wounded by a fissure of the bone, the centre of each tumor must correspond with the fissure. This has, however, not been found to be the fact in the cases reported. The fissure and effusion may occur at the same time and from the same cause, but the latter must not be considered a result of the former. M. Valleix, in his "Clinique des Enfants Nouveau-nés," has an engraving which illustrates beautifully the ease with which the blood may be caused to transude through the imperfectly ossified skull of the child. The direction of the pressure during labor and the greater porousness of the outer than the inner surface of the skull, accounts for the excess of the extra over the intracranial variety. The usual causation of the former—pressure—is quite adequate, if unusually forcible, to cause the latter.

The diagnosis of intracranial cephalhæmatoma depends wholly, of course, on the symptoms of brain pressure which it is liable to occasion. These are twitchings, convulsions, stupor, or paralysis. The external variety is, of course, much more easily diagnosed.

While the prognosis for the extracranial variety is good, that for the intracranial is bad. Death occurs most frequently from brain-pressure, or from necrosis or caries of bone leading to perforation, thrombosis of the cerebral sinus, extension of the inflammation to the meninges and

[1] Read before the Mississippi Valley Medical Society, September 9, 1885.

brain itself, and pyæmia. Iodicy is one of the results of internal cephalhæmatoma. Dr. West is the only observer who watched the cure of internal cephalhæmatoma. This was very analogous to the repair of the external. The effusion became encircled by an osseous ring. In one of the two cases noticed by Dr. West, convulsions came on in fifteen hours and terminated in death in forty-one hours. A large quantity of blood was found post-mortem beneath each parietal bone. The effusion of blood upon the surfaces of the brain does not immediately and universally cause cerebral symptoms. This is probably due to the yielding structure of the infantile skull with its membranous joints and unossified sutures. In one of Dr. West's cases all went to prove that the effusion beneath the dura mater must have existed many days before there were any cerebral symptoms. From all the literature I am able to obtain, mention is made only of the following cases, which are briefly recapitulated.

West [1] reports as follows: E. W——, aged sixteen days; the fourth child, all easy labors. The birth took place without noteworthy occurrence. Took the breast well. On the third day a small swelling about the size of a walnut was noticed a little to the right of the vertex, extending downward and forward over the parietal bone. The tumor increased in size every day, but the child's health remained undisturbed, except that it was restless at night. It was well nourished, well formed, and perfectly healthy in its appearance. Pupils responded readily to light.

Neither the fontanelles nor the sutures were remarkable for tardy or precocious ossification. A soft, elastic, non-pulsating, semifluctuating tumor, of irregular, oval outline, occupied nearly the whole of the right parietal bone. The greater prominence of this tumor was just over the parietal protuberance, a little above which was a light depression or furrow, and again a second prominence, the base of which reached almost to the sagittal suture. The tumor was thus divided into two, that nearer the vertex being the softer and more manifestly fluctuating than the other. Both tumors were twelve inches in circumference. They did not anywhere extend beyond the sutures bounding the parietal bone. The ossified ring was absent. The child seemed uneasy while its head was being examined, but did not cry, and pressure on the tumor had no effect on the nervous system. On the fourth day the child appeared well, and the tumor had ceased to enlarge. Three days later there was no obvious diminution of the tumors, but that over the parietal protuberance was rather firmer. On the evening of this same day the child became very drowsy, had convulsive twitchings of the muscles of the face, and the skin of the surface assumed a yellowish hue. The child sucked heartily, but vomited in a short time, and passed an unquiet night. On the afternoon of the next day she yawned deeply two or three times, and then had an attack of general convulsions which lasted about three minutes. During the night she continued very ill, convulsed at four o'clock in the morning, and died in convulsions at 6 A.M., the ninth day after the doctor first saw her, and the twenty-fifth day of her life.

Post-mortem, thirty-three hours after death, with permission to examine only the head. The usual appearances were found external to the pericranium. These do not bear directly on this paper, and are omitted. A fissure was then noticed in the right parietal bone, running from the coronal suture, about an inch from the anterior fontanelle, obliquely backward and upward. The edges of this fissure at the time of making the examination were quite clean, not stained with blood as they afterward appeared. On the inner surface of the bone was an effusion of blood, between the cranium and the dura mater, more than half an inch in thickness, and occupying the whole of the fossa of the parietal bone. The tumor was oval-shaped and slightly irregular. Between the two layers of the dura mater, by which it was covered, were numerous bony deposits, and a ring of newly formed bone surrounded its base. This ring had not attained the same development in its whole circumference. Osseous matter had been abundantly poured out along the frontal margin of the tumor, more sparingly elsewhere, and being entirely absent along its inner border. It appeared to have been formed partly by ossification of the dura mater, partly by heaping up of new bone on the skull. To avoid the destruction of the specimen, the clot was raised on one side only, but on that the bone was found perfectly smooth and unaltered. The blood seemed to have been poured out in successive layers, none of which were of very recent date, since all were firmly coagulated. The red particles had not subsided, but remained equally diffuse throughout the clot. The rest of the dura mater and interior of the skull presented no unnatural appearance. There was a depression of the right hemisphere of the brain, in a situation corresponding to the tumor; with this exception the convolutions of the brain presented a perfectly natural appearance, and there was no fluid beneath the arachnoid, nor any injection of its vessels. The whole right hemisphere was pale, bloodless, and very soft. The left was of natural consistence, but its section presented an unusually large number of bloody points. There was no fluid in the ventricles, but little blood in the sinuses, and no appearance of importance was observable in the brain. No evidence or history of external violence could be obtained. After summing up the case, the doctor thought the fissure had occurred during labor, and was probably produced by the uterine action driving the head forcibly against the promontory of the sacrum.

While on duty in the out-patient obstetrical department at St. Bartholomew's Hospital, under Dr. Mathews Duncan, the writer [1] was called to attend Mrs. E. W——, 80 Farringdon Road Buildings, London. A breech presentation was diagnosed, and a healthy female child was born, the labor being quite easy. The mother was aged forty-seven, married twenty-seven years, and had given birth to thirteen children, six of whom had died, and two were still-born. Saw the child the next day, it was doing quite well, and seemed to be a very promising child. On the morning of the third day the child appeared fretful. Nurse said it had not passed its water yet, but it passed it that instant in my presence. Called on the evening of the fourth day, and found the child dead in bed beside its mother, still warm, the mother not yet aware of its death. She gave the following history: Child began having convulsions at 5 P.M., on the third day; had two per hour all night until noon of the fourth day, when it began having three per hour, and died as stated, having cried five minutes before my arrival. She said that three of her other children had died of convulsions, and she gave this one up to die as soon as they came on. She thought the doctor could do it no good, and did not bother him.

Autopsy, twenty hours after death, made in company with Mr. H. C. Cronk, midwifery assistant to the hospital. Body well nourished and fat. Head presented nothing unusual externally. An excision through the scalp, from mastoid to mastoid, found the skin normal; but between the scalp and pericranium a large effusion of blood was found, coagulated, extending over a great part of the left parietal bone, and not surrounded by any indurated ridge. On opening the skull, the bones were found in a perfectly normal condition, the dura mater healthy, but in the cavity of the arachnoid, and corresponding in position to the outer tumor, a large clot of blood was found, causing a depression of the brain, one-half to three-quarters inch in its deepest part, which was one inch to the left of the posterior fontanelle. The effusion was larger than that externally, reaching down to the foramen magnum. No ruptured vessels could be discovered. Other parts normal. All investigation of the

[1] Med. and Chir. Tr., xxviii., 397. London, 1845.

[1] Transactions Cincinnati Academy of Medicine. Cincinnati Lancet and Clinic, October 13th, 1883.

most careful kind failed to get any history of a blow, fall, or injury, either before, during, or after delivery. After thoroughly sifting the matter, the death certificate was signed intracranial cephalhæmatoma.

Dr. J. L. Cleveland [1] showed the following specimen to the Cincinnati Academy of Medicine. A well-nourished child, still-born, died probably five days before birth, and weighed eleven pounds. Discovered an external tumor before delivery, but mistook it for the bag of waters. There was no unusual amount of pressure during labor. The mother had previously borne two healthy children. No miscarriages. Autopsy performed in the presence of the Academy. Discovered an internal tumor and depression of the brain.

Dr. Jackson [2] reported a case which had been examined post-mortem. Tumor on the inside of the occipital bone with ossification of the pericranium. No thinning of the bone and no disease externally.

Ruge [3] demonstrated to the Gesellschaft für Gynekologie in Berlin a skull with internal cephalhæmatoma. The child was born without artificial help, and died soon after delivery, somnolent.

Ruge [4] showed another skull with cephalhæmatoma, both external and internal. In this case, on account of a straight, narrow pelvis, it was necessary to use the forceps. The child died after eight days. There was no fissure of the cranial bones.

West [5] mentions a case where hemorrhage into the cavity of the arachnoid was associated with internal tumor.

Betscher [6]: Dr. West mentions this case as one of internal cephalhæmatoma, but could not give the particulars, and I was unable to find them myself.

Von Siebold [7]: Forceps delivery, but the child's head was uninjured. Both external and internal cephalhæmatoma existed. The child died with symptoms of exhaustion on the fifth day.

Held [8]: Labor natural, except that the funis prolapsed. Child still-born, with subaponeurotic and intracranial cephalhæmatoma. Bone uninjured.

Dubois [9] relates a case which had occurred to M. Moreau. The skull received no injury, and there was no external cephalhæmatoma. The tumor was situated on the inner surface of the os frontis. Death was preceded by head symptoms.

Padieu [10]: Child still-born. Fracture of the parietal bone, two inches long. External and internal cephalhæmatomæ, which communicated readily with each other through the fissure.

Haere [11]: Quick labor, fracture of the right parietal bone. Internal and very slight external cephalhæmatoma. Head symptoms from birth. Death on the fourth day.

Bouchard [12]: Case V. is one of fissure of the parietal bone in a premature fœtus. External and internal cephalhæmatoma. Death from marasmus on the twenty-first day.

Bouchard [13]: An oblong aperture in the base. External and internal cephalhæmatoma. Death in coma on the ninth day.

Hennig [14] reports finding four cases of intracranial cephalhæmatoma, but gives no particulars. He also refers to a case of Olshausen's, where there was fracture of the skull caused by precipitate labor.

These twenty cases are all that it is possible to find mention of in the literature, and, I think, are about all that have been observed.

Treatment can be disposed of in a few words. The literature does not show a case that has been treated for intracranial cephalhæmatoma. The diagnosis has always been made on the post-mortem table. Possibly that horrid instrument the trephine might find here a field for usefulness.

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[1] Tr. Cincinnati Academy of Medicine. Cincinnati Lancet and Clinic, 1881.
[2] Am. Journal of the Medical Sciences, 1855, N. S., xxix., p. 67.
[3] Berliner klinischer Wochenschrift, June 15, 1875.
[4] Loc. cit.
[5] Tr. Royal Med. and Chir. Soc., London, June, 1845.
[6] Annalen, Bd. III., S. 50.
[7] Von Siebold's Journal, Bd. IX., S. 43.
[8] Hecker's Annalen, 1831, Bd. XX., S. 34.
[9] Nouveau Dictionnaire de Médecine, tom. vii., article Cephalhæmatoma.
[10] Valleix: Clinique des Enfants Nouveau-nés, p. 541.
[11] Von Siebold's Journal, Bd. V., S. 257. Vratislaviæ, 1837.
[12] De Tumore Cranii Recens Natorum.
[13] Loc. cit.
[14] Gerhardt's Handbuchder Kinder krankheiten, Bd. II., S. 55. Tübingen, 1877.

REMARKS ON ABDOMINAL SURGERY, WITH CASES.[1]

By EDWARD BORCK, M.D.,
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At the meeting of the Tri-State Medical Society, held at Evansville, in 1879, I read a paper entitled "Ovarian Tumors: At what Stage of the Disease is it the Proper Time to Operate?" At that time my own experience was very limited, and I had to sustain my views, in favor of early operations, on theoretical grounds, making quotations from and using some statistics of others. However, my paper was followed by a very interesting and instructive discussion. One surgeon remarked that my paper was a good one, containing valuable points and suggestions, but he could not agree with me as to an early operation—he believed in the waiting plan: let the patient live as long as she possibly can, and resort to extirpation only as a last chance. He had lost at least twelve patients in succession.

Another surgeon held the same view, but acknowledged, and to his credit may it be said, that he had lost thirteen patients in succession, and was almost afraid to touch another case; there were others, also, of the same opinion. There was but one surgeon who stated that he always operated as early as he had made a diagnosis, if his patient would let him; he saved about sixty-six per cent. of his cases.

My paper was published in the *Cincinnati Obstetrical Gazette*, March, 1880, but the report of the discussion was omitted.

I still adhere to the views then expressed, in favor of an early operation, and to-day I am able to sustain my former theory by my own practice.

In March, 1878, I had my first case of ovariotomy. The patient was a lady fifty-five years of age, suffering from a multilocular tumor. She lived in the country, and was recommended to me by my neighbor and friend, Dr. G. W. Hall, and I shall be ever thankful to him for his kindness; for if he had not sent me this case, I might never have had the others. Previous to this time I knew nothing about the operation, and very little of the disease, having had but little opportunity to observe such cases, and never having seen the operation performed. My surgical practice ran in another direction. However, I studied the operation as well as I had time to do while the patient was under observation, and made all the necessary preparations. I tried to find a work on ovarian tumors, by either Peaslee, Atlee, or Wells, but none of my acquaintances in St. Louis had either one of them in his library. Dr. Hall advised me to operate under the guidance and with the assistance of one who had had experience in such cases, which wise suggestion I followed, and called upon Dr. Louis Bauer, who cheerfully agreed to aid me with his counsel. Under his protection I operated upon this patient, notwithstanding that all the other surgeons who were consulted advised against the operation, and in favor of the expectant plan. The cyst was only of a few months' duration, in the third stage. I conducted the after-treatment myself; my patient recovered.

Here allow me to relate some of the tribulations I had to endure during the progress of my case; and I will first state that, at that time, the opinion of the profession of my city was almost unanimously for the waiting—the last moment—plan.

[1] Read before the Mississippi Valley Medical Society, at its meeting in Evansville, Ind., September, 1885.

The surgeons in St. Louis prior to 1878 had not been very successful with ovariotomy. The bad results were attributed to the atmosphere—they said that malaria in our climate acted so very detrimentally upon these cases. It was taken for granted that every patient operated upon would die, and every doctor, even those connected with the case, expected that mine would also succumb, and that is the reason why every doctor whom I met would put the polite questions: Is your patient dead? Will she die? How long do you think she will live? Questions framed in that style were the interrogations of all, except of Dr. Alleyne, who in his kind and big heart said, "I hope she will recover;" well, she did, and it was a wonder. Being called an enthusiast, it was said that the success would drive me crazy.

My next case was a lady forty-three years old. I removed a large right ovarian cyst in the last stage, and also removed the uterus; she died. Seventeen years before Dr. Pope had extirpated a cyst of the left side from this patient.

The next case was a young girl, fourteen years old, who suffered from a single cyst of the left side in the last stage; she died.

But we learn something from the cases we lose, and, you may rest assured, I devoted all my spare time to the study of such cases.

I then had eight successful cases in succession. The next case, one of ovarian cyst complicated with cancer, I lost.

The twelve succeeding cases recovered. Then I lost two cases, both of simple cyst in the last stage of the disease.

Out of my following twenty-five cases I lost but one, a colored woman; I diagnosed a cyst of broad ligament, last stage, and recommended tapping; however, it was agreed to operate, and she died.

This gives me fifty cases from March, 1878, to May, 1884, with five deaths, as follows: Simple cysts, 8; cyst of broad ligament, 2; ovarian cyst with cancer, 1; ovarian cyst with removal of uterus, 1; persistent pain of ovary, found on removal to be due to cystic degeneration, 1; fibro-cystic tumors, 6; oligo- and poly-cysts, etc., 31.

These cases were all from private practice, as I am not directly connected with any hospital, nor have or had charge of any hospital where such cases present themselves or could be sent to; they were all, with the exception of one case, operated upon at their own homes, and were distributed over several States. The cases were all, with exceptions of those that died, early operations—from six to twenty-four months' duration; the youngest patient was fourteen years, the oldest sixty years. Twice I used drainage-tubes through the abdomen, and once drainage through the vagina, in cases in which there were many adhesions and consequent surface bleeding. In all the other cases the abdomen was closed; the pedicle was dropped into the abdomen in every case. In one case, a simple cyst, I had to open the abdomen again on the third day, as my patient was sinking from internal hemorrhage; I washed out the clotted blood and closed the wound again. She recovered. In this case I had been induced to employ the catgut ligature. I will never use it again.

After my first case I adopted one mode of operating, which, with the exception of lately discarding the spray, I have strictly adhered to in every instance, and with which you are all acquainted.

I remain with my patients until they are out of danger—sometimes from three to six days.

What influence the atmosphere and the malaria of Missouri and vicinity have had upon such patients I am not able to say at present, for other surgeons of my city and elsewhere have also had brilliant success of late. It may be that the air, so detrimental previous to 1878, has since changed for the better.

Now, when we know that the average life of a patient afflicted with ovarian tumor is four years; that polycysts terminate fatally in twelve months, oligocysts in twenty-four months, after the third stage has begun—what conclusions can be drawn from my own cases?

1. That those cases operated upon in the very last stage died.

2. That the comparatively early operations were successful.

3. That there is no absolute need to send your patient off to a hospital or private institution if she is moderately comfortable at home. I always advise those gentlemen who attend my lectures, as well as others, to do as I do—take care of their own patients, if they have the confidence in themselves to do so; but if you do, by all means give your patient all your time and attention, and be well prepared for all emergencies.

For one class of patients the hospital may be indicated; for another class of patients a private institution may be preferable, or more convenient for the surgeon; nay, it may become a necessity for him who has more than one case—it saves time and labor; for I know what it is to travel fifty, one hundred, or five hundred miles to see your patient, and prepare for an operation, and give her your exclusive time. It has been intimated to me more than once that I must pick my patients. I will freely and openly admit that I do, and I will tell you how I do it. If a case of fibrous tumor of the uterus presents itself, and the patient is fairly comfortable, age about forty-three or forty-five, I advise her to wait and not interfere by operation—such are cases for the waiting plan; for we know that if she passes her menstrual period she has a chance to recover; at least her misery will cease, and if the tumor does not shrink, it will at least cease growing. If she still insists upon the operation, I refuse, and advise her to obtain the opinion of some one else. I know that some of such refused patients have been operated upon by others, and they have died. If others present themselves with tumors in the last stage, with broken-down constitutions, and with the chances all against them, I give them no encouragement whatsoever, and they will of their own accord seek other advice.

The favorable cases, of course, I encourage; but I never urge the operation. I leave that to the patient to do. Again, I see a patient where a certain something (call it, if you will, the faculty of presaging) tells me that the result will, or may be, fatal; then I had rather not have the patient. I must feel that my patient will survive, and so must she—there must be the utmost confidence on both sides.

I am never anxious for a case; I am never anxious to operate for the sake of the operation. On the other hand, I would not refuse a case, even the most desperate one, if the operation offered the only, even the slightest, chance of saving her life. Here moral duty would commend the surgeon to run any amount of risk.

I will relate a case which I saw in Illinois some time ago, one of ovarian cyst in the last stage, complicated with extra-uterine pregnancy. The woman suffered dreadfully, she was a pitiful object to look at, and certainly doomed to death. Had I been prepared I would have operated at once, as she was willing; the next day was Sunday, and she would not be operated upon on that day. It was put off until Monday morning; but the patient did not live until then. Sunday the tumor broke through the vagina, and she died at once. In such a case I think it would have been perfectly justifiable, at least to try and give relief.

My intention was to relate all my cases in detail, but I think now that such is not necessary; for, even after one has gone through the labor of preparing a long list of cases and their histories, very few will read them, far less study them. We are well enough supplied with the reports of isolated successful cases. You can hardly take up a journal, wherever published, that does not contain the report of a case. They are of no value in a statistical sense, but it speaks well for the American pro-

fession that there are men, even in the smallest towns, capable of performing any operation, and ready to do their duty. In the near future this will be considered a minor operation. But is it not reasonable to suppose that wherever there are successful cases there may also have been failures? How few of those isolated fatal cases do we see reported!

I have seen many operations abroad and at home. Of the home cases in which I have seen others operate the majority died. Not a single one of these cases has been reported up to the present time. Well, my friends may say I picked my cases; I would call it a judicious selection or discrimination between cases, and recommend all who begin to do the same. One thing my friends cannot say: that I hide my fatal cases. Every one of my fatal cases has been published at once and in detail, and I will publish every other case I happen to lose in the future, for the benefit of all. I keep full records of all my cases, and some day, when their number has doubled, I may have them published.

Since 1878 I have seen and examined on an average about twenty-five cases per year for abdominal enlargement, and in not a single instance have I made an exploratory incision for the purpose of making a diagnosis, though it is justifiable in very doubtful cases, and, as a rule, safe.

I do not believe in the practice of opening every woman's abdomen because it is easier to make a diagnosis. I prefer the more difficult manner—without the knife; but whenever I might be in doubt, and should have to resort to an exploratory incision, it would be with the distinct understanding to go on with the operation at once if such were indicated.

Clinical Department.

A HUGE DOSE OF PEPSINE.

Dr. W. H. Rassman, of 219 East Forty-eighth Street, relates a case of poisoning by pepsine. The patient was a man suffering from dyspepsia, for whom he had prescribed five drachms of pepsine to be made into twenty powders, one to be taken after each meal and to be followed by a dose of hydrochloric acid. The patient was of a practical turn of mind, and, having read somewhere that pepsine was inert, determined to test the matter himself. Accordingly he emptied the powders into one mass and swallowed the entire five drachms. This was done in the evening, shortly before retiring. In about an hour he was seized with an intense burning pain in the epigastrium, accompanied by nausea, and three hours later with violent colicky pains and diarrhœa. These symptoms continued until nearly noon of the following day, when they disappeared, leaving only a moderate amount of nausea, burning in the epigastrium, and a feeling of exhaustion. There was no vomiting. Dr. Rassman did not see his patient until after he had recovered, and nothing had been taken to counteract the effects of the drug. The pepsine had been procured from a reliable apothecary, and there was no reason to suspect that it was not pure and of full strength. The solution of hydrochloric acid was not touched.

THE HEALTHFUL EFFECTS OF ALCOHOL UPON THE LIVER.

Dr. C. C. Duffy, of 263 West Fifty-fourth Street, writes concerning the good effects upon the hepatic circulation of alcoholic stimulants. The value of alcohol, he says, is best seen in persons who have passed through what might be called the sthenic stage of malaria, and have entered into the asthenic period. "In this state the constitution is so broken down as not to furnish sufficient caloric to resist the effects of the vicissitudes o the weather upon the circulation, a derangement of which produces a congestion of the liver and causes an interruption of its functions. Persons in this stage of malaria are always anæmic, and suffer cold even when warmly clad and during the heats of summer. Quinine, iron, strychnine, and phosphorus are all good for such cases in minute doses, but they do not furnish the great desideratum, heat. By the use of alcoholic liquors we can create an artificial heat by stimulating the circulation. If this be accomplished we dispel those congestions which always follow a disturbance of the circulation, and the liver, now not overburdened with too much blood, performs its functions as in health. The alcohol, in these cases, is not to be prescribed in regular doses, but should be taken in such quantities and at such times as will suffice to produce the desired effect."

Progress of Medical Science.

On the Significance of Osseous Lesions in the Diagnosis and Treatment of Inherited Syphilis.—A paper on this subject by Dr. R. Lomer, of Berlin, appears in the *Zeitschrift für Geburtshülfe und Gynäkologie* (Band x., Heft 2). It refers to the disease of the bones described by Wegner. Dr. Lomer holds that the presence of these changes in a well-marked form is proof of syphilis; and applying this test, comes to the conclusion that the large majority of cases of premature labor are due to this disease. General practitioners, in Dr. Lomer's opinion, know very little about these bone lesions. They are to be demonstrated by exposing the femur and making a longitudinal section of it. In a healthy bone, the junction of cartilage and bone is a simple line, either straight or undulating, but sharp and well defined. In a syphilitic bone it is a broad layer, from which irregular processes project into the cartilage. The epiphysis is either quite loosened, or there are deep fissures in the bone below the line of ossification. In some cases these changes can be easily seen with the naked eye, but in others they may be so slight as to need microscopical examination of carefully prepared sections. Although this disease indicates syphilis, yet a normal condition of the bones is not proof of the absence of syphilis. Dr. Lomer puts before his readers the following generalizations, based on the examination of forty-three fœtuses which had died in utero. When the bone disease is well marked, the liver and spleen are abnormally large. It makes no difference in the degree of the changes present, whether the syphilis is derived from one or both parents, whether in the parent the disease is one year old or ten, whether secondary symptoms have persisted or not, whether the parent has been treated or not, or whether the child be large or small. Syphilitic fœtuses differ in appearance from non-syphilitic. The latter are brown and mummified, the former flesh-colored and more œdematous. In the non-syphilitic the mother can commonly assign a date for the infant's death, and the weight of the fœtus corresponds to the period indicated by her statement. This is not the case with the syphilitic; and in them the placenta is commonly unusually heavy in proportion to the weight of the fœtus.—*British Medical Journal.*

The Nature and Treatment of Sea-sickness.—At the last meeting of the Berlin Medical Society, in July, Dr. R. Neuhauss read an article on an old subject, which, however, he presented in a somewhat new light. He desired, he said, to correct the common error of associating sea-sickness and vomiting. The latter was, it was true, a prominent and nearly constant symptom, but it was nevertheless but one of a number of symptoms. These are very decided malaise, loss of appetite, dizziness, great prostration even to apathy, slowed heart-action, dull, boring, usually unilateral headache, obstinate constipation and lowered functional activity of the kid-

neys. In their relations to sea-sickness men may be divided into three categories: The first group comprises those who never suffer from the malady; these are, at the highest estimate, not more than three per cent. of all who sail the seas. Another group embraces those who suffer constantly and never lose their susceptibility; these are also about three per cent. of the total number. Finally, there are those who are ill for some days on commencing a voyage, but who later become accustomed to the motion of the vessel and recover from the affection caused thereby. Many of the symptoms are explained by the changing intracranial blood-pressure caused by the vessel's motion. When going down into the trough of the sea, hyperæmia of the brain is produced, and in rising upon the wave, anæmia occurs. It is well known that nausea and vomiting follow upon any sudden diminution in the amount of blood within the cranium. During a recent voyage, the author said, he had discovered that the secretion of the kidneys was markedly reduced in a storm, when the movements of the ship were violent and long-continued. A consideration of this fact, which he established by actual measurement, led Dr. Neuhauss to the supposition that the dull, boring headache and apathy experienced after a long continuance of sea-sickness, were really a mild form of uræmia. Much amelioration, and even complete cure, might be obtained by lying down "all in a heap," with the hips and knees flexed and the head bent forward on the chest. In this way the vessels are made more tortuous, and there is less of a tide in the cranial circulation in consequence. There is also less tossing about of the abdominal organs, upon which some of the symptoms, notably those caused by irritation of the vagus, depend. Chloral hydrate is a valuable drug in sea-sickness. It may be given in doses of fifteen grains, not at the commencement, but on the third or fourth day of the disease. Other drugs the author regarded as useless, and spirits he thought were positively harmful.—*Allgemeine Wiener Medizinische Zeitung*, August 4, 1885.

Supplementary Spleen.—Mr. S. H. Peevor reports in the Indiana *Medical Gazette* for July, 1885, a case of supplementary spleen which he discovered in making an autopsy upon a native woman, supposed to have been poisoned. The natural spleen was enlarged to twice the normal size, but was healthy in other respects. The additional spleen was almost spherical, about one inch in diameter, and about one inch distant from the hilum of the natural spleen, which it was connected with by two or three narrow, white, fibrous bands. It was attached to the omentum, and its structure appeared to be that of a normal spleen.

The Pathology of Wry-Neck.—Since subcutaneous myotomy did not always produce the desired result, Volkmann has been led to open the sheath of the muscle and divide it by an open section. He has performed this operation a number of times in late years, and has thus had many opportunities of examining the muscle microscopically. In several cases this was perfectly normal, but in others the muscle was entirely absent and was replaced by a mass of fibrous tissue. The most common condition was one between these extremes. The author believes, as a result of his studies, that, while tearing of the sterno-cleido-mastoid at birth is by no means the only, or the chief, cause of caput obstipum, it can, nevertheless, not be excluded wholly as an etiological factor in the production of the deformity—*Centralblatt für Chirurgie*, No. 14, 1885.

Scarlatiniform Rash Produced by Intestinal Absorption of Ptomaines.—A patient observed by MM. Lépine and Molière presented at first nothing abnormal, except an artificial anus, the consequence of a strangulated hernia. One day he was suddenly seized with violent delirium, and M. Mollière noticed a considerable dilatation of the pupils. The skin was covered with a scarlatiniform rash, but there was neither fever nor angina. Poisoning by belladonna was at first suspected; but, after a careful examination, M. Lépine came to the conclusion that the symptoms were due to the absorption by the intestine of ptomaine, acting like atropine, and probably similar to that obtained by Zeulzer and Sonnenschein from putrid substances. After a short time acute conjunctivitis and fever supervened, and the patient died. At the post-mortem examination a highly-offensive substance was found in the intestine below the artificial anus, so that the possibility of an acute auto-intoxication cannot be disputed.—*British Medical Journal*, August 22, 1885.

Antipyrine in Acute Pneumonia in Children.—Dr. Arzutenky reports a number of cases of acute lobar pneumonia in children of four to eight years treated successfully by antipyrine. Ordinarily there was a reduction of temperature of 3° or 4° F. within three hours. In rare instances the temperature fell below the normal, but without, however, any symptoms of collapse. After a time the temperature rose again, but gradually and not with rapidity. The pulse did not always fall in proportion to the temperature. The author gave the drug three times a day in doses of three grains for an infant one year old, six grains for children from four to five years of age, and nine grains for those between ten and twelve years. Although the daily average temperature was reduced 2° or 3°, the proportion between the morning and evening variations remained about the same—*Revue de Médecine*, August 8, 1885.

Neuroses of the Stomach.—Dr. Oser divides the neuroses of the stomach into two classes, according as they depend upon a diminution or increase of muscular power in the organ. In the first group he notes: 1. Rumination, which results probably from a paralysis of the cardia. The mild forms may be cured by the avoidance of all liquid food, lying down upon the back after eating, and faradization of the cardia. The grave forms terminate fatally. 2. Pyloric insufficiency. For this the author advises distention of the stomach by carbonic acid. 3. Gastroplegia, or muscular weakness of the organ. In the second group are: 1. Spasm of the cardia, which may be diagnosed by the œsophageal bougie. 2. Spasm of the pylorus, which is due to reflex action caused by fissures. 3. General gastric spasm (the author does not say to what this is to be referred). 4. Peristaltic derangements, which are frequent in neurasthenia and hysteria. 5. Nervous vomiting.—*Revue de Médecine*, No. 32, 1885.

Acute Primary Tuberculosis of the Spleen.—Dr. J. Icharold relates the case of a young man twenty-five years of age, who was seized with a chill and a violent headache followed by heat and sweating. On auscultation numerous fine râles were heard, and percussion revealed an enlargement of the spleen. No other lesions were revealed by physical examination. There followed cyanosis, epistaxis, diarrhœa, and a slight degree of albuminuria; later delirium, and finally death on the eighteenth day. At the autopsy the spleen was seen to be markedly hypertrophied (three times its normal size), and it was filled with miliary tubercles. There was also some tumefaction of the solitary intestinal follicles and of Peyer's patches; but there were no signs of tubercles in the meninges, peritoneum, or lungs.—*Lyon Médical*, August 9, 1885.

Subcutaneous Ligature of the Brachial Artery.—Dr. Raimondo Cannizzaro, being called upon to ligate the brachial on account of a wound involving the radial and ulnar branches, made a valvular opening by drawing the skin tight, tied the artery with carbolized silk, and allowed the skin to slip back covering the wound. The superficial wound healed by first intention, and in seven days the patient left the hospital cured.—*Revue de Chirurgie*, August 10, 1885.

Iodide of Potash in the Treatment of Psoriasis.—Dr. Hashurd reports a number of cases of psoriasis treated with iodide of potassium alone (*Hospitals-Tidende*, No. 17, 1885). In two-thirds of the cases in which the treatment was faithfully carried out a cure resulted; in the remaining third no improvement followed. The drug was given in very large doses, as much as eight or ten drachms a day, and continued for six or eight weeks. In one case the patient consumed between thirty and forty ounces of the iodide during the course of treatment. In only one instance were any of the characteristic symptoms of iodism manifested.

Iodoform in the Treatment of Tubercular Meningitis.—Dr. Emil Nilsson reports, in *Hygiea* for July, 1885, three cases of tubercular meningitis occurring in one family. The first two children were treated in the usual way and died. Not long after the death of the second child a third one, a boy eight years old, began to grow thin and pale. A few months later he complained of headache and had several convulsions. When seen he lay in a semi-stupor with closed eyes, and could hardly be roused sufficiently to tell where he had pain. Calomel and iodide of potassium were ordered, but were soon discontinued because of the persistent vomiting. The symptoms of tubercular meningitis were well marked, and increased in severity until a fatal termination seemed to be approaching. The hair was then shaved off and an ointment containing ten per cent. of iodoform was smeared over the head and retained by a close-fitting cap of oil-silk. The inunction was repeated three or four times, and the cap was then left on for thirty-eight hours, at the end of which time it was removed and the head washed with soapsuds, alcohol, and vinegar. Within twenty-four hours there was an improvement in the little patient's condition, the muscular twitchings became less noticeable, sleep was more sound, and the restless tossing about in the bed ceased. There were some symptoms of absorption of the iodoform, and the odor of the drug was noticeable in the breath eight days after the cap had been removed. The child is now in perfect health.

Treatment of Erysipelas on the Expectant Plan.—There are numerous methods of treatment of facial erysipelas in vogue, each of which has its special advocates, and is supported by an array of facts showing its curative value. But in any case in which so many diverse plans are brought forward as efficacious in the treatment of a particular disease it is usually safe to assume that the disease is self-limited, and is not controllable by any specific remedy. Some cases reported by Dr. Carmelo Andronico in the *Giornale Internazionale delle Scienze Mediche*, No. 6, 1885, would seem to show that this is true also of facial erysipelas. The author treated fifteen successive cases of this affection, occurring among the inmates of a female penitentiary, on a purely expectant plan, and all recovered. They were of varying degrees of severity, but no remedies were exhibited either externally or internally, with the exception of alcohol. Wine in daily doses of about twelve ounces was given in a few cases in which there was marked delirium. None of the patients died, and all seemed to progress as favorably as, or even more so than those subjected to active medicinal treatment.

The Prophylactic Treatment of Dental Caries.—In an article in the *Independent Practitioner* for August, 1885, Professor W. D. Miller, of Berlin, gives the results of a number of experiments made by him to determine the availability of various antiseptics in the prophylactic treatment of the oral cavity. Since in rinsing the mouth one does not usually keep the fluid in contact with the teeth for more than a minute, an antiseptic mouth-wash to be of use should be capable of devitalizing the fungi of the mouth in one minute or less. Of a number of substances used in the experiments the author found but four which were capable of devitalizing the fungi in the given time. These were bichloride of mercury (1–2,500), benzoic acid (1–100), salicylic acid (1–100), and pure Listerine. Of the four the bichloride was the most effective, as it possesses the advantage of penetrating more deeply into the cavities and between the teeth. It has one disadvantage, however, in its highly poisonous character, and although it is hardly probable that harm could result from its use in so dilute a solution, it nevertheless offers an objection to its use. With regard to salicylic acid it seems to be a question whether it is injurious to the teeth or not, and it should therefore, the author says, be used with caution. Listerine acted with considerable rapidity upon the fungi in the experiments made by the writer, and that substance or benzoic acid would seem to be preferable as a mouth-wash in the prevention of caries, if further experience should demonstrate that they exerted no injurious influence upon the dental substance.

Poisoning by Petroleum.—Dr. Duguet, of the Lariboisière, relates the case of a woman, aged forty-eight, who was brought into that hospital May 8th, having just swallowed about a pint of the ordinary petroleum of commerce with suicidal intentions. She at once felt a strong sensation of oppression along the œsophagus, and especially at the stomach, together with a sense of burning, and was in a very agitated condition. She exhaled a powerful odor of petroleum, and on vomiting being excited by ipecacuanha, with large quantities of milk, a good deal of petroleum floated on the ejections, as it did in those produced from the bowels by a clyster. All the urine of the patient was carefully preserved, and that passed just before the emetic was given contained a floating layer of petroleum, about one inch in thickness. On the day after her admission the floating petroleum in the urine amounted to about five drachms, but by the next day had diminished to one drachm, and then gradually disappeared. Some albumen, which at first was present, disappeared with the petroleum. During the first four days the petroleum prevented the urine from undergoing decomposition for ten days.—*Gazette des Hôpitaux.*

Hernia of the Stomach into the Scrotum.—Dr. Vogt (*La Presse Médicale Belge*) reports the case of a man, sixty years of age, with a scrotal hernia of the size of an adult head, who died in collapse with symptoms of local peritonitis, but without symptoms of strangulation. The autopsy showed, among other things, as a part of the contents of the hernia, the pyloric end of the stomach enormously dilated, the epiplon, the cœcum with the vermiform appendage, the ascending colon, the transverse colon, and the commencement of the descending colon. The stomach had an hourglass dilatation corresponding to the hernial ring; the lesser curvature, a little distorted above, was slightly elongated, while the greater curvature and the body of the organ were outside the ring. The extraordinary dilatation of the stomach had completely changed the relations of the organs in the abdominal cavity, so that the small intestines were carried to the left, and below, into the pelvis, and the liver had been drawn from the right side toward the median line.

Pulmonary Arteritis.—In an elaborate article on this subject, Dr. Rattone (*Archive delle Scienze Mediche*) formulates the following conclusions from a study of upward of fifty cases: (1) Pulmonary arteritis may be either acute or chronic (atheroma), the latter being the more frequent. (2) It may be primary or secondary, the primary form not leading to cirrhosis of the lungs. (3) The cases seen by the author of acute arteritis had their origin from a primary inflammation of the semilunar valves. (4) Chronic inflammation or atheroma may be met with in any portion of the pulmonary artery, but is more often seated in the vessels of medium size, and especially at their points of bifurcation; it is distributed symmetrically in the two lungs. (5) In this disease there may be seen not only the atheromatous patches, but also abscess, ulceration, and in some cases

calcification. (6) Pulmonary atheroma is entirely independent of a similar disease in the aorta; it may coexist with it, may exist without it, and may be absent when the aorta is profoundly diseased. (7) Pulmonary atheroma is met with constantly in mitral stenosis which has occasioned a certain degree of hypertrophy of the right heart; but may also be found with stenosis of the aortic orifice, in cor bovinum and other congenital defects. (8) The disease may occur in young subjects who have never suffered from heart-disease. (9) Atheroma of the pulmonary artery is a frequent cause of hæmoptysis, and may also give rise to thrombosis and hemorrhagic infarction. (10) Finally, as regards the cause of atheroma, the author agrees with Martin, that it is secondary to arteritis of the vasa vasorum.

Arsenic in Lupus Erythematosus.—Mr. Jonathan Hutchinson (*British Medical Journal*) narrates a case in which a gentleman was completely cured of lupus erythematosus by persistently taking five drops of *Liquor arsenicalis*, three times a day, for two years. In March, 1883, the patient suffered from several patches on the face and scalp. In February, 1885, the lupus was quite well. There were left only thin white scars, without any erythema or thickening at their edges. On the sides of the nose these scars were each as large as a shilling, that on the middle of the nose not so big. On the scalp, which was nearly bald, there were several scars as large as the end of one's thumb. The patient took arsenic regularly for fifteen months; he then had a sharp attack of shingles, and left the medicine off for a little time. No local remedy was applied to the patches on the nose while the arsenic was being taken, though a hair-wash had been sometimes used for the head. Mr. Hutchinson considers that the cure was entirely due to the arsenic, and suggests that a more careful administration of this drug should be tried in these cases, which are often only partially cured.

Cerebral Infantile Paralysis.—Dr. Strümpell has described this somewhat neglected disease in an article of which the following is an abstract: *Poliencephalitis acuta* occurs usually before the end of the first year, sometimes indeed in the first weeks of life. It begins acutely without any apparent cause, with fever, vomiting, general convulsions, and unconsciousness. These symptoms disappear as quickly as they began, leaving behind them, as a rule, complete paralysis of one-half of the body, which soon, however, in part disappears. The arm and leg usually remain more or less paralyzed, while the facial muscles are restored, though sometimes there is slight strabismus. In other cases the paralysis is a monoplegia, or a sort of ataxia alone is perceptible. There is never any degenerative atrophy of the muscles, though the growth of the affected limb is retarded. The paralyzed limbs are slightly contracted, and there is an exaggerated tendon reflex. Most of the patients suffer from subsequent epileptic attacks, which may be general or affecting only the paralyzed side. Athetosis is a very frequent accompaniment. In right-sided paralysis the speech is not infrequently affected, and the patients are usually imbecile, though the intelligence may not be weakened. Sensation is unimpaired. The seat of the disease is in the gray cortical substance in the motor region, where in older cases parencephalic lesions are always found. No autopsies have yet been made in the acute stage of the affection. The author remarks on the resemblance to spinal infantile paralysis, and believes that the two affections may be due to the same or similar etiological factors.—*Centralblatt für klinische Medicin.*

The Viscera in Epilepsy.—M. Vulpian (*Progrès Médical*) has communicated the results of certain experiments undertaken with the view of explaining the effects produced upon the action of viscera by epileptic seizures. He has induced fits of this kind in the dog by stimulating certain points of the sigmoid flexure. A few seconds after the convulsion began the heart-beats and the respiratory rhythm became slower, the latter even to absolute cessation, which was ascribed by M. Vulpian to a special excitation of the respiratory centre analogous to that produced by faradization of the central end of the pneumogastric or superior laryngeal nerve. In the dog, also, as in man, there is increase of the salivary secretion during the attacks. The amount of bile excreted is also in excess of the normal, while the passage of urine, on the contrary, is arrested. In a curarized animal it is possible to provoke epileptic attacks, which are limited in their manifestations to the internal organs. The phenomena then apparent do not differ from those observed in the same regions during ordinary attacks of epilepsy. After the paralysis of the motor nerves of the voluntary muscles the effects of stimulation of the nervous centres continue to travel along the still available visceral nerves, and to give rise to modifications of heart action, contractions or dilatations of vessels and of the pupils, contractions of the intestine and bladder, alterations of secretion, and the like.

Lateral Incision for the Prevention of Rupture of the Perineum.—Drs. Credé and Colpé, in the *Archiv für Gynäkologie*, discuss the practice of incising the perineum laterally in order to prevent its tearing centrally. The objections brought against it are these: (1) That the incision becomes an ulcer, and disturbs the healthy course of the lying-in. This they prevent by bringing the edges of the incision together by suture, with the result that primary union almost invariably follows. They have devised an ingenious method for applying this suture, but without the assistance of diagrams it is difficult to make this understood; we must therefore refer our readers to the paper, where they will find illustrations that make it perfectly clear. (2) That germs of disease may enter through the wound. In this respect the prospect is no worse than that from a torn perineum. Injury to the perineum only to a slightly appreciable extent increases the lying-in woman's chance of disease or death. Out of 2,000 deliveries in Leipzig, among those with uninjured perineums the death-rate was .954 and the morbility 2.94 per cent.; among those with torn perineums the mortality was .934 and the morbility 3.24 per cent. (3) That the incisions do not invariably prevent perineal rupture. To meet this the authors give a table of the percentage of cases in which lateral incisions were made, and of those in which rupture of the perineum occurred, in the practice of five different assistant physicians; and the table shows that the frequency of incision and the frequency of rupture stood in inverse proportion to one another. They also state that since incision has been practised, not a single case of complete perineal rupture has occurred. (4) That the cutting is painful; to which the authors reply, that it is done when the patient is already in much pain, so that she does not notice it. (5) That it leads to subsequent gaping of the vulva. This our authors deny. They believe, in short, that the lateral incision is extremely useful and absolutely harmless. We may add, in order to give an idea of their practice, that in primiparæ, lateral incision was practised in 25.9 per cent., spontaneous rupture took place in 10.4 per cent., and rupture in spite of incision in 2.9 per cent. In multiparæ, the corresponding figures are: lateral incision, 1.2 per cent.; spontaneous rupture, 2.4 per cent. They give figures also which show the influence of perineal ruptures in causing illness during the lying-in period. The percentage of primiparæ whom it was necessary to keep in the hospital longer than a fortnight, was 23.1 among those with perineal cuts or tears, 11.4 among those in whom the perineum was uninjured. In multiparæ it was only 6.8 per cent. The authors recommend that the incision should be made just after the acme of a pain, *i.e.*, just as it is beginning to pass off.

Dust Beef is what an Italian manufacturing firm calls its new, and, of course, improved form of beef-powder.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, September 26, 1885.

THE DANGER OF CONSANGUINEOUS MARRIAGES.

THERE is no subject with regard to which statistical inquiries have furnished more contradictory results than that of the effects of consanguineous marriages. The general opinion, supported by social usage, religious belief, and even legislative enactment, is that such marriages entail almost always certain dangers. These dangers are various degenerative disorders, such, in particular, as idiocy, insanity, deaf-mutism, and, most of all, according to Dr. Devay, a specific taint which causes sterility in the offspring of these marriages. Dr. Bemiss, Dr. Howe, Dr. Arthur Mitchell, MM. Cadiot, Devay, Boudin, and Lasègue have published statistics showing the evil effects of these marriages; while MM. Bourgeois, Seguin, Dally, Voisin, and recently Dr. Charles F. Worthington, of Boston, give facts which seem to bear with equal or greater force in the opposite direction. Dr. Huth, in his elaborate work on "The Marriage of Near Kin," has also collected many statistics for and against the harmlessness of consanguineous marriages. Impressed with the untrustworthiness of much of the statistical data at hand, Dr. Worthington, of Roxbury, Mass., has taken the pains to study the subject anew, and to collect more complete histories of cases than has heretofore been done. It is very well known that the same circumstances and environment which lead isolated communities to intermarry, and thus furnish facts for the pessimistic statistician, may tend to produce the very diseases which are attributed to the too close mingling of blood.

Dr. Worthington collects the histories of one hundred and eight marriages. In eighty-six of these the relationship was that of first cousin; in four, first cousins once removed; in one, third cousins; in one, cousins, degree not specified; in one, uncle and niece; in two, brother and sister. All of these unions, save five, were fertile; the number of children being quite up to the average, viz., five. The children of these consanguineous marriages themselves married and had an average of over five children for each union, thus showing that neither directly nor indirectly did these marriages of near kin cause sterility. Out of a total of 413 children, the offspring of consanguineous marriages, about seventy-five per cent. (312) were reported healthy. Among the 101 unhealthy children the prevailing troubles were deaf-mutism (12 cases), insanity and idiocy (7 and 13 cases); while 15 died of phthisis, 16 died in infancy, 6 were "not robust," and 1 was epileptic.

It cannot be denied that twenty-five per cent. is a rather abnormal proportion of unhealthfulness, the ratio of idiocy and deaf-mutism being especially large. Dr. Worthington adduces facts, however, which show that these conditions might be, and in many cases certainly were, due to a special morbid inheritance with which the marriage had nothing to do.

The facts presented show that consanguineous marriages are, in the majority of cases, perfectly harmless and carry no specific taint to the children. It cannot be doubted, however, that if there is any morbid tendency in either parent, there is great danger of its being intensified in the children. This is the conclusion reached also by breeders. One alliance of blood relations may be perfectly harmless, or even beneficial, but if kept up, it is sure to produce deterioration. Now since it is often so difficult to say absolutely that an individual has no morbid taint, it follows that we must, despite favorable statistics, cling to the present view that consanguineous marriages are a source of danger. In other words, two cousins who are apparently healthy have a slightly greater chance of having children with some degenerative taint than two apparently sound persons who are not related.

THE RADICAL TREATMENT OF THE DISEASED CERVIX UTERI.

THE true centre of the gynecological system is probably the cervix uteri. From it radiate the innumerable pains and irritations, and out of it drip the succulent secretions which develop into overshadowing magnificence the science of the pathological woman. Imagination quite fails in any attempt to estimate the amount of laborious thought and ingenious investigation which this little organ has called forth. The cervix uteri seems to be of comparatively little use to woman, but it has been an immense stimulus to man. Yet we can hardly say that he has even now entirely mastered it. There is certainly nothing that therapeutical enthusiasm put to its tensest strain could devise with which this little organ has not been conscientiously bombarded. But it still will keep red, secretive, tender, and ectropic.

It cannot be, however, but that the intellect of man, with its four extra ounces of encephalic substratum, will in time overcome the ounce of perverse flesh which drags down so many of the gentler sex.

We observe, in the New York *Medical Journal* for June 27th and July 4th, an article which appears to point a way toward such a supreme triumph. Dr. Simon Baruch, the author of the article in question, calls attention to certain facts in the physiological and pathological history of the cervix which he thinks have not yet been sufficiently appreciated. These are that the cervix uteri is really a "vast gland;" that it has a mucous lining full of intricate windings and furrows, and containing an enormous gland-supply hidden beneath it and penetrating to a considerable depth into the connective-tissue. This glandular structure is not reached in the ordinary topical applications to the cervix, hence no effective treatment results. To secure success these glands must

be laid open, curetted, and the reagents applied directly to the diseased tissue. This view is rational, and quite in accordance with the most fundamental rule in the treatment of diseased surfaces. In laceration of the cervix, also, when a condition calling for an operation exists, one of the most important things indicated is a removal of the diseased and hyperplastic tissue.

Such removal of diseased cervical tissue is also believed to have an important influence in preventing the development of cancer. This assertion, which is based upon sound reasoning from the known facts of pathology, deserves careful attention from physicians who have the care of, but are not treating, patients with chronic inflamed and lacerated cervices.

Dr. Baruch summarizes his views as follows: "1. A thorough knowledge of the anatomy, physiology, and pathology of the cervical follicles will simplify the treatment of many uterine affections. 2. The cervix uteri represents a large gland of active and important function in the various sexual relations of woman. 3. In the majority of the more common diseases of the uterus the mucous membrane and its follicles play the most important rôle. A recognition of this fact will make treatment more successful. 4. Metritis, subinvolution, hyperplasia with catarrh, erosions, etc., must be studied in connection with the glands of the cervix. 5. In obstinate cases medicinal applications fail because the secreting surfaces of the follicles are not reached. Scarification and the curette are valuable adjuncts in nulliparous women, or in parous women without cervix laceration. 6. In parous women with laceration, trachelorraphy is the most valuable procedure. As a simple plastic operation it will fail. Success depends on extirpation of the follicles, which is more important than removal of the cicatricial plug. 7. The microscope demonstrates the dependence of catarrh, ulceration, erosion, and hypertrophy of the cervix, and often also of the body of the uterus, upon the glandular structure of the cervix uteri. 8. The cervical follicles are significant as elements in the pathology of cervix cancer, because the microscope demonstrates the dependence of the latter upon erosions which are based upon the gland structure. 9. Laceration and erosion must be regarded with suspicion, as possible sources of future malignant disease. In operating for their removal, extirpation of the cervical follicles must be unsparing."

A NEW THERAPEUTIC PRINCIPLE IN THE USE OF MINERAL WATERS.

The chemical composition and the therapeutic action of mineral waters have engaged the attention of physicians for a long time. That mineral waters are efficacious in the treatment of certain classes of affections is well established, especially those which are benefited by influencing the mucous membrane of the alimentary canal.

Recently Sydney Ringer, of London, and Dr. Hayes, of Aberdeen, have emphasized the important influence which the chlorides exert in accelerating intestinal action, and thus far have confirmed the earlier experiments of von Voit with reference to the influence of the chlorides, especially the sodium chloride, on the oxidation of albumen and the consequent increased formation and elimination of urea.

Mineral waters have of late years been used largely as saline purgatives, depending chiefly upon the use of those especially rich in sulphate of soda and magnesia. But von Mering, Frerichs, and Henry Thompson have for a long time urged that it was important to distinguish between those waters which are promptly purgative and those which contain a large combination of the *chlorides* of sodium and magnesium. Frerichs, especially on clinical grounds, has pointed out that in prescribing purgative waters it is well to have a more careful regard to their differences in chemical composition and their consequent different effects. If, he says, it is merely desired by increasing the secretion of the intestinal glands to render the contents of the intestines more fluid, and to evacuate them, all the aperient waters are more or less useful, according to the quantity of purgative salts they contain; but their continuous use, he adds, interferes with the process of digestion, and thus affects the general health. The effect, however, he says, is very different when, besides the sulphate of soda and magnesia, large quantities of the chloride of sodium are present, as in some of the more noted mineral waters, for then we have the favorable influence of the chloride upon digestion and tissue-changes generally. Sir Henry Thompson has long advocated the use of a mineral water rich in chlorides as well as in sulphates. In his lectures he gives the results of experiments with natural and artificial compounds based upon this principle, and reaches the conclusion that in the natural mineral water, rich in chlorides as well as sulphates, the dose may be continuously diminished, and prolonged treatment is unattended with the exhausting and irritating effects following the use of waters which contain especially large quantities of sulphate of soda. Here, then, chemical research and clinical experience harmonize, and physicians are coming to regard this old therapeutic agent among the large number of mineral waters as especially suitable for prolonged use, when taken, as it now can be, in its undiluted and natural state.

THE SIXTH VOLUME OF THE INDEX CATALOGUE.

The "Sixth Volume of the Index Catalogue of the Library of the Surgeon-general's Office" has been published. It includes references from Heastie to Insfeldt. The herculean labor of its compilation can be reasonably estimated when it is understood that the volume is made up of seven thousand nine hundred authorities, representing two thousand five hundred and forty-three volumes, and seven thousand two hundred and fifty pamphlets. It also represents fourteen thousand five hundred and ninety subject-titles of separate books and pamphlets, and thirty-five thousand two hundred and ninety titles of articles in periodicals. The particularly interesting parts of the bibliography are those referring to hereditary, hernia, hip-joint disease, homœopathy, hooping-cough, hospitals, humerus, hydrocele, hydrocephalus, hydrothorax, and insanity.

Dr. J. S. Billings, the talented librarian, still has his name upon the title-page and may he be spared to complete a work, the like of which has never before been undertaken.

Dr. George W. Fish, United States Consul at Tunis from 1878 to 1882, died at his home, in Flint, Mich., on September 20th, aged sixty-nine years.

News of the Week.

A Change in the Mode of Discharging Lunatics from Asylums.—The authorities have decided that the city shall no longer be burdened with the costs of proving to be insane persons whose release from the municipal lunatic asylums is sought by their relatives, or by petty lawyers desirous to acquire notoriety. Hitherto it has been the custom to make returns to writs of habeas corpus in such cases, in accordance with the statements of the medical officers in charge of the asylums. As those statements were invariably that the persons whose release was sought were insane, issues were raised that had to be tried. These trials were annoying and expensive. The purpose of the Corporation Counsel is hereafter to make returns in such cases, merely setting up that the persons indicted in the writs are held by the Commissioners of Charities and Correction because they were committed to them as insane, and because the Medical Superintendent of the New York City Asylum had not given certificates that they were fit to be at large. By this course it will fall upon the courts to ascertain, in some way satisfactory to them and inexpensive to the city, whether the persons under restraint are sane or insane.

Death of Dr. William Charles Hunter.—We regret to announce the death, on the 20th inst., of Dr. William Charles Hunter, of this city, in the fifty-sixth year of his age. Dr. Hunter was born at Burke, N. H., and was graduated at the New York College of Physicians and Surgeons in 1857. He was once Demonstrator of Anatomy in the medical department of Dartmouth College, with Dr. E. R. Peaslee. He was the author of many papers in medical journals. He was a member of the Academy of Medicine, the County Medical Society, and the New York Pathological Society, and an officer of the Society for the Relief of the Widows and Orphans of Medical Men. Dr. Hunter's health had begun to fail several years ago, and lately he had suffered from renal and cardiac troubles.

The Resources of the Druggist.—Druggists average from $5 to $15 per month from each moderately large family in this city.

Doctors' Endorsements of Tradesmen.—"A writer in an American contemporary, the *New England Medical Monthly*, deplores the debasement of the literature of circulars by the names and addresses of prominent New York physicians which are now printed on carpenters' and plumbers' circulars as advertisements. Since literary enterprise has stooped to tradesmen's handbills, we would suggest as the next step—their tools."—*Medical Press and Circular.* Our esteemed English contemporary is very quick to pick up an item that reflects on the American profession, even if it comes from some irresponsible penny-a-liner. The "debasement" referred to is certainly of very small extent, and would hardly be discovered except by a most industrious garbage-hunter.

The Ovariotomy Record "Broken."—Mr. Lawson Tait reports in the *Provincial Medical Journal* a series of one hundred and twelve operations for ovarian and parovarian cysts, without a death. These operations were performed between January 1, 1884 and August 5, 1885. All the operations were completed. They were performed without Listerism; and this settles, forever, for Mr. Tait, the question as to the utility of Listerism.

International Medical Congress.—On receiving notice of his appointment as one of the secretaries of the Section on Laryngology, Dr. E. Fletcher Ingals declined, on the ground that lack of harmony in the profession make the duties too burdensome. The following additional resignations have been announced: Dr. John C. Dalton, New York, President Section of Physiology; Dr. E. L. Shurley, of Detroit, Council of Section on Laryngology; Dr. Thomas M. Markoe, New York, and Dr. T. A. McGraw, of Detroit, Council of Section on Surgery; Dr. Wm. H. Welch, of Baltimore, Secretary Section on Pathology; Dr. Thomas T. Sabine, New York, Council of Section on Anatomy; Dr. E. G. Loring, New York, Council of Section on Ophthalmology.

Death of a Medical Editor.—We learn with regret of the recent death of Dr. Paul Boerner, of Berlin, at the age of fifty-seven years. Dr. Boerner was editor of the *Deutsche Medizinische Wochenschrift*, one of the leading German medical weeklies.

A Western View of the International Congress.—Our European brethren may perhaps appreciate the fact that the American Medical Association, in its action regarding the Congress, has not voiced the sentiments of either the majority or the best of the members of the profession in America, but we are none the less disgraced in their opinion. It is perhaps wrong to lay this trouble at the door of the Association as a whole, for, as in every other organization of a similar character, it will be found that the active management is in the hands of a very few individuals; but as the matter now stands there is nothing else to bear the responsibility of the family quarrel. With all respect to its venerable editor, the *Journal of the American Medical Association* appears to be the only obstacle in the way of an amicable rearrangement of the committees, and a resumption of the strictly scientific work, which, if undisturbed, will make the coming Congress fully as successful as any of those which have preceded it. Pertinacity is an excellent quality under exceptional circumstances, but in the present instance, concessions for harmony's sake would be in much better taste.—*Western Medical Reporter.*

Chicago Physicians and the Congress.—The International Congress, from the standpoint of the profession here, has a gloomy outlook. We cannot see how, from the present situation, the gathering can be in any sense international. There may be a large meeting, but if only American doctors attend, and if, as the prospect is certain, many of the most distinguished members of our profession are absent, what is the use of a Congress at all! Drs. Lyman, Hyde, Jackson, Parkes, and Senn have publicly announced that under the present organization they *could not* serve in the positions to which they have been appointed. Not only have a large number of the strongest men in the country declined to participate, but so large a class that the idea is growing among the profession here that the Congress will not be worth

attending, that it is a foredoomed failure as an international gathering. This feeling is heightened by the indications from abroad of a growing sentiment of dissatisfaction with our ways of doing, which is entertained by the profession of Europe, and which promises to reduce to zero the small delegation of eminent visitors we had any reason to expect under the most favorable auspices.—*Chicago Cor. of Boston Medical and Surgical Journal.*

The Cook County (Ill.) Insane Asylum—Dr. Spray, formerly superintendent of this asylum, has been re-elected. Dr. James G. Kiernan, whom he succeeds, attempted to introduce some reforms, but he seems to have lacked the tact or executive capacity to accomplish anything. The institution appears to be run for the benefit, not of the lunatics, but of "the boys."

Dr. Bradley Released.—Dr. Bradley, of Birmington, England, who will be remembered as the victim of a charge of criminal assault by a hysterical female whom he was so unfortunate as to attend and to be left alone with for a short time, has, after seven months' imprisonment, been released by order of the Home Secretary. The judge (Lord Coleridge) who tried the case is said to have expressed himself as convinced of the injustice of the verdict rendered. A testimonial is being subscribed to for the pecuniary relief of, and to express the professional sympathy for, the unfortunate physician.

A Writer on Medical Education, commenting on the popular interest in medical topics fostered by medical bulletins from the sick-beds of great men, and especially on the fascination which the germ-theory seems to have for everybody at the present time, remarks that in the wilds of the West a cowboy recently shot another for calling him a d—d microbe.

Another Successful Transplantation of the Rabbit's Eye.—Dr. H. W. Bradford reports in the *Boston Medical and Surgical Journal* a case of enucleation with replacement of the human globe by that of a rabbit. The patient was a seaman, aged thirty-five, with an atrophied globe, the result of an injury in childhood. The result of the operation was fairly successful, the transplanted organ taking up nourishment and establishing a circulation. No attempt was made to secure vision, the object being to obtain cosmetic effects.

Montreal Anti-vaccinationists.—We have received a letter circular which has been widely distributed in Montreal. It consists of a shriek against vaccination in six paragraphs. "Don't permit your precious little ones to be vaccinated! Vaccination is not only unnatural, filthy, and unclean, but positively dangerous to health and life. Scores of children in Montreal have been poisoned with a loathsome disease by vaccination," etc. It is a serious question whether in times of an epidemic society ought not, for its own safety, to suppress such literature.

A Weak Medical Law.—According to the *Call*, a certain Dr. Kellogg was arrested in San Bernardino a few days since for practising without a license. The jury disagreed. He says this is the forty-second time he has been arrested on the same charge, and he has never been convicted.

The Chair of Anatomy in the University of Vermont has, it is reported, been offered to Dr. John B. Deaver, Demonstrator of Anatomy in the University of Pennsylvania.

A Hospital at Dartmouth.—An association has been formed by the Dartmouth College authorities for the purpose of establishing a hospital for those who come to the medical college for treatment, and where students in any department may be cared for when sick.

The Cholera is steadily decreasing in severity in Spain, but is increasing in certain parts of Italy. This is particularly the case in Palermo. Within a week the mortality rose from 3 daily to 185. The inhabitants were seized with a panic and 30,000 fled from the city. About a week ago there was a grand illumination and universal celebration in honor of the appearance of the vision of a saint bearing the assurance that the epidemic would soon disappear. A few days later the people were mobbing the sanitary officers whenever an attempt was made to disinfect places where the disease prevailed.

A New Cancer Cure.—Under this title we mentioned recently, on the authority of one of our exchanges, that Dr. Pampilo, surgeon to St. Peter's Hospital, of Pernambuco, had discovered a new remedy for cancer in the juice of piscidea erithrina. A subscriber in Pernambuco writes us that, with some exceptions this notice is strictly correct. The name should be Numa Pompilio. The bearer of the name is not a surgeon, but a dentist. He is not employed in St. Peter's Hospital, but in the Hospital Dom Pedro II. He did not discover the virtues of the remedy, but was employed by a lawyer of the town to prepare it in a certain way, so as to better preserve it. Finally, piscidia erithrina has never cured cancer.

Keeping out the Cholera.—The Neapolitan authorities are determined at all events to prevent the introduction of cholera from without, however lax they may have been in providing against its spread when once admitted. Dr. Rummo, who had been sent by the government on a scientific mission to Spain, brought back two sealed tubes containing cholerigenous virus, with which he proposed to make some investigations to determine the accuracy of Ferran's methods. The municipal authorities, however, would not allow Dr. Rummo to bring the tubes into the city, and he has therefore gone with them to the island of Asinara, where he will be able to inoculate animals as much as he pleases.

Suicide of a Woman Physician.—Dr. Adelaide Richardson, of Mount Holyoke Seminary, committed suicide last week during a fit of temporary insanity. Dr. Richardson was forty-seven years old. She received her medical education at Ann Arbor, Mich.

A Civil Service Examination will be held in the Post-office Building, on October 1st for applicants for positions as Medical Reviewers and Pension Examiners. Applications must be made to the Secretary of the Civil Service Commission, Washington.

The University of Vienna.—During the summer quarter, just passed, there were 5,122 students at the University of Vienna, 2,310 of which were students of medicine.

Reviews and Notices.

LARYNGOSCOPY AND RHINOSCOPY IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT AND NOSE. By PROSSER JAMES, M.D. Fourth Edition, Enlarged, Illustrated with Hand-colored Plates. Pp. 233. New York: William Wood & Co. 1885.

THE author of this little manual has enlarged and revised the present edition. The changes will be found principally in the chapters devoted to rhinoscopy, to diagnosis, and to therapeutics. Motor-laryngeal affections have been more fully considered, but the former classification has been adhered to. The properties and application of cocaine are described. The various apparatus in use are shown in the wood-cuts. An interesting chapter is devoted to the history of laryngoscopy. The general make-up of the book is excellent.

A TEXT-BOOK OF PHYSIOLOGY. By MICHAEL FOSTER, M.A., M.D., F.R.S. Third American from the Fourth and Revised English Edition, with extensive Notes and Additions. By EDWARD T. REICHERT, M.D. With 271 Illustrations. Philadelphia: Lea Brothers & Co. 1885

IN the fourth edition of his Physiology, Professor Foster concluded to place nearly all the reading matter in uniform large type. In the present volume, therefore, we find this plan carried out. It is certainly wiser to place in a text-book only such matter as is worth large type, and the new arrangement is, on the whole, to be commended. Dr. Reichert's additions in histology and critical comment add very much to the value of the work for students.

ELEMENTS OF MODERN MEDICINE. Designed for the Use of Students and Practitioners of Medicine. By R. FRENCH STONE, M.D., Professor of Materia Medica, Therapeutics, and Clinical Medicine in the Central College of Physicians and Surgeons, Indianapolis. New York: D. Appleton & Co., 1, 3, and 5 Bond Street. 1885.

THIS book was evidently bound for pocket use, and contains material on the principles of pathology and therapeutics, and many memoranda and tables for reference; the title-page says "useful memoranda" and "valuable tables." The first fourteen pages exhibit a review of "the recent progress and the present condition of medical science and of medical practice." Here is found a large amount of abstruse indoctrination concerning "molecular mechanism," "physical basis of life," "dependence of the vital processes on oxygenation," "modified cell-life," etc., to which the average medical student and practitioner will take with usual avidity. The remarks with reference to blood letting are not altogether uninteresting, especially in the light of "past experience."

The first *part* is devoted to "General Pathology," including the etiology and anatomical characters of disease, symptoms and signs of disease, modes of examining patients, prognosis and treatment of disease, and "Miscellaneous Topics." Surely the term thus used is very much "congested," as our English brethren say about London Bridge.

Part II. is on Materia Medica and Therapeutics, and while it contains a certain amount of good material, it is sadly in need of a thorough revision. The treatment of "gonorrhœal ophthalmia" consists of a prescription containing sulphate of zinc, sulphate of atropia, carbolic acid, and rose-water, of which "three or four drops" are to be applied "three or four times daily, and also externally with linen cloths." What a method! And it stands without qualification or additional direction.

The treatment for "biliary calculus," recommended as affording the "promptest relief," consists in the use of an enema containing tartar-emetic, tincture of opium, and tepid water; followed immediately by four to eight ounces of olive oil, "taken by the stomach." The *modus operandi* is given as follows: "The opium and tartar-emetic relieve the pain and relax the spasm of the gall-duct, while the efforts of vomiting cause a portion of the oil to come in contact with the roughened surface of the calculi and facilitate their passage." This theory is certainly ingenious.

The author's views concerning fevers must be epitomized: All idiopathic, essential, and non-contagious fevers have a common proximate cause, consisting of the "waste products" which constitute "*the initial factor of the febrile process*," and find their way into the blood and tissues in a state of change or decomposition; this azotized material may originate spontaneously; when retained in the system a sufficient length of time, and in sufficient quantity, "the normal embryonic or *germinal granules of the white blood-corpuscles* become infected by the toxic elements thus engendered." This is a novel way of setting forth a chemical theory.

Under the heading, "Method of Conducting Post-mortem Examinations," the directions for examining the thorax and abdomen lack that definiteness in detail which is so essential to the best aid to those unaccustomed to perform autopsies.

With reference to chloroform the author says: "So far as known, no fatal result has yet occurred from the use of chloroform in *parturition*;" an indescribable bit of ignorance which should never have been allowed to come to the surface. The directions "on the slightest approach of symptoms of heart-failure or asphyxia" are too indefinite, and, so far as faradization is concerned, might with equal chances lead to the death rather than to the resuscitation of the patient.

Speaking of mydriatics, the author says that "from one-sixteenth to one twenty-fourth of a grain of atropine administered hypodermatically will antagonize one grain of morphine." Don't trust it, "it may fool thee;" better study the effects than labor automatically.

What is equally trying, however, is the fact that the directions for "Microscopical Examination of the Urine," down to the words, "or tail attached" (twenty-two lines), are in the identical language used in "THE MEDICAL RECORD Visiting List," and are not included within quotation marks.

For the "Chemical Examination of the Urine" there are only directions for the use of heat, nitric acid, and picric acid, and no mention is made of the recent delicate tests which have been accepted as especially valuable.

"The diseases for which hæmatics are used *originate in the blood*." When was this demonstrated? "*These drugs*"—opium and belladonna—"*acting in an opposite manner on respiration, brain, skin, pupil, and circulation.*" True to only a certain extent, and, therefore, the statement should have been qualified, else harm rather than good may be done.

It is unfortunate that so much good material should be adulterated to the extent it is with unscientific and in some instances dangerous statements.

THE TREATMENT OF OPIUM ADDICTION. By J. B. MATTISON, M.D. Pp. 49. G. P. Putnam's Sons. 1885.

DR. MATTISON'S monograph on this subject is suggestive and interesting. The reader is impressed with the earnestness and conviction with which the writer recommends his methods—evidently the outcome of years of careful observation and study of the opium habit. Dr. Mattison takes strong grounds against the German method (Levinstein's), that of complete and immediate withdrawal. He characterizes it as a "barbarous plan," "positive malpractice," "utterly inexcusable."

He recommends a mean between the extremes of abrupt cessation of the use of the drug, and the very gradual decrease which tends to exhaust the patience of the patient. He relies on bromides, preferably bromide of sodium. He begins with a "preliminary sedative," ob-

tainable in several days. The initial dose is 60 grains twice daily, at intervals of twelve hours, increasing the amount 20 grains each day, and continuing it five to seven days, until reaching a maximum dose of 100 to 120 grains twice in twenty-four hours. In the meantime the opiate is decreased, at first from one-fourth to one-third the usual amount taken daily, and a little less rapidly at the last, so that from the eighth to the tenth day it is entirely abandoned. If patients are too weak and anæmic to take the above treatment at once, it must be preceded by a tonic course. Bromidism, if produced, soon subsides, and leaves no unpleasant after-effects. Of course individual idiosyncrasies should be regarded. He controls insomnia by giving the bromide dose and decreasing morphine dose at night till the latter has been stopped, then he uses fluid extract of coca, with or without capsicum, which controls at the same time characteristic restlessness. Hot baths and cannabis indica are also valuable agents.

For relief of neuralgic pains he places electricity, the local application of ether, and hot water at the head of the list. He gives a mercurial cathartic at the outset of the treatment, and uses afterward mild laxatives. If there is persistent diarrhœa, thirty-minim doses of fluid extract of coca, and sixty-grain doses of subnitrate of bismuth every two or four hours are useful remedies. He makes no restriction in regard to diet, except when stomach and bowels require it. Vomiting, he maintains, is not of so frequent occurrence under this plan of opium withdrawal.

Cocaine, hypodermatically used, after repeated trials, proved much inferior to a reliable fluid extract of coca. The after-treatment exhausts the list of tonics. The writer offers little that is new in this direction.

This work is calculated to inspire the flagging courage of physicians who undertake to overcome the opium habit. The author makes the cure of the "toxic neurosis," as he calls it, appear not very feasible, but not such a difficult task as it is often considered.

A Manual of Human Physiology, including Histology and Microscopical Anatomy, with Special Reference to the Requirements of Practical Medicine. By Dr. L. Landois. Translated from the Fourth German Edition, with Additions, by William Stirling, M.D., Sc.D. With three hundred and eighteen illustrations. Vol. II. Philadelphia: P. Blakiston, Son & Co. 1885.

We have nothing but commendation for the second and last volume of Professor Landois' work, and we can only say again what was stated when reviewing the first volume, that it is the most complete and satisfactory text-book on physiology extant. The translator and publisher have each done something to increase the value of the volumes. Dr. Stirling has added numerous useful annotations, and a large number of new plates from the works of Bramwell, Ross, and others have been inserted. We wish that every medical student and physician could be drilled on these volumes.

Growth of the Hair.—Professor Molleschot, of Turin, has published the results of a long series of investigations, from which he concludes that the hairiness of an individual is in inverse relation to his body weight. The heavier the person the less rapid is the growth of his hair. The latter is greater in summer than in winter, the reverse of what obtains in the lower animals. He also made the astounding discovery that cutting the hair makes it grow more abundantly. It is curious to see how much labor is often expended to but little purpose.

Shakespeare's Physician.—In the churchyard at Fredericksburg, according to the *Allg. Wiener Med. Zeitung*, is a tombstone with the following inscription: "Here lies Edward Heldon, practising physician and surgeon, friend and companion of William Shakespeare, of Avon. He died after a brief illness in the year of Our Lord 1618, æt. 76."

Reports of Societies.

AMERICAN GYNECOLOGICAL SOCIETY.

Tenth Annual Meeting, held in Washington, D. C., September 22, 23, and 24, 1885.

Tuesday, September 22d — First Day — Morning Session.

The Society met in the Columbia University, and was called to order at 10 A.M., by the President, Dr. William T. Howard, of Baltimore.

The following members were present: Drs. W. T. Howard, W. L. Richardson, of Boston; Frank P. Foster, of New York; M. D. Mann, of Buffalo; Joseph Taber Johnson, of Washington; H. P. C. Wilson, of Baltimore; W. T. Lusk, of New York; J. R. Chadwick, of Boston; R. B. Maury, of Memphis; R. S. Sutton, of Pittsburg; W. H. Baker, of Boston; John Byrne, of Brooklyn; B. B. Browne, of Baltimore; J. P. Reynolds, of Boston; T. A. Emmet, of New York; E. W. Jenks, of Detroit; H. J. Garrigues, of New York; S. C. Busey, of Washington; Ellwood Wilson and William Goodell, of Philadelphia; T. A. Reamy, of Cincinnati, and Theophilus Parvin, of Philadelphia.

invited guests.

The following were unanimously elected: The members of the Washington Obstetrical and Gynecological Society, Drs. R. P. Wilson and W. P. Chinn, of Baltimore; E. C. Dudley, of Chicago; F. Howard, S. J. Radcliffe, R. Reyburn, J. F. Dyer, G. C. Ober, of Washington; J. M. Browne, U.S.N.; and Dr. De Roaldes, of New Orleans.

Dr. Samuel C. Busey, of Washington, then delivered

the address of welcome,

in which he extended to the Society the greetings of fellowship of the Washington Obstetrical and Gynecological Society, and its hospitalities of fraternity. Others have come to fill the places of the lamented dead, and the future gives promise of even greater progress and higher excellence in the aims of conscientious and scientific medicine.

The first paper was read by Dr. Busey, and was entitled

the natural hygiene of the child-bearing period.

The hygiene of pregnancy relates to the preservation of the health of women during those periods of her life-history intervening between conception and the commencement of labor. The processes characteristic of that period were those of transformation, development, and growth, and were physiological; nevertheless they were terminated by more or less violence and injury to both mother and child. The unavoidable mortality, however, is small.

The hygiene of the child-bearing life includes that of pregnancy and the puerperium. They are equally important and interesting. But the hygiene of pregnancy has a much broader significance than a classification and detailed description of the disorders of pregnancy and the methods of prevention.

The concurrent succession of natural phenomena and results which with such uniformity subdivide the course of normal child-bearing life into epochs, which distinctly mark the evolution, climax, and decadence of productivity, point with unerring certainty to the operation of general laws for the female economy.

From its beginning to its end pregnancy is characterized by continuous and progressive functional and organic activity, and along its entire course the signals of danger are displayed in quick succession at short intervals.

Puberty, matrimony, pregnancy, parturition, lactation,

the post-pregnant restoration of ovarian activity, and the menopause, constitute epochs in the life-history of child-bearing women. Upon the course, progress, and succession of these events depend health, life, and longevity. Each has its physiological characteristics, and each may be associated with a variety of pathological conditions.

First pregnancies are the most dangerous, and the danger is increased by too early and too late primiparity. The fertility of the female increases from the commencement of the child-bearing period until the climax is reached, and then declines to its extinction. The age of greatest safety of pregnancy coincides with the age of greatest fecundity.

Dr. Busey then referred to the period of lactation as an important epoch in child-bearing life, and afterward directed attention to the cessation of ovarian life, precocious nubility and precocious puberty.

The paper was discussed by Dr. J. R. Chadwick and Dr. J. P. Reynolds, of Boston, and the discussion was closed by Dr. Busey.

Dr. H. J. Garrigues, of New York, then read a paper on

PUERPERAL DIPHTHERIA

based on twenty-six cases treated by him in the New York Maternity Hospital, and one in the New York Infant Asylum, during the years 1882 to 1884. The diphtheritic infiltration was commonly light gray; appeared first as small discrete spots which spread and fused together, forming large thick patches, intimately connected with the subjacent tissue.

Under the name of "dissecting metritis," he had described eight cases in which a large portion of the muscular tissue separated and was finally expelled from the cavity of the uterus.

As regards etiology, everything that protracts labor, or causes wounds of the genitals, the introduction of the hand into the womb, etc., predisposed to the disease. The real cause, however, was infection.

The first symptom was fever; temperature mostly between 103° and 104° F.; generally the patient complained of pain; the lochia were usually scanty, dirty grayish-red, and offensive, but might be normal. The general symptoms generally preceded the local changes by several days.

Concerning diagnosis, the infiltration must be distinguished from the yellow color which abraded surfaces take under the bichloride of mercury bandage.

The prognosis, as to event, was doubtful; five out of his twenty-nine patients having died. Recovery was complete, except in dissecting metritis, where the loss of substance might interfere with future pregnancies, and predispose to rupture of the uterus.

The prophylactic treatment consisted in limiting vaginal examinations as much as possible, thorough antisepsis by means of the bichloride of mercury, etc.

The curative treatment included thorough cauterization of all affected parts within view with a solution of equal parts of chloride of zinc and distilled water; washing out the uterus with a bichloride solution—1 to 4,000—and leaving within the cavity a suppository containing a hundred grains of iodoform. This was repeated once in twenty-four hours, and a vaginal douche, with the same solution, was given every three hours.

The general treatment consisted of the use of ergot, quinine, morphine, alcohol, and digitalis; and the temperature was controlled by the use of cold.

Dr. W. T. Lusk, of New York, spoke of the good results which had followed the use of the antiseptic pad described by Dr. Garrigues, and also related one case which seemed to illustrate the possibility of the disease being communicated by direct contagion.

Dr. H. P. C. Wilson, of Baltimore, had been much interested in the paper, and also the remarks by Dr. Lusk, because he had avoided all bandages or napkins which might possibly obstruct free discharge of the lochia.

Dr. W. L. Richardson, of Boston, agreed entirely with what had been said by Drs. Garrigues and Lusk.

The paper was further discussed by Dr. John Byrne, of Brooklyn, who referred to deformities of the vagina, etc., as the result of this disease; by Dr. Frank P. Foster, of New York, and by Dr. M. D. Mann, of Buffalo.

The Society then adjourned.

TUESDAY—FIRST DAY—AFTERNOON SESSION.

The Society was called to order by The President.

Dr. Joseph Taber Johnson, of Washington, read a paper entitled

FOUR CASES OF OÖPHORECTOMY, WITH REMARKS.

The remarks pertained chiefly to the desirability of early diagnosis and early operation in cases of disease of the ovaries and tubes which might justify the performance of Battey's or Tait's operation for their relief.

The first case was one of chronic ovaritis and menstrual epilepsy in a patient twenty-nine years of age. Both ovaries and tubes were removed, and with improvement in the patient's general condition.

In the second case, Dr. Johnson removed both ovaries and the tubes, and the operation was followed by complete recovery; the patient being well both in mind and body.

The third case occurred in Miss S——, twenty-four years of age, and was one of excessively painful dysmenorrhœa, with all the accompanying grave phenomena. Both ovaries and tubes were removed, followed by an excellent recovery.

Mrs. X——, forty years of age, and the mother of three children, determined to have the operation performed, and finally Dr. Johnson removed both ovaries and tubes; the patient died on the sixth day of exhaustion, and the autopsy gave little evidence of the cause of death.

Dr. Johnson then discussed the question of early diagnosis and early operation in suitable cases. Even under discouraging circumstances the operation was one of the most successful in modern surgery, and he suggested that if our means of diagnosis were so perfect as to give medical as well as moral courage to operate in advance of the growth of adhesions, the percentage of mortality in this country would be much reduced.

The paper was discussed by Dr. Sutton, of Pittsburg, who advocated the operation; by Dr. Baker, of Boston, who thought the operation should remain as one of last resort; by Dr. T. A. Emmet, of New York, who believed that it should never be performed for dysmenorrhœa; by Dr. W. T. Lusk, of New York, who fully agreed with Dr. Baker that, when the exploratory incision was made and the ovaries found healthy or with only a few Graafian follicles scattered over their surface, they should be returned and the abdominal wound closed with the acknowledgment that the source of the clinical phenomena had not been found; by Dr. H. P. C. Wilson, of Baltimore, who thought there was great danger of performing the operation too frequently, although there were many cases in which nothing could be done for the patient except to remove the ovaries and tubes; by Dr. Jenks, of Detroit, who thought the operation was limited to a very few cases: by Dr. Reamy, of Cincinnati, who believed that some conservatism should be taught concerning the operation, and the discussion was continued by Dr. M. D. Mann, of Buffalo, Dr. Emmet, Dr. Sutton, Dr. Jenks, and was closed by Dr. Johnson.

The Society then adjourned to meet on Wednesday at 10 A.M.

(To be continued.)

For the Relief of the Burning Pain in Erysipelas of the Face.—Dr. Häcker recommends painting the painful parts with a solution of cocaine, five grains, in rose-water, one-half ounce.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 9, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

HYDATIFORM MOLE.

DR. H. J. BOLDT presented a specimen removed from the uterus of a woman who, according to the statement of the attending physician, had been flowing for ten or twelve days. When Dr. Boldt saw her she was extremely anæmic, with almost imperceptible pulse, and was losing blood profusely. The vaginal tampon had already been employed, but without effect so far as arrest of the hemorrhage was concerned. The uterus was somewhat enlarged, the vaginal portion softened, patulous, and dilatable, but not dilated. Dr. Boldt introduced a sponge tent, and dilated the cervical canal, after which the interior of the uterus was explored and a hydatiform mole, slightly adherent to the fundus and sides, was removed.

The specimen was not of so much interest as the alarming condition of the patient, which necessitated immediate relief in order to save her life. The case illustrated the fact that sometimes it was essential to adopt relief measures promptly without regard to exactness in diagnosis, and leave the positive diagnosis to be determined after the immediate danger had been passed.

MULTIPLE NECROSIS FOLLOWING VACCINATION.

DR. W. P. WATSON presented a patient with the following history: A girl, now five years and nine months old, weighed nine pounds when born, cut her lower incisors when five months of age, and the anterior fontanelle was closed, probably, at about the age of one year. She did not have either any eruption on the skin, or the snuffles, and remained healthy until two years of age. The mother has always had very good health, has not had a miscarriage, and is the mother of six other healthy children, five living, and one died of small-pox. The father died of acquired phthisis, but his parents and relatives were all healthy. The mother's relatives were all healthy. There was no history of either hereditary or constitutional disease on either side.

When two years old the child was vaccinated by the health-inspector, and the mother says that he made two incisions just below the insertion of the deltoid, which bled so freely as to require a little time and some kind of applications to check the hemorrhage. The mother also says that he used two vaccine points; whether animal or humanized Dr. Watson was unable to ascertain positively, but the probability was that it was animal virus.

On the *third* day after the vaccination, the child was sick in bed with fever, and on the *fifth* day the mother noticed on the outer aspect of the left forearm a swelling which was very much inflamed and elevated. One week later a similar swelling, and in about the same situation, appeared upon the right forearm. Two weeks afterward a like swelling appeared over the left scapula, and two months subsequently one upon the outer aspect of the right leg. At the end of a week or ten days those upon the left forearm and over the scapula opened and discharged profusely pus of green color, and the discharge from the other swellings was of the same character when they were opened. The abscesses continued to discharge unhealthy pus for two years, and during the last year several spiculæ of bone have appeared in the sinuses, and have been removed by the mother. The first spicule came from the left forearm and was removed about eight months ago; the last one was removed from the sinus in the right forearm about two months ago. (The specimens were exhibited.) All the sinuses are now closed entirely. The left elbow is anchylosed at an angle of from 20° to 30°; motion seems to be perfect in the right elbow-joint.

The case illustrated the fact that accidents other than the transmission of syphilis might occur after vaccination, and, furthermore, that such accidents were not the fault of either physician or patient.

One point of interest with reference to the abscesses was that they occurred mostly on the same side with the vaccination. Another point of interest was that the axillary glands on the left side never suppurated, although they were enlarged for more than a year.

The child is now in comparatively good health. Dr. Watson asked for opinions concerning the cause of the abscesses; at the same time expressing his doubt as to whether the vaccination had any direct relation to the accidents.

DR. BOLDT asked if it had been determined positively that the child received no injury at the point of vaccination after the inoculation was performed.

DR. WATSON answered that the mother told him that on the third day the point where the vaccine matter was inserted was very much swollen and inflamed, that the child's skin was dark-colored, but there was no eruption, and he could not ascertain that the part had been injured. He further remarked that it was proper to state that the same health inspector, although not a medical man, had vaccinated hundreds of other subjects; but whether similar accidents had ever followed or not he could not say, but it was probable that there had not, as he had not heard of a similar case.

DR. BOLDT said that in the latter part of last May a child was vaccinated, and on the eighth or ninth day, at the point of insertion, a swelling began to develop which increased in size for two days, when he was asked by the mother to see the patient. He then found that the child was suffering from erysipelas, and at that time all violent contact with the vaccinated part was positively denied. The erysipelas soon subsided under treatment, but a swelling soon showed itself at the ankle-joint which soon suppurated, and a sinus was formed that extended from the internal malleolus nearly to the toes, and sufficiently deep to allow him to touch the metatarsal bones with a sound. A few days afterward another swelling developed at a short distance above, and from this one a very large quantity of pus was evacuated. A short time subsequently a swelling came near the knee-joint and extended from a little below the joint to the lower third of the thigh, and into this one a drainage-tube was placed. Some time afterward another abscess formed in the body of the gastrocnemius muscle, and a large quantity of pus was evacuated from it.

Dr. Boldt learned finally that, on the day previous to that on which any special redness was noticed at the point of vaccination, the mother left the child with one of her good friends, who allowed it to play about the yard, and that it fell and hurt itself upon the leg and rubbed the scab off somewhat, although not entirely.

Of course the neighbors thought that the abscesses were due to the vaccination, but it was much more probable that they were due to the injury and the erysipelas.

DR. HEINEMAN thought that vaccination might develop some latent tendency to bone disease, and that the question of coincidence should always be borne in mind in all such cases.

THE PRESIDENT remarked that, with the frequent occurrence of symmetrical necrosis, it was probably nothing more than a coincidence in Dr. Watson's case. It was a fact that in this country, as well as elsewhere, there existed a growing anti-vaccination party, and that it included many medical men. Not long since he was interviewed on the subject by the President of the Society for the Prevention of Cruelty to Children, Mr. Henry Bergh, who is also President of the Anti-vaccination Society. Dr. Wyeth thought that vaccination should be encour-

aged whenever the opportunity presented itself, and that the medical profession should sustain its scientific claims.

Dr. W. M. Carpenter directed attention to a fact in his experience, namely, that the local disturbance following the use of bovine virus had been much severer than that after the use of humanized virus. This might increase its liability to develop latent disease, to which Dr. Heineman had referred.

Dr. Messenger, whose experience in vaccination had been large, had not met with any serious accidents except when there was a strong predisposition to some constitutional disease, as struma, etc. He believed that vaccination should be encouraged, most assuredly.

Dr. Watson thought the point made concerning the severity of the local effect produced by animal virus was a good one, and was one that his observations sustained. He also thought it well to state to the parents or the patients that the results were likely to be more severe than if humanized virus had been used.

Dr. J. Lewis Smith presented a specimen of acute nephritis associated with diarrhœa in an infant. The specimen was referred to the Committee on Microscopy.

Dr. Boldt asked Dr. Smith if he placed any connection between the diarrhœa and the nephritis.

Dr. Smith said it might be that the diarrhœa was conservative, as it was sometimes in Bright's disease occurring in adults.

Dr. Boldt referred to the case of a child thirteen months old with intestinal catarrh, which he thought was due to improper diet. On the day previous to its death complete suppression of urine occurred, and the temperature rose until just before death it was 108.2° F. The autopsy revealed acute nephritis.

Dr. F. Ferguson presented a specimen of

PERFORATING ULCER OF THE DUODENUM—PERITONITIS,

removed from the body of a man forty-five years of age, a native of Poland, and a tailor by occupation. He was admitted into New York Hospital on September 2, 1885. But very little history could be obtained from the man, on account of his condition as well as his inability to speak English. He had been sick with pain in his stomach and constipation for one month.

On admission he was found emaciated; no thoracic lesions, abdomen tender and retracted. He died two days after admission. While in the hospital he vomited several times. His heart action was regular but very weak. His temperature ranged between 100° and 105° F.; his pulse 72 to 82; his urine was negative.

There was an ulcer in the duodenum, triangular on the mucous surface of the intestine, with sides half an inch in length; and on the peritoneal surface circular and one-eighth of an inch in diameter. There was intense peritonitis, with a great deal of lymph in the peritoneal cavity. The mucous membrane of the stomach was normal, as also were the other organs.

Dr. Ferguson also presented a specimen of

ULCERATIVE ENDOCARDITIS,

taken from the body of a boy thirteen years of age, and born in the United States, who was admitted into New York Hospital August 10, 1885.

He gave no family or previous history bearing on his case. Some three years previous to present illness he was laid up for two months with indefinite pains in his leg, but no swelling. Three months previous to admission he had been laid up for two or three days with vomiting, but suffered no pain. For the last year he has been short of breath. In the latter part of June he complained of pain and heaviness in the left chest, and his shortness of breath was more marked. While his pain diminished in severity, his breathing became more labored, and he steadily grew weaker.

On admission he was well nourished, but anæmic. There was slight general anasarca. The sternum is prominent. The jugular veins are also unusually prominent. The cardiac area is increased. The apex beat cannot be felt, and there is a distinct epigastric beat. Over the præcordia there is a to-and-fro friction murmur, and palpation reveals a friction thrill. There is a loud blowing murmur heard in the seventh space in the nipple line, and from this location the first sound of the heart is transmitted to the left, and is more marked on inspiration. In the second space, just to the right of the sternum, is a double murmur, the systolic transmitted upward. The pulse is regular and of fair force. The inspiration is everywhere jerky, and there are numerous friction sounds. The liver and splenic areas are slightly increased.

During the first part of his residence in the hospital his case responded well to stimulants; the œdema, especially of his face, disappeared, and at the end of ten days he was allowed to dress and sit in his chair. This apparent improvement soon gave place to distressing dyspnœa and pain in his abdomen. Toward the last of August and the first few days of September he gradually failed. His anasarca became more marked; his heart action more rapid, irregular, and feeble; and his urine more scanty in quantity.

He died on September 5th, with respiration at 110; pulse varying from 120 to 140 per minute.

The amount of urine passed each twenty-four hours while in the hospital varied from ten to twenty ounces, with a specific gravity varying from 1.018 to 1.028, and at times a mere trace of albumen, while at other times there was considerable amount. His temperature was nearly normal during his residence in the hospital. His pulse varied from 100 to 140; his respiration from 40 to 110 per minute.

The heart is the organ of chief interest. The organ is larger than normal. Its cavities are dilated and walls hypertrophied. The mitral valve is greater in its capacity than normal, the segments of the valve are thickened. There is a shred of vegetation attached to one of the cusps of the aortic valve three-quarters of an inch in length and as large as a crow-quill. Just below the aortic valve there is an opening in the septum, circular in shape and nearly one-half inch in diameter. This opening is through one of the segments of the tricuspid valve. On the auricular surface of this valve there are many shreds of vegetations. There are low vegetations on the cusps of the pulmonary valve.

While this may be a congenital defect in the septum, it is more likely the result of an ulcerative process which had its origin in the left ventricle and destroyed the septum. The septum once defective the right ventricle of the heart became involved and presented similar vegetations to those found in the left ventricle. The liver presented the lesion commonly known as nutmeg, the other organs the lesions commonly seen in cases of heart-diseases of long standing.

Dr. J. Lewis Smith thought that the condition of the heart presented by Dr. Ferguson was congenital. In perforation of the ventricular septum there is commonly a preternatural narrowing of the pulmonary orifice; but such narrowing was absent in this specimen.

The Society then went into executive session.

The next meeting will be held September 23d.

G. Bunge, in the *Zeit. Physiol. Chem.*, describes experiments on the form in which iron exists in egg-yelk. He is led to believe that food does not contain iron in inorganic combinations, but that it only exists in complex organic compounds which have been formed by the vital processes. It is absorbed and assimilated in this form, and then converted into hæmoglobin. This is, he is aware, apparently at variance with the observations of practical physicians. The apparent contradiction may, he thinks, be explained by the hypothesis that inorganic iron salts prevent the decomposition of the organic iron compounds in the intestinal canal.

THE MISSISSIPPI VALLEY MEDICAL SOCIETY.

Eleventh Annual Meeting, Held at Evansville, Ind., on September 8, 9, and 10, 1885.

(Condensed from a Special Report to THE MEDICAL RECORD.)

THE opening session was consumed in listening to the reports of committees and officers.

THE SECRETARY said that, judging from the letters received by him, there seemed to be a misapprehension on the part of members and others as to the nature and objects of the organization. It was not a legislative body, had no constitution and by-laws, and had nothing whatever to do with questions of ethics. He recommended that a sketch of the Society be prepared, setting forth its aims, and published in one of the medical journals.

The first paper was by DR J. E. LUTCLIFF, of Indianapolis, on

PERINEAL SECTION WITHOUT A GUIDE FOR URETHRAL STRICTURE.

The discussion of the paper was chiefly upon the question of the existence or non-existence of impermeable stricture, the majority of the speakers expressing their belief that impassable strictures were sometimes to be met with.

DR. G. B. WALKER, of Evansville, Ind., presented a communication on "Puerperal Fever and Puerperal Septicæmia." He did not favor antiseptic vaginal injections either before or after labor. The general opinion expressed in the ensuing discussion was that there was no real difference between puerperal and surgical septicæmia, and that strict surgical cleanliness was absolutely necessary. The preference among antiseptics was given to bichloride of mercury.

The next paper (see page 342) read was by DR. E. S. MCKEE, of Cincinnati, upon

INTRACRANIAL CEPHALHÆMATOMA.

DR. LOUIS BAUER, of St. Louis, presented a paper upon

THE COCAINE HABIT.

He related the case of a man who used alcohol to excess, to whom was given hydrochlorate of cocaine hypodermatically for the relief of the inordinate thirst from which he suffered. The patient obtained the drug, and began to use it on himself, commencing with one-fifth of a grain and increasing to ten grains, hypodermatically, and he now has the cocaine habit, but has an aversion to alcohol. The speaker thought that, of the two evils, the cocaine habit was to be preferred.

DR. J. H. LETCHER, of Henderson, Ky., then read an article on

CATGUT LIGATURES,

in which he expressed his preference for this kind of ligature. The majority of those who discussed the question, however, were strongly opposed to catgut.

DR. J. C. PEARSON, of Mitchell, Ind., followed with a communication entitled the "Pathological Changes in Dysentery."

After this the

PRESIDENT'S ADDRESS

was delivered by DR. F. W. BEARD, of Vincennes, Ind. The speaker sketched briefly the history of medicine in Indiana, dwelling especially upon that of Vincennes, an old French post, about which there were many points of interest. He then gave an account of the formation and growth of the Mississippi Valley Medical Society.

Short addresses were also made by Drs. Porter, Letcher, Eastman, and Burton, the speakers insisting upon the necessity of more work being done, and calling upon the members to exert themselves and to prepare interesting and original papers for presentation to the Society.

The scientific labors of the meeting were then resumed by Dr. A. C. BERNAYS, of St. Louis, who read a paper on

CHOLECYSTOTOMY.

The speaker reported a case, exhibiting specimens of the gall-stones removed, and described his method of operating.

DR. L. D. BROSE reported a case of "Fracture of the Skull" in a young child. The patient had now grown up to boyhood, and was presented to the members. A considerable portion of one parietal bone, where the fracture had occurred, was missing. This led to some discussion upon trephining of the skull, and the indications for its performance.

DR. EDWARD BORCK, of St. Louis, then read a paper (see page 344) entitled

REMARKS ON ABDOMINAL SURGERY, WITH CASES.

The general opinion of those who discussed the paper was in favor of an early operation.

DR. WM. BYRD, of Quincy, Ill., presented a communication on "Tetanus," in which he recommended treatment by Fowler's solution in doses of twenty drops every two hours.

Other papers were then read by Dr. G. V. Wallen, of Indianapolis, on "Nasal Stenosis;" by Dr. Wm. Porter, of St. Louis, on "Some Errors in Physical Diagnosis;" by Dr. A. Dixon, of Henderson, Ky., on "Progress in Medicine," and by Dr. A. Sawyer, of Hillsboro, Ill., on "The Relation of Mind to Matter."

The following officers were elected:

President—Dr. A. Dixon, of Henderson, Ky.

First Vice-President—Dr. G. W. Burton, of Mitchell, Ind.

Second Vice-President—Dr. T. D. Washburn, of Hillsboro, Ill.

Third Vice-President—Dr. Wm. Cheatham, of Louisville, Ky.

Secretary—Dr. H. J. B. Wright, of Olney, Ill.

The Society was then adjourned to meet in Quincy, Ill., on the second Tuesday in July, 1886.

THE SURGICAL SOCIETY OF PARIS.

Stated Meeting, June 3, 1885.

M. HORTELOUP, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

M. GILLETTE reported a number of cases of

INTESTINAL OBSTRUCTION FROM BILIARY CALCULI.

One case in particular was that of a woman, sixty years of age, having a right femoral hernia, who presented, however, all the symptoms of an internal strangulation of the intestines. After three days, during which an expectant plan of treatment was followed, the patient obtained relief by the expulsion from the rectum of about twenty-five biliary calculi. In referring to a similar case, reported at the preceding meeting of the Society by M. Cruveilhier, the speaker regretted that laparotomy had not been performed, as he thought the patient's life might thereby have been saved.

M. CRUVEILHIER replied that his case was one of

OBSTRUCTION FROM A SINGLE LARGE CALCULUS.

The patient was seen by three hospital surgeons, but none of them was able to make a positive diagnosis. A simple laparotomy would not have sufficed, as the gall-bladder was found, at the autopsy, to contain a large stone, whose presence had excited inflammation and would have soon led to rupture.

M. Farabœuf then read a paper on certain peculiarities in the

ANATOMY OF THE SCAPULO-HUMERAL ARTICULATION,

and the surgical deductions to be drawn therefrom. The speaker referred particularly to the anterior and superior ligaments, and to the mechanism of subtricipital luxations. The anterior ligaments, leaving out of consideration the capsular and the subscapular tendon, were chiefly two, which might be designated, in respect to their points of origin and insertion, as the supraglenoprehumeral and the pregleno-subhumeral. These ligaments may be readily seen when the articulation is opened from behind. Their bony attachments are so strong that, when strained, they may cause a fracture of the neck of the scapula. This fracture may be produced in the cadaver by a violent blow on the shoulder from behind forward, while the humerus is in a position of outward rotation. The reduction of

SUBCORACOID DISLOCATION,

after Kocher's method, is explained by the fact that outward rotation of the arm, after it has been approximated to the chest, causes a relaxation of the posterior ligaments which have been put upon the stretch by the anterior displacement of the head of the humerus. In

SUBTRICIPITAL LUXATION

the head of the bone escapes under the circumflex nerve and passes beneath the tricipital tendon.

M. Verneuil related a case of

ENCHONDROMA OF THE UPPER JAW.

The specimen was interesting from the fact that the tumor enclosed a small central sequestrum.

M. Polaillon then presented a report upon a communication of M. Féré, of Meaux, entitled

THE NATURE AND ETIOLOGY OF URETHRAL FEVER.

The author believed that the febrile attacks following operations upon the urinary organs were, in the majority of instances at least, merely relapses of intermittent fever excited by traumatism. He cited several cases in which operations of circumcision, internal urethrotomy, and even simple catheterization, practised upon individuals who had previously had malarial fever, were followed by chills recurring sometimes for several days at regular intervals. These attacks were controlled by quinine. Another patient, in poor general condition, but free from any malarial poisoning, had no chill or elevation of temperature after internal urethrotomy. The reporter agreed fully with the writer of the paper as regards the nature of so-called urinary fever.

M. Marc Sée maintained that urethral fever was a distinct affection, and that she cases cited by M. Féré were exceptional.

M. Verneuil had several times remarked upon the difficulty of diagnosis between a relapse of intermittent fever and true urinary fever. In the latter case, however, the urine frequently contained pus; there was pain over the kidneys, and there was less regularity in the intermissions than in malarial fever. It was not a matter of supreme importance, however, to make a diagnosis in every case, since both conditions were readily controlled by quinine.

M. Féré presented another communication upon the

SUBSTITUTION OF FUNCTION OF THE MEDIAN NERVE BY THE ULNAR.

The case was one of injury to the elbow, leading to destruction of a portion of the median nerve. Sensation and motion were in time restored to the parts supplied by this nerve. But while electrization of the median nerve caused no contraction, that of the ulnar was followed by movements of the muscles normally supplied by the median.

M. Berthand exhibited a patient upon whom M. Le Dentu had performed

NEPHRECTOMY

two months previously. The operation was for the removal of a large calculus. The wound had closed firmly, without any fistula.

M. Lagrange reported a case of

THYROIDECTOMY.

The patient was a woman, twenty-two years of age. The operation was performed after Julliard's method. In order to prevent the retention of the discharge in the retrosternal pouch, the operator secured the aponeurotic attachment of the tumor to the lower part of the incision in such a way as to facilitate the flowing away of the fluid. The patient had entirely recovered at the end of three weeks.

The Society then adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE NEW PHARMACOPŒIA—ITS MERITS AND DEMERITS—AND THE CHANGES THEREIN—PREPARATIONS MADE TO CORRESPOND WITH THOSE IN THE UNITED STATES PHARMACOPŒIA.

London, September 4, 1885.

The new edition of the British Pharmacopœia has appeared within the last few days. The alterations and additions are, as expected, very numerous. The omissions are less noteworthy and are only twenty-two in number. Among the articles omitted are iodide of cadmium, iodide of iron (*not* its syrup, which still remains), enema tabace (though tobacco itself remains), magnetic oxide of iron and the moist peroxide, green iodide of mercury, liquor atropiæ (liq. atrop. sulph. remains and is consequently to be henceforth used always instead of the other), and acetate of soda. The list of omissions might have been extended with advantage. The medical student of the future will think so at any rate, seeing how numerous the additions are. Arnica, chirata, cusparia, elemi, galbanum, hemidesmus, laricis cortex, lobelia, mezereon, mori succus, pyrethrum, sambuci flores, and many others of little therapeutic value and infrequent employment, retain their place. Extract and tincture of conium remain, though most physicians now use the succus.

The additions are too numerous to enumerate. They number one hundred and fourteen. Amongst them are of course boric, chromic, hydrobromic, and salicylic acids; coca, its hydrochlorate, and lamellæ of the same; several new salts of soda, or sodium, as we are now to term them; ergotine; jaborandi and its alkaloid; a liquor ferri acetatis (two strengths of this) and a liquor ferri dialysatus, the latter being considerably stripped of its glory, as we are informed that "this solution of dialysed iron, so called, is a solution of highly basic ferric oxychloride or chloroxide of iron, from which most of the acidulous matter has been removed by dialysis." Menthol, thymol, eucalyptus, iodoform, nitro-glycerine (in the form of chocolate tablets termed *tabellæ*), oleates, sulphocarbolate of sodium, salicine, gelsemium, apomorphine, and lodeina are all in their respective places, and there are useful preparations of many of them. We also welcome chrysarobinum (Goa powder), oleic acid, cascara sagrada, paraffinum, durum et molle, caffeina, aloin, morphinæ sulphas, and liquor sodii ethylatis. Most of us, I think, will feel very doubtful as to the advantage of adding meconic acid, iodide of arsenic, frangula bark, calx sulphurata (sulphide of calcium), and some others. As to the last named preparation I fancy few therapeutists outside the school of Ringer have much faith in its value to check suppuration.

We look in vain for picrotoxine, bisulphate of quinine (soluble sulphate), sodium nitrite, kaolin (as an excipient), pancreatin, or any new salts of lithium. It is some consolation to find the physical characters of lithium citrate now correctly given for the first time. It is no longer erroneously described as amorphous and deliquescent. For this and other pharmaceutical emendations we have doubtless to thank the distinguished pharmacists who have taken part in the preparation of this edition. More careful directions are given for making many of the preparations, and the strength of many of the Galenical ones is regulated by passing the solid ingredients through sieves having meshes of specified degrees of fineness varying in different cases.

The nomenclature has in many instances undergone revision. Thus, we no longer read sodæ carbonas, but sodii carbonas, and so throughout. The affix of the alkaloids is now made *-ina* uniformly, *e.g.*, quinina. This may be all right, but vapor coninæ reads rather oddly. arnicæ radix is now arnicæ rhizoma; similarly with several others, rhizome has replaced radix. Physostigmatis semea is a doubtful improvement on physostigmatis faba. Why not semina? We find colchica semina. Spelling has not escaped the attention of the editors. Assafœtida drops one s, and ecbalium doubles its l.

The strength of many preparations has been altered—mostly in the direction of increase. Among those which have their strength increased are liquor iodi, liquor arsenicalis, tincturæ quininæ, and injectio morphinæ hypodermica. The first three of these are increased in strength about eleven per cent.—the dose remaining unaltered. The morphina solution is increased *twenty per cent.;* the minimum dose remains one minim, the maximum being placed at five instead of six minims. Oleum phosphoratum is increased in strength *thirty-three per cent.*, the maximum dose being unaltered, while the minimum dose advances from three to five minims. The alterations in the last two preparations are likely to lead to inconvenience, and, in that of the morphina solution, also danger. It is to be regretted that the strength of aqua lauro-cerasi and infusum digitalis, respectively, should not have been reduced so as to make the doses the same as those of the other waters and infusions. Their dosage remains exceptional, as before. So does the strength and dosage of the following tinctures: Tr. cantharidis, tr. capsici, tr. cannabis indica. The maximum dose which may be given of tr. camph. co. is still placed at a drachm, which is also the maximum limit assigned to vinum antimoniale, though when used as an emetic, the latter may be given in larger doses. Under vinum ipecacuanhæ the ordinary and the emetic doses are both stated. I am sorry to see the same is done under sulphate of copper, an emetic which is discountenanced by most toxicologists on account of its poisonous properties if it is retained and emesis not produced. Lastly, it is what a schoolboy would call "a burning shame" that the dose of tinctura aconiti should continue to be officially stated as "five to fifteen minims." Every third-year's student knows better than this—nay, most first-year's men do.

Some of the alterations I have mentioned, although likely to be inconvenient for a time, have, however, one great claim to favorable notice, viz., that thereby some of the preparations are made to correspond in strength with similar ones in the United States Pharmacopœia. It is to be regretted that more has not been done in this direction, especially as the projected International Pharmacopœia is still in the clouds. The United States Pharmacopœia is, too, one which should have especial claims upon British physicians, being that of a nation speaking the same language and having many laws and customs in common—a nation, in fact, belonging to the same Anglo-Saxon race equally with ourselves.

The new terminology of the alkaloids corresponds with that in the United States Pharmacopœia. So does the designation of soda-salts, as sodii sulphas, etc. The latter alteration also has chemical usage to commend it to us. Tinctura quininæ now corresponds exactly with that of the United States Pharmacopœia both in strength and composition, being now made with the hydrochlorate of quinine instead of with the sulphate. Oleum phosphoratum is now made of the same strength as the United States preparation, and liquor arsenicalis is made to approximate very closely in composition to its American representative. Liquor iodi now contains the same amount of iodine—five per cent.—as the United States solution, but a different proportion of iodide of potassium. I may remark, in passing, that several of the preparations now contain so much "per cent." of the chief ingredients instead of, as before, an odd amount. One preparation (pulvis glycyrrhizæ compositus) is now made to conform in composition to that of its fellow in the Prussian Pharmacopœia.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE CHOLERA QUESTION—TRANSPLANTATION OF EYE—DEATH OF DR. LUNIER.

PARIS, September 11, 1885.

As cholera is naturally occupying the attention of the public, both in and out of the profession, I shall lay before your readers a discussion that took place at the annual meeting of the Association Française for the Advancement of Sciences, at which Dr. Bouchard questioned the correctness of the principles emitted by Professor Koch respecting the etiology of the disease. The following is a summary of Dr. Bouchard's communication: 1. According to Professor Koch cholera is an infectious malady of which the comma-bacillus is the pathogenic agent. 2. The intestinal cavity is the exclusive habitat of this bacillus. 3. This bacillus does not penetrate into the blood nor into the lymph, and as it does not enter the tissues, it cannot produce the general accidents of cholera by means of intoxication; the presumption therefore is that it secretes in the intestinal cavity a virulent substance which, absorbed at the surface of the intestine, determines the poisoning of the entire organism. Dr. Bouchard gives the results of his experiments which he had performed with iodoform, naphthaline, to destroy the comma bacillus of cholera and the micro-organisms of typhoid fever, of which the following are the conclusions: 1. Analogy leads one to think that cholera is an infectious malady, resulting from a microbe. 2. The pathogenic microbe, whatever it may be, produces or incites the human organism to produce a morbid poison ("poison-cholérique"). 3. To this special intoxication is soon added another intoxication by a normal poison ("poison-urénique"). 4. The pathogenic agent of cholera cannot occupy exclusively the intestinal cavity. 6. The comma-bacillus is not the productive agent of the choleraic poison.

In looking over these conclusions it will be admitted that neither one nor the other of these distinguished physicians has thrown much light on the etiology or nature of the disease, except that they both agree that it is due to a microbe; but, what the microbe is or what part it plays in the pathology of cholera, is as obscure as ever.

In my letter, which was published in THE RECORD of July 4th, I gave an account of the transplantation of the eye of a rabbit to replace the eye of a young girl, which had been removed to prevent sympathetic inflammation of the other. Dr. Chibret, of Clermont-Ferrand, who operated, promised further details of the case to the Paris Academy of Medicine, but I have not seen that he has done so. I find, however, some interesting observations on the case in the *Revue Générale d' Ophthalmologie*, in which the writer questioned the propriety of the operation, remarking that to transplant an organ is not an

operation impossible, but to make the transplanted organ live; that is, to place it in a condition that it may contract vascular and nervous connections with the cruentous tissues to which it was adapted, is quite another question, that is, whether the transplanted organ will ever be in a condition to perform the physiological functions required of it. As far as the eye is concerned, Dr. Chibret has precisely resolved the question in the negative. The writer further states that on the fifteenth day of Dr. Chibret's operation, the cornea was completely destroyed.

This result, however, does not discourage the operator, who attributed this destruction to the pressure of the thread used for the sutures and to the thinness of the cornea of the rabbit's eye, and Dr. Chibret is hopeful that he will yet succeed, not only in getting the transplanted eye to live in its new position, but to re-establish the function of vision in this transplanted eye. Dr. Fano, commenting on this subject in his *Journal d'Oculistique*, makes the following sensible remarks: "We shall remind those who may be tempted to perform this operation, that the introduction into the eye of an organic mass destined to undergo mortification in a very short time, will expose the patient to the risks of putrid infection."

Dr. Lunier, the well known Alienist, died on the 5th inst., from an attack of pneumonia which he contracted a few days before, while out shooting. Dr. Lunier was sixty-three years of age. He took his degree in 1849, and after having been physician to lunatic asylums in the Provinces, he was appointed, in 1864, Inspector-General of the Lunatic Asylums and Prisons throughout the country. He was a member of the Academy of Medicine, and officer of the Legion of Honor. He edited the "Annales Medico-Psychologiques," and was the author of several works on mental pathology, among the most important of which may be cited: "Studies on Mental Maladies," "On the Progressive Increase in the Number of Lunatics," "The Part Played by Alcoholic Drinks in the Increase in the Number of Cases of Insanity and Suicide."

He was the founder of the French Temperance Society, in which cause he took a very active part. I may here mention that the members of the French Temperance Society are not pledged as they are in England and America. Dr. Lunier did not approve of the oath, as he considered that if a person required such a measure to keep him from drinking, his self-restraint could not be worth much. He never approved of teetotalism, as he thought that from the exhaustion caused by the exigencies of a civilized life, some stimulant would be more or less daily required, whether in the form of wine or anything else. At the temperance meetings he always endeavored to impress on his hearers that it was not the moderate use of wine that should be contemned, but its abuse. Dr. Lunier's death, in this cause at least, will be a great loss, and he will be universally regretted in and out of the profession.

The remains of Dr. Thuillier, member of the French Cholera commission to Egypt, where he fell a victim to the disease in 1883, have been brought to France at the expense of the State, and on arriving at Marseilles they were immediately conveyed to Amiens for interment. On the day of the funeral the public monument raised to the memory of the lamented deceased, will be officially inaugurated.

MALARIAL ALBUMINURIA.

To the Editor of The Medical Record.

Sir: By the very title of my paper on "Some of the more Uncommon Symptoms and Complications of Malaria," printed in The Medical Record of September 12th, Dr. Nelson will see that I do not wish to put forward as novel what is simply unusual, but have endeavored to add my share to interesting clinical material.

Dr. Thompson's paper on "Temporary Albuminuria caused by Malaria," which, I am very sorry to say, escaped my notice, does not cover the ground as to renal disease in malaria, for temporary albuminuria is not equivalent to nephritis.

With reference to the cases of bronchial trouble, which I designated "Apneumatosis" in malarial subjects, my explanation is based on mechanical principles, readily understood, and perhaps more satisfactory than Dr. Nelson's internal determination.

Respectfully yours,

L. Weber, M.D.

25 West Forty-Sixth Street.

"A MEDICAL VIEW OF ARMY MORALS."

To the Editor of The Medical Record.

Sir: If not taking up too much space in your columns, I should like to add something to my article of July 11th on the above subject.

I was stimulated to write the article named, not alone by the extract from *Col. Med. Journ.*, but also from the fact that carelessness among army surgeons, either in field or hospital, gave to not a few soldiers of the Rebellion a "syphilitic record," when they were entitled to no such honor. While the medical department was composed largely of men of ability, many regiments enlisted in 1863–64 were provided with very inferior men as surgeons. Especially is this true of Western regiments. To the incompetency of the latter are due many of the mistakes in diagnosis. Place a soldier in the hospital with any form of eruption of the skin, and he was in danger of acquiring a syphilitic record. Even "itch" has been so characterized; gonorrhœa and syphilis were notoriously confounded.

There are soldiers debarred from pensions by this same "hospital record," in whom we can find no evidence of "constitutional syphilis," and whose history points out the fact that gonorrhœa was the disease, if a venereal disease occurred. "Private A—— contracts gonorrhœa at L., August, 1862. Is in hospital for treatment. Has iritis in March, 1865. Discharged, April, 1865. Vision destroyed, August, 1866. Applies for pension, and is debarred by record, the inference being 'syphilitic iritis.'" "Give a dog a bad name," etc.

Medicus says it were "better to divest such questions of sentiment." So do I, but sometimes sentiment and fact are hard to separate. The error begun in the army is still continued. Physicians make certificates of treatment for syphilis, who, if upon the witness-stand, could produce very little evidence of having treated anything of the kind.

The word "specific" is used, as the word malaria or the one-time "sick liver," simply as a cloak to cover our ignorance. In the case above, an iritis following after an attack of syphilis is presumptively "specific." But it requires something more than sharpened teeth in children to show that the parents ate grapes; and other evidence than iritis is necessary to show its syphilitic origin. Neither should we jump at another conclusion and say "gonorrhœal ophthalmia."

In my article referred to, reference was had simply to "soldiers of the rebellion," not to soldiers of other countries, nor to soldiers of America other than the ones specified. The chances for syphilitic infection among our soldiers "on the plains," taken in connection with the comparatively few now in the army, should not be taken as evidence in the question at all, the opportunities for the gratification of the sexual appetite being much greater in the latter than in the former.

Medicus includes my "five presumptive cases" with the one positive case. That would be called presumption in a mild degree, on his part. In none of the five cases mentioned was the evidence stronger than in "Private A——," and in three of the cases the evidence was altogether subjective.

Taking the statistics as given by Medicus, "twelve soldiers per thousand," who will say that any physician

is warranted in applying the word "specific" to *all* scrofulous children "whose fathers had been in the army?" Apply it in the same ratio to the children of the clergy!

As to the moral responsibility, there is no difference in the fact that one soldier had gonorrhœa and another syphilis. But it is a very important point to decide, when confronted with diseases of the lungs, throat, skin, eyes, and spinal cord, etc., in soldiers who have obtained a "syphilitic record." G. T. M.

THE DUTY OF THE CONSULTING TO THE ATTENDING PHYSICIAN.

To the Editor of The Medical Record.

Sir: A recent experience impresses me with the necessity of opening a discussion that may lead to the correction of an evil connected with consultations, fortunately not very frequent, yet common enough to demand attention.

A case happening some time ago, and the recent one alluded to above as occurring lately, will illustrate one point of the subject.

In the first case I am free to say there was a careless blunder on my part. It was a patient on whom the chills of laryngeal phthisis were mistaken for those of malarial fever. The throat symptoms led to my requesting the services of another physician to make a laryngoscopic examination. The result was the discovery of the tell-tale ulceration. I did now what I should have done before—went over my case carefully and found plain enough evidence of the disease. The consulting physician, who, with my consent, was to attend to the treatment of the throat, evidently took no especial pains to excuse my error of diagnosis. At any rate he was retained, and I left.

The recent affair is quite different, for no fault can be found with me in this case.

A primipara, after a long first stage of labor, had fairly entered on the second stage. About twenty-four hours had elapsed from the start, and during the last twelve hours the excitement of the friends, with which we are all so familiar in cases of tedious labor, had reached such a height that my efforts to suppress it were unavailing, and I was requested to call some one in consultation, notwithstanding my assurance that it was unnecessary. Previously I had made arrangements with a nearby physician to hold himself in readiness to assist me when required; had provided myself with chloroform, and made complete arrangements to apply the forceps if they were indicated.

Still, it was insisted upon that some prominent obstetrician should be summoned. My evil genius, I suppose, brought the name of one who enjoys a good reputation, and a messenger dispatched to him soon procured his attendance. I explained to him that the case was one of ordinary tedious labor, and that I had asked him in only to allay the apprehensions of the family as to the safety of the patient. As the pains, in the meanwhile, had become weaker, and I had myself concluded it would be permissible to apply the forceps, the doctor's offer to use the instruments was accepted by me and the woman was delivered, but with a perineal tear nearly to the sphincter. I had met with a similar misfortune myself in several cases lately, and for this reason had delayed instrumental interference as long as possible.

Although my services were continued until convalescence of the patient, when my bill was sent in I was informed that I "had allowed Mrs. —— to suffer for three days, when the case was put in another physician's hands, who saved the life of the mother and child."

I afterward learned that the consulting physician, when spoken to by the family in reference to my supposed mismanagement, made a show of defending me, but it seems that he "damned me with faint praise" so effectually that I found myself dismissed, and him in my place prescribing for the patient.

In the phthisis case there is but little doubt that the influence of the doctor exerted in my favor would have retained me in the family.

The questions are: Was it his duty to have used his influence in this way? Should he have retained the case, coming into his possession in the way it did?

As regards the other case, no one will deny that I was treated—to use the mildest term—unfairly. If the *truth* had been properly stated to the family by the doctor, it would have prevented all the unpleasant after-consequences.

These cases are samples of what every physician in general practice occasionally meets. One doctor in this city, often called in consultation, has a habit of remarking to the friends, that "if he had been called before there might be a chance," and this habit, I know, very seriously curtails his consultation practice.

What remedy have we? I suggest that we pass around the names of such offenders. If they do not care for honor, perhaps they may for money. Justice.

New Instruments.

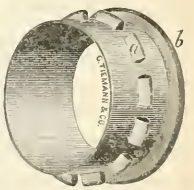
A NEW DEPARTURE IN CIRCUMCISION.

By J. W. ROSS, M.D.,

Surgeon U. S. Navy.

Circumcision, as I have seen it and taken part in it during the past sixteen years, whether performed with or without clamps, etc., has seemed to me altogether too formidable for an operation of its size, requiring a general anæsthetic, tedious, slippery, bloody, inexact, inelegant. Wishing to do away with some, at least, of these opprobria and relegate circumcision to the insignificance it deserves, thereby leading to its much more frequent performance, I have devised the little instrument figured below.

It is a light, flat ring of hard rubber, with two ridges upon its outer surface, the posterior one, *b*, continuous, the anterior one, *a*, interrupted or notched. It is to encircle the penis in the *cul-de-sac* under the prepuce, the latter being drawn forward over the instrument and compressed against it, in the groove between the two ridges, by a small cord wound round its integumentary surface. The foreskin is then to be severed just in front of the anterior or notched ridge by a circular sweep of the knife, the angle formed by the ridge and the horizontal surface serving as a director. The notches in the anterior ridge are to facilitate introduction of the sutures.



The instrument has recently been used upon a patient of Dr. Sidney A. Fox, Surgeon of the Brooklyn Elevated Railway, and proved highly satisfactory to both patient and surgeon. From this operation and some experiments, the following details and suggestions are thought valuable:

Anæsthetize the parts as thoroughly as possible with cocaine solution, push the ring over the glans and place it so that the posterior ridge, *b*, be well behind the corona glandis, and the anterior ridge, *a*, almost directly over it. It is advisable that the ring be of such a size as to require some little force in order to pull the glans into it. There is no danger of strangulation as the instrument is too broad to slip entirely behind the glans. The cut represents the exact size of the one used, which will answer for almost any adult penis, the prepuce being generally very dilatable and the glans compressible. When phimosis exists, the edge of the prepuce may be nicked at non-vascular points sufficiently to allow the subsequent steps of the operation. It is better not to use any lubricant, as it is unnecessary and makes the organ and in-

strument difficult to manage. Get all the tissue you wish to remove in front of the anterior ridge and then winding a small, soft, strong, inelastic cord pretty tightly twice around the foreskin directly upon the groove between the two ridges, tie its ends upon the dorsum with a double surgeon's knot. A piece of loosely-twisted, ordinary white cotton wrapping-twine, about the size of a D violin string, was used by us and found to answer perfectly.

It proved unnecessary to draw the cord as tightly as had been intended. There being no tension upon the prepuce, it has no disposition to retract, and the cord need only be tight enough to prevent hemorrhage. Should it be too tight, it might lead to subsequent sloughing. Should it be desired to make the operation absolutely painless, local anæsthesia of the skin at the proposed line of incision may be produced with ether or rhigalene spray. Circular excision of the prepuce immediately anterior to the notched ridge should be made with a very sharp knife or razor, dividing skin and mucous membrane down to the hard rubber at one sweep. While this is being done the operator should hold the penis in his left hand, the posterior portion of the instrument between the left thumb and forefinger, while the patient, or some other assistant, makes slight traction upon the free edge of the prepuce. The tough movable tissues are disposed to roll away from the knife.

Apply cocaine freely to the cut edges and introduce plenty of fine sutures with a small curved needle entered at the bottom of the notch upon the mucous surface and brought out on the surface of the skin. The introduction of each suture was considerably expedited by picking up the edge of the mucous membrane with a slender pair of toothed forceps. After the sutures are all tied, the constricting cord may be tentatively relaxed, to be retightened upon appearance of any hemorrhage. In the case operated upon, although the prepuce was abnormally vascular, and the instrument removed very soon after tying the sutures, the hemorrhage was practically nil then and afterward. This was due to the compression, the astringency of the cocaine, non-separation of the cut mucous and integumentary edges, number of sutures, non-division of the frænum and its artery, and the fact that all the vessels were cut at an equal distance from the free edge of the foreskin. It is obvious that, with the instrument under consideration, it would be impossible to divide the frænum, as this is pushed out of the way of the knife entirely.

If, at the proper stage of the operation, it be deemed advisable to tie or twist any of the divided vessels, the instrument would greatly facilitate doing so by the support and control it furnishes. The instrument was not removed from its original position until the completion of the operation. Should there be danger of hemorrhage, it might be left *in situ* almost indefinitely after the cord is removed. I would advise against much haste in removing the sutures. They had better be left in for three or four days lest separation take place during the troublesome erections, which occur so commonly after circumcision. After the operation a cold one per cent. solution of carbolic acid was kept applied to the penis on lint.

A few weeks after the operation, except for a delicate red streak at the line of incision, the penis looked as though it had never sported a prepuce, as though the circumcision had been congenital. There were no angles, tags, flaps, or lumps (as are almost invariably found after circumcisions where the prepuce has been dragged forward and divided in front of the glans), because the skin and mucous membrane, while in their natural relative position, had been divided evenly and circularly along the line of the corona glandis, and had never been allowed to separate. Leaving the operator out of the question, such a consummation is very gratifying to the patient. The average man is not quite, but almost as solicitous about the appearance of his penis as about that of his nose.

Professor Otis saw our patient a month after the operation, and made a very complimentary memorandum of the appearance of the penis as well as a sketch of the circumcision ring.

Two of these instruments, one for adults, the other for children, would probably be all that the general surgeon would require. For exceptional cases special-sized ones could be procured, as Messrs. Tiemann & Co. propose to make them quite inexpensive.

Dr. Fox's record of the case referred to above.—"May 22, 1885, circumcised a patient with redundant prepuce, using instrument devised by Surgeon J. W. Ross, U. S. Navy.

"No general anæsthetic was used, but a four-per cent. solution of cocaine hydrochlorate was applied to the prepuce and glans. There was slight pain upon dividing the skin, but none in the mucous membrane, or during the introduction of the sutures. The patient sat up in a chair throughout the operation, and rendered valuable assistance. There was virtually no hemorrhage, only a few drops of blood escaping upon loosening the compressing cord. No ligature, torsion, or styptic, was used or required during or after the operation. The sutures were removed in exactly forty-eight hours after the operation, the patient having been scarcely confined to his bed, and union was perfect, having taken place by first intention. After experience and observation in this operation while House Surgeon in Charity Hospital, New York, and in private practice since, I would point out the following advantages of Ross' operation over all others with which I am acquainted: Its ease, neatness, bloodlessness, requiring no general anæsthetic, ligature, or styptic; no necessity for any assistant except the patient; speedy union, and perfect result.

"SIDNEY A. FOX, M.D.

"410 VANDERBILT AVENUE, BROOKLYN, N. Y."

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from September 13, 1885, to September 19, 1885.

CAMPBELL, JOHN, Colonel and Surgeon. Retired from active service, September 16, 1885. S. O. 212, A. G. O., September 16, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 19, 1885.

MURRAY, J. M., Passed Assistant Surgeon. Resignation accepted, to take effect January 1, 1886.

ROSS, J. W., Surgeon. To special duty at New York.

ERUPTION FROM ANTIPYRINE.—Dr. J. Henry Fruitnight, of this city, writes: "In the report of the proceedings of the Practitioners' Society of New York, which appeared in the issue of THE MEDICAL RECORD dated September 5, 1885, Dr. A. A. Smith is stated to have asked the members present whether they had observed cutaneous eruptions after the administration of antipyrine. Dr. Ball responded in the affirmative. It is my desire to add my testimony corroborating the observations of Dr. Smith. It is my impression that I was among the very first in this city to make use of this drug. The results of my observations upon the action of the remedy were communicated by me to the members of the Northwestern Medical and Surgical Society of this city at the meeting held October 15, 1884. I quote from that Society's book of records as follows: 'Antipyrine was administered to two patients afflicted with acute phthisis. In one case a fine papular, itchy eruption showed itself, similar to that which sometimes appears in persons taking quinine, and which disappeared when the medicine was discontinued. In both cases perspiration was very profuse, just as Dr. Smith had observed in his cases.'"

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 14 NEW YORK, OCTOBER 3, 1885 Whole No. 778

Original Articles.

ADDRESS TO THE NEW YORK ACADEMY OF MEDICINE.[1]

BY A. JACOBI, M.D.,

PRESIDENT OF THE ACADEMY.

FELLOWS OF THE NEW YORK ACADEMY OF MEDICINE: It is a source of intense gratification to me to greet you this evening in the beginning of a new season of co-operative work, after a long vacation. May the labor of the coming months be successful, both for ourselves and for the medical world. *Ars longa, vita brevis.* Art is so extensive, indeed, and life so short, that we have to concentrate all our efforts to accomplish a certain amount of result.

In behalf of our common interests I crave your attention, first, for a few facts which I consider of great importance in regard to medical progress. They are connected with the session of the International Congress held in Copenhagen, from August 10 to 16, 1884. In a general meeting held on August 14th, upon propositions made by Sir James Paget, of London, Professor Ewald, of Berlin, Professor Bouchard, of Paris, and Dr. Billings, of Washington, the following resolution was passed: That an International Committee be formed for the Collective Investigation of Disease, in connection with the work of the International Congress, and that a certain number of gentlemen do represent their respective countries thereon. The gentlemen designated for that purpose were Trier and C. Lange, of Copenhagen; E. Bull, of Christiania; Rauchfuss, of St. Petersburg; Ewald and Bernhardt, of Berlin; Schnitzler, of Vienna; Pribram, of Prague; Koranyi, of Buda-Pesth; D'Espine, of Geneva; Bouchard, of Paris; Lepine, of Lyon, Sir William Gull and Mahomed, of London; Humphry, of Cambridge; Sir Joseph Fayrer, for British India; Gutierrez-Ponce, for South America; N. S. Davis, of Chicago; A. Jacobi, of New York; and Isambard Owen, Secretary-General, of London. The only changes which have since taken place in the list of membership have been brought about by the untimely death of Dr. Mahomed, and the addition of Axel Key, of Stockholm, and Runeberg, of Dorpat.

According to a circular distributed by the Secretary-General some time ago, the main objects which the Committee seeks to attain through the Collective Investigation of Disease are to widen the basis of medical science, to gather and store the mass of information that at present goes to waste, to verify or correct existing opinions, to discover laws where now only irregularity is perceived, to amplify our knowledge of rare affections, and to ascertain such points as the geographical distribution of diseases and their modifications in different districts. It will be its endeavor to place clearly before the whole profession the limits and defects of existing knowledge, as well as to stimulate observation, and to give it a definite direction. It will be a not unimportant incidental result of its work should it tend, as is hoped, to the better training of the members of the profession in habits of scientific and practical observation, and in systematic methods of recording the facts which they observe.

The age in which we live has seen enormous advances in the sciences on which the fabric of medicine rests, such as chemistry and other branches of physics, physiology, and pathology. Each of these has taken giant strides. It must be admitted, however, that purely medical knowledge has scarcely made proportionate progress. It cannot be expected that it should do so, as it deals with the aberrations of the most complex of organisms, is of all sciences the most difficult, and demands the greatest patience and the largest accumulation of data.

Hitherto the advancement of medical science has been brought about mainly by individual effort. The value of such work in the past we in no way underrate, nor do we desire to lessen the amount of it in the future; but in medical science there is much that defies interpretation from individual experience, and many problems so far-reaching in an ever-widening field, with elements so manifold, that no single man, however gifted and long-lived, can hope to bring the whole within his range. The need, therefore, in medicine, of that combination and concentration of individual work which is adopted in many other branches of science and in commerce, and to which increasing facilities of inter-communication have given so much impulse and so much strength, cannot be questioned. Indeed, it may be said that, resting on individual research alone, medical knowledge can be advanced but slowly and with difficulty. Future progress to any great extent must be the work, not of units acting disconnectedly, but of the collected force of many acting as one. For many to act as one, organization is needed; that organization it is the purpose of our committee to supply.

Disease is many-sided; and we wish to include in our organization those who see it from every side. All, therefore, whether hospital physicians, family and school attendants, specialists, medical officers of the Army and Navy, and of workhouses and asylums, will be asked to contribute their quota of observations to the common fund."

These are both the motives and the propositions of the committee appointed at Copenhagen. In regard to them, and collective investigation in general, the favorable opinion of the profession has been expressed frequently. But now and then a voice is still heard disparaging its utility, and discouraging the collection of facts on a large scale for the reason that the procedure has not yet been demonstrated to be useful. Indeed it has not, for it has never been tried to a large extent. We shall hardly insist, however, that the ground stone must not be laid, because the tower is not yet on the edifice; that the seed must not be sown, because the fruit cannot be harvested to-day, or was not gathered yesterday.

Hesitation has also been expressed from another point of view: one of our foremost medical journals (the *Boston Medical and Surgical Journal*, of September 4, 1884) makes the remark that those who labor only for personal renown will not enter enthusiastically into the work proposed by the committee. But its demands are very trifling indeed, the questions to be settled by the observations of large numbers are but few, and of such a nature as not to expropriate those who are able and anxious to arrive at, and be credited with, scientific results of their own and benefit by the reputation attached to them.

If the remark above-quoted were founded on reality, whoever worked for personal reputation only, would not even participate in the discussion of a scientific society for fear that his remarks, coupled with the essay of somebody else, would miss the opportunity of being listened

[1] Delivered Thursday, October 1, 1885.

to as the main topic of an evening's conversation. Now, on the contrary, we are in the daily habit of seeing experience published, and ingenuity displayed in just such discussions. Nor do I believe that as another journal has it (the *New York Medical Journal*, September 4, 1884), that "the answers coming from a great body of men of diverse views would constitute but a catalogue of raw impressions," and that "when the facts to be observed are of a nature to call for exquisite discrimination on the part of the observers, to multiply the number of the observers, is to depreciate the general quality of the work." For the more uncertain the correctness of observations is apt to be, the more numerous they ought to become. Single observations have settled a fact but very rarely. The very existence of large societies proves the instinctive demand for variety and comparative appreciation of observations. Is not every physiological fact known to us as the outgrowth of a number of experiments of many men? And pathological knowledge the result of a great many autopsies by different men in many countries? What is individual experience but the accumulation of a multitude of facts of a similar nature by one man? What is science but the result of accumulated experience, collected and compared of many men, countries, and ages? Are a hundred meteorological stations more efficient, or less so, than none would be? I do not belong to that class who believe a problem easy of solution merely because its solution is anxiously sought for, nor do I deny difficulties because they are obstacles to the accomplishment of cherished ends, but I know that we are in a better position to serve the co-operative work of all countries now that steam and telegraph have reduced distances, mail and travel have multiplied intercourse, and we are to-day as near St. Petersburg as our ancestors were, a hundred years ago, to Lake Erie or the James River.

Thus it appears evident that the difficulties are not excessive. As to the usefulness of collective investigation the opinions will become all but unanimous. The efforts of the British Medical Association, and the Medical Society of Berlin, and the fair success of an attempt at solving a problem connected with the etiology of croupous pneumonia, made in the Medical Society of the County of New York, during the last year, are sufficiently promising for the collective investigations of the future. In their interest it is that I propose to make a further communication, and request your co-operation.

The Central Committee on Collective Investigation of the International Congress has selected the following subjects, viz.: Rickets, Chorea, Acute Rheumatism, and Cancer, planned a number of simple questions in regard to them, mainly to their etiology, and expects as simple answers. Being the Secretary of the American Sub-committee, I have gathered all of them in pamphlet form, added a few introductory general remarks, supplied by the Central Committee, and present herewith a specimen for your inspection. Those of you—I hope all of you—and those of the profession at large who will learn of this request, are respectfully asked to interest themselves and their friends in behalf of the undertaking, notify me of their desire to be furnished with a copy, and comply with the suggestions of the Committee contained therein. We do not look for immediate achievements. For the complex of sciences and arts called medicine has required thousands of years to arrive at its present condition; the aggregation of many wills and forces has resulted in a slow evolution only. No single discovery even, nor the first attempts at collective investigation, will effect a revolution in medicine. But what we do hope to accomplish is the gathering of facts on the strength of an improved method, the confirmation of old, and the acquisition of new knowledge, and thus to contribute to the success of at least this one Committee. It need not matter how much may have, nay, has been done, to mar the success of the next International Assembly, and to deprive us of the opportunity long looked forward to of greeting the giants of science, the celebrated teachers, the ingenious experimenters, and our literary or personal friends of Europe, on our own soil. For an International Congress will never convene under the roof of a house divided in itself, though the division may be the work of a few sacrilegious hands only.

But this is a sad theme, known to everybody here, deplored by everybody who feels as both a personal grief and a public calamity the humiliation which is involved in the hesitation on the part of the Congress to assemble in our country.

It is in profound sorrow that I pass by the subject; I prefer to speak of another topic, which, while it is not directly connected with any of the aims and immediate purposes of this Academy, concerns us as professional men of the State of New York and the Union. I allude to the almost unexpected success on the part of the profession of the State of New York in harmonizing a large majority of the medical men of the United States.

Let me explain. Chapter II., Art. IV., Sec. 1, of the Code of Ethics of the American Medical Association, reads as follows: "A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations, the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practise from some medical board of known and acknowledged responsibility recognized by their association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultations when it is requested by the patient. But no one can be considered as a regular practitioner, or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

This paragraph has so often been criticised by both friends and adversaries that it is unnecessary to refer again to its contradictions, its "nevertheless" and "but," and to its implied acknowledgment of modern "homœopathy." For let us not forget that the Code of Ethics of the American Medical Association saw the light forty years ago, and that what they call "homœopathy" now-a-days differs from Hahnemannism of those times in everything but the name. They now claim that their practice is not based on an exclusive dogma; they claim to teach, in their schools, and do teach, anatomy, physiology, pathology, and organic chemistry, and thus come up to the requirements of the above article of the Code of Ethics of the American Medical Association. Indeed, if there were no better grounds for their rejection they would to-day be entitled to membership in the Association.

What the Medical Society of the State of New York, in its sessions of 1882 and 1883, adopted in its stead ("Trans. of the Med. Soc. of the State of New York for the Year 1882," p. 75), in a code of medical ethics which covers two pages instead of the eighteen pages of the Code of Medical Ethics of the American Medical Association ("Proceedings of the National Medical Conventions, held in New York, May, 1846, and in Philadelphia, May, 1847," pp. 91–106. Philadelphia, 1846), reads as follows:

"Members of the Medical Society of the State of New York, and of the Medical Societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity."

Compare with these brief sentences the explanatory declaration of the American Medical Association, passed

unanimously in its session at New Orleans, of April, 1885. There and then it was

"*Resolved*, That clause first of Art. IV., in the National Code of Medical Ethics, is not to be interpreted as excluding from professional fellowship, on the ground of differences in doctrine or belief, those who, in other respects, are entitled to be members of the regular medical profession. Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice.

Resolved, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper, to assume a name indicating to the public a sectarian or exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

Resolved, That there is no provision in the National Code of Medical Ethics in any wise inconsistent with the broadest dictates of humanity, and that the article of the code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is pressing or immediate need of them. On the contrary, to meet the emergencies caused by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire Code.

But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession, in the manner indicated by the preceding resolution.

After these resolutions had been passed in New Orleans, many of the professional men who always persisted in adhering to the code of the American Medical Association, were of the honest opinion that they had, by accepting them, removed every discrepancy of opinion or difference of action on the part of those adhering to either the old or new code. For it is true that the explanatory declaration of Chap. II., Art. IV., Sec. I., exhibits a great resemblance to the New York Code of 1882. For the Medical Society of the State of New York it must be a source of intense gratification to be convinced, by the passing of that declaration, that a few years have sufficed to so change public opinion as to oblige even the American Medical Association to recognize the justness of most of the New York proceedings. Upon this result the New York State Society can but be sincerely congratulated, and the spirit of equity and justice, as displayed by the Committee drafting the explanatory declaration, must be commended.

The expressions of opinion in regard to the wholesome effect of the New Orleans declaration have been very numerous. I am in possession of several letters containing remarks full of satisfaction and hope. A gentleman well and deservedly known in the profession of both hemispheres, and markedly so with us for his allegiance to the code of ethics of the American Medical Association, gave enthusiastic expression to his delight over the satisfaction that declaration must give, and to the hope that the New York Academy of Medicine would give a public utterance in that direction. That would "immediately settle all difficulty about the code, and at once restore peace and harmony in the profession." I had to tell him that the Academy excluded all politics, ethical or otherwise, from its discussions, and that the only societies who could act in the matter were the medical societies of the County and of the State of New York. There the matter then rested, for I believe I was right in excluding it from any consideration in our midst.

Still, while this Academy is no political body, old and new codes, as far as I know being equally represented with us, we are an integral part of the body medical, and the events in the professional world affect our interests and sympathies intensely. Thus we have to regret that the wording of the resolutions of New Orleans is very apt to obscure their meaning. Emergencies are acknowledged to be binding, but while the New York code admits that a physician may (not shall, or must) consult with a legal practitioner in a case of emergency, the explanatory declaration of the Association insists that such a meeting is not a meeting in the usual meaning of the term, and such a consultation "no formal professional consultation."

The differences are rather slight, it is true. If in spite of that the code question is still made a war-cry by some, that fast reminds us of the bloody wars and persecutions directed against former friends because of nominal differences of ecclesiastical opinions in the history of the Church. It is also explained by the intense enmity exhibited under all circumstances by those who have been convinced against their will. In a few instances we have to deal with the zeal displayed by converts, who, after they had greeted the birth of the new code with congratulations, were induced by certain external circumstances to change what they call their minds within the period elapsing between the appearance of two monthly numbers; or—what is still more, shall I say surprising, shall I say sad—there are those who fought the new code because they longed for a fight without caring on what account. A gentleman who edited a sprightly and rattling journal at that memorable time, and voted "the regular ticket," and was by no means gentle toward the new-code men and principles, has convinced and assured me he never read the new code. I believe him. There are others again—their number has been large at all times—whose souls and sensibilities are moved by shibboleths, by single words, provided these words are skilfully handled by shrewd calculation.

> "Just where fails the comprehension
> A word steps promptly in as deputy.
> With words 'tis excellent disputing;
> Systems to words 'tis easy suiting;
> On words 'tis excellent believing;
> No word can ever lose a jot from thieving."
> (Bayard Taylor's "Faust.")

This is the element which in skilful hands determines for a moment the result of meetings, caucuses, assemblies. It is the emotional element, which is swayed by sentiment both false and true, by gesticulating oratory, and by implicit temporary confidence in the veracity and sound motives of its presumed leaders; which, therefore, "takes the specialists of the new-code persuasion by the tops of their heads and cuts their throats," but after all is cooled down by common sense, consciousness, and conscientiousness when left to itself. Such men are in the majority. They are the waves of the ocean, always changing, now smooth and smiling, then turbulent and raving; and still always the same, steady in their general effects; now and then a disturbance, and an injury, but always the eternal source of healthful development. We never cease to bless the ocean even when it is doing its temporary worst. Let us, therefore, not despair of the future peaceful and blissful development of the country or the profession in times of turbulent commotion.

What difference is left unabolished, may be left to itself until acrimony is soothed, and bitterness replaced by kindness. Greater discrepancies than these have been wiped out. When the actions of men will be weighed, their opinions in regard to dogmatic utterances will be disregarded. When deeds are counted, let creeds be tolerated. But let us have patience, all of us; great improvements in the universal conscience do not take place by hard fighting and refuting. Lecky is right when he says that the greatest errors cannot be annihilated; it takes time for them to fade out.

In the face of the explanatory declaration passed in New Orleans, which in its main aspects, I take it, endorses the New York State Society and the spirit of the new code, the majority of those present in the meeting of the American Medical Association were guided into

believing that they must protect a sacred code from infidel invaders. The main complaint was that new-code men had been given offices in the organizations of the International Congress. On p. 101 of the *Journal of the American Medical Association*, you will find the following complaint: "Directly upon the threshold of the most important part of their work a majority of the original committee practically ignored all allegiance to the Medical Association, and assuming an entirely independent attitude, at once placed in the front of their ranks . . . one who was well known to have repudiated the National Code of Ethics." And in a voluminous circular addressed to the State and County Medical Societies, composed almost exclusively of editorials of the *Journal of the American Medical Association*, and signed by the permanent Secretary of the Association and four other gentlemen, the following language is used: "The editorials of the Journal of the Association present the case" (the differences in regard to the proposed organization of the International Congress) "so clearly that there can be no doubt of the duty of the friends of the Association, or of the animus of its enemies. We feel assured that your society will indorse the action of the association, and stand firm in support of the Code of Ethics."

It is, however, fairly understood by this time that the war of the codes is over. In fact it has always appeared to unsophisticated people that the fighting about the code was not reciprocal at all; for, when the New York State Society had settled its code question to its satisfaction and that of the country societies in affiliation therewith, it appears that in them and by them, the subject was not mentioned again except on strong provocation. You remember that it took a great deal of emphasis to relieve even this Academy of the proffered dispute. The code question is dying a great deal more easily than the bloody shirt disappeared from the politics of the country. If it is puffed up as the pivot of the organization of the International Congress, everybody is perfectly aware that this is either a pretext or a grave mistake. I believe it is both. Europeans who were not afraid of admitting laymen and homœopathists, expected to meet, if ever they would consent to cross the Atlantic for an International Congress, the American medical profession. No International Congress must be caught in domestic quarrels, or audaciously kidnapped by a society, or a party, or the faculty of a medical school.

We are presenting a sad spectacle. In our first attempt at welcoming the medical world to our shores we have failed. The humiliation connected with this fact we have to submit to; to trace it to all its causes I cannot undertake here. The least we can do is to admit it; if the task we hoped to accomplish was too much for us, let us try to prepare for the future by attending to those duties of our own which we can perform without hinderance or disturbance.

The affairs of the Academy will require our undivided attention. In many respects we have been very successful indeed. The hall and building in which we meet is practically our own and free of debt. Thus we can look forward again to improve our quarters, enlarge our facilities, and think of securing, in some near future, a fire-proof building for our ever-increasing bibliographical treasures. Our income has increased with our membership. Both, however, require additions. There are many desirable men in the profession whom we ought to carry on our lists for mutual advantage.

The hopes I expressed in my inaugural address a few months ago have begun to be fulfilled. Old sections have been revived, new ones have been formed. I may here assure the gentlemen who have undertaken the task of organizing them, that whatever aid the president and council can give them in their labors, will be freely offered. The sections will not only contribute to the improvement of their own members, but will enhance the interest of the general sessions by the communications coming to them from the sections and the discussions emanating therefrom.

To enable them to begin their work, Article VI. of the constitution had to be altered. That change has been brought about in the manner prescribed by law some months ago. It has also appeared to many fellows that more alterations are required; they have given notice of their desire in this respect, but have been unwilling to come before the Academy with any propositions to make radical changes, though in the manner prescribed by law. Now both the constitution and by-laws may be repealed or amended by a three-fourths vote at a stated meeting, provided notice of the same has been given in writing at a previous stated meeting. But it will prove more satisfactory to guard against any mistake by trusting the work of moving proposals to change our by-laws in the hands of a committee carefully selected for that purpose. Off-hand legislation is always dangerous; it often errs, and always weakens the conservative tendencies which must underlie any political, scientific, or social structure, if it be expected to last. The president expresses the hope that if such a committee be appointed, it will be slow in considering and quick in reporting.

If I be at liberty to state a wish of my own, I should say that one of the articles which require amending is that which refers to the Committee on Medical Ethics. This committee is almost powerless; it has no initiative whatsoever; in every case calling for interference or judgment it has to wait for a charge to be preferred by a fellow; the odium of an accusation falls always on an individual member, whose unselfish interest in the welfare of the Academy or the profession is at once published, as it were, by arraying him personally against the accused. To prefer a charge is thus almost rendered an impossibility. Thus, indeed, our law is more apt to encourage derelictions of ethical duties than to prevent or punish them. Now, I am of the opinion that the interest of an accused member must always be taken into account, but that of the Academy is at least of equal importance. What the District Attorney and the police are in the political and social commonwealth, the Committee on Ethics ought to be in our midst. It ought to be both authorized and directed not to wait for personal charges, but itself watch over the moral welfare of our community. If such an authority be established, the ethically weak would know that he is observed and may be held responsible without a fellow being compelled to draw upon himself odium or revenge.

No society, either political or other, can ever do without a penal code—old or new—thus there is no harm in admitting that the Academy is in need of a Committee of Ethics like any other society. If the number of those who necessitate its existence or interference be but small, so much the better; but the few when not stopped, act as bacilli of moral putrefaction. Human kind is so organized that disease germs will operate rapidly and persistently. A committee on ethics, endowed with the authority to warn and censure in time, without any procrastination, will strengthen the feeble when he feels the first symptoms of struggling against temptation, may frighten the man of harder fibre, who would otherwise rely on his facilities and the difficulties on the part of the committee, and protect the interests of society and the endangered dignity of the profession.

That I speak of no imaginary evil we all know too well. What I said a few months ago of the growing tendency of a few to make the public acquainted with their merits and accomplishments through the columns of the secular press was considered timely, and met with the appreciation of many members of the profession, both old and young, here and elsewhere. I mean to deserve the respect of my peers and superiors in the profession by again directing your attention to the fact that the penny-a-liners of the daily press are being utilized in the interest of, and by, weak-kneed brothers who cannot stand on their own legs, who mistake cheap notoriety for

reputation, and the grin of derision for the smile of approval. The more power is concentrated in commerce, the greater the prevalent which is conquered by trade, the more rampant the spirit of grasping egotism, which is pathognomonic of modern industrial pursuits, the more is it the domain of the liberal professions to approximate their aims to an ideal. Let us not forget that learning by heart the action of medicines, or the working of articulations, or the proper use of an instrument does not exhaust the possibilities of a medical man. The physician requires all that, but beyond that all the characteristics of a man of principle and intellectual and moral culture. Neither can be inculcated by the demands of old or new codes. Still, as a corporation and a profession, we are responsible for the existence of these qualities in our members. It is true we cannot supply ideals to order, nor can we make those whose eyes seek the mire raise their brow to the skies. But such as find it difficult to develop those qualities spontaneously must be taught and aided in acquiring them.

As far as I am concerned, I hope there will be no occasion again to refer to the same subject during my term of service. If there be, I shall repeat my warning. For I take it for granted that when you elected me to the highest office in your possession, you did so both in the belief that your candidate would have opinions and principles of his own, and on the condition that he should do his full duty.

SUCCESSFUL CASES OF PULMONARY PHTHISIS.

By W. H. GEDDINGS, M.D.,

AIKEN, S. C.

Previous to the last two or three decades of the present century pulmonary consumption was almost universally regarded as an incurable malady, and the physician esteemed himself fortunate if he succeeded in ameliorating the condition of its unfortunate victims or in warding off for a short time its apparently inevitably fatal termination.

It was not until the occasional discovery of cicatrices and of calcareous masses in the lungs of persons who had died of other diseases, and in whose organs there were no evidences of any recent deposit of tubercle, that the medical world began to believe in the curability of pulmonary phthisis.

The chief reason for this general scepticism was the inability of the physicians of that time to recognize the disease sufficiently early to admit of treatment with any prospect of success. It is true that Auenbrugger published his great work, "Inventum novum ex percussione thoracis humani, ut signo, abtrusos interni pectoris morbus detegendi," as early as 1761, but it was coldly received, and met with no general acceptation until 1808, when Corvisart translated it into French, and through his high position in the medical world at once secured for its almost forgotten author the somewhat tardy recognition of the great discovery he had made some fifty years before. Eleven years later (1819) Laennec completed the good work begun by Auenbrugger, by publishing his immortal treatise on auscultation. Although greeted with the greatest enthusiasm, many years elapsed before these methods of diagnosis became the common property of the profession, and it has been only within the last fifteen or twenty years that a more thorough system of medical education has placed them to some extent within the reach of the average practitioner.

Instead of waiting, as was formerly the case, for extreme emaciation, exhausting sweats, and profuse expectoration to tell the tale, the modern physician now detects with comparative ease the earliest symptoms of the dreaded disease, and takes measures to stay its progress before it reaches a stage when the best directed treatment will avail but little.

To convey conviction to those who still doubt that phthisis is amenable to treatment, and to encourage those who have been unfortunate in their attempts to master the disease, I publish the following successful cases, selected from a large number that have come under my observation during the last ten years. Some of them are included in my report of cases of phthisis treated at Aiken, S. C., and published in The Medical Record of 1879, 1880, and 1882; but most of them are of more recent date.

Case I. *Hemorrhage, infiltration of right lung; complete recovery.*—A middle-aged clergyman, from Gloucester, Mass., a patient of Dr. Morrill Wyman, of Cambridge. Disease commenced with bronchial catarrh in April, 1878. Has had one slight hemorrhage.

February 1, 1879.—The upper portion of the thorax, on the right side, is much depressed. There is an extensive area of dulness occupying nearly the whole front of the right lung. There is also dulness behind, but not so extensive as in front.

March 7th.—Much improved; cough less, but the expectoration continues profuse. Has a good color; and has gained eight pounds.

March 13th.—Patient looks fresh and ruddy; pulse and temperature all but normal. Expectoration still profuse.

April 9th.—Pulse, 84; temperature, 98⅘°. Cough much less, and the expectoration is reduced to a fourth of what it was a month ago.

April 26th.—Pulse, 84; temperature, 99°. Has continued to improve; has gained four pounds since last examination.

May 20th.—Had an attack of diarrhœa a week ago which caused him to lose six pounds, three of which he subsequently regained. He now weighs nine pounds more than he did when he arrived in Aiken. There is diminished resonance, not amounting to positive dulness, extending from the clavicle to the third rib; over which region the respiration is normal, the expiration being barely audible. He coughs little except in the morning, at which time he expectorates two or three drachms of muco-purulent matter. I saw this case again in 1881. He had enjoyed good health since May, 1879, but, being of a very nervous disposition, refused to allow me to examine him. At present (1885) he is still free from pulmonary disease.

Case II. *Pertussis, followed by infiltration of right lung; improvement, relapse, and subsequent recovery.*—A bright little girl of six or seven years, Portsmouth, N. H., who, being under the care of a homœopathic practitioner, consulted me only occasionally, so that her case-history is more or less imperfect. The disease was the result of an attack of pertussis.

November 6, 1878.—Pulse, 120; temperature, 99⅘°. The right lung is infiltrated from the apex to the fourth rib, as evidenced by distinct dulness both[1] in front and behind. The patient did remarkably well until February 1st, when she had an attack of bronchial catarrh. She recovered readily from this, and continued to improve until late in the spring, when she returned home. She spent the summer at North Conway, N. H., and returned to Aiken in 1879. She had had no relapse, and enjoyed good health throughout the winter. She continued quite well until the fall of 1883, when she was attacked with acute pneumonia at her home in Portsmouth, N. H. This was followed by a return of the old symptoms, for the relief of which her mother consulted another physician. Feeling dissatisfied with the progress of the case she called me in again in March, 1883. She was pale, sallow, and emaciated, and although now ten years old, weighed only fifty-six and three-fourth pounds. Her pulse was 104; temperature, 102.5°; appetite bad, digestion poor, with troublesome cough and profuse night-sweats. Physical examination revealed absolute dulness

[1] The symptoms afforded by auscultation were accidentally omitted.

from the right clavicle to fourth rib, with diminished resonance below. Posteriorly the dulness reached to one inch below the spine of the scapula. Respiration on that side bronchial, with prolonged experium and increased vocal resonance.

April, 1885.—Patient has had no relapse since 1883, looks well, and only coughs when she has an acute attack of bronchial catarrh. Pulse and temperature have been normal for over a year. There is marked depression of the diseased side, over which there is still more or less dulness.

Case III. *Profuse hemorrhage, disease of right lung; complete recovery.*—A middle-aged mulatto, one of my own patients, first presented himself about fifteen years ago. He was having quite a profuse hemorrhage from the lungs. The attacks of hæmoptysis continued to recur at longer or shorter intervals. A physical examination afterward revealed dulness and other signs of infiltration of the right lung. The patient, believing that his hemorrhages were due to malarial poisoning, made repeated applications for life insurance, but was invariably rejected. There has been no return of the bleeding since 1874; the cough has ceased, and the patient's general appearance is that of a person in good health. The only physical signs remaining at this date (June 1, 1884) are slight dulness under the right clavicle and first rib, with some feebleness of the respiratory murmur. The patient's trade is that of a tailor, a fact worthy of note in a case in which recovery has taken place; that occupation being justly regarded as decidedly conducive to the development of pulmonary phthisis. So extensive is its prevalence in Vienna among that class of workmen that it is sometimes designated as "the disease of the tailors." This patient has enjoyed perfect health ever since, and is now as fat as a seal.

Case IV. *Hæmoptysis, night-sweats, infiltration of left apex; complete recovery.*—Male, forty-one years of age. Patient of Dr. Van Bibber, of Baltimore. Hereditary predisposition to consumption on the father's side. Disease began with bronchial catarrh in the autumn of 1877. Has had several attacks of blood spitting, and suffers with occasional night-sweats. The patient has been some time in Aiken, and is in much better condition than when he arrived, having gained at least five pounds.

April 4, 1878.—The patient has continued to improve, having gained three additional pounds during the past month, making a total increase of eight pounds since his arrival in Aiken. There has been no return of the bleeding.

April 6th.—His appearance is that of a perfectly healthy man. He coughs occasionally throughout the day, and expectorates about half an ounce, mostly mucus.

Patient has been two months in Aiken, and during that time has gained ten pounds. Pulse and temperature normal. The only physical symptom of the old disease is diminished resonance under the clavicle. This patient may be regarded as nearly well. He has had no relapse since 1878, enjoys perfect health, and has resumed his business in Baltimore.

Case V. *Infiltration of left lung; complete recovery.*—A young girl, fifteen years of age, from Cincinnati (Drs. Carson and Richards). Disease commenced with cough on March 7th.

April 17, 1878.—Pulse, 96; temperature, 101°. Left side dull in front, from the clavicle to second or third rib; respiration feeble and indistinct in character. On the right side the respiration is louder, with audible expiratory murmur.

April 24th.—Improving; coughs very little, and then only in the morning.

July 8th.—Pulse, 88; temperature, 98¾°. Cough has disappeared entirely, and the patient presents all the appearances of a person in perfect health. Notwithstanding her having several sharp attacks of diarrhœa, her weight has increased from 135 to 145½ pounds. This young lady has remained quite well, and up to 1883, when last heard from, was in the enjoyment of perfect health.

Case VI. *Disease of right lung, improvement, relapse, and subsequent recovery.*—Male, forty years of age, from Worcester, Mass.; patient of Dr. Calvin Ellis, of Boston, and Dr. Thomas Gage, of Worcester. Began with bronchial catarrh in January, 1879. Has gained three pounds since his arrival in Aiken, thirteen days ago.

April 22, 1879.—Color good; if anything, too florid. Expectorates one ounce of muco-purulent matter; pulse, 108; temperature, 101¼°. Dull on the right side, from the clavicle to the second rib in front, and as low as the angle of the scapula behind.

April 30th.—Continues to improve, coughs less, and the expectoration is somewhat reduced in quantity.

May 18th.—Patient does not look so well, and there are indications that the disease is extending.

May 22d.—Color bad, apparently losing ground very rapidly. Area of dulness extends in front to the lower border of the third rib. Has an obstinate diarrhœa, resisting for a long time all the usual remedies. This was eventually checked and the patient went back to his home in Vermont, where he slowly improved. Returned to Aiken the following winter.

November 12, 1880.—Pulse, 80; temperature, 99°; weight, 137½ pounds. Coughs three or four times in twenty-four hours, raising each time a small quantity of muco-purulent matter. Dull on the right side from above clavicle to the upper border of third rib, and between the scapula and vertebral column, the respiration being bronchial in character.

December 10th.—Has continued to improve. Pulse and temperature are normal, and his weight has increased to 140½ pounds, a gain of three pounds since October 12th. Cough has ceased almost entirely, a little hack after breakfast being all that is left of it.

January 10, 1881.—Improvement has continued without interruption; has not missed a meal since his arrival in Aiken; has attained his full average weight, and presents the appearance of a person in perfect health.

Right side: The dulness in front extends now only to the lower border of the first rib; posteriorly it remains unchanged. Respiration slightly bronchial.

April 24th.—Notwithstanding several weeks' confinement to the house with an old gunshot wound, the patient has continued to improve. The little hack in the morning, noted at the last examination, has disappeared, and for six weeks there has been no cough of any description. Pulse and temperature remain normal. There has been no further change in the physical symptoms, except diminution of the area of dulness behind, which is now confined to the space above the spine of the scapula, and between that portion of the bone and the column.

The above is the most remarkable case of arrest of phthisis that has ever come under my observation. At one time, in the spring of 1879, he was so pale, and the temperature so persistently high, that a fatal termination appeared to be inevitable. He has remained perfectly well ever since, and is now established in business in Tennessee. Has since been accepted by an insurance society.

Case VII. *Infiltration of left lung, night-sweats, emaciation; recovery.*—A young man, twenty-four years of age, from Burlington, N. J., a patient of Dr. Grant. Does not know whether there is any hereditary predisposition to consumption in his family. He began to cough in July, 1879, and shortly afterward had a slight hemorrhage, which, in its turn, was succeeded by night-sweats and loss of flesh. He has lost in all twenty pounds, his present weight being 120 pounds.

October 20, 1879.—Color pale; pulse, 112; temper-

ature, 100.2°. Expectoration muco-purulent in character and small in quantity.

Left side: There is dulness in front, from the clavicle to the heart, and behind, from the upper border of the scapula to its lower angle. The respiration over the front is bronchial in character, with prolonged experium; posteriorly the respiratory murmur is indistinct.

Right side normal, except that the respiration over the apex is harsh, with prolonged experium.

November 3d.—Pulse, 108; temperature, 100.2°. Looks much better, is stronger, has gained five pounds in two weeks, and the sweats have ceased entirely.

November 20th.—Pulse, 100; temperature, 99.5°. Weight 130 pounds, a gain of ten pounds during the month.

December 8th.—Pulse, 98; temperature, 99°. Has continued to improve, looks well, and coughs but little. Weighs 132½ pounds, a gain of twelve and a half pounds.

January 10th.—Pulse, 96; temperature, 99°. Looks fresh and ruddy, and has the appearance of a person in good health. His present weight is 136 pounds, a gain of sixteen pounds since his arrival in Aiken. Coughs only once in three days, on which occasions he expectorates only a little pellet of mucus.

March 8th.—Color rosy; never coughs except after some unusual exertion, such as a fit of laughter. The area of dulness in front has become more resonant, especially below the clavicle and near the sternum. The dulness now does not extend lower than the third rib. Behind, the dulness reaches from the spine of the scapula to its lower third, the region above the spine and the lower third having become resonant. The respiration is no longer distinctly bronchial, but rather undecided in its character.

This case was lost sight of after his return home, and I am therefore unable to state whether the results obtained were permanent.

Case VIII. *Infiltration of right lung; no return of symptoms for fifteen years.*—H. B——, colored, female, about fifty years of age. This patient consulted me in 1870, on account of persistent cough and loss of flesh, accompanied with slight fever. Physical examination revealed consolidation of the upper third of the right lung. She gradually regained flesh and strength, the cough disappeared, and with it the other symptoms of pulmonary disease. She has remained well ever since, and has been able to resume her usual work.

December 31, 1879.—Ten years have elapsed since her first examination; there has been no return of cough or of any other symptom of lung disease; the pulse is somewhat accelerated (92), but there is corresponding rise of temperature. The only trace of the disease present is an area of dulness on the right side, extending from above the clavicle to the upper border of the second rib. She has had no threat of the return of the old disease, and, although well advanced in years, is able to do a full day's work as a washerwoman.

At the present date, 1885, the patient is in the enjoyment of perfect health.

Case IX. *Infiltration of right lung, hemorrhage, fever, night-sweats, emaciation, etc.; complete recovery.*—Male, twenty-five years of age; from Malden, Mass.; patient of Dr. Bemiss, of Medford, Mass. Heredity on the maternal side, mother and two brothers having died of phthisis. The disease began with a slight attack of hæmoptysis in May, 1878. This was followed with loss of flesh and night-sweats. Had another hemorrhage in April, 1879, much more profuse than the first, and then began to cough. Went to Minnesota, where he for a time ceased to cough. Over-exerted himself, brought on profuse hemorrhages and a return of his cough. The hemorrhages continuing to recur, he started for Aiken.

January 1, 1880.—Pulse, 100; temperature, 100°; weight, 126 pounds; color good.

Right side: Dull from the clavicle to the second rib, with diminished resonance under the third. Respiration bronchial, with jerking expiration. Behind, the dulness extends over the upper two-thirds of the scapula.

There is no dulness on the left side, but the respiration is very harsh. Moist râles over both lungs. Expectorates one-half ounce, some of which sinks. Can now lie on both sides, which he was unable to do during the summer. Prognosis favorable. Patient improved steadily, the temperature sank to 99.5°, and he gained two pounds in weight; the cough became much less troublesome, and the expectoration ceased altogether. During the month of March an abscess formed near the anus, and developed into an exceedingly troublesome and very painful fistula. This prevented any further increase in weight, but seemed to benefit the local symptoms in the lung; the cough ceasing entirely after the opening of the abscess. At the time of his departure he was suffering too much to submit to an examination, but I afterward met him at Bethlehem, and found him quite well. There had been no return of the cough, and his general appearance was that of a healthy man. Physical examination showed a reduction in the size of the infiltration; the dulness extending in front from below the clavicle to the second rib, while, behind, the only evidence of disease is diminished resonance between the upper portion of the scapula and the vertebral column. The fistula had been operated upon, and was gradually healing. At last accounts (1883) this patient had resumed business in Massachusetts, and was perfectly well, being able to remain at his post as bookkeeper in Boston, even during the winter months.

Case X. *Consolidation of apices of both lungs, emaciation, night-sweats; complete recovery.*—Male, aged twenty-five years of age, from Belleville, Ontario (Dr. M. Sullivan). Disease began in November, 1879, with bronchial catarrh; had night-sweats, and lost fifteen pounds.

January 31, 1880.—Pulse, 102; temperature, 102°; weight, 150 pounds. Was quite ill during the journey south, and had to stop at Baltimore. Color pale. Expectorates about one ounce of muco-purulent matter. Tongue coated; cannot retain food. Right side dull in front, from above clavicle to the fourth rib, with bronchial breathing.[1]

April 12th.—Patient improved steadily after the second week of stay in Aiken, and now looks quite robust; has a fresh, ruddy color, and now weighs 165 pounds, a gain of fifteen pounds since his arrival. Pulse, 80; temperature, 98.5°. Coughs only after a hearty laugh or some other unusual exertion. The dulness on the right side is reduced to a limited area above the clavicle, with diminished resonance under that bone. Behind there is diminished resonance over a small space between the scapula and spinal column. Respiration in front is vesicular, behind bronchial, over a very small area. On the left side the dulness has disappeared entirely, and the respiration is everywhere vesicular.

Result: Complete arrest of the disease, with a gain of fifteen pounds, and entire disappearance of all physical signs of disease in one lung, and partial clearing of the other. When last heard from this patient was living in Canada, and had had no return of the disease.

Case XI. *Infiltration of right lung, hemorrhage; arrest, with cessation of all symptoms of disease except slight dulness on percussion.*—Male, twenty-eight years of age (Dr. George H. Humphreys, New York). Had hemorrhages at long intervals during the summer of 1879, with cough and night-sweats. Lost eight pounds.

February 10, 1880.—Color pale. Expectoration small in quantity, and muco-purulent in character. There is dulness on the right side above, under, and below the clavicle in front, and between the scapula and vertebral column behind. In addition to this there is a limited area of dulness in the axillary line. Respiratory murmur is feeble.

March 10th.—Pulse, 76; temperature, 99.5°. Much

[1] Physical signs on the back were accidentally omitted.

improved, color good. Coughs only in the evening, and without expectorating. Has gained two pounds. There is no change in the physical signs, but over the back and side there is no trace of the dulness observed at the first examination.

May 1st.—Patient has continued to improve, and now presents the appearance of a man in perfect health. Flesh firm, color good. Walks eight miles without fatigue. He has gained two additional pounds, and has no cough. The only evidence of disease left is slight dulness under the right clavicle, with harsh respiration, and audible experium at the apex on that side. During the following winter, 1880–81, he had slight cough, but by spring this was reduced to a mere hack. The ensuing summer was spent in the Adirondacks, where he had a slight hemorrhage. Did well at Aiken the next winter, but in the summer, while at Morristown, N. J., he had another very slight attack of bleeding. Since then he has been free from all symptoms of disease, and is to all appearances a perfectly healthy man.

Case XII. *Disease of upper portion of left lung, hæmoptysis, night-sweats, emaciation; recovery.*—A young lady, twenty-six years of age, a patient of Dr. W. W. Johnson, of Washington, D. C. The disease began with cough in September, 1879, followed by loss of weight and hemorrhage in December. Has also had night-sweats. Has lost nine pounds. She arrived in Aiken seven weeks ago and has improved, having already gained eight pounds.

March 2d.—Pulse, 108 (under excitement); temperature, 98½°. Looks quite healthy. Physical examination reveals dulness on the left side extending from the clavicle to the fourth rib, and under the upper portion of the scapula.

April 20th.—The improvement noted above continued until the middle of March, when she was unfortunate in contracting a severe cold, during which she suffered with severe pleuritic pains and lost her voice. Up to that time she had gained twelve pounds. She has now recovered from the attack and is again improving.

Encouraged by her improvement at Aiken, she concluded to remove to Santa Fé, N. M., where she had relatives. Not liking the social aspects of the place, she went to Colorado Springs; but while there a valvular affection of the heart, of which symptoms had been observed at Aiken, became so aggravated by the altitude as to necessitate her removal to the East. She returned to Aiken in January, 1881, with a severe attack of laryngitis. She looked strong and healthy, and although there was still slight dulness below the clavicle, the symptoms of pulmonary disease were evidently at a stand-still. She continued to improve after her return home, where she afterward married. When last heard of, she was quite free from pulmonary disease, although, owing to the cardiac trouble, she still had some cough. This is one of two well-marked cases of phthisis of this series in which the pulmonary disease appeared to have been arrested by the occurrence of valvular lesions of the heart.

Case XIII. *Infiltration of right lung; complete recovery.*—Male, twenty-two years of age. (Dr. J. S. Lothrop, Boston.) Lost a brother with pulmonary phthisis. Disease began in March, 1879, with cough and emaciation. Lost eleven pounds, but subsequently regained eight pounds.

March 13, 1880.—Pulse, 84; temperature, 98½°; weight, 125 pounds. Expectoration small in quantity, and of late occasionally streaked with blood. Over right front dulness above and under the clavicle. Respiration feeble, with prolonged experium. Behind there is dulness under the supraspinous fossa, the respiration being as in front.

April 23d.—Patient has had an exacerbation of his disease, with fever, pleuritic pain, and a loss of four pounds in weight. From this he soon rallied and now weighs 128 pounds, which is three pounds more than at the time of his arrival. The infiltration is slightly increased in size, there being diminished resonance to the second rib in front, and two-thirds down to scapula behind.

He was again under my care during the summer at Bethlehem, N. H., where his improvement was rapid and continuous. He afterward engaged in farming in Southern California, but tiring of the life, returned to New England. I had an opportunity of examining him in Aiken in the winter of 1885, and found him in perfect health.

Case XIV. *Slight consolidation of right lung, tinged sputa, night-sweats, emaciation; complete recovery.*—A young lady, twenty-eight years of age, a patient of Dr. Opie, of Providence. Several relatives on the maternal side, including the patient's mother, have died of phthisis. Had cough during the winter of 1878 and 1879, but was free from it during the ensuing summer. It returned again in the fall after an attack of "nervous prostration," and has persisted ever since. Has lost a great deal in weight, but does not know how much. Sputa have been occasionally tinged, and has also suffered with night-sweats. Has improved a great deal since her arrival in Aiken six weeks ago, eating and sleeping well, increasing in weight, and coughing less.

April 17th.—Pulse, 100; temperature, 99.5°; weight, 90 pounds; expectorates half an ounce. Over the right front, which is very sensitive on percussion, there is no marked dulness, but the respiration is decidedly bronchial. Posteriorly there is dulness under the scapula and between that bone and the column. The respiration over that region is bronchial.

May 5th.—Pulse, 80; temperature, 99.8°. Has gained eight pounds and has a healthy color. Coughs but little, and does not expectorate more than a drachm. (I did not have an opportunity of examining her before she left Aiken, but on meeting her a few months later at Bethlehem, N. H., I found she had been entirely free from cough for several months. The bronchial respiration had disappeared, leaving only a little roughness. The area of dulness behind, although still present, was much more limited than when I first examined her.) She afterward married, and is now quite well.

Case XV. *Extensive infiltration of the base of the right lung, fever, sweats, and rapid emaciation; complete recovery.*—A young man, nineteen years of age. (Dr. F. P. Porcher, Charleston, S. C.) Father died of phthisis. Had in August, while residing in a malarial region, on the coast of South Carolina, what was supposed to be remittent fever, but which was attended with cough, sweats, and rapid emaciation. On his arrival in Charleston, was examined by Dr. Porcher, who is reported to have pronounced it to be a case of pulmonary infiltration, with pleural effusion. His temperature has ranged from 101° to 103°, with occasional chills, without any regularity in their occurrence.

September 24th.—Pulse, 88; temperature, 102°. Has persistent cough, with muco-purulent sputa. On the right side there is dulness in front, extending from one inch below mamma to the liver. The superior border of this area of dulness extends across the axilla to a point corresponding to the angle of the scapula. The percussion sound is decidedly dull, but not flat, as in pleuritic exudation, nor does change of posture cause any alteration in the character of the dulness. Intercostal spaces well defined, and without the bulging observed in fluid exudations. I accidentally omitted to note the character of the respiration, but remember that the respiratory murmur was distinctly audible, although more faintly so than on the left side. During October the fever gradually declined, and toward the middle of the month the cough abated, and finally ceased altogether. The area of dulness remained unchanged, but there was a marked improvement in his general health, his weight rapidly increasing from 119 pounds on the 19th to 131½ pounds on the 28th, a gain of twelve and a half pounds in nine days, or at the rate of over a pound a day.

November 19th.—Pulse, which has hitherto ranged from 104 to 112, is now only 88, and the temperature has declined to 99°. He eats enormously, and his weight has steadily increased, being to-day 147 pounds, a gain of twenty-eight pounds in one month. The dulness in front is unchanged, but behind it has dropped to a line one inch below the angle of the scapula. The respiratory murmur over the region of dulness is feebler than on the left side. From this time to the date of his departure there was but little change in his condition, except a gradual diminution in the extent of the dulness. When last examined (May), the upper border of dulness in front had receded to the seventh rib, while behind it had disappeared entirely.

Remarks: The rapid improvement of the patient and the rather unusual location of the dulness would at first sight lead one to suppose that the diagnosis of phthisis in this case was incorrect, and that it was either a pleuritic exudation or some disease of the liver. The fact that the dulness, although well marked, was by no means flat, and that the respiratory murmur, noted as feeble, was, nevertheless, audible over the whole of the base of the lung, are sufficient to exclude any fluid accumulation, or any great enlargement of the liver or tumor of that organ. Besides this, the location of the dulness was not influenced by change from the erect to the recumbent posture. There was no icterus or any other evidence of hepatic disease. This patient has had no relapse and is now (1885) quite well.

Case XVI. *Both lungs diseased, consolidation of two-thirds of the right lung with cavity; complete recovery after having been confined to his bed for two months.*—A naval officer, thirty-two years of age, from Norwich, Vt. Family history not noted. On the return of his ship from the tropics, he was exposed to rough, cold weather in New York harbor, which brought on an attack of bronchopneumonia. He lost over ten pounds, and had several hemorrhages.

December 5, 1880.—Pulse, 106; temperature, 101°; weight, 114 pounds. Is very thin, and presents the appearance of a very sick man. There is marked dulness over the whole right lung in front, and posteriorly over the upper two-thirds. In front the respiration is bronchial, except under the second rib where it is distinctly cavernous. On the left side no dulness, but loud, sonorous ronchi, intermingled with moist râles. Cough very troublesome and almost incessant.

February 17th.—This unpromising case, after two months' confinement to his room, during which he suffered terribly with his cough, began to improve about the end of January. His pulse is now 98, and his temperature normal. His color is fresh and healthy; his strength is so much improved that he walks three miles in the course of the day without experiencing any fatigue; and mounts two flights of stairs without becoming short-breathed. Coughs but little, and then only in the early morning, at which time he raises a few pellets of mucus. In front there is no change in the physical symptoms, but behind, the upper portion of the lung has cleared up and is now resonant.

May 26th.—Pulse, 96; temperature, 98.5°. The improvement noted above has continued. Patient looks remarkably well, and is in excellent spirits. He now weighs 125¾ pounds, a gain of eleven and three-fourths pounds; has gradually extended his promenades, and can now walk two miles consecutively. Coughs only a little in the morning, while dressing. The improvement in this case was all the more remarkable on account of its being due to climate alone, as he took neither oil, malt, hypophosphites, or any medicine other than such as was administered to allay his troublesome cough.

The recovery in this case has proved lasting, and the patient has resumed the active duties of his profession. When last heard from he was on duty in the Mediterranean.

Case XVII. *Infiltration of both lungs, fever, hemorrhages; recovery, with a gain of twenty pounds.*—A married man, about thirty-two years of age, a patient of Dr. Riggin Buckler, of Baltimore, who kindly permits me to publish the following extracts from his letters:

"Baltimore, January 25, 1880.

"In 1870 he had trouble at the summit of the right lung; went to China, and returned in 1871 well. The physical signs still show traces of the old disease."

Dr. B. did not see him again professionally until December, 1879, when he sent for him on account of a persistent facial neuralgia, the result of a broken-down condition of health. It was found "that he had been losing weight for some time past, had morning cough, loss of appetite, morning nausea, and shortness of breath. His pulse was quick, 115; temperature, 100°; this at 11 A.M. The dulness over apex of right lung is quite limited, and there are no signs there beyond feebleness of respiration and flattening of the chest-walls. At apex of left lung (upper third) the dulness extends over a greater area. I find increased vocal fremitus, interrupted respiratory movement with feeble and prolonged expiration."

January 29, 1880.—Pulse, 102; temperature, 100.4°; weight, 130 pounds.

February 23d.—Pulse, 102; temperature, 99.2°. Has gained twelve and a half pounds since his arrival in Aiken, and walks six miles by the pedometer without experiencing any fatigue. Coughs and expectorates only in the morning, and has a good color.

March 26th.—Pulse, 96; temperature, 99.3°; weighs 150 pounds, a gain of twenty pounds since his arrival. His general appearance is that of a healthy and robust man. Physical examination reveals a marked diminution of the area of dulness on the left, the lower border of which extends now only to the second rib. With the exception of bronchial breathing at the apex of that side there are no evidences of disease in either lung.

I did not have an opportunity of making another examination, but Dr. Buckler was so kind as to send me the following report of his condition after his return home:

"Baltimore, April 12, 1880.

"W—— arrived Saturday night in the midst of a regular March blow, with the thermometer at 32°. I called on him in the morning, and was more than surprised at his wonderful improvement. His gain in the two months, by actual weight, is twenty pounds, and he has the appearance of a well man. His muscles are hard and firm, voice steady, and his skin has the ruddy hue of health. He tells me that he has *no cough whatever;* that he can breathe freely and easily, and that no amount of exercise fatigues or makes him short-breathed. His appetite and digestion are excellent, and he 'sleeps like a top.' His pulse this morning at 11 A.M. was 80, respiration 24, and temperature, 98°. I find he can expand his chest without pain, and freely and easily. I can find nothing wrong on the right side, and, with the exception of a small area of dulness (with feeble respiration) over the upper and anterior surface of the left lung, I can discover no signs of disease either in that lung. Certainly this shows a marked change as compared with the condition of things when he left this place for Aiken, and speaks volumes in regard to the fitness of the climate there for incipient phthisis. "Very truly yours,

"Riggin Buckler."

This patient had one slight hemorrhage the following winter, but since then has enjoyed good health, and at last accounts was doing well.

Result: Complete arrest of phthisical process, a gain of twenty pounds, disappearance of all physical signs of disease in the right lung, and marked diminution of the area of dulness in the other side.

Case XVIII. *Infiltration of right apex; recovery.*—A young medical student, nineteen years of age, a patient of Dr. A. G. Reed, of Philadelphia. No phthisis

in the family. Cough began in March, 1879, and lasted two months; recurred in June, and continued to September. Visited Mexico with negative results.

December 31, 1879.—Pulse, 78; temperature, 98°; weight, 125 pounds. Figure slender, with sallow complexion. Good appetite, with fair digestion. Right side: dulness over supraclavicular, clavicular, and infraclavicular regions, with diminished resonance to fourth rib. Behind, diminished resonance over the scapular region.

March 27th.—Pulse, 84; temperature, 98°. Has passed through the winter without any return of cough, and has increased six pounds in weight. In front there is now no dulness, and the area of diminished resonance has receded to the second rib; the suprascapular region has become resonant.

Result: Complete arrest of the disease, with a gain of six pounds in weight.

This patient has not been heard from since his departure from Aiken.

(To be continued.)

PERIOSTEUM-GRAFTING.[1]

Reproduction of Two and Three-fourths Inches of the Clavicle in the Human Subject by Grafting with Periosteum and with Thin Laminæ of Bone, Covered by its Periosteum, taken from the Dog.

By C. W. TRUEHEART, M.D.,

GALVESTON, TEX.

J. F. W——, a vigorous, healthy man, aged twenty-two, while bending forward dragging a gun—muzzle foremost—from under the deck of a boat, received the whole charge in the left clavicular region. About three and one-half to four inches of the central portion of the clavicle and an extensive mass of the adjacent soft tissues were shot away, and the vertebral portion of the first rib comminuted, the charge being lodged between the scapula and the ribs.

Two days thereafter, and as soon as shock was fairly recovered from, assisted by Drs. John M. Haden and Charles Ganahl, I exposed the dorsum scapulæ by a free crucial incision, trephined the bone with a one and one-fourth inch trephine, and removed sixty-four shot, three wads, fragments of clothing, and numerous spiculæ of bone.

Appreciating the importance and also the difficulties of securing union, osseous or ligamentous, of the widely separated fractured ends of the clavicle, I made haste to secure fixation of the parts and give support to the badly drooping shoulder, by means of an angular leathern splint, made to embrace the whole arm, with straps passing front and back, and buckled to a padded leathern shoulder-cap resting over the opposite shoulder.

Aided by skin-grafting the healing of the wound, except the excavation left by the portion of destroyed clavicle, was accomplished in six or seven weeks; but on the removal of the support afforded by the leathern splint, nine weeks after the injury, the shoulder was found to droop in a most disfiguring manner; and, by reason of want of fixation of the shoulder, the movements of the arm were seriously impaired.

A thorough examination revealed *no evidence whatever of any chance for union of the bone, osseous or ligamentous.* I then determined to resort to periosteal grafting. By means of the curved scissors and fuming nitric acid, the new tissue-formation in the tract of the lost bone was removed, and by scraping off the cartilage formed on the ends of the bone an excavation about three-fourths of an inch in depth below the surrounding surfaces, an inch to an inch and one-fourth in width, and measuring two and three-fourths inches between the nearest projections of the ends of the fractured bone was made. To maintain the proper length of the clavicle, a wedge-shaped axillary pad, etc., was applied. Having secured healthy granulations, rendered more vigorous by pencillings with a ten to twenty-grain solution of nitrate of silver, I proceeded to graft the wound with periosteum taken from healthy dogs, chloroformed or killed for the purpose. In case of the animals chloroformed the grafts were obtained from the superficial portions of the long bones of the legs; the scapulæ from the dog killed furnished the best grafts. I found a short, stout resection knife, curved on the edge at the point, best suited for cutting out the grafts, whether of periosteum alone or combined with laminæ of the subjacent bone, using the curved scissors for smoothly completing their separation. The grafts taken were the size of a large flax-seed, and applied with as little delay as practicable. The entire surface of the excavated wound, and the ends of the fractured bone were set with the grafts, placed about three-eighths of an inch apart. After waiting some thirty or forty minutes for the wound to take on the glazed appearance due to the drying of the lymph on its surface, the grafted surface was covered with perforated oil-silk; a compress of picked lint, moistened in two per cent. carbolized water, put on, the whole being held in place by adhesive strips.

On the fifth day, when the dressing was removed, about seven or eight out of every ten grafts of the plant were found to be in process of "taking," rather a better result than with human skin grafts.

The behavior of these periosteal grafts was peculiar. Like the human skin grafts, when applied they promptly adhered like leeches. From the sixth to the tenth or twelfth day—according to the activity of development in the individual graft—the pale red of the periosteal tissue was observed to be giving place to a deeper, brighter red. With the aid of a compound magnifying-glass, minute points of granulations, with their loops of capillaries, could be seen cropping out through and blending with the tissues of the graft. In addition to these developmental changes in the grafts themselves, the surrounding granulations of the wound seemed to take on a marked activity, resulting in a rapid envelopment of the grafts; the granulations of the wound seeming to rise up around and cover in the grafts, ultimately creating little sinus-like openings of communication between the surface of the wound and the grafts in these their sunken nests. After a few days or hours these minute openings closed entirely, leaving only little depressions to mark their site. As soon as the grafts had been thus swallowed up, another grafting of the whole surface was done as before. Three successive plants were made in this manner in the course of a month; cicatrization of the edges of the wound being retarded the meanwhile by cauterization. The excavated wound having at last become fairly filled out with granulations, the surface was skin-grafted with human skin, so as to hasten the healing over, and thus diminish the tendency to contraction of the cicatricial tissues.

Results.—Two months after the periosteum-grafting, examination of the parts revealed the fact that *the two-and-three-fourths inch gap in the clavicle had become filled out* with a tissue possessing the characteristics of bone as to hardness, inflexibility, and perfect performance of the function of giving support to the heretofore drooping shoulder. As felt, beneath the tegumento-cicatricial covering—the result of the skin-grafting—the surface of the new section of bone was nodulated and rough, like a mass of rapidly developed exostosis. It was wanting in the natural contour of the adjacent portions of the clavicle, being more flattened out in its transverse, and more or less distorted in its long axis. There was no appreciable difference in the length of the two clavicles at this time. A careful measurement, made two years later, showed the bone to be one-fourth of an inch shorter than its mate of the opposite side.

[1] Read before the Texas State Medical Association.

And now the question arises, Was this filling up of the gap in the clavicle with *osseous* tissue the result of the periosteum-grafting? Might it not have been accomplished by proliferation of scattered fragments of the periosteum, left *in situ* when the bone was shot away; or the result of developmental extension of the ends of the fractured bone? I am firmly convinced that this formation of bone resulted directly from, and could only have been accomplished by, the periosteal grafting done. I recognize the fact that we are rather prone to argue *post hoc, ergo procter hoc.* It was evident, however, from the extent and peculiar character of the injury to the soft parts that no portions of periosteum could possibly have been left behind; and from quite extensive observations in this class of injuries, in the Confederate Hospitals in Virginia, and in the late Franco-German Army Service, I am convinced that so extensive a loss of bone could not, unaided, have been restored. Besides, nine weeks had elapsed after the injury, and no effort at bone formation could be discovered when the periosteum-grafting was undertaken.

The above case of grafting was done in 1876. I have deferred from year to year its publication, hoping to have opportunities of making further trials in similar cases, but failed to find suitable cases in individuals possessed of enough good sense and freedom from prejudice to submit to obtaining even valuable healing by means of the transference of needed tissues from the lower animals to their own precious bodies. I set up no claim to originality in the extensively cultivated field of "tissue-grafting." Although I fail to find mention, in the literature accessible to me of a similar case, doubtless others have done the same, and possibly with equally good results as in my case.

Since writing the above, I have fortunately had the opportunity of examining J. F. W——, again. As the result of a severe fall, some months since, a simple fracture of the new-formed section of clavicle, with angular union, has occurred. In other respects the bone remains unchanged, except that some contraction in its transverse diameter seems to have taken place since my last examination made about three years ago.

Clinical Department.

THE DRAINAGE OF ULCERS AND SURFACE WOUNDS.

Dr. H. Reder, of Aurora, Ill., writes that, thinking upon the deficiencies of the ordinary methods of drainage and the dressing of wounds, he has been led to devise a new method. He uses a flat piece of sponge, from one-half to one inch in thickness, in the centre of which he cuts a hole corresponding to the outline of the wound, but larger than it, so that the sponge may rest about half an inch from its edges. This piece is then soaked in any antiseptic solution which may be preferred and dried under slight pressure. It is then placed on the surface, the wound occupying the open part in the centre, and over it is put a piece of tinned wire netting with one hundred meshes to the square inch, wrapped in four layers of antiseptic gauze. Over this may be applied the ordinary antiseptic cotton or jute dressing. Dr. Reder says that he has found this dressing very useful in superficial wounds of large or small area in which there was a tendency to burrowing of the pus beneath the surrounding integument. The pressure of the sponge prevents this burrowing, and, the dressing being raised above the surface of the wound, there is no maceration from the retained secretions, and scabbing of the surface is promoted. When skin-grafts are made it is necessary to keep the surface moistened with equal parts of boroglycerine and water, otherwise the rapid drying of the wound may destroy the vitality of the grafts before they have taken root. The same dressing is, however, applicable to deep wounds, the openings of the drainage-tubes being in the open place beneath the wire cover. In the dressing of amputation stumps a cap is made of wire netting which covers the end of the limb. In erosions of the os uteri Dr. Reder employs the same principle. A cap is made to fit over the cervix and to this is attached a cone of wire gauze. Over the cone is drawn a rubber cap, a hole being cut in its centre corresponding to the apex of the wire cone. A cord is also attached to the apex of the cone in order to facilitate its removal by the physician or patient when desired. After making the desired application to the erosions the cap is applied over the cervix. The discharge flows away freely, while the eroded surfaces are protected from all friction, and healing is thus promoted.

POISONING BY CHLOROFORM INTERNALLY ADMINISTERED.

Dr. J. M. Latta, of Millerton, Kan., reports the case of a boy, six years of age, suffering from tapeworm, for whom he ordered a mixture of one part chloroform in three parts simple syrup, of which one teaspoonful was to be given every hour until four doses had been taken. By mistake the parents gave the mixture in tablespoonful doses. Twenty minutes after he had taken the fourth dose of the mixture the boy said the medicine was "about to kill him;" he reeled like a drunken person and vomited violently, throwing up mucus tinged with blood. The child was rational when first seen by Dr. Latta, and said that his stomach hurt him, but in a few minutes he became unconscious. The pupils were normal, the breathing easy, and the pulse a little accelerated but regular, and rather full and bounding. The face was covered with an even red flush, arterial in tint. The temperature was not taken. It was impossible to arouse the boy by calling or shaking him. All the pillows were removed, the body was placed straight and all constricted portions of clothing loosened, and fresh air was freely admitted into the room. The pulse and respiration were carefully watched, but as they furnished no special indications for treatment, nothing more was done. The pulse became gradually less rapid, the flush disappeared from the face, and in an hour and a half the boy awoke and expressed himself as being all right. A saline was administered a few hours later and the bowels were moved, but there was no appearance of any tapeworm.

A CASE OF LABOR WITH PREMATURE RUPTURE OF THE MEMBRANES.

Dr. Ralph M. Cole, of Idaho Springs, Col., relates the case of a married woman, twenty-eight years of age, who sent for him to assist her in her fourth confinement. Her previous labors had been easy and normal. She expected to be confined about the middle of September, but on August 28th the membranes were ruptured spontaneously and about a quart of fluid escaped. From that time until September 8th there was an intermittent flow of the waters, but the patient had no pains or anything resembling pains, though the movements of the child could be distinctly felt. An endeavor was made, after the bag of waters had burst, to bring on labor by the application of hot poultices to the abdomen and the internal use of quinine in doses of three grains thrice daily, but as these measures had no effect the attempt was abandoned. Finally, on September 8th, eleven days after the membranes had broken, labor began and delivery was accomplished with the forceps. The child was alive. Dr. Cole adds that the dose of quinine given may seem very small, but that it is necessary to observe great care in the use of this drug in high altitudes, and even this small amount which his patient took caused headache and ringing in the ears.

THE SERIOUS CONSTITUTIONAL EFFECTS OF ENLARGED TONSILS IN CHILDREN.

Dr. Alfred W. Perry, of San Francisco, Cal., writes in reference to the danger to which children are exposed who suffer from enlarged tonsils. He maintains that it is a mistake to say that the associated symptoms of enlarged tonsils, tumefied lips, pallid complexion, pigeon-breast, and general debility are always due to a pre-existing scrofulous diathesis, but believes that the reverse is usually the case. He claims that hypertrophy of the tonsils is an antecedent and competent, though not an invariable, cause of the *syndrome scrophulosa*, so-called. He writes: "Where much hypertrophy of the tonsils exists, the glands barely meeting in the middle line, the breathing during the day is silent and unembarrassed; but when the child is asleep the palatal muscles are relaxed and the tonsils come in contact. This interferes with the passage of air through the fauces at the beginning of inspiration, and it is not until the aspiratory force of the chest is increased that a little air is drawn through. Then the tonsils meet again, and again separate in consequence of still further expansion of the thorax, allowing a little more air to pass. This is repeated several times, so that each inspiratory act is made up of several jerks. Breathing through the nose is prevented by the associated catarrh and swelling of the nasal mucous membrane. A child who suffers from such an obstruction to free inspiration is in a condition of semi-asphyxia during ten hours out of the twenty-four. Pallor is seen in severe bronchitis of young children, and also in pleurisy with great effusion in adults. An insufficient supply of pure air is considered a potent cause in producing that enfeebled condition which predisposes to phthisis; is not, therefore, a deprivation of pure air sufficient to produce the general debility, stunted growth, and fitful appetite seen in these children? Or, to put it differently, how could an embarrassed respiration during ten or twelve hours of each day fail to produce serious constitutional symptoms? The increased relative pressure on the chest-walls causes a yielding of their framework at its weakest part, the middle of the costal cartilages; this portion is depressed while the sternum and the sternal ends of the cartilages are pushed forward, constituting the deformity of pigeon-breast. This is what happens in young children. But later, when the costal cartilages have become more resistant, this sinking in does not occur, but the ribs assume a more horizontal direction, and the barrel-shaped chest of asthma is produced." Dr. Perry adds that he has been collecting data on this subject for several years, and has now the records of fifteen cases. All the patients had been under his observation for four or five years, or longer, and nearly all were robust children up to the time the tonsils became enlarged. But from that time, with no other sickness than recurrent attacks of tonsillitis, they became pale, thin, listless, had capricious appetite, with frequent attacks of indigestion, and gradually acquired the deformed chest. They were all the children of stout, healthy parents, and ought to have remained so themselves, as they were during the first three to six years of life. And the writer maintains that the hypertrophy of the tonsils must have been the cause of the deterioration of general health. He excludes rachitis as a cause, for the reasons that that disease is very rare in his part of the country, and that it never commences after the first dentition is complete, or in previously healthy children. Of the fifteen cases of which he has records he excised one or both tonsils in eight. In every one of these there was, within a week after the operation, a great improvement in appetite, color, and general spirits; and within a few months the gastric troubles ceased, the children increased in weight, and good health was restored. In those not operated upon no improvement took place. The writer concludes that "the importance of any condition which, on the threshold of life, arrests development and lowers vitality, and produces an evil effect on all later life, cannot be exaggerated. It is worthy of most serious attention, especially as the remedy, excision of the tonsils, is so simple, safe, and speedy in its curative effects."

COCAINE IN GENERAL SURGERY.

Dr. A. G. Browning, of Maysville, Ky., writes that he was called to see a lady suffering from a felon which she had treated by poulticing, pricking, etc., without relief. The integument was abraded, and presented a good surface for endermic medication. A four per cent. solution of cocaine was applied and repeated in ten minutes, after which the finger was incised down to the bone without causing pain. In another case of ingrowing toe-nail, after the subcutaneous injection of ten minims, the nail was slit and a portion removed without complaint on the part of the patient. In a third case, one of earache without inflammatory symptoms, in a boy six years of age, a two per cent. solution was dropped into the external auditory canal, and immediate and permanent relief was obtained. Finally, in a case of organic stricture of the urethra in which there was also a spasmodic element, very marked benefit followed the injection of about ten minims of a four per cent. solution. Dr. Browning adds that he has never witnessed any unpleasant effects which could be attributed to the action of cocaine employed as a local anæsthetic.

OVARIOTOMY PERFORMED DURING AN ATTACK OF ACUTE GENERAL PERITONITIS —RECOVERY.

Dr. William Fox reports the following case: Mrs. H——, aged thirty-eight, was married when very young, and had a child when only sixteen years of age. She began menstruating when twelve years of age and has always been regular, but suffered extremely at each period, more since the birth of her child than before. She became a widow at twenty-five, and remained so for six years, when she married again. Twelve years ago she began to suffer from indigestion and a feeling of discomfort in the lower part of the abdomen, which became somewhat enlarged. The abdomen gradually increased in size, but the patient was never ill until four years ago, when she had an attack of peritonitis, confining her to the bed for two months. After a tedious convalescence, she remained fairly well until June 20th of the present year, when she was again seized with acute general peritonitis. The abdomen had been increasing still more during the past ten months, so that the patient believed herself to be pregnant, and had engaged Dr. J. W. Fisher to attend her. He was summoned on the morning of June 20th, and made a diagnosis of ovarian cyst with acute peritonitis. Dr. Fox was now called in consultation, and three days later Dr. H. Senn was also requested to see the patient. There was at this time great distention of the abdomen, the pulse was rapid and wiry, the temperature ranged from 101° to 103°, the respiration was rapid and entirely thoracic, and intense pain was experienced. Distinct friction could be felt when the hand was applied over the tumor on the right side. After the peritonitis had existed for a week, the woman's condition having grown continually worse, it was determined to operate, this being apparently the only chance of salvation for the patient. At this time stercoraceous vomiting had begun, and death seemed to be inevitable unless something were done at once. A room in the attic of the house was made thoroughly aseptic, and the patient was removed to it for operation. Upon opening the abdomen the evidences of a dry peritonitis, such as has been described by Mr. Tait in these cases, were manifested. The tumor was a monocyst, with a number of small endocysts near the pedicle. It was emptied by means of Emmet's trochar and drawn through the abdominal wound. The pedicle, which was

short and very thick, was divided by the hemostatic forceps into four sections, each of which was separately ligated with silk. The end of the stump was covered with peritoneum, the edges of which were approximated by a continuous catgut suture. No fluid was found in the abdominal cavity. The left ovary was healthy. The wound was closed, after a careful toilet of the peritoneal cavity, with four deep sutures of aseptic braided silk and an equal number of superficial catgut sutures. With a view to guard against engorgement of the large vessels, a bandage of elastic webbing was applied over the Lister dressing. An improvement in the patient's condition was seen immediately after the operation; the respirations were less rapid, and the pulse became slower and of better volume. This improvement could be attributed to nothing but the removal of the excessive intra-abdominal pressure.

Progress of Medical Science.

Pseudo-hypertrophic Paralysis and Thompsen's Disease.—Dr. Vigoureux relates a case in which there was pseudo-hypertrophic paralysis coexisting with the group of symptoms known as Thompsen's disease. There was an exaggerated patellar tendon reflex, and under the stimulus of either the galvanic or faradic current were noted a hardness and rigidity of the muscles, unusual in pseudo-hypertrophic paralysis. The disease in the case reported dated back to early infancy.—*Rivista Clinica e Terapeutica*, July, 1885.

Permanganate of Potash Baths.—Dr. Hüllmann recommends baths in a solution of permanganate of potash in the treatment of the so-called scrofulous exanthemata, in prurigo, eczema, intertrigo, and especially in the period of desquamation of measles, scarlatina, and varicella. The baths should be of the strength of one grain to the pint. The permanganate may first be prepared in concentrated solution in hot water, and afterward added in the proper proportion to the water of the bath.—*Centralblatt für Klinische Medicin*, No. 28, 1885.

Treatment of Dilatation of the Stomach by Electricity.—Dr. Predazzi reports in the *Rivista Clinica e Terapeutica* for July, 1885, two cases of atonic dilatation of the stomach successfully treated by the application of the faradic current to various parts of the abdominal parietes over the enlarged organ. The electricity was applied in this manner for about two minutes each day, and at the end of ten and twelve days respectively a very marked improvement was noted. In addition to the faradic current, the patients were put upon a milk diet and the stomach was washed out each morning with a pint and a half of a 7 per 1,000 solution of bicarbonate of soda.

The Action of Santonine Upon the Liver.—Dr. A. Battistini has been making a number of experiments to determine the physiological action of santonine. He reports that it acts especially upon the liver, increasing the secretion of bile, but causing no alteration in the composition of this secretion.—*Lo Sperimentale.*

Pulmonary Abscess Following Pneumonia.—Drs. Foà and Rattone report in the *Gazzette delle Cliniche Mediche di Torino*, vol. 21, a case of fibrinous pneumonia, complicated with abscess, in which they found two distinct species of micrococci which they were able to cultivate separately. The one was the pneumococcus, the other a very small spherical body which, when injected beneath the skin of a rabbit, gave rise to a cold abscess. In the pus of this abscess, among the anatomical elements, were seen the same minute spherical organisms which had been isolated in the culture. From these observations the writers conclude that pulmonary abscess should not be regarded as a sequela of fibrinous pneumonia, but rather a complication, due to the lodgment in the hepatized lung of a special pyogenic micro-organism.

Cutaneous Eruptions in Cholera.—Dr. A. Montefusco, of Naples, has published a monograph treating of the cutaneous eruptions observed in the different stages of cholera. In the prodromal stage the author noted several forms of eruption, but principally urticaria. This was seen more frequently in women than in men, and particularly in those who had suffered from great mental disturbance—fear of the disease, violent anger, and the like. It was preceded by an intense itching, and it lasted from a few minutes to several hours. Another form observed in the prodromal stage was erythema. It was seen in patches here and there over the face, upper extremities and trunk. The eruption appeared usually simultaneously with the first symptoms of the disease, but was of no prognostic value as regards the mildness or the severity of the attack. In one instance the writer observed in the algid stage a number of small pustules, some diffuse and some confluent, which caused the patient great discomfort, but which disappeared gradually as reaction progressed. It was, however, in the stage of reaction that the greatest variety of eruptions was seen. Most commonly maculæ were noted, of a pale red color, disappearing usually on pressure, and scattered irregularly over the entire body. This eruption faded away on the third or fourth day. Sometimes these maculæ, especially on the extremities, were converted into pustules, and then the eruption disappeared much more slowly. Urticaria was very common and spared no portion of the body, appearing sometimes under the form of maculæ and sometimes as wheals. In two cases the eruption began in the scars resulting from the hypodermic injection of ammonia, and it remained confined to this neighborhood. After urticaria the most frequently observed lesion was acne, which prevailed in individuals of somewhat advanced age, and especially in women. This acne was located chiefly in the limbs, and appeared in the form of small red nodules, painful on pressure, lasting from three to five days. In cases in which the reaction was incomplete and irregular, and in which a typhoid condition supervened, the cutaneous manifestations were very numerous, appearing frequently from the seventh to the ninth day. Besides the forms above mentioned were seen hemorrhagic spots, with or without a previous urticaria, phlyctenoid, erysipelas, erysipelatous zones formed around the points of injection of the ammonia, or eruptions resembling those of measles or scarlatina. The eruption of measles was seen during the period of susidence of the epidemic and was manifested chiefly in young girls or female infants. In two cases a scarlatiniform eruption was noted, and in one it was associated with petechiæ. In some individuals there was an eruption of papules, passing into pustules, and ending with the formation of large crusts which persisted for a long time. As to the prognostic value of the cutaneous eruptions, Dr. Montefusco observed that the patient usually recovered when the eruption appeared in the prodromal stage or in normal reaction, but that when it was hemorrhagic or when it made its appearance in a stage of incomplete or typhoid reaction, the result was invariably fatal. In the morbillous eruption the prognosis was favorable.—*Lo Sperimentale*, No. 6, 1885.

Growth of Teeth in a Fœtus.—Dr. Weddize reports in the *Allgemeine Medicinische Central-Zeitung*, No. 55, 1885, a case of labor in which he was called to assist the midwife on account of some complication. Delivery was finally accomplished, and while the child was being bathed it was found that it had the two lower incisor teeth almost through the gums. The mother said that she had given birth six years before to a girl in whom the two lower incisors were already in sight. In this child the two teeth which had made their appearance so early in life fell out at the end of two years.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, October 3, 1885.

THE CHANCES OF AN INTERNATIONAL MEDICAL CONGRESS IN AMERICA.

IT is evident that the work done by the Committee of the International Congress at its secret meeting in this city is an utter failure. The Committee has won over no new friends, but, on the other hand, withdrawals continue to be made. We believe that there is no exaggeration in saying that there are not half a dozen representative men in the profession now who are prominently connected with the organization of the Congress.

The attempt to hold an international meeting under such circumstances seems certainly very wrong, while, if affairs continue on as at present, there will be a collapse of the whole affair before the year 1887. It is known that some of the gentlemen who withdrew from the Congress did so partly because they found that they could not get co-operation at home or abroad; they could not organize sections so as to secure successful work; and this difficulty must steadily increase.

Beyond all this, the obstinate conduct of the gentlemen who are trying to arrange the Congress on American Medical Association principles is arousing a constantly stronger indignation among the profession at large. It is clearly seen that their perversity and disloyalty are bringing discredit upon American medicine.

Since there are no hopes of a genuine International Congress under the present management of affairs, the question arises as to what is the best course to pursue. Either the profession must take hold of the matter and reorganize anew, or we must beg our European brethren to withdraw their invitation. We should greatly regret to be forced to the latter alternative, especially as American physicians are very earnestly desirous of having the International Congress held here.

This being so, it only remains that they strive to act harmoniously and energetically with a view, at the next meeting of the American Medical Association, of reconsidering the hasty and ill-considered action taken at New Orleans. It will only be necessary, after all, that at the session in St. Louis, next spring, the policy of the original Committee be adopted, and that of the present Committee rejected. A large part of the detail work needs no change. Such restorative action might be criticised as inconsistent, but the injury of such criticism would be small indeed compared with that wrought by a pursuance of present methods. For it cannot be too often or too emphatically reiterated that a Congress like the one now being foisted upon us, a Congress that has been inoculated with the poison of a foreign and disorganizing issue, will be practically a failure. The removal of this issue, even so late as next spring, would still give time for organization to be effected. While there is yet this possibility of some change being effected at St. Louis, we will not quite give up the Congress. But meanwhile it will be hardly necessary to say that those who wish well of their profession will carefully keep aloof from all connection with the present Committee on Organization, which might better be called a Committee on Disorganization. This Committee should be vigorously let alone.

FERRAN'S STATISTICS OF CHOLERA INOCULATION.

WE have received a small pamphlet purporting to be the first series of statistics concerning the effects of the so-called preventive inoculation of Asiatic cholera. It contains reports from seven towns in Spain in which the cholera was prevalent during the past summer, and covers a period of about three months from the middle of May to August 10th. The reports are certified to by the local physicians, the alcade, or mayor, and, in most cases, also by the municipal judge and the parish priest, and have, furthermore, a notarial certification. They would seem, therefore, to be both official and authentic, and are undoubtedly as nearly correct as statistics gathered in times of panic and general distress can be. The seven towns are Alberique, Alcira, Benifayó, Cattaroja, Cheste, Chiva, and Masanasa, with an aggregate population of 41,641. The tables give the number of invasions and of deaths among the inoculated, the re-inoculated and the uninoculated. The statistics of the re-inoculated, however, are not complete, as the decree making it illegal for anyone but Ferrán himself to practise the experiment rendered it impossible in most cases to inoculate the second time. It will be remembered that Ferrán asserts that the second or "massive" inoculation will assure certain immunity to the subject. But from the few figures presented it would seem that this claim is not borne out by facts, for in Alcira there were 55 invasions, with 9 deaths among the 8,830 individuals who were reinoculated.

But it is in the effects of primary inoculation that we are chiefly interested, for if every inhabitant of a city like New York must be inoculated twice before he is protected from cholera, the epidemic would wear itself out or be killed by frost before the physicians would have finished their work. In the tables before us we find that out of a total of 41,641 inhabitants, 20,382 were inoculated by Ferrán or his assistants, leaving 21,259 who could not or would not avail themselves of the protection offered them. Of the latter number, 1,584 (or 7.45 per cent.) were attacked by the disease, and of these 824 (or 52.02 per cent.) died. Of the 20,382 inoculated, only 232 (or 1.13 per cent.) were attacked, and of these 75 (or 32.33 per cent.) died. These figures do certainly seem to point strongly to the efficacy of inoculation as a preservative measure, especially when we consider that the experiment is a new one, and Ferrán cannot be supposed to have been as skilful in his early operations as he might claim to be after having had more experience; and, furthermore, it might reasonably be asserted that

when inoculations were practised in such a wholesale way (as in Alberique, for instance, where 594 of the inhabitants were inoculated in one day), many would fail to "take," and then, if one of these individuals acquired cholera, a mark would be scored against the method.

But there are other points to be taken into consideration. Fear, as is well known, is a potent factor in predisposing to cholera, and the feeling of security resulting from having undergone the operation may have conduced to the immunity enjoyed by the inoculated. Again, the statistics before us embrace only seven small towns, in none of which, Alcira excepted, was there a population of six thousand souls, and it may be that the reports from other places will be less favorable. As Ferrán, in his preface to the pamphlet, truly says, if it were a question of the efficacy of some new remedy these figures would be accepted without hesitation, and physicians the world over would at once adopt the method of treatment in their practice with every confidence of success. But the weight of evidence needed to establish any theory as a fact varies greatly according to the antecedent probability or improbability of the theory. Now the theory of preventive inoculation of cholera is antecedently improbable and is so regarded by nearly every scientific man whose opinion carries weight and who has studied the subject at all, and the testimony in its favor must, therefore, be overwhelming in order to be convincing. We do not think that Ferrán has yet proved his theory to be a fact. We wish he had, but he hasn't, and we fear he must produce stronger figures than these before he can obtain the coveted prize which awaits the discoverer of a means of preventing cholera.

SOME SIMPLE HISTORICAL STATEMENTS.

For copiousness of statement and fertility in explanation our esteemed contemporary, the *Journal of the American Medical Association*, has, we believe, no historical parallel.

In its issue of the 26th ult., the whole story of the organization of the Ninth International Congress is retold, with the express assurance that this is the only truthful and historical account. We regret to find, however, that our official contemporary, while stating in an agreeable manner what every one knows, is absolutely incorrect in representing the spirit of the present issue.

We are told, for example, that at the meeting of the Association in New Orleans, the report of the original committee "was freely criticized, several members pointing out the fact that . . . it had given undue prominence to a particular portion of the profession which was well known to have arrayed itself in opposition to the State and National organizations."

The "historical facts" here are that the members in question said nothing about "undue prominence," but urged that the particular portion of the profession referred to should receive no recognition at all, but, in fact, that it should "be taken by the top of the head and its throat cut at once." It is unfortunate that our contemporary forgot about this bit of medical Burchardism. It is bound to be an essential part of history.

Our contemporary, continuing its simple historical recital states that the resolutions then adopted, appointing an enlarged committee, "contain not one word about the Code of Ethics, . . . and prescribe no rule either for the membership, government, or officering of the Congress." Apart from the fact that the foregoing sentence is not very good English, we can find no fault with it as "a historical statement." But unfortunately it has only a technical and historical value. It is very well known that the new committee was expected to ignore all persons of New Code affiliations. If not, why was it that the chairman elected for this new committee, Dr. Cole, was a gentleman who said distinctly, in discussing the Keller resolution, that "he would place none in official positions who were not recognized as loyal to the Code of Ethics."

Our contemporary is to the last degree disingenuous. It knows very well that the New Orleans committee was expected to leave out of the Congress all New Code or no Code men. They did this at the meeting in Chicago. They were forced by public opinion to yield a little at their subsequent secret conference in New York. If the New Orleans resolutions were passed with the intention of still leaving out the Code issue, why does not the present committee recognize the fact? If the Association meant not to have an ethical issue brought in, as our contemporary would have it inferred, then the Committee has been stupidly, criminally wrong in introducing it. Let us have a simple historical statement regarding this committee, and as to the authority by which it excludes a large number of eminent men from the organization of the Congress. This would fitly complete the diuresis of explanations and "simple historical statements" which our Chicago contemporary has been making.

News of the Week.

A Quarrel among the German Physicians.—The appointment by Prince Bismarck of Dr. Schweninger as professor in the Berlin University, has ended in producing a very lively quarrel in the medical world of Germany. It seems that last February, when the question of voting Schweninger his salary came before the Lantag, Dr. Graff, presumably at the dictation of Bismarck, supported the motion for the salary. In speaking in favor of Schweninger, he seems to have used very little tact, and even to have ventured to cite the case of the appointment of Virchow as a precedent. The comparison of Schweninger to Virchow has roused the deepest indignation among the Berlin physicians. Although, like most Germans, not gifted with a great amount of civic courage, they have entered upon a vigorous warfare against Dr. Graff. This gentleman has for several years been President of the "Deutscher Aerztevereinbunde," a position of considerable political importance. The fight is now to prevent his re-election.

The Cholera.—The number of new cases of cholera in Spain is steadily decreasing. The ratio of mortality is also less than at first. Cholera holds its own still in certain parts of Italy. In Palermo, for example, there were 162 new cases reported on September 28th. In Spain the daily number of new cases is about 500.

Why the French Canadians in Montreal refuse to be Vaccinated.—Dr. L. D. Mignault, of Montreal, Canada, sends us the following: "In reading this morning your article entitled 'The Montreal Epidemic, and the Utility of Vaccination,' I was struck by a statement therein, to which as a Montrealer and a French Canadian, I must take exception. You say: 'It appears that the Canadian Catholics, on religious grounds, do not allow themselves to be vaccinated.' The answer to this lies in the fact that not only has vaccination been recommended by an episcopal circular from the Bishop of Montreal, but moreover, nearly every religious community in town has been revaccinated within the past month. At the same time many such communities have forced all their servants to be revaccinated under pain of instant dismissal. You may see by this that objections to vaccination do not rest upon religious grounds, but, as I will explain, have an entirely different origin. In the first place, for several years medical men, whose experience and ability have gained for them public respect and confidence, have unhappily been pleased to flood the press with articles denouncing vaccination, and representing it as the source of many evils, not excluding small-pox itself. At the same time ward politicians and others have from time to time denounced in thrilling terms the horrors of vaccination, aiding their oratorical efforts with vividly colored plates. Secondly, a few cases of erysipelas and other accidents bore out to a certain extent some of these statements, and thus the public mind became biassed against vaccination. The French Canadian, like all representatives of the Latin races, is of a thoroughly inflammable nature, and subject to strong prejudices. With time, patience, and reasoning vaccination will certainly come again into universal favor in our city, and already many of its strongest opponents have become entirely reconciled to it."

Cholera on a Vessel Bound for New York.—An Italian bark, hailing from Marseilles, arrived at this port last Saturday, and reported that one case of cholera had appeared on board three days after the vessel started. The patient died in twenty-four hours, and no further case developed. Great care has been taken by our health officers to see that the vessel was properly disinfected and quarantined. No trouble can possibly be expected from it at this date.

The Small-pox in Montreal.—It is estimated by some that there are between 3,000 and 4,000 cases of small-pox in Montreal. The Health Board, however, reported only 48 deaths from this disease on September 28th.

A Casualty Column for Physicians will, we fear, have to be opened if the returns of homicide, suicide, etc., continue as at present. On September 28th, the papers report that Dr. G. W. Barton, of Bloomington, Ill., was shot and killed by Dr. H. L. Harris, of the same town. It seems that the quarrel arose indirectly out of Dr. Harris's coming to Bloomington and cutting into the practice of Dr. Barton. This latter gentleman resented it and made some harsh criticisms upon his confrère which gave occasion for the quarrel. Perhaps one of the minor morals to be drawn from the unhappy event is that the medical profession is very much over-crowded. It is not very unnatural that, when a new man enters a town and proceeds to take away some of the practice of the older physician, there should be hard feelings. Both claim that they must live, and no doubt the claim is somewhat reasonable.

Changes in Hospital Districts.—A new emergency hospital has been or is soon to be opened at Gouverneur Slip. This hospital will receive cases from the Seventh, Tenth, and Thirteenth Precincts. Another emergency hospital is to be opened on the East River front, between One Hundred and Eighteenth and One Hundred and Twenty-fifth Streets. It is stated that there is some feeling manifested about a proposed arrangement to give the New York Hospital the Twentieth Precinct, which will leave the Roosevelt Hospital with but one precinct, the Twenty-second. Such a system would give the New York Hospital an immense territory, so that a compromise has been suggested by which the Roosevelt Hospital is to have one-half of the Thirty-first Precinct—the territory included by Forty-second and Eightieth Streets, Sixth and Eighth Avenues and the North River.

An Anti-vaccination Riot in Montreal.—The by-law passed by the Provincial Board of Health, making vaccination compulsory, having appeared in the *Official Gazette*, increased the excitement among the French Canadians in Montreal to such an extent that a riot broke out in the east end Tuesday morning, and before the crowd dispersed they smashed many of the windows of the East End Health Office. The riot continued the next night and considerable damage was done. Of course, an obstinate prejudice among the ignorant, fostered by fanatics and a few so-called physicians, was the exciting cause of the riot. But no doubt race feeling had something to do with it. Medical opinion is practically unanimous on the subject of the utility of vaccination, and it is idle to discuss its claims.

Civil Service at the Hospitals.—That wonderful adaptability of questions to candidates sometimes seen in civil service examinations, has at last appeared at the hospitals. At a recent examination in this city, one of the candidates was asked among others, the following questions under the head of "Practice." "Give the highest specific gravity of the blood ever known in diabetes?" "In what country do you find the most tapeworms?" "Number of ova laid by one segment of a tapeworm?" "In what part of the intestine do you find the most cystocerci?" We think the examiner might have profitably added one or two more. "If a man has a tapeworm, and takes an anthelmintic, how much of the worm will he pass at the first sitting?" "Will the worm like being passed?" and "If the worm does not like being passed, what is he going to do about it?"

Dr. Thomas MacIntire, for twenty-five years Superintendent of the Indiana Institution for the Education of Deaf-Mutes, but more lately of the Pittsburg institution, died on Friday of last week, after a protracted illness, in the seventieth year of his age. He was one of the best known deaf-mute instructors in the country.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, September 28, 1885.

DANIEL LEWIS, M.D., PRESIDENT, IN THE CHAIR.

DR. A. F. CURRIER read a paper on

GONORRHŒA IN THE FEMALE,

in which he first presented the argument in favor of its being an infectious disease, due to a micro-organism, or gonococcus.

In most cases it was limited by the os internum ; less frequently it invaded the urethra and bladder ; extension of the process through the Fallopian tubes to the peritoneum was possible, and this fact had been known for many years. Gradually the profession was approaching the acceptation of the views announced by Dr. Noeggerath in 1872, who directed attention to a particular form of the disease, namely, that which involves the Fallopian tubes, and in addition to simple catarrh and hydro-salpinx there are other more serious conditions, usually of an infectious nature, either tubercular, syphilitic, or gonorrhœal. The gonorrhœal form most frequently goes with pyo-salpinx, but the latter was not necessarily of gonorrhœal origin. The diagnosis rests upon the discovery of the gonococcus.

With regard to prophylaxis, Dr. Currier believed that any class of persons who were liable to distribute infectious disease should be under properly regulated medical police regulations.

Marriage should not occur as long as gonococci could be found in the discharges.

According to Oppenheimer, corrosive sublimate, creasote, and nitrate of silver are the only germicides which destroy the cultivated microbes.

Other remedies, however, had been used clinically with success, and that which had given Dr. Currier the best results was a combination of nitrate of bismuth and glycerine ; he had not obtained satisfactory results with a sublimate solution. Bismuth one drachm, glycerine one ounce, applied upon a cotton tampon, which was allowed to remain ten or twelve hours, then removed and the vagina washed with hot-water injections. Perhaps the mixture was not directly destructive, but its action deprived the microbes of the material necessary for their propagation and they died of starvation.

Dr. Noeggerath had said that it could not be cured, but Dr. Currier believed that if the case was treated sufficiently thoroughly and for a sufficient length of time, the disease could be cured ; that is, the micro-organisms could be killed.

DR. H. T. HANKS said it was still a mooted point whether or not the disease was produced by a specific germ ; but the results and the method of treatment were well known and generally accepted. He believed that a very large percentage of the diseases peculiar to women were due directly to gonorrhoea. He regarded it, however, as practically impossible to make a diagnosis in most of the women in well-kept houses, because of their habits of cleanliness. But the results were practical, and the question was, what could be done to prevent the suffering entailed by the disease. He thought all should go to work with more confidence than had usually been expressed that the affection could be cured. Patients should be treated every *third* day, except for about eight days, including the period of menstruation. His favorite plan had been to *distend* the vagina from four to six times a day with a solution consisting of chlorate of potash, two drachms, and hot water, one quart. When this was carried out thoroughly, so that every portion of mucous membrane was washed with the solution, the disease would be generally stopped quickly. It was most essential that frequent and copious warm-water douches be made, keeping the parts absolutely clean, every three or four hours ; the medication of the solution —whether it be carbolic acid (ʒ j. to O ij.), chlorate of potash (ʒ ij. to O ij.), or corrosive chloride of mercury (gr. ij. to O ij.)—was of less importance, either will cure when used frequently and in copious quantities.

DR. GARRIGUES had not looked for the gonococcus, but had diagnosticated his cases by the virulence of the inflammation. He had found that the glands of Bartholini were very liable to be affected, and that then the case proved obstinate. His method then was to lay the abscesses open and wash with a sublimate solution 1 to 2,000. According to his observation the disease does not, as a rule, attack the urethra, as was formerly taught. In the treatment of the chronic conditions glycerine, with or without medication, worked very well.

DR. BOLDT thought the urethra was not affected so infrequently as perhaps might be inferred from the paper and the remarks made during the discussion. His treatment had consisted in the use of equal parts of glycerine and a saturated solution of boracic acid, together with injections of boracic acid, half an ounce to a gallon of water. In the majority of cases, it would be well toward three months before cure could be effected.

DR. H. G. LYTTLE said that, when House Surgeon in Charity Hospital, the practice was to apply plain glycerine upon a tampon, confine the patients to the bed, and that they got well in two weeks, as a rule.

DR. MESSENGER said that the injections should be given by the physician, as no woman could properly syringe herself. The vagina must be thoroughly distended, and the bichloride solution was the best remedy he had used.

DR. CURRIER said, in closing the discussion, that the urethra was not apt to be involved in the majority of cases, and that the anatomy of the parts favored this immunity. Again, symptoms of supposed urethritis were, perhaps, frequently simple inflammation of the peri-urethral glands, which open upon the floor of the urethra. He thought it quite probable that the glycerine, in all the mixtures named, played an important part, but he was also certain that bismuth was a valuable remedy ; he was also quite sure that the two remedies were improved by being mixed with each other.

DR. GEORGE HENRY FOX, then read a paper entitled

REMARKS ON THE TREATMENT OF LEPROSY.

Cure of this disease was rarely hoped for by either physician or patient. But he thought it should not be regarded as necessarily an incurable affection. The point to which he wished to direct special attention was the *morale*, the *mental condition of the patient.* To inspire hope and confidence was a most important point in the treatment of leprosy. The full belief, on the part of the patient, that leprosy is an incurable disease, he believed, counteracted the effect of medical treatment. It is a contagious disease. It is quite probably transmitted by hereditary influences. Aside from inheritance, leprosy is only communicable by inoculation of the blood with the morbid secretions of an affected person. Compulsory segregation is undoubtedly judicious. The chaulmoogra oil is probably the remedy which has afforded the best results.

DR. F. C. FULLER had seen a large number of cases of leprosy in the West Indies, where but little restraint was placed on their movements, and where also its contagiousness was quite well established.

DR. J. A. MOORE had also seen a large number of lepers in the West Indies, and thought that the buoyancy of their feelings was most remarkable. As he had observed it, the disease seemed to progress to a certain point and then become stationary. With regard to heredity it was very apt to skip an entire generation, and then not reappear in all the members of a family.

DR. J. C. PETERS had seen the lepers in Havana, and

while they lived like dogs, they seemed to be perfectly happy and indifferent as to their condition.

Dr. D. Bryson Delavan had seen a large number of lepers with Professor Hansen, of Norway, where the disease was regarded as hopeless so far as cure was concerned, yet the care which these people received was far superior to that given them in any other country. Comparative isolation had been advantageous, and had reduced the number from three thousand to scarcely seventeen hundred, and the government hoped to eradicate the disease entirely, although the chronicity of the affection was such that twenty years had already been spent in that direction. It was usually found among the lowest classes, yet the disease occasionally appeared in other places. In the way of treatment very little was done, except to endeavor to alleviate the more distressing symptoms. It was well known that Prof. Hansen was the discoverer of the bacillus lepra and was an acknowledged authority on this subject in Europe. The hospitals for these patients were in good condition, but it was through isolation that the best results, so far as eradicating the disease was concerned, were expected.

Dr. Piffard had never known it to spread among the good classes, whereas among the lower classes it certainly did spread. Where there is a good deal of the disease, treatment amounts to nothing. During the last ten years he had had under his observation probably *thirty* cases, and of these only *two* died, and every case improved under the systematic and persistent use of chaulmoogra oil and strychnia with natural combinations, chiefly, as hoang-nan. He had been unable to keep up the use of these remedies very long at any one time, and had, therefore, given one as long as it was possibe to get the patient to take it, and then substituted the other and continued it in the same way. He had not seen a case cured, but had seen patients benefited to an extent which permitted them to return to lives of usefulness. He believed that there were some fears of contagion.

The Society then adjourned.

THE MEDICAL SOCIETY OF VIRGINIA.

Sixteenth Annual Meeting, held at Alleghany Springs, Montgomery County, Va., September 15, 16, and 17, 1885.

Tuesday, September 15th — First Day — Evening Session.

The Society was called to order at 8 P.M. by Dr. Bedford Brown, a railroad accident having prevented the President, Dr. S. K. Jackson, from arriving in time. About one hundred and fifty members were present.

DELEGATES FROM OTHER SOCIETIES.

Drs. Archer Atkinson, of Baltimore, and J. S. Conrad, of Matley Hill Sanitarium, were present as delegates from the Medico-Chirurgical Society of Maryland, and Dr. Thomas R. Evans from the Medical Society of West Virginia. Dr. George T. Harrison, of New York, Honorary Fellow, and Dr. William G. Eggleston, of Chicago, a member of the Society, were also present. Over one hundred new members were received into the Society.

Dr. H. M. Clarkson, of Haymarket, delivered the

ANNUAL ADDRESS TO THE PUBLIC AND PROFESSION,

before an audience of some four hundred ladies and gentlemen in addition to the members. The address dealt chiefly with the question of medical societies and of their relation to the public.

Dr. Isaac White, of Alleghany Springs, read a paper on the

MEDICAL PROPERTIES OF THE ALLEGHANY WATERS.

The temperature of the springs is 56° F., and the waters contain baryta, strontia, and magnesium salts. Owing to the presence of the two former ingredients the waters are somewhat similar in their effects to those containing arsenic. The speaker did not regard the waters as a "cure all," but was convinced of their great value in the treatment of dyspeptic disorders. The dose was one glassful, gradually increased to two, before meals, varying however as it was desired to secure tonic, diuretic, or cathartic action. When first taken, the waters sometimes caused a feeling of giddiness or even headache, and might cause erythema, eczema, or an eruption of furuncles.

Dr. William C. Dabney, of Charlottesville, in his capacity as President of the Board, read the

REPORT OF THE VIRGINIA STATE BOARD OF MEDICAL EXAMINERS,

showing that since the beginning of the year, thirty-two candidates had passed satisfactory examinations and had been licensed to practise medicine in the State, while six had been rejected. All of the candidates were college graduates.

Wednesday, September 16th—Second Day—Morning Session.

Dr. S. K. Jackson, of Norfolk, delivered the

PRESIDENT'S ADDRESS.

The speaker said that he regarded his elevation to the highest office in the gift of the profession of Virginia as an expression of appreciation of his endeavor to interest the Society in the question of zymotic diseases, especially as regards prophylaxis. He first considered the impediments in the way of rapid progress of medical science, then dwelt upon the factors favoring its recent high development, and finally discussed the measures which seemed most efficacious in ensuring its continued growth.

Dr. Thomas J. Moore, of Richmond, opened the subject for general discussion by reading a paper on

SCARLET FEVER,

accepting the classification of the disease, usually adopted by American writers, into scarlatina simplex, anginosa, and maligna, and describing very minutely the classical types of each of these forms. Then, after tracing the history of the disease from its first definite description by Sydenham, the speaker dwelt upon its etiology, and also discussed the germ theory of disease. He was not prepared to accept either the *Monas scarlatinosum* of Klebs, or the *Plox scindens* of Eklund, as the bacillus of scarlet fever, and did not believe that the specific microbe had yet been discovered. On the subject of treatment, the author rejected belladonna as useless in prophylaxis and of very little value in palliating the symptoms. For the reduction of temperature he preferred the external application of cold by means of an ice-bag to the head, the wet pack, or, as a last resort, the cold bath. His favorite internal antipyretic had been quinine, but he hoped much from resorcin, and urged his hearers to test its efficacy as opportunity offered. Externally he used a mixture of carbolic acid, ♏ xv.; borax, ʒ j., and glycerine, ʒ j., and was pleased with its action. In the dropsy of acute desquamative nephritis he recommended the exhibition of small doses of mercury for a few days when the ordinary diuretics were not accomplishing the desired end.

Afternoon Session.

This session was devoted to the

ELECTION OF OFFICERS.

for the ensuing year. The following were elected:

President—Dr. Rawley W. Martin, of Chatham.

Vice-Presidents—Drs. John S. Apperson, of Town House; T. B. Greer, of Rocky Mount, and H. M. D. Martin, of Fredericksburg.

Recording Secretary—Dr. Landon B. Edwards, of Richmond.

Corresponding Secretary.—Dr. J. F. Winn, of Richmond.

Treasurer—Dr. R. T. Styll, of Richmond.

Dr. Hugh T. Nelson, of Charlottesville, was appointed to deliver the annual address to the public and profession in 1886, and Dr. L. Ashton, of Falmouth, to lead in the discussion on "Puerperal Septicæmia" at the next meeting.

Drs. Thomas J. Moore, and Hugh M. Taylor, of Richmond, and Meade C. Kemper, of Norfolk, were appointed Examiners on the State Board.

It was voted that the

SEVENTEENTH ANNUAL MEETING

be held in Fredericksburg, during November, 1886.

EVENING SESSION.

DR. BEDFORD BROWN, of Alexandria, presented a paper in continuation of the

DISCUSSION ON SCARLET FEVER.

The speaker dwelt chiefly upon the therapeutics of the disease. He made frequent use in his practice of a formula containing salicylic acid, tincture of aconite, ammonia, and digitalis, and found that it diminished fever more decidedly than any other antipyretic he had ever employed, and acted also as a diaphoretic and diuretic. He deprecated the giving of frequent baths as being too exhausting in adynamic cases. In renal dropsy with engorged kidneys, a full dose of calomel, followed by jalap, would often do good, but when there is a cool skin with pallor, feeble pulse, and great prostration, purgatives are not well borne. Lumbar poultices, digitalis, acetate of potash, and occasional saline laxatives may then be used.

DR. R. J. HICKS, of Casanova, had never, in his thirty years' experience, seen anything indicating a

RELATIONSHIP BETWEEN SCARLATINA AND DIPHTHERIA,

nor had he ever seen scarlatinal throat complications threaten life. He believed strongly in the necessity of an abundance of fresh air in the management of a case of scarlet fever, and said that malignancy was dependent upon bad sanitation, for zymotic germs do not live in pure air but are bred in filth.

DR. ALEXANDER HARRIS, of Jeffersonton, dwelt especially upon the necessity of perfect ventilation and thorough cleanliness. He thought that boiling water or steam was better than the disinfectants in popular use for cleansing the clothes of the patient, or the room in which he has been sick.

DR. C. T. LEWIS, of Clifton Forge, believed in the stimulating plan of treatment, and also in the giving of a liberal supply of nourishing food.

DR. J. T. WINN, of Richmond, agreed with the speakers in their advocacy of sanitary measures. Chloride of lime or corrosive sublimate were the best substances to use in the disinfection of linen and other articles which could not be burned.

DR. L. LANKFORD, of Bowers, thought that malignant scarlet fever would be rarely seen if the importance of pure air were more generally appreciated.

DR. J. HERBERT CLAIBORNE, of Petersburg, related several instances in which individuals had acquired the disease in a mild form after having come in contact with very severe cases, and *vice versa*.

DR. WILLIAM L. ROBINSON, of Danville, was a believer in the efficacy of medicinal treatment. He used baths to reduce the temperature, and allowed his patients to drink freely of lithia water during the course of the disease.

DR. W. W. PARKER, of Richmond, advocated the free use of alcohol in malignant cases, and believed he had saved many cases since adopting this plan.

DR. M. A. WILSON, of New River Depôt, had seen good results from the use of belladonna in throat complications.

DR. HUGH T. NELSON, of Charlottesville, insisted upon the necessity of isolation, even of the mildest cases, in order to prevent the spread of the disease.

THE CHLORINE TREATMENT

of Watson, as described in his work on the "Practice of Physic," was advocated by Drs. Jackson, Thomas, Lewis, Broaddus, Grammer, and Cooper.

DR. M. G. ELBEY, of Washington, D. C., presented a

REPORT ON CHEMISTRY, MATERIA MEDICA, AND THERAPEUTICS,

reviewing the progress made in these branches during the past year.

DR. S. W. DICKINSON, of Marion, followed with the

REPORT ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN,

dwelling especially upon antiseptic midwifery, anæsthesia in labor, neurasthenia, the treatment of uterine displacements, and the therapy of children's diseases.

THURSDAY, SEPTEMBER 17TH—THIRD DAY—MORNING SESSION.

DR. R. T. STYLL, of Richmond, presented the

TREASURER'S REPORT,

showing a balance, after the payment of all expenses to date, of $390.55.

DR. W. D. TURNER, of Fergusson's Wharf, in behalf of the Committee appointed to consider the subject, reported in favor of a petition for the enactment of

A LAW TO REGULATE THE PRACTICE OF PHARMACY.

DR. BEDFORD BROWN, of Alexandria, then read a paper on the

TREATMENT OF LACERATIONS OF THE OS AND CERVIX UTERI WITHOUT SURGICAL OPERATION.

While admitting the advantages of Emmet's operation as a prompt means of relief, though not unattended with danger, there were yet many females, the author said, who were debarred from these benefits and for whom some other method, or none at all must be used. During the past twelve years the writer had treated successfully upward of twenty cases of laceration and fissure of the os and cervix, of varying degrees of severity and some complicated with cellulitis, displacements, subinvolution, etc., by means of local applications alone. The patients suffered from severe neuralgic pains, and in most of them there was more or less impairment of the general health. The writer had seen several cases of laceration in the acute stage heal by first intention after the enforcement of absolute rest and the carrying out of measures of strict cleanliness and disinfection. Warm douches containing borax, boracic acid, and carbolic acid were used gently two or three times a day. If the lacerations did not heal within two weeks they would not heal at all by first intention. In the treatment of old lesions the author had obtained the best results with graduated solutions of nitrate of silver. He applied a solution of thirty grains to the ounce freely to the interior of the cervical canal, and another of fifty grains to the ounce was painted over the whole external surface of the os and cervix until a uniform thick white coating was formed. This coating protects the exposed nerve-filaments, allays inflammation, stimulates the growth of healthy granulations and prevents the absorption of septic matters from the discharges. The solution should be made to penetrate to the very bottom of the fissure in order to ensure success. If hypertrophy and induration of the cervix remain after the lacerations are healed, an application to the external surface is made of a solution of nitrate of silver, ʒ ij. to ℥ j. Several of the patients thus treated became pregnant, whereas while the disease existed they were sterile, and being examined after the birth of their children, the cervix and os were found in every case to be normal and entirely free from disease.

Dr. George T. Harrison, of New York, followed with a paper on

PUERPERAL SEPTICÆMIA,

referring especially to its prophylaxis and treatment. The disease, he said, is one that comes from without and cannot gain admittance unless a wound exist somewhere along the genital tract. But the inner surface of the uterus is one large wound, and there are almost always rents in the cervix, vagina, or vulva. In puerperal fever the carriers of infection are either the pathogenous fungi, which generate traumatic diphtheria, pyæmia, and septicæmia, or they are putrefactive germs. The latter are ubiquitous; the former are imported by the hands, instruments, etc. The former affect the organism immediately; the latter indirectly, by their influence on decomposable matters. The principles of prophylaxis consist in pure air for the lying-in-woman, thorough disinfection of the genital tract, and the observance of strict surgical cleanliness on the part of the accoucheur. During pregnancy the woman should frequently wash the external genitals with soap and water, and afterward with a boracic-acid solution. The speaker deprecated the use of antiseptic vaginal injections during labor, unless the patient had been exposed to the possibility of infection, or in tedious and complicated labors during which frequent examinations had to be made or instruments used. All lacerations of the perineum should be closed under strict antiseptic precautions, and iodoform should be dusted over the raw surfaces.

Dr. H. Grey Latham, of Lynchburg, presented the

REPORT ON ADVANCES IN SURGERY,

and Dr. Rives Tatum, of Harrisonburg, the

REPORT ON ADVANCES IN THE PRACTICE OF MEDICINE.

Dr. R. C. Powell, of Alexandria, read a paper entitled

CLINICAL NOTES ON CARCINOMATOUS AFFECTIONS OF THE DIGESTIVE ORGANS,

in which he dwelt especially upon the unreliability of gastric symptoms as evidences of gastric affections, and upon the great value of cachexia as corroborative evidence of malignant disease. He regarded cachexia as a more certain sign of cancer than even the presence of a tumor. There is no specific for the cure of carcinoma, and the treatment might be briefly stated to be the permission of "amusement without excitement, exercise without fatigue, and nutrition without stimulation." The diet should be regulated so as to compensate for the impairment of the digestive function of the organ involved, whether that be the stomach, the pancreas, or the liver.

Dr. M. A. Rust, of Richmond, followed with an exhaustive and interesting paper on

THE ETIOLOGY OF ZYMOTIC DISEASES.

The credit of paving the way for the evolution of the germ theory of disease was due, the writer said, to the botanists and biologists, who, in studying certain epidemic diseases among plants and insects, found that they were always due to the action of some low form of life. Then it was that medical men began to suspect that a similar cause lay at the foundation of the zymotic diseases in higher organisms. The writer then mentioned the different varieties of microbes, and discussed the various theories concerning their origin, their mode of action within the tissues, and the way in which they are finally overcome and eliminated from the organism.

Dr. M. L. James, of Richmond, then read a paper on

DYSPEPSIA AND NEURASTHENIA,

in which he traced the dependence of these two conditions one upon the other, and the evil effects which they mutually exert upon each other, and offered suggestions for the treatment of these distressing affections.

AFTERNOON SESSION.

At this session, when the

REPORT ON ADVANCES IN HYGIENE AND PUBLIC HEALTH

was called for, Dr. Edwards made the sad announcement of the

SUDDEN DEATH OF DR. WILLIAM H. COGGESHALL

in Richmond on September 7th, just after he had completed his paper. At the unanimous request of the Society Dr. Edwards read the report, which was entitled

THE RECENT PLYMOUTH EPIDEMIC AND THE LESSONS IT TEACHES.

The writer showed that the epidemic could be traced to the pollution of a stream, from which the water-supply of the town was obtained, by the dejecta of a typhoid fever patient. No attempt had been made to disinfect these stools. This taught us, he said, the necessity of thorough disinfection of all the excreta of patients suffering from zymotic diseases, and also the danger of allowing habitations to be erected on the banks of a stream from which the water-supply of a community is obtained.

Dr. J. E. Chancellor, of the University of Virginia, then read a paper on the

EVILS OF INHUMATION AND ADVANTAGES OF CREMATION,

the title of which indicates clearly the nature of the article. It was an able plea in support of cremation as a means of disposing of the dead.

Dr. Philip Taylor of Richmond, read a report on

ADVANCES IN OPHTHALMOLOGY,

giving a brief *résumé* of the progress which had been made in these branches of medicine in recent years.

Dr. J. A. White, of Richmond. presented some

PRACTICAL REMARKS AND SUGGESTIONS REGARDING DISEASES OF THE EAR, NOSE, AND THROAT.

He emphasized the necessity of prompt treatment of middle-ear disease, spoke of the influence of puberty and the menopause on otitis, dwelt upon the danger of confounding follicular tonsillitis and catarrhal diphtheria, and mentioned the treatment of hay fever by cauterization of the nasal mucous membrane. His remarks were illustrated with the reports of a number of cases.

Dr. Chas. M. Shields, of Richmond, read a paper on

TRACHEOTOMY IN LUPUS OF LARYNX AND DIPHTHERIA.

He related a case of lupus of the larnyx in a man aged fifty-five, and one of diphtheria in a child aged three, in both of which tracheotomy was successfully performed.

Dr. R. C. Cullen, of Henrico County, sent a communication on

INFANTICIDE,

in which he advocated the enactment of more stringent laws to repress this crime.

Dr. L. Ashton, of Falmouth, read a paper entitled

A PLEA FOR TRACHEOTOMY IN CROUP,

in which he urged the more general performance of this simple operation, believing that by this neans the lives of many children could be saved.

EVENING SESSION.

Dr. J. S. Conrad, of Matley Hill Sanitarium, Baltimore, read a paper on the

PSYCHOLOGICAL ASPECTS OF SUICIDE.

Dr. Archer Atkinson, of Baltimore, who was present by invitation, presented a short communication on

IRRITABLE RECTUM.

Dr. Wm. G. Eggleston, of Chicago, reported a case of

GUNSHOT WOUND OF THE HAND.

At the conclusion of this paper, with which the scientific labors of the meeting were concluded, the Society adjourned to the dining-hall of the hotel, where they were entertained at a

COMPLIMENTARY BANQUET,

given by the host, Captain C. A. Colhoun.

AMERICAN GYNECOLOGICAL SOCIETY.

Tenth Annual Meeting, held in Washington, D. C., September 22, 23, and 24, 1885.

(Continued from page 336.)

WEDNESDAY, SEPTEMBER 23D—SECOND DAY—MORNING SESSION.

THE Society was called to order by the President. The following were elected

INVITED GUESTS.

Drs. A. P. Dudley, L. Ernest Neale, Charles H. Riley, Charles O'Donovan, Jr., William E. Moseley, H. S. Bouey, and Joseph B. Plumb, of Baltimore; Dr. J. H. Carstens, of Detroit; Dr. Charles Jewett, of Brooklyn; and Dr. Mary Parsons, of Washington.

THE PRESIDENT called the First Vice-President, DR. William L. Richardson, of Boston, to the Chair, and then delivered

THE ANNUAL ADDRESS.

In the profession of medicine, above all, perhaps, facts are the things which teach, and the intellect, the reason, is the test of truth. The judge who is to discover the truth of complex medical facts and phenomena must be no ignorant prejudiced partisan, biassed by preconceived opinions; but he must be richly endowed with the wisdom of the past, and the rapidly accumulating information of the present, and quick to detect the relations between seemingly dissimilar things. It is not a large number of cases carelessly observed and committed to the treacherous custody of memory, but the comparatively few that are carefully observed, well studied, and honestly recorded, that contribute to establish the great principles of scientific medicine.

Dr. Howard then presented the histories of two rare cases, in which he was unable to make a diagnosis.

CASE I.—S. H——, negress, aged twenty-four years; married; menstruated first at the age of fourteen, which continued regular and normal; was the mother of five children, never had a miscarriage, and her last child was born two months previously. Some days after her last labor she noticed an enlargement of the lower portion of the abdomen, which gradually extended in the median line up to the umbilicus, and was attended by bearing-down pains and frequent micturition. Dr. W. P. Chinn, his chief assistant, detected fluctuation over the entire abdomen, with decided resonance about the umbilical region, and with dulness and bulging in both flanks. Six weeks afterward Dr. Chinn discovered that the umbilical resonance had entirely disappeared, and had been supplanted by dulness, and the umbilicus itself projected forward in the form of a spherical tumor. About two weeks subsequently Dr. Howard saw the patient for the first time, when she had a temperature of 102.5° F.; pulse, 120; respirations, 32. Physical examination revealed pleurisy on the left side. The abdomen was of about the size of that of a woman in the seventh month of pregnancy. There was complete dulness over the entire tumor, unchanged by position, and there was equal fluctuation in every direction. There was no evidence whatever of a solid tumor. The cavity of the uterus measured three and one-quarter inches, and the organ was in front of the tumor.

The President then presented the differential diagnosis relating to ovarian cystoma, fibro-cystoma of the uterus, parovarian cyst, simple ascites, and encysted dropsy of the peritoneum the result of simple peritonitis.

Dr. Howard aspirated the abdominal cyst under antiseptic precautions. The fluid removed coagulated as speedily, and the coagulum was as solid, as that of blood.

After the fluid was removed large hard masses could be felt through the abdominal wall, resembling those felt after tapping a multilocular ovarian cyst, and, according to Atlee, he had to deal with a fibro-cyst of the uterus. But his experience had negatived Dr. Atlee's, and the diagnosis of fibro-cystic tumor of the uterus was again rejected.

The patient rapidly succumbed, with evidence of peritonitis, after the tapping, and the autopsy revealed a case of

ENCYSTED TUBERCULAR PERITONITIS,

which presented the characteristic phenomena of a unilocular ovarian cyst or parovarian cyst.

Dr. Howard then reviewed the literature of tubercular peritonitis, embracing eight cases, in which it could scarcely be said that a correct diagnosis was made in either previous to death.

The second case was that of F. R——, colored, twenty-four years of age, married one year, but never pregnant. General health good, uterine functions normal, no evidence of cardiac or renal trouble. Her abdomen measured, from the ensiform cartilage to the umbilicus, ten and a half inches; from the umbilicus to the symphysis pubis, nine and a half inches; circumference at the umbilicus, forty-six and a half inches; below the umbilicus, forty-seven inches. Distance from the umbilicus to the anterior superior spinous process of the ilium, on the right side, twelve inches; on the left side, twelve and a half inches. The uterus seemed to be pressed forward by a large sac containing fluid, and the sound entered the cavity two and a half inches. The enlargement began about seven and a half years previously, had been free from pain, and gave no special inconvenience to the patient except that which arose from weight and sense of distention.

Microscopical examination of the fluid removed from the tumor in both cases was not resorted to, because Dr. Howard believed that the microscope in the hands of the average microscopist was misleading and untrustworthy. The subsequent history of the case proved it to be one of unilocular cyst, which could not be removed by operation.

The differential diagnosis in this case was studied after the same plan adopted in the first, and also included an extensive *résumé* of the literature of the subject.

The President then returned his thanks to the Society for the honor which it had conferred upon him, and concluded his address with a brief allusion to the "peerless father of American gynecology, J. Marion Sims. It was in this city that he hoped to spend his declining years, and had already made a purchase of a home here for that purpose."

The address was discussed by Dr. T. A. Emmet, of New York, who referred to cases of difficult diagnosis, and also to cases in which great mistakes in diagnosis had been made; by Dr. Busey, of Washington; by Dr. Goodell, of Philadelphia, who thought the President need not be ashamed of having been unable to made a diagnosis until permitted to do so by autopsy; by Dr. Reamy, of Cincinnati, who had a case of death after aspiration of the peritoneal cavity for cystic degeneration of the peritoneum in man, and he also referred to cases of difficulty in diagnosis; and the discussion was closed by Dr. Howard.

THE CARE OF THE PERINEUM DURING LABOR.

DR. THAD. A. REAMY, of Cincinnati, then read a paper on the above subject, in which he said that he who preserves from rupture a perineum which is in peril shows more skill than he who successfully repairs a perineum which has been ruptured. He then referred to the methods which had been recommended for preventing rupture of the perineum, and it was shown that by far the greater number of authorities believed in some method of preservation, and that the method which combined judicious perineal support, with simultaneous re-

tardation of the head, seemed to meet with most favor. The method to be described properly came under the class which combined perineal support and control of the head. It was not recommended in all cases, but only in primiparæ, or in other subjects where the structures were likely to be greatly imperilled.

When the head begins to bulge the perineum, and its distention is such as to indicate peril to its attenuated structures, he places the patient with her back across the bed, with her nates brought to its verge, and takes his seat within easy distance for the necessary manipulations incumbent upon the accoucheur. Then the thighs are flexed upon the abdomen, and the legs upon the thighs, with the knees brought close together, and the limbs are held in this position by two assistants, who may be seated on the edge of the bed, with their backs toward the patient's head; or, if a narrow bed can be obtained, they may take positions on the opposite side of the bed from the accoucheur, which is preferable. These assistants are then given opposite ends of a towel or bandage of linen, about ten inches wide and forty to fifty inches long, which is carried around the buttocks of the patient and spread out smoothly, with its anterior or upper edge on the level of the fourchette. They are then instructed to make traction, during the pains, in such amount and in such direction, and with such part of the bandage as the accoucheur may direct; the direction of the traction may be varied at will, from downward and backward to an upward and forward movement.

The following anatomical and mechanical reasons were given in support of this method of perineal preservation. Recent investigations tend to overthrow the prevailing views concerning the muscles of the perineum (Berry, Hart, and Savage). It has been very generally held that the vagina has a proper sphincter, which is in relation with the sphincter ani by a figure-of-8 continuation, and that there is, just back of the fossa navicularis, a muscular commissure, in the centre of the floor of the perineal body, which also gives attachment to the transversus perinei muscles.

It now seems well established that there is no such fortunate decussation just behind the fourchette; for, if there were, this would be the strongest point of the perineum and not the weakest, as shown by the clinical evidence of its frequent rupture at this point. The firm submucous band felt during parturition at the ostium vaginæ, usually called the constrictor vaginæ, etc., was supposed to be an elliptical muscular ring whose fibres are continuous behind the fossa navicularis. This arrangement of the muscles is taught, and has been, in nearly all of the works of anatomy. Hart shows such a view to have been greatly in error; for, first, the transverse muscles run markedly backward and meet each other at quite an acute angle in the perineal body, and consequently the sphincter vaginæ is not a sphincter at all, but simply a median portion of the two halves of the levator ani as they spread apart and allow exit of the urethra and vagina; these parts of the levator ani are called pubo-coxygeus by Savage. This view of the anatomy is sustained by Cazeaux and Tarnier. Thus it is evident that the median laceration is not required to tear any muscular fibres transversely except a few of the transversei until it reaches the sphincter ani, and in such an injury the skin and fascial fibres only are torn, while the muscular fibres are separated longitudinally.

Suppose two vertical curtains, to use Emmet's simile, whose edges are in contact below and slightly separated above; any attempt to increase the separation at the point of opening by attempting to push a large body between them will manifestly tend to drive them apart below. If this be stayed at the point where they are united below by other curtains below and behind, against the upper edge of which the propelling force is apparently directed, the tendency to separation is greatly decreased. Suppose, in addition, that another transverse curtain is placed over the other two, and, besides, such direction and traction is made upon it as will incline these vertical curtains toward each other we have surely diminished the probability of their separation.

In this method of support the towel properly applied, and the traction successfully directed, plays the part of the third curtain in the illustration, and answers the purpose of a supplemental perineum in practice. It retards the head at the will of the accoucheur by varying the amount and direction of the traction.

This method exerts complete control over the direction of the head, and does not interfere with the use of the forceps or the employment of episiotomy.

The discussion of Dr. Reamy's paper was postponed until the afternoon session.

Afternoon Session.

The Society was promptly called to order by The President.

The discussion was opened by Dr. T. A. Emmet, of New York, who said he had no remarks with regard to supporting the perineum, as he had nothing to do with that line of practice, but wished briefly to give his views regarding the operation for its restoration, and the portion of tissue which he thought was injured whenever the condition called rupture of the perineum existed. In general terms, he held that the perineal body was not ruptured without involving the sphincter ani. First, we should define what the perineum is. If by it was meant all the muscular structure in front of the curve of the rectum, he accepted the definition. Unfortunately, however, the teaching had been otherwise, and that the perineal body was an immense mass of fat, which had nothing to do with the perineum. It is simply the muscular structure in front of the curve of the rectum which should be called the perineum, and when the injury is done it is by the head pushing upon the muscular septum, so that the rectal surface is pushed backward, and the tear is directly behind the entrance to the vagina.

Dr. W. H. Baker, of Boston, had performed Dr. Emmet's last operation since he had been kind enough to describe it to him at the Woman's Hospital, and with very satisfactory results. He regarded it as a very great improvement upon the old perineal operation.

Dr. H. P. C. Wilson, of Baltimore, regarded Dr. Reamy's plan of supporting the perineum as a most rational one, especially as it gave a great advantage to the physician, namely, freedom of his hands for other manipulations.

Dr. M. D. Mann, of Buffalo, thought that Dr. Emmet's recent operation was not applicable to every case of laceration of the perineum; for in some cases there was no tendency to the formation of a rectocele, and there was a direct tear of the structure which exists in front of the rectum. The older operation under such circumstances must be adopted, taking in only the mucous membrane and not the skin, as formerly was done.

Dr. Joseph Taber Johnson, of Washington, referred to one point, namely, the propriety of supporting the perineum at all. Some time ago he had occasion to study the subject, and ascertained as far as possible the effects of parturition upon the perineum, and found that a greater number of cases of rupture occurred among physicians who supported the perineum than among midwives who did not support the perineum.

Dr. James R. Chadwick, of Boston, believed that the term supporting the perineum was a misnomer, and that the various methods described were operative in preventing rupture of the perineum only so far as they retarded the advance of the head.

Dr. Elwood Wilson, of Philadelphia, referred to cases in which he had seen the submucous tissue separated to the distance of one and a half inch before the mucous membrane of the vagina was disturbed at all, and before the head had distended it sufficiently to pro-

duce laceration. In those cases it was utterly impossible to prevent laceration, and the rent extended through the entire perineal body and took place centrally. In such cases he regarded it as impossible to support the perineum so as to prevent rupture.

Dr. J. P. Reynolds, of Boston, thought the statements of women that the perineum had never been ruptured, and that it had not been supported were valueless; for who had examined to determine whether or not rupture had taken place? For many years he had not given the perineum any support except that which came from delay of the advancing head of the child. He advocated the use of anæsthetics.

Dr. Reamy, in closing the discussion, advocated the use of the term perineal support.

Dr. Edward W. Jenks, of Detroit, then reported

A CASE OF CÆSAREAN SECTION,

in which he performed the operation on February 27th last. The woman was twenty-seven years of age, the mother of one child three years old. The case had been reported to the Ontario Medical Association by Dr. J. L. Bray; he was also aided in the operation by Drs. O'Keith and Allen. Three years ago the patient received an accident which fractured the right ilium and produced a deformity of the pelvis which eventually caused her death. Nothing external was seen, and not until an attempt to apply the forceps was made, was the deformity detected. There was a wall of bone on the right side of the pelvis, forming a shelf-like process upon which the fœtus rested. Attempts to deliver with the forceps had failed, and craniotomy had been performed before he saw the case. He deemed it unfortunate that so much manipulation had been made before Cæsarean section was resorted to. The operation was performed in the usual manner, and the patient rallied well. The temperature was normal, the pulse 120, and she was doing well, when on the third day after the operation she died suddenly. He subsequently learned that the patient had a bad dream, and found herself standing upon the floor, and when she was placed in bed she said that she felt as if something had given way inside, and died at the end of about three hours. No autopsy could be obtained.

The paper was discussed by Dr. Skene, of Brooklyn.

Dr. Elwood Wilson, of Philadelphia, then read a paper on

THE USE OF TARNIER'S FORCEPS,

in which reference was made to the protest which he entered to the use of Tarnier's forceps at a previous meeting of the Society. Having, since that discussion, had nine cases suitable for the use of Tarnier's instrument, he renounced before the Society his unjust condemnation of the forceps, and briefly narrated their histories. He offered a few reasons for his change of conviction, and finally believed that no man should condemn on theoretical grounds an instrument in the use of which he had not had practical experience. The modification of Tarnier's forceps devised by Dr. Howard, of Baltimore, was the instrument which he employed in the nine cases, and there was no laceration of either the cervix or perineum.

He thought the instrument applicable in all cases of narrowing of the pelvis, either at the superior strait or at the outlet, and that for all applications of forceps at the superior strait this instrument should be used in preference to Osiander's method of delivery, or in preference to resorting to the dangerous expedient of podalic version; and that they should be applied, if possible, to the sides of the child's head; but, if not, they might be applied obliquely.

The paper was discussed by Dr. Neale, of Baltimore; Drs. Parvin and Goodell, of Philadelphia; Dr. Mann, of Buffalo; Dr. Wilson, of Baltimore; Dr. Reamy, of Cincinnati; and by the President.

THURSDAY, SEPTEMBER 24TH—THIRD DAY—MORNING SESSION.

The Society was called to order by the President.

Dr. R. Stansbury Sutton, of Pittsburg, read a paper entitled

A MODIFICATION OF EMMET'S CERVIX OPERATION IN CERTAIN CASES.

Dr. Sutton reported a case, and said that cicatricial tissue in variable quantity occupies every lacerated cervix of long standing. So long as this tissue is limited to the angle of the laceration it is in small quantity; but the cicatricial tissue is often deposited in larger quantity in the lips of the laceration frequently from border to border. In all these cases, says Dr. Emmet, "were we to simply freshen the surfaces in a superficial manner and attempt to bring them together we should fail to approximate the outer edge properly. Besides, this tissue is cicatricial, is dense, and were we to succeed in obtaining union it would be only temporary, because the previous condition will be reproduced from want of vitality. It is necessary to remove this tissue from the cervix before attempting to secure union. But the removal is not to extend entirely across the flap, because there would be in that case complete closure of the cervical canal."

Dr. Sutton's modification applied to the treatment of those cases in which one flap was involved, and which might be treated by simple denudation with some excavation, while the other flap was so involved that it was necessary to denude its entire face.

In the case reported the anterior lip was longer than the posterior. Ordinary denudation of the posterior lip was sufficient, but the anterior lip required denudation entirely across, and the cicatricial masses removed were exhibited, which extended from below as high as the internal os and from border to border. The lips were then united as usual, and the result had been excellent, the patient having menstruated twice without pain.

Dr. William Goodell, of Philadelphia, said he had resorted to this deviation from the Emmet operation on more than one occasion.

There was another thing he had done in one or two instances, that is, he had dissected up the ribbon of mucous membrane, leaving it attached to the margin of the lip, and then removed the cicatricial tissue beneath it. In the cases in which he had performed this operation there was a very good os, although it was a little smaller than he would have preferred to have had it. He would also state that it had been his rule to dissect out the Nabothian glands so as to get a good surface.

Dr. A. J. C. Skene, of Brooklyn, criticised the use of the term cicatricial tissue, and was confident that it was not cicatricial tissue, but simply hyperplastic tissue, which produces sclerosis. He was also inclined to think that the cicatricial plug, of which so much had been said, in the angle of the original laceration had been magnified.

With reference to the mode of disposing of it, he believed much could be done by preparatory treatment; but sometimes the cervix was so large that too much time would be required to reduce its size in this manner, and then the modification of Dr. Sutton might be adopted. Certainly all diseased Nabothian glands should be disposed of, if possible, before the operation for closure of the laceration. And he thought it better to puncture these cysts during the preparatory treatment.

Instead, however, of doing as Dr. Sutton suggests, he performs an operation as a part of the preparatory treatment, which consisted in removing a V-shaped piece and introducing a couple of sutures on each side of the os externum, and allow the stitches to remain until union takes place, the patient being able to go about after the first day. At the end of a week or ten days remove the sutures, always using silk. Then when the enlarged cervix had been reduced, perform the ordinary operation.

Dr. Elwood Wilson, of Philadelphia, had denuded the entire anterior and posterior lips, and then introduced

a little pledget of lint, allowing it to remain twenty-four hours, and the results had been very satisfactory. He had had undue contraction after the operation in only two cases.

Dr. G. J. Engelmann, of St. Louis, said that Dr. Sutton's modification had thrown new light on this subject. He had encountered the difficulty of which Dr. Sutton had spoken, and, early in the history of the operation had endeavored to overcome it by paring the surfaces, so to speak, whereas he now cut deep and removed a piece, and had frequently found it impossible to preserve the strip of mucous membrane. At first he had a complete agglutination of the entire surface, but the introduction of a probe on the third or fourth day, and again on the eighth or ninth day, had kept the passage open, and during the last few years he had paid no attention whatever to the central strip.

Dr. J. Taber Johnson, of Washington, thought the Society indebted to Dr. Sutton for the point brought forward, although it had been practised by others, yet had not been published. He had had the same trouble referred to by other speakers in treating the undenuded portion, it being unhealthy and covered with a peculiar condition of the mucous membrane. He removed it in one case, and had considerable difficulty in keeping the pledgets of cotton in position, introduced for the purpose of preserving the integrity of the canal.

He wished, in connection with this subject, to make a public statement with reference to statistics which he published some time ago concerning the danger of Emmet's operation, and in which he feared he had done injustice to the statistics furnished him by Dr. Goodell, of Philadelphia. He had added three to the list of fatal cases, taken from Dr. Goodell's statistics, but had since learned that those deaths were not in any way traceable to the operation.

Dr. M. D. Mann, of Buffalo, said there were several classes of cases which came into the discussion of this subject. Ordinarily the anterior lip was very much hypertrophied, and the posterior was normal or even slightly atrophied. In this case it was difficult to bring the two lips together, and Dr. Emmet's method was to cut into the anterior lip somewhat deeper toward the front part, making the flap long, then bringing the lips together. Dr. Mann had tried that method with good results. He had also tried the method suggested by Dr. Sutton, cutting tissue out of the anterior lip until it was reduced in size so as to correspond with the other lip, and then bringing them together, and it had given very good results. He had not encountered any case in which contraction, such as spoken of by Dr. Skene had occurred.

With regard to Dr. Engelmann's statement, that he cuts very deeply in some of these cases, Dr. Mann would be afraid to do so because of the tendency to uterine version, and if all of the cervix were cut away there would not remain any handle by which the uterus could be kept in proper position by means of a pessary. The plan, however, might give better results than it would seem to do theoretically.

Dr. Goodell, of Philadelphia, was very much obliged to Dr. Sutton, and also to Dr. Johnson, for reference to his cases, and then gave briefly the clinical histories of the three cases referred to by Dr. Johnson in his paper. As already stated, one patient died from the effects of the ether. In the second there was found a gummatous tumor at the base of the brain, and the third died from causes entirely independent of the operation.

He would ask Dr. Sutton if he had ever seen any cases of retroversion, as he had seen, cured by Emmet's operation?

Dr. W. H. Baker, of Boston, thought it hardly fair to regard as a modification of Emmet's operation the procedure which Dr. Sutton had described, as it was rather giving up the fact that Emmet's operation could be or could not be performed in any given case, and going back to the performance of partial amputation of the cervix. It seemed to him that if Dr. Sutton's proposed modification was adopted, the result would be a curved canal. If the patient is thoroughly prepared before the operation, and if these hyperplastic lips remain greatly enlarged, it becomes a question whether we can perform Emmet's operation, and whether we can approximate the opposed surfaces and bring them into perfect apposition. Dr. Baker believed that it could be done in every case. He thought it could be done exactly as Dr. Skeene had described, except that he would not agree that it was necessary to perform it as a preparatory operation; for as a preparatory operation a much larger **V**-shaped portion must be removed in order to approximate the surfaces.

Dr. Engelmann remarked that the involution of the uterus after these operations was much more marked when a large portion of the indurated surfaces was removed than when the cervix was simply trimmed, and that it was the final result which should be aimed at much more than simple union of the surfaces.

The President referred to the fact that it was Dr. Sims' mode of practice to remove a large portion of the hyperplastic tissue and insert a small glass tube, fitting so lightly that it would drop out if not sustained by a cotton tampon, and which was renewed every day until it was no longer necessitated.

Dr. A. P. Dudley, of Baltimore, an invited guest, said that it was Dr. Emmet's custom, when one lip was very much more hypertrophied than the other, instead of leaving the angle where it is, to change the angle of the laceration upon the other lip, whichever was the longest, and thereby do away with the necessity of cutting out a strip.

Dr. Skene further remarked that when denudation entirely across the flap was practised upon both sides, stenosis would sooner or later occur. He was in favor of leaving the mucous membrane upon one side at least, and if possible upon both. He believed with Dr. Baker that the aim of the surgeon should be to preserve, as far as possible, the original cervix, and that the abandonment of Dr. Emmet's operation and practising amputation was not by any means the highest art; it was simply a deviation which might become necessary.

Dr. Sutton, in closing the discussion, accepted the criticism, with reference to the term cicatricial tissue. With reference to the cure of retroversion by operations upon the cervix, he had observed it in his practice.

INFLAMMATION OF THE PAROTID GLANDS FOLLOWING OPERATIONS UPON THE FEMALE GENITAL ORGANS.

Dr. William Goodell, of Philadelphia, read a paper on the above subject, in which he gave the histories of cases which seemed to him to give evidence of the sympathetic relation existing between parotid bubo following operations upon the female genital organs. Schroeder had reported five cases of parotid bubo, with two deaths in two hundred cases of ovariotomy. In one hundred and fifty-three ovariotomies performed by himself, one case of parotid bubo had occurred, of which he gave the history. These were cases of symptomatic parotid bubo, but he believed that there were other cases sympathetic, and not septic in character, as there was no evidence of septicæmia, and the swelling did not suppurate. Of these he gave an illustrative case, which had already been reported in the *American Journal of Obstetrics*.

In his third case both glands were involved, following oöphorectomy, and this was reported in the Philadelphia Obstetrical Society, October, 1884. Since that time his observations had been confirmed by Angus McDonald and others, that the condition was one of sympathy and not symptomatic; that there was a kinship between the adult genital apparatus and the parotid gland, and that the existence of the two conditions was something more than a mere coincidence.

Dr. Sutton, of Pittsburg, referred to a case of ovariotomy occurring in his own practice, in which the parotid glands became inflamed, did not suppurate, but the patient died.

Dr. J. Taber Johnson, of Washington, referred to a case of ovariotomy in which his patient died on the sixth day after the operation, with a slight rise of temperature, glassy expression of the eye, and an inflamed parotid gland, but no suppuration.

Dr. M. D. Mann, of Buffalo, wished to put on record three cases of this complication. In one there was distinct septicæmia, and the patient died before suppuration of the gland took place. In the second the parotitis appeared after removal of both ovaries and the uterus, the patient recovering, and the third case occurred after a wound of the abdomen in a man. He had regarded the complication as one which might follow abdominal wounds rather than wounds referred distinctly to the sexual organs.

Dr. T. A. Emmet, of New York, added to the list two cases; one following the operation for laceration of the cervix, and the other following the operation for closing an insignificant vesicle over a vaginal fistula. In the last case the patient died, it being the only case in which he had ever known a patient to die after the operation for vesico-vaginal fistula. He had not seen it after ovariotomy.

Dr. Baker, of Boston, added one case, which occurred after Tait's operation. There was suppuration of the left parotid gland, thought to be of septic origin, but the patient ultimately recovered.

Dr. Reamy, of Cincinnati, had seen two cases of inflammation of the parotid gland after operations. The first was after Tait's operation, in which the patient died, and the gland did not suppurate. The second was one of supravaginal hysterectomy after removal of both ovaries and the tubes, in a woman fifty-four years of age. The left parotid gland was very much enlarged, but did not suppurate, and the patient, after a long time, recovered.

Dr. Goodell said that it was well known that parotid bubo might follow surgical operations, and such diseases as typhoid fever, scarlet fever, etc.; but the point in his paper he thought had been sustained by the cases related by the gentlemen who had taken part in the discussion. The complication is exceptional after surgical operation, but he thought it was more apt to occur after operations upon the sexual organs, and he could not help but think that some of them were entirely free from septic poisoning. If the temperature does not rise, and the pulse does not show much sympathy, he should regard the disease as sympathetic, and would not worry concerning the case as he had done formerly.

Dr. James R. Chadwick, of Boston, read a paper entitled

PERISTALSIS OF THE GENITAL TRACT,

and related the histories of two cases in which the question arose, Why should contractions of the womb lead to relaxation of the vagina? The problem was one of physiology, not of physics; for in neither instance was there any mechanical distention. An elucidation of this law he believed might be obtained by analogy with other organs having similar structures and functions. Dr. Chadwick then referred to his paper on the so-called functions of the anal sphincter and the act of defecation, in which he made the point that this physiological act applied equally well to the so-called third sphincter and the internal sphincter which contracted behind the anal sphincter, and acted, not as a sphincter, but as *detrusor es fecium*, a view that has met with general acceptance.

With reference to the *bladder*, Dr. Chadwick had observed that in cases of irritable neck pressure upon and irritation of the full bladder, through the abdominal wall, had, in certain cases, failed to cause evacuation of the urine until peristaltic action had been set up in the walls of the bladder, as was manifest to the touch through the abdominal walls. Peristalsis in these two organs does not take place in identically the same manner, but differs to meet the special requirements.

In the *intestines* there seems to be contraction of the muscles throughout the entire circumference of one segment of the tube during a brief period of time.

Each form of peristalsis is specially adapted to the different character of the contents of each viscus.

Dr. Chadwick then presented the grounds for attributing an analogous function to the genital tract. The Fallopian tubes, uterus, and vagina must be considered as one tube; the walls of all three consist mainly of two layers, arranged, one longitudinally and the other transversely, the disposition being the same as in the bladder and intestines; the muscles are unstriped as in the other organs, and the contractions of these muscles also are under the influence of the spinal and ganglionic system of nerves, and occur rhythmically. Those of the vagina in woman have not been hitherto observed or recorded, but may from analogy be supposed to follow the same law. Or, if to a certain extent the theory has been recognized, its importance has not been adequately appreciated. Dr. Chadwick then referred to the literature of the subject, and believed that he had established a presumption in favor of the explanation of the vaginal relaxation, and would insist that peristalsis is the normal mode of action of each and every division of the genital tract, and that many phenomena and many symptoms can only be correctly interpreted by reference to this mode of motion. Vaginal colic must be rare, yet its assumption would also explain the peculiar symptoms in two or three cases which he could recall. Tubal colic, in various degrees, he believed to be of very common occurrence, but not easily demonstrable. He believed it to be the true morbid phenomena which gives rise to most of the lancinating pains which are usually denominated ovarian neuralgia.

The paper was discussed by Dr. Goodell, of Philadelphia.

Dr. Theophilus Parvin, of Philadelphia, then read a paper on

FACIAL PARALYSIS IN THE INFANT FROM THE USE OF THE OBSTETRIC FORCEPS.

Dr. Parvin related the history of a case occurring in a primipara thirty years of age, who had chronic Bright's disease. The presentation was vertex, the position left occipito-anterior. Davis's forceps were used, and a living child, feeble, weighing seven and a half pounds, was delivered. On the following day, when the child cried the right side of the face presented the usual appearance of facial paralysis; but it scarcely interfered with nursing, and at the end of ten days had disappeared without treatment. Not all cases, however, terminate in recovery.

Dr. Parvin then gave a *résumé* of the literature of the subject. The average period of recovery after forceps delivery is six weeks. Cases also occur spontaneously, and in practice they are to be differentiated. In the great majority of cases the condition is due to compression of the seventh pair nerves.

With regard to treatment, nothing is to be done in the first few weeks. Later, electricity, counter-irritation, etc., have been resorted to. We should be cautious, however, concerning prognosis; probably it will recover spontaneously, and treatment should be begun after the expiration of two months, if recovery has not then taken place.

Dr. Elwood Wilson, of Philadelphia, had seen this result from the use of forceps in a number of cases; he had no recollection of its spontaneous occurrence. He had never seen it after prolonged, hard labors *unaided*. He thought he had seen it most frequently where the head of the child presented in the right side of the pelvis, and that it had been due to a failure to carry the forceps sufficiently high upon the child's head.

Dr. Goodell, of Philadelphia, said that in every case in which he had seen it the paralysis had been upon the right side of the face, and he had not seen it in *unaided* labors.

Dr. Skene, of Brooklyn, had been interested in the question of differential diagnosis between cases of spon-

taneous origin and those following the use of, and probably due to, pressure of the forceps. As a rule, there was but little difficulty, except in a complication consisting of paralysis of the facial nerve with paralysis on the same side of the face and arm produced by injury in delivering the shoulder. In other words, it is difficult to differentiate between paralysis produced by injury done by forceps and the paralysis which often occurs, in tedious labors, from apoplexy.

Dr. Richardson, of Boston, said that all the cases which he had seen had recovered spontaneously within three weeks, and that the paralysis had in nearly all been upon the right side. He had seen two cases in which it followed the use of forceps to complete delivery after version.

Dr. Parvin thought the histories of the cases he had given, and the remarks which had been made, confirmed the suggestion that it is that side of the face which is lower, the head descending somewhat obliquely, that is most liable to be compressed.

A paper on "The Genu-pectoral Position in the Prolonged Nausea and Vomiting of Pregnancy," by Dr. Henry F. Campbell, of Augusta, Ga., was read by title.

Dr. Joseph Taber Johnson, of Washington, offered a resolution extending the sympathy of the Society to ex-President Albert H. Smith, of Philadelphia, in his sickness, attended with unusual suffering, and expressing the hope that he might be speedily restored to health.

Seconded by Dr. H. P. C. Wilson, of Baltimore, and unanimously adopted.

The retiring President then called to the chair the President-elect, Dr. Thad. A. Reamy, of Cincinnati, O., who thanked the Society for the great honor it had conferred upon him, and promised to work honestly and with his whole ability for its continued prosperity.

On motion by Dr. Wilson, of Baltimore, the thanks of the Society were unanimously voted to the retiring President for the faithful and impartial manner in which he had discharged the duties of his office.

On motion by Dr. Goodell, of Philadelphia, the Society unanimously returned its thanks to the late Secretary, Dr. Frank P. Foster, of New York, for the able manner in which he had performed his duties, and expressed the regret that he was no longer able to accept the office.

On motion by Dr. Richardson, of Boston, the Society adjourned to meet in Baltimore, September 21, 22 and 23, 1886. The following were elected officers for the years 1885 and 1886:

President—Dr. Thad. A. Reamy, of Cincinnati.

Vice-Presidents—Dr. Theophilus Parvin, of Philadelphia, and Dr. George J. Engelmann, of St. Louis.

Secretary—Dr. Joseph Taber Johnson, of Washington.

Treasurer—Dr. Matthew D. Mann, of Buffalo.

Council—Drs. Frank P. Foster, of New York; B. B. Browne, of Baltimore; John C. Reeve, of Dayton, O.; and R. B. Maury, of Memphis, Tenn.

The following were elected to active fellowship: Dr. James B. Hunter, of New York; Dr. Charles Jewett, of Brooklyn; and Dr. W. H. Parish, of Philadelphia.

Dr. W. S. Playfair, of London, England, was elected an honorary fellow.

The Careful Patient.—The following joke is at the expense of a Chicago doctor. He was about to anæsthetize a patient, when, in answer to a question, he informed the victim that he would be entirely unconscious and know nothing until the offending growth had been removed. The patient accordingly commenced to fish his loose change out of his pocket. "Oh, you need not mind the fee until I am through," remarked the considerate doctor. "I don't intend to pay you yet," returned the patient, "I wish merely to count my money, to see how much I have." The doctor saw the point and was much amused.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE COURSE OF STUDY IN THE LONDON MEDICAL SCHOOLS NOW AND TWENTY-FIVE YEARS AGO.

London, September 15, 1885.

In another fortnight the medical schools will reopen, and the various medical and scientific societies will not be long in imitating their example. By the first of October, also (that day sacred to introductory lectures), most doctors who have been away to recruit themselves will have returned for the winter. By the time this appears in your columns, therefore, medical London will have reassumed its normal activity.

The curriculum of the London medical student differs in some respect from that of his American confrère in New York, Boston, Philadelphia, or other medical centres in the United States. That it is different from that of most Continental schools, goes without saying, though it is equally obvious that there must be some resemblance between all well-equipped schools of medicine. Dublin and Edinburgh, and the other Scotch and Irish schools, have each their own peculiarities on which I do not now propose to dwell. I will briefly describe the ordinary course of study in one of the metropolitan medical schools, merely premising that my account does not apply to any one medical school in particular, but to metropolitan medical teaching in general. With a few variations it may be taken as applying to most of the provincial medical schools also.

The minimum course of study for all diplomas and degrees now consists of four years. Each *annus medicus* at a medical school is divided into two sessions, viz., a winter session (October 1st to March 31st, with a vacation at Christmas), and a summer session (this begins May 1st and terminates from the 15th to the 31st of July, according to the school). Of this period of four years, at least three winter sessions and two summer sessions must be passed at a recognized medical school; the remainder of the time may be spent in pupilage with a medical practitioner or otherwise. For the higher examinations the whole period of four years must be spent at a medical school. For its Fellowship, the College of Surgeons requires a curriculum of six years, except from candidates who have been eight years in practice. The University of London requires a preliminary year to have been spent in the study of science, and the General Medical Council have lately advised that this plan should be adopted by all students. It is scarcely necessary to remark that candidates for the more difficult examinations often voluntarily lengthen their curriculum beyond the minimum of four years, and that students who only purpose going in for the ordinary diplomas may have it (involuntarily in their case) lengthened for them by failure at one or more examinations.

On entering at a medical school a student has to register himself as a medical student at the office of the Medical Council. Before being allowed to register he has to produce a certificate of having passed a recognized examination in the subjects of general education. He then commences his studies. Most students commence medical study in October, though some prefer to begin with the summer session, and the number of those who do so is apparently increasing. During the first two winter sessions, anatomy and physiology (including histology) form his chief subjects for study. During his first winter, however, he has also to attend lectures on chemistry, and during his second, courses of lectures on medicine and surgery. Anatomy is studied by means of lectures, practical demonstrations, and dissections. During his first two winters an average student generally manages to dissect the whole body once, and, if industrious, can generally contrive to do some parts twice.

Bodies for dissection are now always injected, and some preservative fluid (mixed with some coloring matter) is usually employed for the purpose. At many schools the students still further preserve their "parts" by wrapping them up in cloths dipped in methylated spirit or carbolic lotion—a piece of mackintosh being placed round this to prevent evaporation. In some of the dissecting-rooms, though, the dissectors make no attempt to check putrefaction, but when their "part" has gone bad, get another. Histology is taught by means of practical demonstrations. Physiology is taught mainly by means of lectures, though there are classes of practical physiology (apart from histology) at some schools, and a few have well-equipped physiological laboratories for study and research. Still, instruction in practical physiology is far from being as thorough as is that in practical anatomy. Take, for instance, the chemistry of the urine. At some schools, at any rate, the average student makes his first *practical* acquaintance with this subject when he comes to his clinical work. Still, improvement is going on in methods of instruction, and physiology is not only farther advanced, but is taught much more thoroughly than it was five or ten years ago. An elementary examination in anatomy and physiology has (according to the new Conjoint scheme) to be passed at the end of the first winter session.

The first summer session is devoted to the attendance on lectures on materia medica and botany, and to the practical study of chemistry in the chemical laboratory. The ordinary course of practical chemistry includes the detection of the inorganic acids and bases, and the use of the blowpipe. General chemical manipulation is taught, and, in some schools, the practical preparation of gases, etc. Most schools now have a voluntary advanced class for studying practical organic chemistry. The materia medica museum is usually frequented during the first summer session, and also the hospital dispensary, to learn dispensing, unless this has previously been learnt. At the end of the first summer (or sooner, if he can produce certificates of having received instruction in the subjects) the student can present himself for examination in chemistry and physics, materia medica and pharmacy, and medical botany.

During the second winter anatomical and physiological work is pursued with redoubled zeal, in view of the examination which should be passed at the end of the winter session. As the latter draws near, special classes are usually held to prepare for the coming ordeal, and at some schools it has been customary to refuse the necessary certificates of attendance to students who have not satisfied their teachers of their proficiency. At no metropolitan school, however, so far as I am aware, are the dissecting-rooms open after 5 P.M. Evening instruction of any kind, except in private classes, is unknown in the London schools.

Having passed his examination in anatomy and physiology the student is now at liberty to turn his attention to clinical work, of which he has hitherto seen little or nothing. He may have paid an occasional visit to the wards and had stray glimpses of the operating theatre, but his attention has been almost entirely monopolized by the earlier subjects. If he be going in for the F.R.C.S. he must pursue these for yet another year; and if he intend presenting himself for the London University examinations he will frequently elect to devote an extra year to anatomical and physiological studies conjoined, in the latter case with materia medica and chemistry. In either of these cases he will defer clinical study for the present. Presuming, however, that he is merely going in for the ordinary diplomas, his second summer session will see his introduction to the wards. During this session he will have also to attend lectures on midwifery and medical jurisprudence, but these will not absorb much of his time. During these three months an attentive student can pick up a good deal of clinical knowledge. A dresserships in the out-patient department is often held at this time.

During the third winter session lectures on medicine, surgery, and pathology are attended. Clinical work is now attacked in good earnest. Some hospitals have medical tutors attached to them, whose duty it is to impart elementary clinical instruction to students preparatory to their appointment as clinical clerks and dressers. At others, students are sent straight into the wards and left to learn what they can. In the latter case, they usually get some elementary instruction from the house-physicians and house-surgeons. At some hospitals the post of surgical clerk is conjoined with that of dresser; at others it is a separate post. Three or four months is the usual period for which these clinical appointments are held, though a second or third term may sometimes be obtained. The facility with which dresserships and clerkships can be obtained varies considerably at different hospitals, depending partly on the size of the hospital, and partly on the number of students. Clinical appointments are free at most hospitals; at others they have (some or all) to be paid for. Out-patient appointments sometimes precede, sometimes follow, in-patient ones. At Guy's Hospital the in-patient dresserships are usually held by students who have obtained their diplomas, and they take almost entire charge of the cases, the duties of the house-surgeons being confined to the maintenance of a general supervision and the administration of anæsthetics. Clinical appointments can be held in the various special departments, which are now very numerous.

Midwifery cases have often been attended during a period of preparatory pupilage, though this method of commencing medical study is decidedly on the wane. Some students get some insight into midwifery practice while holding temporary assistantships during vacations. Those who have not had any midwifery practice can get cases assigned them in the maternity department of their hospital. At some hospitals (*e.g.*, the London and St. Thomas') arrangements are made for the obstetric clerks to reside in the hospital during their fortnight on duty; at others they are summoned from their lodgings.

At the conclusion of his fourth year of study the student can present himself for his final examination in medicine, surgery, and obstetrics, including pathology and therapeutics. This is partly written, partly *viva voce*, and partly clinical and practical. The three subjects may be taken either together, or, if wished, singly.

Many changes have taken place in the curriculum within the last quarter of a century. Twenty-five years ago the curriculum was only three years, and there was only one examination for the membership of the English College of Surgeons. This only occupied an hour, and was entirely *viva voce*. Practical examinations in anatomy and histology, and clinical examinations in medicine and surgery, with questions on morbid specimens are all modern innovations not only at the College of Surgeons, but elsewhere.

SHALL WE FOLLOW ONE LINE OF TREATMENT OF GUNSHOT WOUNDS?

To the Editor of The Medical Record.

SIR: In THE RECORD of September 12th there appears an article of seven pages on the above subject. The writer of it has not had that extensive experience that we should have desired in such an article; but, perhaps, to the readers this is a gain, as he does not thus prejudge conclusions with special treatments of his own, simply chronicling the very extended lines of experience of the distinguished European military surgeons in recent wars; therefore the article is, to a certain extent, instructive.

The author evidently favors, generally, primary antiseptic occlusion. Casting aside personal predilections as to this or that special way of treating, we see that success is recorded, by means of diametrically opposite treatments, in the careful hands of distinguished authori

ties. It is also well known generally that wounds, in their after-behavior, must be classified in at least two large divisions. With what reason, then, can the writer favor a treatment to be generally pursued which can only be followed in one of these divisions?

Like many other medical practitioners, doubtless, I have slowly and carefully read works on military surgery written by celebrated authorities; also similar articles in the medical press. I think the more we read on this subject, the more convincing it is that certain wounds require one treatment, while other wounds require other treatments.

A dogmatic assertion that nearly all wounds can be brought to a successful issue by simply applying an antiseptic dressing, whether in the hands of a nurse, office-boy, or doctor, letting everything else take care of itself, we opine is untenable. The idea that down in the depths we can leave a heavy Remington bullet, crushed bone, crushed muscle, lacerated and crushed arteries, leave them with complacency, and put a carbolized rag over the outside hole or holes, is a pleasant one to the surgeon. A chest-wound has usually been regarded as serious, as well as cranial wounds; but remarkable results have been obtained in both instances by drainage; good results are also had by leaving alone; this is where a good surgeon is expected to use his judgment, and not merely an antiseptic rag.

With regard to abdominal and pelvic wounds, the case is widely different. As a preliminary remark, a limited number of wounds of these cavities by both bullet or blade have recovered. But we think the indication undoubtedly should be to perform laparotomy; if the ball is not soon found, it may be left, as it will likely do little harm. The chief danger consists in intestinal wounds; their edges should be freshened, then brought together in the manner practised by Dr. Bull, of this city; severed, or even brushed, vessels should be tied, as a brushed vessel, under inflammatory reaction, may cause serious secondary hemorrhage, imperilling the success of the whole operation; finally, drainage may, or may not, be employed.

A small effusion of simple or of bloody serum will not imperil the patient. Dr. Raymond thinks that a pint of bloody serum is serious; a pint of fluid spread out in the abdominal cavity would make very little show. There are many cases of effusion in peritonitis and in pleurisy where the patients have recovered after the effusion of more than a pint.

Statistics are often delusive for many side-reasons: post-mortems, unfortunately, are often delusive from the imperfect diagnostic powers of those who perform them; the dead body is there as convincing but silent evidence, but the correct diagnosis is not there.

The correct treatment of wounds has been carefully considered from the time of Hippocrates, down through the Middle Ages to the recent times of Larrey, Guthrie, Langenbeck, and Esmarch; in the way of occlusion Larrey (when it was proper to do so) employed a gently stimulating compress of wine and white of egg; while Richardson, of London, has obtained excellent results with his "styptic colloid."

Thus we see it is eminently proper that we should not follow only *one* line of treatment.

C. E. Nelson, M.D.

109 East Thirty-fifth Street.

Reproduction of Harvey's Original Lectures.—The transcribing and reproduction of Harvey's original MS. lectures, delivered before the Royal College of Physicians in 1616, containing the first suggestion of his discovery of the circulation, are proceeding uninterruptedly under the active supervision of Mr. Scott, of the British Museum, the *fac-simile* work being entrusted to the Autotype Company. The cost to subscribers is fixed at two guineas, and the work is expected to be ready for delivery in the spring of next year.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from September 20, 1885, *to September* 26, 1885.

McParlin, T. A., Lieutenant-Colonel and Assistant Medical Purveyor. Promoted to be Surgeon, with rank of Colonel, to date from September 16, 1885.

Irwin, B. J. D., Major and Surgeon. Promoted to be Assistant Medical Purveyor, with rank of Lieutenant-Colonel, to date from September 16, 1885.

Pope, B. F., Captain and Assistant Surgeon. Promoted to be Surgeon, with rank of Major, to date from September 16, 1885.

Morris, Edward R. Appointed Assistant Surgeon, with rank of First Lieutenant, to date from September 17, 1885.

Ainsworth, F. C., Captain and Assistant Surgeon. From Department of Texas to New York City, for duty as Recorder of the Army Medical Examining Board. S. O. 214, A. G. O., September 18, 1885.

Adair, G. W., Captain and Assistant Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 104, Department of Dakota, September 18, 1885.

Shannon, Wm. C., Captain and Assistant Surgeon. Granted leave of absence for four months, to take effect about October 1st. S. O. 215, A. G. O., September 19, 1885.

Bushnell, Geo. E., First Lieutenant and Assistant Surgeon. Ordered from Department of Dakota to Department of the East. S. O. 219, A. G. O., September, 24, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 26, 1885.

Dungan, J. S., Medical Director. Waiting orders.

Medical Items.

Epidemic Pneumonia.—S. Triwus, a district medical officer in St. Petersburg, communicates to that *Vrach* an account of an epidemic of pneumonia in the city. From April 26th to May 17th, out of 133 patients seen by him 23 had croupous pneumonia (17.2 per cent. of the whole). In one dwelling there were 3 cases, in another 2; in one house there were 4, in another 3, and in two 2 cases. Sixteen of the patients lived in houses with gardens.

Teacher: "So you can't do a simple sum in arithmetic. Now, let me explain it to you. Suppose 8 of you have together 48 apples, 32 peaches, and 16 melons, what will each one of you get?" "Cholerer Morgus," replied little Johnny Fizzletop, who is addicted to that malady.—*Texas Siftings.*

The Relative Fatality of Charcoal Fumes and Illuminating Gas.—Drs. Biefel and Poleck have recently discussed in the *Zeitschrift für Biologie* the question of the relative fatal effects of charcoal fumes and of illuminating gas, it being asserted that in the former case .19 per cent. in the air of CO destroys human life in thirty-five minutes, while a limit of one per cent. is exceeded in the latter case before a similar result ensues. This is attributed to the presence of oxygen in the gas; but Dr. Wagner has disputed these conclusions on the ground that the experiments were not conducted in a satisfactory manner. He agrees, however, with the statement that a mixture of gas and air possessing fatal properties is necessarily in an explosive condition.

Another Cure for Hiccough.—A writer in the *Bulletin Générale de Thérapeutique* says that refrigeration of the lobe of the ear will stop hiccough, whatever its cause may be. Very slight refrigeration, such as a drop of cold water, is said to be sufficient.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 15 NEW YORK, OCTOBER 10, 1885 Whole No. 779

Original Articles.

WOUND OF THE BASILAR PORTION OF THE BRAIN.[1]

BY PHILIP ZENNER, M.D.,

CLINICAL LECTURER ON DISEASES OF THE NERVOUS SYSTEM, MEDICAL COLLEGE OF OHIO, CINCINNATI, O.

THE patient, a man forty-two years of age, had always enjoyed good health previous to the time of injury. On July 11th, nearly eleven weeks ago, while leaning forward in the show-case of a millinery establishment, a transverse bar, upon which he was supporting himself, gave way, and precipitated him upon a sharp-pointed iron rod used for holding hats. This rod is about one-quarter inch in diameter, smooth and round, and within about an inch of the end begins to taper to a point. It penetrated the skin in the right submaxillary region, about one and one-third inch to the right of the median line, the point passing four inches beyond the surface. Its direction, according to the statement of lookers-on, was upward, and somewhat inward and backward. The rod was held very firmly in a fixed position, as if between unyielding tissues, and was only removed after a very forcible effort made by a powerful man.

Patient's wife states that he rose immediately after the fall, and continued on his feet until after the rod was removed, some minutes later. Shortly afterward, while removing him to his room, they observed that he did not move his right arm and leg. He did not speak from the moment of the fall.

The speaker saw the patient perhaps one-half hour after the accident occurred. There was still slight oozing of blood from the wound, from which perhaps an ounce of blood had escaped. Patient was lying in bed, breathing regular, but somewhat stertorous; pulse regular, about eighty beats to the minute. There was complete paralysis of the right upper and lower extremities, of the tongue, of the muscles supplied by the lower branches of the facial nerve in both sides, and the patient could not swallow or give utterance to any sound, either articulate or non-articulate. But he was conscious, and, to some extent, could answer questions by the movements of the left hand or the eyeballs. There was no paralysis of the muscles supplied by the third, fourth, sixth, and upper branches of the seventh nerves. The pupils were normal, the eyes could be equally moved in every direction, and could be readily opened and closed. There appeared also to be no impairment of hearing or vision.

The patient was exceedingly restless and seemed to suffer much with pain in the left side of the face. A few days later, anæsthesia in the area supplied by the upper two branches of the left trifacial nerve was observed, which was probably present in the beginning, but not detected, although an unsatisfactory examination of the cutaneous sensibility was made at that time.

In addition, it was observed that the lower jaw was turned to the left side, so that when the jaws were approximated the right central incisor of the lower jaw corresponded to the left central incisor of the upper jaw. This condition still remains. At first I thought it was due to paralysis of the right pterygoid muscle, but now believe it to be a surgical trouble.

[1] Read before the Cincinnati Academy of Medicine, September 21, 1885.

The condition of the patient improved very rapidly. The external wound healed in a few days. At no time was there any evidence that the rod entered the buccal or pharyngeal cavity. There was slight fever, temperature never rising above 101.5° F., on the second and third day; none subsequently.

On the second day patient succeeded in swallowing a few drops of water and moved the right leg a little. On the fourth day he was able to make a slight vocal, and even articulate, sound. On the sixth day he moved the right arm a very little. On the eighth day he swallowed so well that rectal injections of food, which had previously been given, were discontinued. At the end of two weeks he could speak single words with some distinctness, though continuous speech was impossible on account of difficulty of articulation; he could walk with the assistance of a cane; the muscles of the left side of the face seemed to act quite normally, while there was still paresis of the right side; the tongue was easily protruded, but was deflected slightly to the right. There had been almost a constant dribbling of saliva from the mouth, but this became much less.

He continued to improve for about six weeks, when his condition was at its best. Since then there has been some change for the worse. His speech is less distinct, and the power of the right extremities less than a few weeks ago. The anæsthesia on the left side of the face is greater. It appeared at first to be only in the area supplied by the upper branches of the fifth, and even in that area sensations of pain were still felt. Now it seems to cover almost the whole area covered by the fifth nerve, extending from the middle of the vertex to below the lower margin of the inferior maxillary bone, and from the median line to the left ear, the latter retaining its sensibility. In this area tactile sensibility, as well as that to temperature, is lost, and the prick of a pin is only felt in a few isolated spots. The left nares, and left side of the mouth and tongue are anæsthetic, and the sense of taste is lost in the left side of the tongue. In addition to this, the subjective symptoms seem to be much worse than they were. He complains constantly of pain or uncomfortable sensations of some kind in the left side of the face.

Another symptom has appeared recently—polyuria. For three or four weeks he has been passing an excessive quantity of urine. Eight days ago he passed two hundred and eight ounces, and its specific gravity was 1.001. The quantity has been gradually diminishing since. At present it is eighty ounces, specific gravity 1.010. It does not contain sugar or albumen. Several times I examined the electrical reactions of the paralyzed muscles, which were always found to be normal.

There is now considerable dragging of the right foot in walking. Grasp of right hand is feeble, the extensors of fingers almost completely paralyzed. The tongue, when protruded, deflects slightly to right. There is slight paresis of the face on the right side. The articulation is much more indistinct than in ordinary cases of hemiplegia, at least at so late a date. There is no aphasia. Patient can name any object accurately. There is complete anæsthesia in area of the left fifth nerve, left corner is anæsthetic, etc. There is also some injection of the left conjunctiva, more or less bleeding from the left nostril, and an abraded surface in its exterior part, and a slight abrasion on left side of tongue.

The early symptoms of paralysis of the vocal cords, in-

ability to swallow, etc., are bulbar symptoms and point to a lesion in the neighborhood of the medulla. They were mostly indirect symptoms, and therefore disappeared. Of the remaining symptoms the paralysis of the left fifth nerve is of decided local significance, and points to a lesion in the nerve-roots or its nuclei. It is possible that there are several lesions present; but one on the left side of the medulla or pons, involving either the ascending root of the fifth nerve, or the nerve-trunk itself, might account for the symptoms. In that case the pyramidal tracts and the right hypoglossal and facial nerves must have been affected on the left side, the former before it crosses over to the right side of the cord, and the latter in their central prolongations before they have crossed over to their respective nuclei. The lesion must then reach above the level of the seventh nerve, and, in that case, it is difficult to understand how the third, fourth, and sixth nerves should have been altogether spared, even in the beginning, when so many indirect symptoms were present. Perhaps only a small part of the lesion reaches to this high level, and thus the absence of symptoms are to be accounted for. The lesion must have also avoided the sensory track for the opposite side of the body, and perhaps encroached upon the particular lesions which are followed by diabetes, that is, the floor of the fourth ventricle above the nuclei of the pneumogastrics. Just how this lesion was produced is very problematical. There are good reasons for believing that the rod penetrated the cranial cavity between the atlas and occipital bone. This is the only place through which it could reach that cavity without fracturing bone, and the symptoms did not indicate any fracture. The rod entered four inches beyond the surface, and various calculations made by the speaker lead him to believe that the anterior margin of the foramen magnum is not more than three and a half or four inches from the external wound. Nevertheless all these symptoms could not have been caused by the penetration of the rod into the nervous tissue. In the cadaver the anterior margin of the foramen magnum corresponds with the lower portion of the olivary body, and a single lesion at this point would not account for all of the symptoms, while an extensive injury here would have led to an immediately fatal termination. Perhaps in some way a blood-vessel may have been occluded, and thus an area of softening in the above-mentioned part was produced.

The prognosis is not altogether favorable. The increase in the anæsthesia, the recent development of diabetes, and the increased feebleness in the paralyzed side seem to indicate a progressive process, and but slight extension of the lesion in a part of such vital importance might speedily produce a fatal issue.

Accouchement by Firearms.—Dr. Granier, surgeon in the French army, writes from Algeria: "A few days after the occupation of Brizerte, when the military authorities had forbidden, under the severest penalties, the discharge of firearms within the town, the whole garrison was awakened at three o'clock one morning by the tremendous explosion of a heavily loaded gun in the neighborhood of the ramparts; a guard of soldiers rushed into the house from whence the sound had come, and found a woman lying on the floor, with a newly born babe between her thighs. The father of the child stood over his wife with the smoking musket still in his hand, but his intentions in firing the gun had been wholly medical, and not hostile to the French troops. The husband discovered that his wife had been in labor for thirty-six hours. Labor was slow and the contractions weak and far apart. He had thought it advisable to provoke speedy contraction, and, following the Algerian custom to *scare the baby* out, he had fired the musket near his wife's ear; instantaneously the accouchement was terminated. After being imprisoned twenty-four hours the Arab was released."—*Cincinnati Lancet*, August 1, 1885.

SUCCESSFUL CASES OF PULMONARY PHTHISIS.

By W. H. GEDDINGS, M.D,

Aiken, S. C.

(Continued from page 374.)

Case XIX. *Infiltration of right lung; recovery.*—A young married lady; my own case; family consumptive. Four weeks she has had cough, with severe pleuritic pain on the right side. Has had more or less fever, with perspirations at night.

January 11, 1880.—Pulse, 104; temperature, 99°. Pale and quite delicate in appearance. Diminished resonance over the upper portion of the right lung in front, with dulness over scapular and interscapular spaces. Respiration bronchial, with prolonged experium.

April 6th.—Is greatly improved, and has been able to resume her rather arduous duties of housekeeper of a large boarding-house. Still coughs a little. Can detect no dulness in front, but it is still apparent over the suprascapular and corresponding interscapular regions. At the time of writing (1885) this patient remains in perfect health and has no cough.

Case XX. *Infiltration of upper portion of right lung, hemorrhages; recovery.*—Male, thirty-four years of age. (Dr. Riggin Buckler, of Baltimore, Md.) No hereditary predisposition to consumption. Disease began with a slight hemorrhage in February, 1880. Has had several since then, and has lost four pounds. Came to Aiken in November, grew better, and went to Gainesville, Fla., where he improved at first, but subsequently lost ground.

March 3, 1881.—Pulse, 68; temperature, 97.5°; pale, with slender figure; weight, 147½ pounds; appetite poor, but with good digestion. Has cough, and expectorates one half ounce of muco-purulent matter. Can walk two miles without feeling fatigued. On the right side, dulness from the clavicle to the third rib and over the suprascapular region; also over the axillary region. Auscultation affords no evidence of disease other than occasional rhonchi, except over the interscapular space, where it is distinctly bronchial.

April 5th.—With the exception of slight hæmoptysis, a few days after his arrival, he has steadily improved. Pulse, 72; temperature, 98.5°; weight, 155½ pounds—a gain of eight pounds. Appetite has improved and the digestion is good. Can now walk six miles without being tired. No change in the condition of the diseased lung in front, but behind and in the axilla the dulness is less marked. He remained a couple of weeks longer in Aiken, suffered with the heat, and lost one and three-fourths pound of what he had gained. Dr. Buckler wrote me a year later (February 18, 1882) that his patient had grown so stout that his friends could scarcely recognize him, and that, with the exception of being a little short-winded he was apparently quite well.

Case XXI. *Infiltration of right apex, hemorrhages, night-sweats; recovery.*—A young man, twenty-one years of age, from Pittsburg, Pa., a patient of Dr. Fundenburg, of the same place. Was also examined by Dr. Da Costa, of Philadelphia. Family record good. Cough began in July, 1881; had night-sweats, and lost twenty pounds.

November 1, 1881.—Patient is slender, complexion sallow, finger nails clawed. Cannot walk a quarter of a mile without being fatigued. Pulse, 92: temperature, 98.2°. Cough moderate, with one-half ounce of muco-purulent expectoration. On the right side there is dulness, extending in front from the clavicle to third rib, and posteriorly to one inch below the spine of the scapula, with diminished resonance in the axillary region. The respiration on the same side is bronchial, with prolonged experium.

During the first month of his stay in Aiken he grew steadily worse, his temperature rising at times to 102°, but about the middle of December he began to improve,

and, with the exception of a slight hemorrhage in January, did well until April 10th. His cough and expectoration ceased, and he gained six pounds. He passed the summer at Bethlehem, N. H., and in the fall made a voyage to England, doing well all the while. Returning to Aiken in November, 1882, he again improved. In the summer of that year he went to Bismarck, Dak., and held his own until December 30th, when he again returned to Aiken for the third time. When last seen (1885) there had been no return of cough, and the only evidence of disease was slight dulness at the apex of the right lung. He has since written to me that he has remained quite well.

Case XXII. *Extensive disease of right lung, hemorrhage, profuse expectoration; arrest.*—A young machinist of Boston, twenty-four years of age, a patient of Dr. McDonald, of that place. Had acute pneumonia in 1875, followed by cough, which, after ceasing for a time, returned in the fall of 1880, and has persisted ever since. One sister died of phthisis. Has had only one hemorrhage, but the sputa have been tinged with blood. Has lost ten pounds.

November 14, 1881.—Pulse, 100; temperature, 99.5°; weighs 143½ pounds. Cough troublesome, with about eight ounces of muco-purulent expectoration in twenty-four hours. On the right side there is dulness in front, from the clavicle to the fourth rib; behind diminished resonance over the upper third of the shoulder-blade. The respiratory murmur on that side is feeble, with prolonged experium.

January 17, 1882.—Much improved in appearance. Pulse, 80; temperature, 99.2°; weight, 148¾ pounds, a gain of five and one-half pounds. Coughs but little; expectoration is reduced from eight ounces to one ounce a day. The area of dulness has receded to the second rib. This patient did so well that he did not deem it necessary to consult me again. He continued to improve and is now (1885) settled on a farm in Florida, where he is reported to be in the best of health.

Case XXIII. *Infiltration of right lung; recovery.*—A clergyman, thirty years of age, of Concord, Mass.; patient of Dr. Emerson of the same place. Hereditary tendency to phthisis, great-grandfather, grandfather, and one brother have died of phthisis; also several cousins. Resembles father. Has had tinged sputa, but no hemorrhages. Has lost eight pounds. Has occasional chills, followed by fever. Disease began with bronchial catarrh in January, 1881.

August 18th.—Pulse, 88; temperature, 98.7°. Has slight cough, with two and one-half drachms of muco-purulent expectoration. On the right side there is diminished resonance in front over supraclavicular space, with dulness from thence downward to third rib. Posteriorly dulness from apex to within two inches of the angle of the scapula. Respiratory murmur, both front and back, is feeble, with prolonged experium. Patient improved during his stay at Bethlehem, passed the winter on Moosehead Lake, Me., where he gained rapidly. He afterward removed to Cordova, in the Argentine Republic, where he completed his cure. In a letter from him in 1884, he represented himself as quite well, and was anxious to return to the United States.

Case XXIV. *Extensive disease of right lung, hemorrhage, emaciation, etc.; complete arrest.*—Male, thirty years of age, Cincinnati; patient of Dr. Hunt, of Covington, O. Disease began in the spring of 1881 with fever and cough, followed by hæmoptysis in October of the same year. Has lost thirty-one pounds.

December 17, 1881.—Pale and slender, nails clawed; pulse, 96; temperature, 99.6°; weight, 114 pounds. Is so weak that a walk of half a mile causes great fatigue. Has cough, with about one drachm's expectoration. Right front dull from clavicle to fourth rib, and behind from the spine of the shoulder-blade to its angle. Respiration feeble and indistinct.

May 9, 1882.—Patient has steadily improved. Pulse and temperature are normal; weight, 133½ pounds—a gain of nineteen pounds. Walks five miles without the slightest fatigue. Has neither cough nor expectoration. All physical signs of disease have disappeared. Has not been heard from since his return home.

Case XXV. *Infiltration of upper portion of right lung, night-sweats, etc.; arrest.*—December 9, 1881.—A young lady from Quebec, a patient of Dr. C. Sewell, of the same place. Strong hereditary predisposition to phthisis—one uncle, two brothers, and a sister having died of that disease. Has had persistent cough, with occasional night-sweats, since June, 1881. Pulse, 76; temperature, 99.5°; appetite poor, with more or less dyspepsia. Cough troublesome, with one drachm of expectoration. Weight, 136½ pounds. On the right side, dulness from clavicle to second rib in front, and over supraspinous fossa behind. Respiratory murmur feeble, with warm, moist râles.

January 10, 1882.—Pulse, 86; temperature, 99.8°; weight, 140 pounds—a gain of three and a half pounds. Appetite and digestion quite good. Cough much improved. The dulness has disappeared from the back, but is still quite perceptible in front. When last heard from this patient was quite well, but deemed it prudent to pass her winters at Bournemouth, England.

Case XXVI. *Infiltration of right apex, profuse hemorrhages, arrest for two years, relapse, and subsequent recovery.*—January 2, 1882.—A lawyer from Wellesly, Mass., thirty-four years of age; patient of Dr. A. Hosmer, of Watertown, Mass. Hereditary predisposition to phthisis. This patient came to Aiken several years ago with marked disease of the right apex; had several hemorrhages, but made a good recovery and remained well for two years. In 1876 he had a return of the hemorrhages, but again improved. The same thing occurred in August, 1881. Complexion fair, nails clawed; pulse, 80; temperature, 99.5°; cough, moderate. Right side dull in front from clavicle to second rib, and behind over the scapula, extending one inch below the spine of that bone. Bronchial respiration, with prolonged expiratory murmur.

March 27th.—Has improved steadily. Pulse and temperature normal; has but little cough. Dulness persists in front, but posteriorly there is only slightly diminished resonance over the supraspinous fossa. He presents the appearance of a person in robust health. Subsequently he removed to Florida, where, at last accounts, he was still living in the enjoyment of almost perfect health.

Case XXVII. *Infiltration of right apex, hemorrhages, night-sweats, etc.; recovery.*—A gentleman, forty-eight years of age; patient of Dr. J. M. Da Costa, of Philadelphia. One brother died of chronic pneumonia. Disease commenced with an attack of hæmoptysis in July, 1881, followed by cough and night-sweats.

January 21, 1882.—Tall and slender, complexion sallow. Pulse, 72; temperature, 98°; weight, 154 pounds. Has slight cough without expectoration, good appetite, and fair digestion. On the right side there is an area of dulness extending in front from the clavicle to fourth rib, and to one inch below the spine of the scapula; behind, marked prolongation of expiratory murmur.

March 23d.—Greatly improved, having gained five pounds in two months. Pulse, 57; temperature, 97.8°. Has scarcely any cough, and is apparently quite well. The area of dulness in front has receded to second rib, posteriorly it remains unchanged. Patient has continued to improve, and at last accounts was doing well.

Case XXVIII. *Infiltration of left apex, night-sweats, with emaciation; recovery.*—A little girl, ten years of age; patient of Dr. Minot, of Boston, had capillary bronchitis in January, 1882 and has coughed ever since; has had night-sweats and has lost from five to ten pounds.

March 4th.—Pulse, 100; temperature, 99.4°; has a good appetite, and can walk a mile without being fatigued. Has a little dry cough. There is a small area of dulness

under the third rib, near its junction with the sternum. Posteriorly there is dulness from the angles of the scapula to the base of the lung. Respiration rough, with prolonged experium.

May 6th.—Much improved. Pulse, 84; temperature, 99°. Has still slight cough, but in other respects appears to be in perfect health. The dulness is still perceptible in front, but over the back it is confined to a narrow strip at the base of lung. During the summer she was examined by a leading specialist in Boston, who declared that he could detect no dulness. She has remained quite well ever since.

Case XXIX. *Infiltration of the upper portion of the right lung, profuse hemorrhages, night-sweats; recovery, with a gain of forty pounds.*—A young Charlestonian, twenty-one years of age; patient of Dr. J. F. M. Geddings, of Charleston, S. C. Both paternal grandparents died of phthisis, and his father had hemorrhages when a young man, but is now quite robust and in perfect health. In 1880 he had hemorrhages, followed by fever, cough, and emaciation, but recovered, and remained quite well until April 29, 1882, when he had another attack of bleeding.

May 16th.—He has lost twenty-five pounds, is pale, has moderate cough with a small amount of expectoration. Pulse, 100; temperature, 99.5°; weight, 153¾ pounds. Over the right lung there is dulness in front from clavicle to third rib, and posteriorly a more extensive area of dulness extending from the apex to within an inch and a half of the angle of the scapula. Respiratory murmur feeble, with prolongation of the experium. He improved rapidly, lost his cough, and was so well that he indulged in dancing and rowing with impunity. He remained in good condition until the end of July, when he brought on a severe attack of hæmoptysis by climbing Lannon Mountain from the Profile House, from which the ascent is very precipitous. He rallied from this attack, but had a recurrence of the hemorrhage in the fall, this time bleeding at times quite profusely—as much as three pints in as many days and necessitating the constant application of ice. Since then he has steadily improved, and at the present date (January, 1885) is perfectly well and is pursuing his studies as a medical student. His pulse and temperature are normal; he has had no cough for over a year, and has gained forty pounds in weight. The only evidence of disease is a limited area of dulness at the apex and over a small portion of the interscapular space.

Case XXX. *Disease of right apex, hemorrhages, and emaciation; arrest.*—A Wall-street broker, thirty years of age, a patient of Dr. A. L. Loomis, of New York. Disease commenced with bronchial catarrh in October, 1882. During that month he had five profuse hemorrhages, bleeding at one time as much as twelve ounces. Has lost nineteen pounds.

December 13th.—Pale and slender, nails clawed. Pulse, 100; temperature, 99.3°; weight, 142¼ pounds. Cough troublesome, with about two and a half ounces of expectoration. In front there is dulness on the right side, extending from the clavicle to the third rib, and behind from the apex two inches below the spine of the scapula. Expiratory murmur is prolonged; other respiratory symptoms not noted. He improved rapidly, and by the 7th of March, 1883, had gained fourteen pounds, and for two and a half months has been entirely free from cough.

April 3d.—Looks quite robust. Pulse, 80; temperature, 98.3°. The warm weather of spring has brought on a slight attack of gastric catarrh, causing him to lose one and a half pound of the fourteen gained during the winter. There is no dulness in front, and only a small patch of diminished resonance behind. This patient has not been heard from.

Case XXXI. *Infiltration of right apex; recovery.*—A lady from Albany, N. Y., thirty-eight years of age; patient of Dr. W. H. Draper, of New York. Comes of a phthisical family; maternal grandmother, a brother, and a sister having all died of consumption. The father had "weak lungs" when young, but recovered, and is now quite well. She had persistent cough in 1878, but recovered and remained well until April, 1882, at which time the cough returned and has been present ever since.

December 19, 1882.—The patient is a frail-looking woman, with pale complexion. Has a fair appetite, but her digestion is much impaired. Weight, 103½ pounds. Has cough, with a moderate amount of expectoration, all of which floats. There are evidences of dulness over the upper portion of the right lung extending in front to the fourth rib, and posteriorly half-way down the scapula, the expiratory murmur being feeble and jerking.

April 21st.—Notwithstanding repeated attacks of dyspepsia patient has improved, and has gained six and a half pounds in weight. Has only slight cough. The front is resonant, and the only evidence of disease is a small area of dulness over the middle of the interscapular space. She has been under my observation ever since, and is now quite recovered, having had no cough, except from an occasional cold, for over a year.

Case XXXII. *Infiltration of left apex, night-sweats, emaciation, etc.; recovery.*—Male, aged twenty-seven; patient of Dr. Fassett, of St. Alban's, Vt. Has had occasional cough since 1875; persistent since August, 1882. Has lost twenty-eight pounds.

January 18, 1883.—Complexion clear: figure slender; rather frail looking, with flabby muscles. Pulse, 100; temperature, 99.5°; weight, 140 pounds. Suffers with night-sweats. Has moderate cough, and expectorates about six ounces of muco-purulent matter, all of which floats. On the left side there is marked dulness from clavicle to second rib and over the supraspinous fossa, with feeble respiratory murmur.

April 9th.—Pulse, 84; temperature, 99.7°; weight, 150 pounds—a gain of ten pounds. Is much improved in strength, has but little cough, and only one and one-half ounce expectoration. The only physical signs of disease are, an area of diminished resonance over the supraspinous fossa, and feebleness of the respiratory murmur. A report received from Dr. Fassett, a year later, represented the patient as quite well, and stated that he had resumed his business.

Case XXXIII. *Infiltration of upper third of right lung, resulting from acute pneumonia, night-sweats and emaciation; complete recovery.*—An Englishman, aged thirty-two, from Perthshire, a patient of Dr. Sloman, Surrey, England.

On December 14, 1882, he was seized with a severe chill, followed by fever, cough, and rusty expectoration.

February 3, 1883.—A blond, slender figure, and well built, with firm flesh. Pulse, 72; temperature, 98.5°; weight, 137¾ pounds. On the right side there is dulness extending in front from the clavicle to fourth rib, and posteriorly to the middle third of the scapula, with feeble respiratory murmur. Appetite not very good; digestion fair. Has night-sweats.

April 3d.—Has improved steadily. Pulse and temperature have remained normal; has gained seven and three-quarter pounds. There is no trace of dulness, and the respiratory murmur is vesicular on both sides.

Case XXXIV. *Infiltration of right apex, with fever, night-sweats, and emaciation; recovery.*—A medical student, aged twenty-three, from Whitestown, Oneida County; a patient of Dr. Janeway, of New York. Disease began with bronchial catarrh in the autumn of 1881. Had cough and night-sweats, with emaciation to the extent of ten pounds. Expectoration has been at times tinged with blood.

February 12, 1883.—Slender figure, with sallow complexion. Pulse, 100; temperature, 101.5°; weight, 114 pounds. Appetite poor, but with fair digestion. Cough troublesome, with one-half ounce of expectoration. Over the right front dull from clavicle to fourth rib, posteriorly from the apex to one inch below the scapula. Respiratory murmur feeble.

May 10th.—Much improved. Has gained seven and one-quarter pounds. Coughs but little, and does not expectorate more than two teaspoonfuls in twenty-four hours.

He continued to improve during the summer, and also during the following winter. When last examined the dulness had disappeared from the front, except over a limited area beneath the clavicle and over the interscapular space.

Reports received this winter (1885) inform me that he is quite well, and that he is engaged in business in Syracuse as a drug clerk.

Case XXXV. *Disease of the apex of the right lung; recovery.*—A young German, from New York, twenty-five years of age. The disease began with bronchial catarrh in 1875, followed by several slight hemorrhages. Spent the summer on Schooley's Mountain, N. J., where he lost his cough, and returned to New York, to all appearances quite well. There, by the advice of his physician—an eminent specialist in pulmonary affections—he resumed his business, but was soon again compelled to relinquish it on account of a return of the old symptoms. He was then sent to the Adirondacks, where he again improved, but finding himself ill on his return to New York, he started for Europe, where he was treated successively at Falkenstein (Dr. Detweiler), at Davos, and at Mesan (Dr. Pircher). The patient has passed the whole winter at Aiken, but has done so well that he has not required medical advice.

May 13th.—Pulse, 88; temperature, 99¾°; looks well, and has a good, healthy color. Has increased in weight. At all the other resorts he has frequented the sputa have been more or less tinged with blood; but since his arrival in Aiken there has been no trace of bleeding. He expands the chest to the extent of three inches without any great effort. Dulness quite pronounced under and below the right clavicle; in the axillary line the percussion sound is short. On the back of the same side there is also dulness under the superspinous fossa. Auscultation reveals bronchial respiration over the left apex, with prolonged expiration in the axillary region. Mucous râles, formerly observed by Dr. Pircher, under the upper portion of the scapula, have all disappeared. This patient is now (1885) established in Switzerland, and is in perfect health.

Case XXXVI. *Extensive infiltration of the upper third of left lung, large cavity, repeated hemorrhages, emaciation; recovery.*—A Spanish merchant, native of Barcelona, but for several years a resident of Charleston, S. C., and a patient of Dr. Bellinger, of that city. He is thirty years of age, and has no hereditary predisposition to phthisis. Disease began with bronchial catarrh in May, 1881. Has had several moderate hemorrhages, during one of which coughed up a well-defined cast of a portion of the bronchial tubes.[1] Has lost eleven pounds.

November 3, 1882.—Patient is tall and slender, with dark, sallow complexion. Nails characteristically clawed. Pulse, 112; temperature, 99.8°; weight, 138¾ pounds. Patient has a very poor appetite, and suffers with indigestion. Cough is very troublesome, with muco-purulent expectoration, a portion of which sinks if expectorated into water.

Over the left front there is distinct dulness from the clavicle to the fourth rib, with an area of tympanitic resonance over the third rib. Over the back there is also dulness extending from the apex to two inches below the spine of the scapula. Over this space there is cavernous respiration, with pectoriloquy in front and moist râles posteriorly.

April 13th.—Patient rapidly regained his appetite and strength, and notwithstanding his having had a severe diarrhœa and several attacks of rheumatism, is much improved. He is much stronger, and sometimes walks six miles without experiencing any fatigue. Pulse, 92; temperature, 98.8°. The extent of the infiltration remains unchanged, and the evidences of cavity are still present. On leaving Aiken, he returned to his home in Barcelona, where he continued to improve, and at last accounts (1884) was quite well.

Case XXXVII. *Infiltration of the upper portion of left lung.*—A young man from Burlington, Vt., the name of whose physician I failed to note, presented himself at my office, 1877, with history of cough, emaciation, etc., extending over several months. Temperature, 100.6°; cough troublesome. Physical examination revealed a slight area of dulness over the left subclavicular region and under the scapula.

April 22d.—During the winter he had a slight hemorrhage, but is now much improved in general appearance and coughs less. Temperature, 99.2°. Has increased five pounds in weight. Dulness in front unchanged, but behind it does not extend more than one inch below the spine of the scapula.

He returned to Aiken the following winter, but was so well that he did not present himself for examination. In the summer of 1884 he called on me in Bethlehem, N. H., and reported that he had had no further trouble since his departure from Aiken in 1878. He was then (1884) in robust health.

Case XXXVIII. *Repeated hemorrhages, night-sweats, emaciation, infiltration of right lung with cavity.*—Male, thirty-three years of age; patient of Dr. James W. White, of Philadelphia. Maternal grandmother, mother, and maternal uncle died of phthisis. No marked resemblance to either parent. Disease began with an attack of hæmoptysis on October 5, 1882. Visited the Bermudas, but grew worse while there. Has lost twenty pounds.

December 24, 1883.—The patient, who is of medium size and well built, is rather pale, with clawed finger-nails. Pulse, 88; temperature, 100.5°; weight, 138½ pounds. Appetite and digestion good. Cough moderate, with two ounces of muco-purulent expectoration. Suffers with night-sweats. Over the right front there is marked dulness from the clavicle to the fifth rib, with diminished resonance from that point to the base. Below the clavicle there is pectoriloquy and cavernous respiration. Posteriorly there is a corresponding area of dulness extending to the angle of the scapula, with slight dampening of the percussion sound over the lower half of the lung. Respiratory murmur feeble, with increased vocal resonance. There is, also, dulness over the axillary region.

April 8, 1884.—With the exception of a slight hemorrhage, the patient has steadily improved. Pulse, 80; temperature, 99°; weight, 144½ pounds. Sweats have ceased. Cough persists, but the expectoration is reduced to one ounce. The lower border of the dulness anteriorly has receded to the third rib, the lower portion of the lung having recovered its normal resonance. Posteriorly there has been no change in the physical symptoms.

April 28, 1885.—Patient remained quite well during the summer, returned to Aiken in the fall, and has continued to improve throughout the winter. His face is full and ruddy, his limbs well rounded; his general appearance being that of a person in the most robust health. He walks nine miles without experiencing the slightest fatigue; going out day and night in the worst weather with perfect impunity. During the past year he has not had a single day's illness. He still coughs a little, but there has been a steady diminution in the extent of the infiltration. In front the dulness remains unchanged, but behind the only evidence of disease is slightly diminished resonance over the upper half of the scapula.

Conclusions.—In summing up the above the reader will be struck with the great preponderance of cases in which the disease was located in the right lung. Including the three cases in which both lungs were implicated the right lung was affected in thirty, and the left in only

eleven instances. I have not had time to ascertain whether this accords with the experience of other observers, but even without this confirmation the large number of cases extending over five or six years would appear to establish the fact that the disease, when located in the right lung, affords a much more favorable prognosis than when the left is the seat of the disease. The question of heredity was lost sight of in many of these cases, but in those in which it was noted there was evidence of hereditary transmission in thirteen out of seventeen.

The average age of the above cases when they came under treatment was twenty-nine years. Three were children under ten, two of whom made perfect recoveries, while one relapsed, after having enjoyed good health for over a year, and is still under observation, but is doing well. It is worthy of remark that these were the only children among several hundred phthisical patients treated, and the fact that recovery took place in every case is a striking confirmation of the now generally received opinion that the prognosis of phthisis in children under ten years of age is much more favorable than at any other period of life.

Hemorrhages occurred in twenty-two cases, *i.e.*, in two-thirds of the whole number.

Cavities were observed in only three cases, proving conclusively that recovery is rare after softening has begun.

The fact that twenty-nine males recovered, and only nine females, is somewhat remarkable. It is true that more males than females visit health resorts, but this fails to account for the great disparity in the general result, and forces upon us the conclusion that the disease is much more fatal among women than among men.

It is but fair to state that the above cases include only a small proportion of those who have recovered at Aiken. Many were treated by my colleagues, who doubtless obtained equally good results, but a still larger proportion, I am convinced, recovered without medical aid. These comprise cases of incipient phthisis, in which change of climate alone effects such marked improvement that they deem it unnecessary to invoke medical aid. Although successful in many cases this is a course which no physician of experience would advise an invalid to adopt. In a chronic disease, especially in consumption, the patient is over-sanguine, and is only too ready to emancipate himself from medical control, and, if left to his own guidance, will often by imprudence and neglect undo the work of years. The consumptive may at times need no drug treatment, but he is always the better for judicious medical supervision. He should always be made to realize that arrest does not necessarily imply a cure, and where it is possible I always insist upon the patient's remaining under supervision for at least two years after all signs of active disease have disappeared.

Rearing Premature Infants.—Professor Tarnier presented at the Académie de Médecine two children, born at the sixth month, whom he had succeeded in rearing by the aid of the couveuse, and forcible feeding with woman's milk. Two drachms of milk were injected through a caoutchouc tube into the stomach every hour for the first three days, and then four drachms were injected every three hours. It is necessary to begin with small quantities, or the child becomes swollen by an acute œdema through hypernutrition. The couveuse is used at a temperature of 86° to 98° F. The younger the infant the higher the temperature employed. Dr. Blot observed that he regarded the couveuse as a useless procedure, as the same results are attainable by the employment of cotton and bottles of hot water. M. Tarnier said that during the employment of the couveuse he had on several occasions been astonished at the rapid disappearance of the sclerema of infants.—*Medical Times and Gazette.*

THE ACTION OF HYDROBROMATE OF HYOSCIN.

By ARCHIBALD CHURCH, M.D.,

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From some little experience with hydrobromate of hyoscin upon the insane, I would like to offer a few words in regard to it, as it has been brought prominently forward by the valuable article of Drs. Peterson and Langdon, in The Record of September 19th.

To the conclusions arrived at by them agreement in a general manner must be accorded, but it seems that the drug has more usefulness than they would indicate. In sthenic acute conditions, or violent manifestations arising in the course of chronic insanity, it has notably and promptly lessened the excitement, and in the frenzy of melancholia has mitigated the outbreak in cases where it has been tried in this hospital. While not doubting that its continued administration in small and often repeated doses will disarrange alimentation—and what powerful drug does not?—it has yet rendered signal service in tolerably full doses, $\frac{1}{40}$ grain, given when specially indicated, without producing any untoward symptoms whatever. By watching its action upon others, and upon myself, in varying doses, it did not seem advisable to give it in a more routine manner than one does morphia or atropia in parallel cases, and, so far, more than two doses of $\frac{1}{40}$ grain have not been used in twenty-four hours.

By careful sphygmographic observations it is clearly shown that minute doses—$\frac{1}{150}$ to $\frac{1}{100}$ grain—of the hydrobromate are stimulant of cardiac action, and thereby of the mental processes and attendant manifestations, not only among the insane, but in a condition of health. With a larger dose—$\frac{1}{40}$ to $\frac{1}{20}$ grain—this also is the primary result, but as more of the medicament comes into operation it is followed by a slowing of the pulse-rate and by a diminution of the cardiac curve of the tracing, sometimes to such an extent that a bruit of dicrotism appears. A feeling of fatigue, or rather of comfortable weariness, if you will permit such a term, is now associated, and one gives up readily to feelings of drowsiness, sleep following naturally. After using the drug in $\frac{1}{40}$ grain doses for from six to ten consecutive nights, with an average of six hours' sleep, for instance, its discontinuance has been followed, but only after several nights, by wakefulness, which again gave way to the remedy. In some instances of confirmed insomnia, or rather of often-disturbed sleep, after securing a few nights' good rest the patient has rested fairly well, the habit of waking at certain times being broken, and in general the effect of the drug is lasting. When given by the mouth, as was pointed out in the article above referred to, its action is slow and there is considerable variability as to the amount required by different patients. Although no notable depression has come under observation from the use of the drug in such doses as are indicated above, it no doubt is capable of producing stupor just as does hyoscyamia, which doubtless in the amorphous form contains it largely, but which is associated with little danger, according to a recent writer in the London *Lancet*, who gave unhesitatingly $\frac{1}{2}$ grain, and even $\frac{3}{4}$ grain of Merck's preparation, producing coma, etc.

It may be not uninteresting to note that hyoscin is a very active mydriatic. It was found that two drops of a solution one-tenth grain to the ounce of distilled water produced complete dilatation of the pupil and paralysis of the accommodatory muscles in about five minutes, and that it was more active to stretch the adhesions in a case of posterior synechia than the repeated instillation of a solution of atropia sulphatis three grains to the ounce. The mydriasis so produced is very persistent, lasting from five to ten days, and the use of the solution is not attended, as far as observed, with any conjunctival irritation, which will suggest its value to oculists where the long-continued action of a mydriatic is required.

From the little learned concerning the drug it would seem to be of use in conditions of intensified nerve action, especially of cerebral origin, to meet acute manifestations.

A SCHEMATIC EYE FOR STUDENTS OF OPHTHALMOSCOPY.

By J. B. EMERSON, M.D.,

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THE most difficult part of ophthalmoscopy for the student to master is refraction, and as a good knowledge of this can only be attained by long-continued and careful practice, many students are deficient in it through lack of time and suitable subjects for examination. Again, in examining the fundus of an eye, from not having an object of known size for comparison, they often think that they see objects *distinctly* which should not be distinctly seen under the conditions. The reason of this is, that beginners in ophthalmoscopy are apt to focus on large objects, such as the optic nerve or the large blood-vessels, instead of the smaller branches of the vessels. In order to assist those who desire to perfect themselves in this branch of ophthalmology, I have arranged an instrument which may be called the student's schematic eye, and which differs in some respects from those now in use.

It consists of a tube 2½ inches in length and 1⅛ inch in diameter, attached by a hinge to a vertical rod, which rests on a stand and can be raised or lowered at will. In one end of this tube is a convex lens of 3 inches (13 D.) focal distance, which represents the refractive media of the eye. Just behind this is a perforated diaphragm of leather, which represents the iris and pupil. Telescoped in the other end of the tube is a second tube, 2¼ inches in length, which is moved in or out by means of a pin and ratchet. At the remote end of the second tube is a disk of metal which represents the retina, and on it is placed a card, in the centre of which is a circle of $\frac{1}{10}$ inch diameter, with two lines crossing the centre at right angles to each other. In the space about the lines are photographed sentences, the letters of which are too small to be distinguished without a magnifying-glass (about one-half size of No. 1 Jaeger). If we place this disk at 3 inches from the lens, we have the condition of an emmetropic eye: if it is moved nearer we have hypermetropia; if further, myopia. The inner tube is graduated to show the degree of each.

In order to produce the condition of astigmatism a convex lens of 3 inches focal distance, on which has been ground a cylindric lens of 30 inches focal distance, is substituted for the original lens; and by adjusting the inner tube nearer them, or beyond the focal distance, the various forms of astigmatism are produced.

This instrument can be made useful in three ways:

1. For teaching the direct method of ophthalmoscopic examination. A light and mirror are then used as in examining the human eye. When the tube is adjusted at 0 it will be impossible to read the words on the disk unless the accommodation of the eye of the examiner is fully relaxed. By shortening the distance it can be read with glasses that correct the permetropia. If the distance is increased it will require, to read the letter, a concave glass which corrects the myopia. By substituting the astigmatic lens the circle appears elliptical, and the vertical, or horizontal lines will be distinct or blurred as the axis or disk is changed from one position to another. By using the indirect method of examination it can be clearly demonstrated that the fundus is inverted.

2. For the practice of retinoscopy, or the shadow test. To do this a ring is placed on the front of the tube, with grooves for holding two trial lenses.

3. For demonstrating the principles of refraction. In this case a disk of ground glass is substituted for the metallic disk, and by observing the images formed on it by distant objects, emmetropia, hypermetropia, myopia, and astigmatism, with the effects of their respective correcting lenses, can be clearly shown. By observing the images of near objects, the effects of accommodation are also demonstrated. I have been assisted in perfecting this apparatus by my fellow, Dr. George T. Ball. It may be procured of Meyrowitz Brothers.

Clinical Department.

MAGGOTS IN THE HEAD.

DR. C. M. HARRISON, of Del Rio, Tex., writes that the presence of worms in the cavities of the head, reports of two cases of which he had seen some time ago in THE MEDICAL RECORD, is by no means a very uncommon phenomenon in that country. There are two species of flies which attack diseased parts, viz., the blue-bottle (*musca vomitoria*), and the flesh-fly (*sarcophaga camaria*, Meg). The blue-bottle deposits eggs, which are hatched in two or three hours provided they are kept moist and warm; and the flesh-fly deposits living larvæ, which commence to burrow at once. It was of the latter kind Linnæus said that the larvæ of three females would devour the carcass of a horse as quickly as would a lion. These are popularly known as "screw-worms," and they increase in size with amazing rapidity. The flies deposit their eggs or larvæ in decomposing substances, and it is probably, the writer says, because there is so little decaying animal matter in his country, owing to the dry air, that the flies so often attack diseased tissues in the living subject. Dr. Harrison writes: "The first person I ever treated for larvæ in the nose was a Mexican, a shepherd, about forty years of age, who had nasal catarrh. I visited him one morning and found him apparently unconcerned, partly because he was suffering but little pain at the time, and partly, also, because he had cured and seen cured so many cases of screw-worms in sheep. I immediately injected into the nares a solution of carbolic acid in glycerine and water, syringing the cavity well, and bringing away eight or ten wriggling maggots. I then hoped I had reached them all, but was disappointed, on returning a few hours later, to find my patient suffering considerable pain, with a bloody serum running from his nose. I then changed solutions, resorting to corrosive sublimate, turpentine, tannin, and morphine, using each in turn, but always finding that I had failed to dislodge all the worms. I used first one solution and then another, through the anterior and then the posterior nares, but despite all my efforts the patient died in agony at the end of three days. His features were unrecognizable. The eyes were swollen and closed, and the face was puffed out to a level with the nose, while from the nares a bloody serum was constantly flowing.

"About two months later I was called to see another case in the same house. The patient was a Mexican woman, forty-two years of age. This time, after failing to accomplish much with my injections, I secured consultation, but only succeeded in obtaining companions in my misery. Finally, at the end of the second day, we became desperate and resolved to see what could be accomplished by cutting into the nasal cavities. We found it necessary to keep the woman in nearly a sitting position, in order to prevent the serum, which was constantly

oozing, from running down the throat. The woman had hardly begun to inhale the chloroform when down tumbled a stupefied maggot, fully half an inch long. We thus succeeded in grasping a number with the forceps, and the patient, not yet being fully anæsthetized, felt them coming down through the posterior nares, and as she did so would hawk and roll them forward with her tongue and spit them out. By putting a cork between the molars and using a tongue-depressor we were able, after she became unconscious, to reach into the throat and seize the stupefied worms as they came down. In this way we removed sixty-seven worms. I then used antiseptic and soothing injections, and hoped the trouble was at an end. But my disappointment was great, on returning the next day, to find the patient with both eyes closed by the swelling, picking away an occasional live worm, and suffering severe pain. Becoming desperate, I mixed a half-ounce of pure chloroform with an equal amount of the antiseptic solution, and threw the whole with considerable force into the anterior nares. The woman gave a groan and fell over as though dead, and I waited with some anxiety to learn whether I had killed my patient or the worms. But the woman recovered, and from that time no more live worms were seen. But dead ones innumerable came away in knots of from three to ten for three days, each time that I syringed out the cavity. The woman is alive, but her nose is completely hollowed out and sunken in at the sides, for the septum and turbinated bones have disappeared. Since that time I have always treated the cases in this way, using chloroform first to kill the maggots."

Dr. Harrison relates another case, of maggots impacted in the external auditory canal. There was so much swelling about the entrance that no injections could be used, but by blowing in the fumes of chloroform the worms were killed. Soothing applications were made until the swelling was reduced, and the dead maggots were then syringed away.

[In the case of the woman who recovered with loss of the septum and turbinated bones, we would venture the suggestion that this was the result of pre-existing syphilitic disease. The fetor of syphilitic necrosis would be likely to attract the flies, who would deposit their eggs or larvæ in the nostrils, and the maggots might then complete the destruction of the soft parts. But it is hardly to be supposed that worms could in so short a time eat away and completely destroy the bone tissue.—Ed.]

FIBROID TUMOR OF THE MIDDLE EAR—NEURALGIC PAINS, OTORRHŒA, AND DEAFNESS—REMOVAL OF TUMOR FOLLOWED BY RESTORATION OF FUNCTION.

Dr. C. W. Trueheart, of Galveston, Tex., reported the following case at the meeting of the Texas Medical Association: Laura O——, fifteen years of age, had been subject for over five years, with occasional intermissions, to deep-seated pain and distressing tinnitus in the left ear, accompanied with deafness and a slight discharge. The girl had acquired the faulty articulation, listless manner, and vacant expression of countenance induced by long-continued deafness in the young. On the left side she could hear the watch only when it was firmly pressed against the ear, and the ordinary voice at a distance of two feet. The tuning-fork placed against the head was heard with very slightly more distinctness on the left side than on the right. The Eustachian tube was completely closed. The drum membrane was of a dusky red color, somewhat thickened and irregularly sunken, with a perforation the size of a large pin-head, through which pus was oozing, a little behind the handle of the malleus. On the right side the watch was heard at two inches, and the voice at six feet. The drum membrane was somewhat depressed, the light spot was indistinct, and the Eustachian tube was partially open. There was catarrh of the posterior nares. Treatment appropriate for catarrhal otitis media was adopted, with decided benefit to the right ear, but without any noticeable effect upon the left. A more careful examination now revealed a slight and uniform bulging of the postero-inferior portion of the drum, and a smooth, pale, red body could be seen and felt by the probe through the perforation. The opening having been enlarged, a fibroid tumor of cartilaginous hardness was seen, attached by a broad base to the inner wall and filling up the postero-inferior half of the tympanic cavity. An attempt was made to remove it by the snare, but after cutting half or two-thirds of the way through the base the wire broke. The tumor was afterward seized with the toothed forceps and twisted off. The base was then repeatedly cauterized with fuming nitric acid every two to five days until the last vestige of the tumor had disappeared. An attempt was now made to secure the closure of the membrana tympani by touching the edges frequently with mitigated nitrate of silver fused on the end of a fine silver probe. This was successful beyond expectation, and the membrane was finally restored to its integrity. At the end of three and a half months the patient returned to her home much improved in general health, expression of countenance, and articulation. On the right side the watch was heard at fourteen inches, and on the left at eighteen, while the hearing for the voice was normal, and the tinnitus had entirely ceased.

Progress of Medical Science.

Recovery from Malignant Pustule.—Dr. W. E. Buck records this case (*British Medical Journal*): Mr. F——, aged thirty-one, a veterinary surgeon, experienced on October 6th a stinging sensation at the back of the right wrist. A small bleb was formed, which he scratched off, and there was some tenderness of the elbow and armpit. He had a slight rigor. On October 8th he was seen by Dr. Meadows, who prescribed some salicylate of soda and tincture of aconite, in frequent doses, as his temperature was 104°, and the rigors continued almost the whole of the day. A black eschar began to form on the afternoon of the 8th, and on the 9th it became about the size of a sixpence; its base was red and œdematous, and surrounded by some vesicles in a circular shape. The temperature was nearly 104°; the patient felt cold, and the tongue was foul. I visited the case with Dr. Meadows, and we injected pure carbolic acid under the eschar, using an ordinary hypodermic syringe. Unfortunately we could only introduce a small quantity, as it oozed out in the withdrawal of the syringe, and with it a serous-looking fluid. I dried some of this fluid on a cover-glass, stained it with methyl-violet, and found the well-known bacilli of anthrax. We prescribed large and frequent doses of soda-hyposulphite, and ordered also a large quantity of meat. Under this treatment he rapidly improved. On October 12th we again injected carbolic acid. The temperature came down, and, as the patient said he felt all right, the hyposulphite of soda was reduced to three times a day. The eschar did not finally separate for nearly six weeks, and the ulcer then soon healed. I believe that the main remedy in this case was the injection of pure carbolic acid, a mode of treatment which does not seem very painful. There was a clear history of the disease, which was contracted exactly twelve days before its first appearance, Mr. F—— having examined the flesh of an animal that had died from anthrax.

A Case of Vaso-motor Neurosis of a Rare Form Occurring in a Child.—In the *American Journal of Obstetrics* Dr. Johnston reports the following case: Mary H—— was a healthy infant until she was three months old, when she had recurrent attacks of swelling and redness of the hands and feet, which lasted during a period of three months. When five years old, and in apparent health, she had a return of attacks of the same character. The first indication of them was noticed while she was

at play in the house. The hands became suddenly red, the fingers soon turning white, then livid, and almost black. There was a sensation of pain in the parts involved, with increased sensibility to touch. The swelling lasted some minutes, and gradually passed off. While the child was out the next day the hands and ears became swollen and discolored as before. The color of the hands was bright red, but near the fingers this changed to white, while the fingers were dark purple, or almost black. The temperature of the hands was low, the fingers being very cold. From this date such attacks returned every day in the hands and feet, and in a day or two the end of the nose and the ears were also involved, being swollen, red, then white and cold. She was kept in the house for some time after this, but as she improved she began to go out. The cold air would almost invariably bring on an attack. The treatment at first consisted of warmth to the extremities by cotton-wool and bandages, lead-water compresses covered with oiled silk, and attention to diet. Hot water gave more relief to pain than anything else. Belladonna and ergot were afterward employed. In about three months there was a sudden cessation of attacks, with no return. The diagnosis of implication of the vaso-motor system is based upon the fact that only changes in the calibre of the blood-vessels could bring about the phenomena of sudden swelling, redness, and finally arrest of circulation in the part, with lividity and great coldness; and nothing could so suddenly change the calibre of the vessels except marked and sudden variations in the state of the nerves regulating their contraction and dilatation.

Malarial Urticaria.—Dr. R. De Luca, in a monograph upon the affections of the skin, due to the action of the malarial poison, relates three cases of urticaria in which there was no fever present, but which were evidently due to malaria, and which were promptly cured by the exhibition of quinine.

Large Lympho sarcomatous Tumor of the Tongue.—At a recent meeting of the Royal Medical and Chirurgical Society Dr. Jonathan Hutchinson narrated a case in which a tumor, beginning in early life in the substance of the tongue, had required removal on account of its large size. It had grown until it completely filled the mouth and obstructed deglutition and respiration. It weighed, after removal, several ounces, and was probably the largest tumor of the tongue on record. The operation had necessitated a preliminary tracheotomy and section of the lower jaw at the symphysis, since it was quite impossible to get at the mass from the mouth. The patient was a medical student, aged twenty-two, and the tumor had been growing for twelve years, or possibly much longer; it was painless, and of almost stony hardness. Its surface at one part was covered with papillary outgrowths, but there was not the least tendency to ulceration. There was no gland-disease. The patient was in good health, and the inconvenience caused by the size of the tumor was the only reason for its removal. Careful microscopic examination had been made by Mr. Eve, Dr. Klein, and others, with the result that the tumor was declared to be of a sarcomatous or lympho-sarcomatous nature. This verdict had unfortunately been supported by the final result, for, after about two years of good health, without the slightest symptom of recurrence, a new growth had suddenly developed in the scar, and, increasing very rapidly, had brought about the patient's death. The author, while admitting that the tumor, in its final development, was of a malignant or sarcomatous character, drew attention to certain clinical features which were different from those common to such growths. If not actually congenital, it had begun in very early life, and its growth had been very slow and absolutely painless. The development of coarse papillæ on its surface, without any tendency to ulcerate or fungate, was another feature of peculiarity. He had not been able to find on record any case which corresponded with his own in all its characters, but had met with several which resembled it in its early stages. In one of these, of which a portrait was shown, the appearances on the surface were exactly similar; but in this no tendency to persistent growth was shown, and the patient, a railway porter, aged twenty-three, was still free from any material inconvenience. This, and some other cases, had led the author to believe that the starting-point had been of the nature of a congenital mole, in which other morbid tendencies had been developed later on.

Circumcision a Cause of Reflex Irritation of the Genito-urinary Organs.—For some years Dr. Mastin's attention has been called to the frequency with which he is consulted by persons of the Jewish faith, on account of chronic urethral discharges, irritable urethra, and other affections of the genito-urinary organs. The main factor in these cases is a preternaturally small meatus urinarius externus, which results from the early removal, by circumcision, of the prepuce. The glans penis in a child, being covered by muco-cutaneous tissue, remains in this condition just so long as the same is protected by its natural covering, the prepuce. If, however, the prepuce is cut away at an early age, eight days or even longer, the glans becomes exposed to the rough contact of the child's napkin and other articles of clothing, and the consequence is it soon changes its muco-cutaneous condition, and becomes converted into almost true dermoid tissue; this being the condition in which we find the glans penis of every Jewish youth, as may be easily verified by examination. Since nature has wisely protected the various outlets of the body by a muco-cutaneous surface between the mucous canal and the true skin, we find these orifices remain in a normal and healthy state just so long as the muco-cutaneous tissue is preserved in its integrity. Otherwise, irritation soon runs into inflammation, followed by a deposit of retractile tissue around the orifice, which in time produces a permanent contraction. We see this to be the case in those contractions of the lachrymal puncta, after long-continued inflammation of the tarsal edge of the eyelids; in the mouth after burns or ulceration of the lips; in the anus after ulceration around its verge, and more noticeably true in a contracted meatus which follows a balanitis associated with a long-standing blennorrhagia. In children whose prepuce has been removed there is likewise a deposit of retractile tissue, that results in a contracted meatus. It has been clearly demonstrated that irritation of peripheral nerves produces centric disturbances in the spinal cord through the excito-motor system, which are thence reflected back. Histories of several cases are given in which diverse symptoms, such as incontinence of urine, sexual weakness, and painful micturition were caused by a condition of contracted meatus, and relieved by dividing and enlarging the opening.— *Gaillard's Medical Journal.*

Anisic Acid.—The already long list of new antipyretic remedies has been increased by the addition of anisic acid, a substance obtained from the oil of anise seed. It exists under the form of colorless prismatic crystals, soluble in alcohol and ether. It possesses antipyretic and antiseptic properties similar to those of salicylic acid. It also increases arterial tension. It has, however, a mild toxic effect in large doses, for when it was injected in large quantities into the veins of animals, epileptiform convulsions were caused. It has been employed with success as an antiseptic in the treatment of wounds, and seems, when employed in this way, to exert no poisonous effect.—*Gazzetta Medica Italiana Lombardia.*

Hysterical Sneezing.—Dr. Souza Leite reports a case of hysteria in which the attacks were ushered in by a fit of coughing followed by continuous sneezing. There were about forty sternutations in the minute, and the attacks lasted for several minutes.—*Centralblatt für Klinische Medicin*, August 15, 1885.

Addison's Disease in a Boy Ten Years of Age.—Professor Monti, of Vienna, has reported the following case: The boy in question was strong and healthy, with the exception of a slight attack of measles, until the age of six; the skin was quite normal in color. In July, 1880, he fell suddenly ill without any apparent cause. He had fever, with morning remissions, pain in the stomach, abdomen, and head, occasional vomiting, diarrhœa, alternating with constipation, and drowsiness, culminating in heavy sleeps which lasted two or three days, and during which no nourishment was taken; on awaking the child was very weak and was excessively emotional. At the end of fourteen days the mother noticed a peculiar yellowish-brown discoloration of the skin of the hands, and this within a few weeks spread to other parts of the body. After about five weeks the fever ceased, and the digestive and nervous disturbances gradually disappeared, but the discoloration remained. In the course of the summer the child had attacks, lasting two or three days, of headache, with vomiting, abdominal pain, and diarrhœa. In October, 1880, the boy had another illness resembling that described, and lasting from three to six weeks, during which the brownish color became darker. The child recovered and remained fairly well until the end of March, 1881, when the mother first noticed that the cervical glands were more or less swollen, and that there was a slight swelling on one of the knuckles. During 1882 the child was much the same; the muscular system was weak, but he was able to go to school. He had two more feverish attacks, one in the spring, the other in the autumn, each lasting about four weeks. The attack reappeared in April, 1883, and Professor Monti first saw the case on May 10th. The child was tall, thin, and weakly built. The hair was silky, a dark blond. The skin of the face, neck, and hands was of a dark grayish-brown color; the sclerotics were of a dirty white; the iris was light gray; the nails white. The skin of the thorax, back, and abdomen was grayish-yellow; the lower extremities were yellowish, the buttocks and perinæum darker. There were several brown spots on the external ears. The mucous membrane of the mouth was of a pale red; that of the lips and cheeks presented several brownish-black spots arranged in groups. The tonsils were enlarged. The mucous membrane of the nose and of the prepuce was pale. The epidermis was everywhere smooth. The glands of the neck were swollen; the tongue was clean; pulse, 80; respiration, 24. The thorax and its organs were normal. The abdomen was prominent; palpation painful, and especially so in the umbilical and ileo-cæcal regions. The liver was normal, the spleen somewhat enlarged. The inguinal glands were normal. The urine was light yellow, acid, of specific gravity 1.017; no albumen or other abnormal constituents; quantity natural. The blood was pale, but there was no apparent increase of white corpuscles. The temperature was normal. The patient appeared in a state of mild nervous excitement; sometimes crying, sometimes laughing. The bowels regular; he slept and ate well. On June 25, 1883, the boy had one of his usual feverish attacks, and was attended at his own home by Professor Monti's assistant. He slept almost continuously the first four days, and was quite undisturbed by the numerous flies that settled on his face. When roused, he gave his answers slowly but correctly. The pupils were equal, reacting normally to light; there was no strabismus. On sitting up the patient swooned. The glands of the neck were more enlarged. The abdomen was retracted; both hypochondria, but especially the right, were tender on pressure. The urine was normal. Within fourteen days the symptoms had subsided, and the child returned to school. On March 7, 1884, the headache, dulness, and weakness reappeared, and were followed in the night by excitement, delirium, and occasional loss of consciousness. Soon after midnight the child became somnolent, and toward morning death ensued upon an eclamptic fit. At the post-mortem examination the dura mater was found tense, thin, and hyperæmic, its inner surface shiny and smooth. The longitudinal fissure was filled with fibrinous masses. The brain-substance was soft, not congested. The posterior horns of both lateral ventricles were distended with serum. The heart was flabby, and of a dark brown color; the valves were healthy. The right lung was partly solid at the apex. The liver was enlarged and softened. The spleen was enlarged. The mesenteric glands were as large as hazel-nuts. The right suprarenal capsule was completely wanting, as well as its artery and vein. The left suprarenal capsule was very small; the greater part of its substance appeared to consist of rather vascular connective tissue. The kidneys were correspondingly large and somewhat softened.—*London Medical Record*, August 15, 1885.

Orchitis of Gouty and of Malarial Origin.—Dr. Guyot recently read at the Société Médicale des Hôpitaux of Paris, the history of a peculiar case of orchitis. The patient was an arthritic, whom he had previously treated for a rheumatic affection and a diathetic gastralgia. There were no syphilitic antecedents. The patient was placed upon an anti-arthritic treatment, under which the testicle greatly diminished in size, but at the same time the great toes of both feet and the wrist became the seat of a well-marked gouty arthritis. Dr. Guyot does not hesitate to consider the affection of the testicle as a gouty orchitis, but he has failed to mention the occurrence of rheumatic orchitis, instances of which are not rare and which bear a strong analogy to his observation. Dr. A. Zacco reported, in a number of the *Centralblatt für Klin. Med.*, 1884, the case of a man, aged thirty-five years, previously in good health, who had an attack of orchitis on the right side, with a complicating epididymitis, without having had any venereal disease or any affection of the urinary organs. After this the patient had intermittent fever for three months, complicated with tertian, and later with quotidian, and finally a continuous fever set in with orchitis. Every method of treatment was used without resulting favorably. But after it was discovered that the continuous fever reached its acme about noon, large doses of quinine were administered on the fourth day, and in two days the patient was very much better. It was observed that at the height of the fever there were slight swelling and pain of the testicles, which, however, completely disappeared with the fever. Zacco believes that the orchitis was due to the direct action of the malarial poison upon the testicles.

Benzoate of Soda in the Summer Diarrhœa of Infants.—Dr. Gnasta regards this disease as a zymotic affection, due to the presence of a special microbe. The predisposing causes are a defective hygiene and excessive heat, and the exciting cause, indigestible food. He has used benzoate of soda with success, giving about one drachm dissolved in three ounces of water in the twenty-four hours. A dose of calomel or jalap is given at the commencement of the treatment, and on the third day a slight purgative action is again obtained by the administration of magnesia. Fasting is enjoined during the treatment, no milk nor beef-tea being allowed, but only a few spoonfuls from time to time of lemonade, or good wine. Nursing children must, however, be given the breast, but not more than four times in the twenty-four hours.—*Journal de Médecine de Paris*, August 23, 1885.

The Micrococcus of Infectious Vulvo-vaginitis in Children.—In a paper read before the Society of Physicians, in Buda-Pesth, Dr. Cseri reported the results of his investigations in this disease. He had examined the vaginal secretion in upwards of thirty cases occurring in girls between three and ten years of age, and found constantly a micro-organism which seemed, both in its microscopical appearance and in its action in cultures, to be identical with the gonococcus of Neisser. The following were the author's conclusions (*Centralblatt für Klinische Medicin*, August 8, 1885): 1. A large porportion

of cases of so-called catarrhal vulvo-vaginitis, especially the chronic forms, are distinctly infectious. Whether those cases occurring after the exanthemata are also infectious cannot yet be definitely asserted. 2. In the secretion in the infectious form there is always present a characteristic coccus, which in its form, size, and action in culture fluids, is not to be distinguished from the gonococcus. As regards the question of its pathogenic nature and its identity with this specific coccus, further investigations with pure cultures are necessary. 3. Vulvo-vaginitis is exceedingly contagious, and there is great danger to the eyes if any of the secretion is brought in contact with the conjunctiva. 4. Infection is carried through clothing and bed-linen, public bath-tubs, etc. Prophylaxis consists in isolation of children affected with vulvo-vaginitis and in disinfection of the underwear.

Intratracheal Injections.—Some experiments made by Dr. Pernice show that liquids injected into the trachea drop by drop, or in little jets, run down the posterior surface and are thence evenly distributed throughout all the bronchial twigs. They are then absorbed by the pulmonary veins or by the lymphatic vessels, and thus exert both a local and a systemic action. When the animal was placed in the supine position, with the head elevated a little, no cough was excited by the operation. Dr. Pernice used in his experiments distilled water, milk, and defibrinated blood. Absorption was complete, and no respiratory trouble of any sort resulted. He also employed solutions of tannin, borax, benzoate of soda, quinine, morphine, and nux vomica and lime-water, without exciting any reaction in the respiratory mucous membrane.—*Il Movimento*, No. 12, 1885.

Malarial Colic.—Dr. F. Sancho relates the case of a woman, aged twenty-seven, of good health, married, and the mother of two children, who became pregnant for the third time. She complained first of loss of appetite and of a bad taste in the mouth, and later suffered from colicky pains and vomiting. These came on every evening between four and six o'clock, lasted for a few hours and then subsided, and were succeeded by profound and tranquil sleep. The tongue gave no evidences of catarrh of the digestive tract, and indeed there were no dyspeptic symptoms of any kind except during the times mentioned. The symptoms were referred to the woman's condition, and it was thought that they would disappear after the birth of the child. However, after a time the patient was taken with a heavy chill, accompanied with intense abdominal pains, and soon abortion occurred. That same evening the gastric pains and vomiting returned just as before. Anti-dyspeptic treatment was tried, but without any improvement resulting. Then, thinking that malaria might be the cause of the trouble, Dr. Sancho prescribed quinine, and the patient was speedily cured.—*Revista de Medicina y Cirurgia Prácticas*, July 7, 1885.

Sunlight as a Disinfectant.—At a recent meeting of the Academy of Science of Paris, M. Duclaux detailed the results of some experiments which he had made to determine the effect of sunlight upon the vitality of microbes. He found that a few hours of exposure to the direct rays of the sun were sufficient to weaken, and finally to destroy, the pathogenic micrococci used in the experiments. He argued, therefore, that the sun was the best disinfectant which we possess, the most universal, the most economical, and the most active.—*Le Progrès Médical*, August 15, 1885.

Retention of Urine in a Child Six Months Old.—M. Arnozan relates in the *Journal de Médecine de Bordeaux* the case of an infant, six months old, in apparent good health, who was suddenly seized with retention of urine. Previous to this time he had always passed water without difficulty and in sufficient quantity. No urine passed for thirty-six hours, although the child made ineffectual straining efforts. The bladder could be felt as a tense ball in the hypogastrium. The testicles were drawn up into the abdomen and could not be felt in the scrotum, but nothing abnormal could be discovered to account for the retention of urine. The water was drawn without difficulty through a filiform elastic catheter. There were about four ounces of clear though dark-colored urine. The child was put upon small doses of potassium bromide, and after the water had been drawn for about twelve days, it began to flow normally, and has since continued to do so, though the child has always a temporary difficulty in urinating whenever he is a little indisposed.

Nasal Polypus in an Infant.—M. Krakaver exhibited before the Belgian Academy of Medicine a child who when only four and a half months old was brought to him on account of a trouble of the nose. He removed twelve polypi from the right nasal fossa, cauterizing the mucous membrane with nitrate of silver. Mackenzie states that the youngest child whom he had seen affected with nasal polypi was sixteen years old, and Semon mentions having observed one twelve years of age. The case reported by M. Krakaver would therefore seem to be exceptional as regards the age at which the disease appeared.—*Revue Médicale*, August 22, 1885.

The Relations between Diseases of the Abdomen and those of the Right Heart.—Since the work of Potain in 1878, and the researches of Tessier and Franck in 1879 and 1880, this question has received little attention. Passerini now cites three cases of tricuspid insufficiency consecutive to a peritoneal effusion. Auscultation showed a prolongation of the first sound and a murmur; the second sound being found strengthened toward the pulmonary orifice. The disappearance of the effusion was accompanied by the disappearance of these sounds. Passerini believes the cause of these cardiac alterations to be purely mechanical; the compression of the abdominal viscera provokes venous anæmia, and engorgement and hyperæmia of the thoracic organs. In favor of this explanation we have the observations of Larcher and of Depaul in pregnancy. These writers have noted the accentuation of the first sound toward the pulmonary orifice, at the same time that it is prolonged at the level of the base of the xyphoid cartilage. The same observation has been made in two cases of ovarian cyst, and in another of large abdominal tumors; and finally, this same modification of the first sound at the pulmonary orifice can be produced by simple compression of the abdominal wall.—*Revue Bibliog. des Scien. Méd.*, July 31, 1885.

Hydræmia and Hydræmic Œdema.—The relation of œdema to diminished concentration of the blood is a subject that is still open to debate. Professor Salvioli has recently made an experimental study of the question (*Archive delle Scienze Mediche*) which goes to show anew that dropsy depends upon a variety of conditions. It is connected firstly with the hypo-albuminotic state of the blood, conjoined with hydræmic plethora; then with the physiological or morbid constitution of the vessel-walls; lastly, with the degree of pressure and tension of the blood in the vessels. This last factor has great importance in the production of hydræmic œdema, and regulates its degree and disposition according as in simple plethora, or in hydræmic plethora, the energy of the cardiac contractions is augmented or enfeebled. Only in hydræmia consecutive to acute nephritis there is observed constant elevation of the blood-pressure, which is maintained by the hypertrophy of the left ventricle. In this first stage œdema occurs, which may be called active, localized especially in the skin, that is, in the point where in man there exists the greatest permeability of the walls of the vessels. In the later stage, common so-called passive œdema occurs instead, which resembles in its disposition the œdema of heart disease, and is dependent on altered nutrition of the myocardium, and consequent lowering of the arterial pressure and increased tension in the venous system.

Jaundice and Pain in Biliary Colic.—Dr. Lawson Tait, in the *Lancet*, discusses the reason why, during the passage of gall-stones, there is frequently no jaundice. In fifteen cases of cholecystotomy he found no history of jaundice, and Dr. Tait has found that the occurrence of jaundice, either in the skin or in the urine, during and after the passage of gall-stones, is of extreme rarity, and not, as has been believed, common. Dr. Tait seeks for an explanation of this fact in the following anatomical conditions of the cystic and common ducts. The common duct is not so long (three inches) as most text-books assert, and is much less rigid and more easily dilatable than the cystic duct, which is larger than most of the text-books describe it, viz., one inch. Hence we can understand how a stone, if not of very great size, will cause intolerable agony while passing through the unyielding cystic duct, and without a trace of jaundice ensuing, the gall-bladder alone being its propellent force; but the moment it enters the common duct the extending impulse will be increased by the influence of the whole excreting force of the liver, so that its passage through the common duct is more rapid. The chief symptom, then, that of pain, is due to the slow passage of the calculus through the unyielding cystic duct, while its rapid passage through the easily distended and much larger common duct gives no time, in the majority of instances, for the production of jaundice, which only takes place after long-continued obstruction of this, the common duct.

Epidemic Purpura.—Dr. Guelliot (*Annales de Dermatologie et de Syphiligraphie*), observed, in infants between the ages of seven months and three years, three cases of purpura. The eruption was preceded by convulsions, vomiting, and intense dyspnœa, then coma, and, in one case, acute pain in the lumbar region. After a few hours purpuric spots appeared symmetrically on the anterior and inner surfaces of the thighs, at first dull in color, then turning successively a bright red, purple, and finally black. In the three cases the course was rapid, death occurring after fourteen, fifteen, and twenty hours from the onset. The illnesses were attributed to unhealthy conditions of the street in which the children lived.

Deep Massage of the Abdomen in Intestinal Obstruction.—Dr. Kriviakin (*London Medical Record*, August 15, 1885) warmly recommends deep massage of the belly as a powerful curative in cases of intestinal obstruction. The procedure, as practised by him, "requires only one assistant, the name of which is Patience," and consists in the following: The operator anoints his hands with oil, separates the thumbs as much as possible from the first fingers, puts the thumbs in juxtaposition, places the hands at the lower part of the belly (the patient lying on his back), and, while producing steady and strong pressure, passes his hand first from downward upward, then *vice versâ*, then from the right to the left, and so on, repeating the manipulations for twenty minutes, by the end of which time "a regular peristaltic storm is set up within the abdomen." Then the patient (who at the beginning of a sitting feels rather uncomfortable, but in about ten minutes commences to experience distinct relief) is left alone for the next hour and a half, when another sitting of deep massage for about fifteen minutes may be tried. As a rule, however, one sitting is sufficient for producing stools. It happens very often that in the course of the manipulations a distinct, usually elongated, sausage-like tumor may be felt in the belly. If this be the case, fairly strong tapping at the spot of the tumour should be added to the shampooing, each stroke being finished by a strong localized pressure. According to the author, deep massage is indicated in intestinal obstruction of every kind and description. He adduces the details of four cases of the affection met by him lately among Dagestanese, and treated after this energetic plan (very energetic, indeed, especially in comparison with foul eggs or a cock's excrements, with which obstructed patients are usually treated by numberless native medical men, so-called *khakims*). One of the cases was that of a strongly built man, aged twenty-four, with constipation of ten days' duration, agonizing paroxysmal abdominal pain, fetid vomiting, obstinate hiccough, offensive eructation, and moderate distention of the belly. A volvulus (caused by severe physical exertions soon after a liberal meal) was diagnosed, and deep massage was resorted to after a large enema made of a weak infusion of tobacco-leaves. In about ten minutes, after a sitting of twenty minutes' duration, very profuse and extremely offensive defecation followed; later on, the patient's bowels were moved five times more. In another case, where constipation of eight days' duration and fecal vomiting were present, deep massage was performed twice, with an interval of one hour, defecation ensuing during the second sitting. In the third case, with eight days' obstruction and obstinate hiccough, recovery followed after the simultaneous use of deep massage, large enemata, and cold compresses. Less fortunate was the issue in a fourth case, that of a weak, decrepit man, aged fifty-five, with constipation of twelve days' standing, filiform pulse, fetid vomiting and eructations, cold viscid perspiration, and a semi-comatose state. Though regarding the case as a hopeless one, the author still decided to try massage, after the previous administration of two grains of camphor and a high effervescent enema. In about half an hour after the manipulations, a free discharge of hard fecal lumps, suspended in fluid, ensued. But collapse became worse, and five hours later the old man died. No necropsy was allowed.

The Distribution of the Blood in the System.—Dr. Spehl has instituted a series of investigations having for their object an inquiry into the amount of blood contained in some of the principal organs during life, also to establish experimentally the invariableness of these quantities or their fluctuation in correspondence to varying states of these organs; in the latter case to ascertain when and how they vary within physiological limits; and finally to draw certain practical deductions from his observations. The results obtained by the author may be briefly given as follows: (*London Medical Record*, August 15, 1885) *Lungs.*—1. During inspiration these contain about one-thirteenth of the total amount of blood. 2. During expiration about one-eighteenth. (These experiments were made on rabbits.) 3. These values are not influenced by varying pressure in the heart during normal respiration. 4. An insufflation of compressed air in the trachea, the external pressure remaining the same, drives the blood contained in the lungs out, so as to reduce its ratio to one-sixtieth. In connection with his study of these organs, the author has also investigated the effect upon the pulmonary circulation of residence in and ascent to high altitudes, and has come to the following conclusions: (*a*) During a sojourn in a rarefied atmosphere the division of the blood is physiological, and consequently the same as at the sea-level. (*b*) During ascent there is a tendency to congestion of the lungs, and, *cæteris paribus*, this congestion is the more marked and persistent the more rapid the ascent may be. *Brain.*—During the waking state this organ contains on an average one-eighth of the total mass of blood, during sleep the one-twelfth. *Muscles.*—These contain more blood during contraction than during repose. One-sixth to one-tenth of the total mass are the extreme figures found.

The Pharmacopœias of Different Countries.—According to Robert, the French pharmacopœia contains the names of two thousand different preparations, while that of Norway has but five hundred and thirty. The United States come seventh on the list of sixteen. Russia and the Latin races would appear to have the greatest fondness for, or faith in, drugs; while the German and Scandinavian peoples, to judge from the comparatively small number of articles in their pharmacopœias, are much less given to dosing.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, October 10, 1885.

THE CHOLERA CONFERENCE IN BERLIN.

THE report of the second conference upon cholera, held in Berlin in May of the present year, has been published. The discussion was almost interminable (the report of it fills seventy-seven closely printed pages, somewhat larger than a page of THE MEDICAL RECORD, and is issued as a supplement to the *Berliner Klinische Wochenschrift* for September 14 and 21, 1885), but it lacked the interest of the one of last year, as there was little of novelty developed during its progress. The first subject for discussion was the new discoveries made since the last session regarding the cholera bacteria, especially as to the forms under which they preserve their vitality. Koch spoke at great length, and defended his position against the attacks which had been made on him by Klein, Finkler and Prior, and others. He endeavored to show that their methods of investigation were faulty, or that they had not been able to distinguish between his bacillus and other forms of microbes. As to the claim of priority made for Pacini, he thought it very doubtful whether this observer had really seen the true cholera bacillus, and said that he himself had never heard of the alleged discovery until long after he had published the report of his own investigations. In discussing the question of disinfection, he expressed his decided preference for carbolic acid over any of the metallic salts. The speaker said that a permanent form of the cholera bacillus had not yet been discovered, and perhaps there was none. But such a form was unnecessary, since the bacillus would live in moist earth for five months or longer when the conditions were otherwise favorable. A discussion then ensued between Koch and von Pettenkofer, the latter maintaining that the characteristics of the different cholera epidemics furnished conclusive evidence that the cause of the disease could not reside in a specific bacillus. He thought that cholera was no more contagious than was malaria. The question of experiments upon animals was also discussed, but without developing any points of especial interest.

The second and third points proposed for discussion were that of the spread of the disease through pilgrimages and by ships, and the influence of the soil, air, and water upon this spread. Koch said that the facts in support of the view that the disease was spread by human intercourse were incontrovertible, and he thought that there lay a danger to Europe in the railways now being built in Central Asia, on the completion of which India and England would be separated by a journey of only eleven days. He expressed himself further as of the belief that one attack of cholera confers immunity against subsequent attacks, at least temporarily. He explained in this way the fact that cholera is spread in waves along the paths of human travel from its endemic seat toward Northwest India. Each epidemic in these parts, he said, left behind it an immunity which existed for three or four years. At the end of that time the communities were no longer protected, and another invasion of the disease occurred. Bryden had called attention to this periodic overflow of the cholera, but had wrongly attributed it to the influence of the monsoon. Koch thought that the history of an epidemic on the ship Matteo Bruzzo was a sufficient answer to von Pettenkofer's theory. In this case the disease appeared on the thirty-fourth day, and the last case declared itself on the fifty-second day after the vessel had left port. If now the contagium could exist only in the ground, the ship not having touched land since starting, it was necessary to believe that the incubation period of the disease was from thirty-four to fifty-two days in length. The speaker thought that immediate contagion was rare, but the intervention of clothing or some other suitable soil for the development of the bacillus was necessary. Virchow said that, as far as he was aware, no facts were in existence in proof of the theory that cholera germs could be carried directly to man from the soil, as could the malarial poison. He thought, however, that the opposing sides in this controversy could reach some agreement if one would admit that cholera bacilli could grow in the earth and the other that they could grow in agar-agar and in soiled clothing.

Then Koch spoke at great length against the assertion that the rise or fall in the level of the sub-soil water bore any relation to the severity of an existing cholera epidemic. Von Pettenkofer defended his views on this point at equal length, but no new arguments were brought forward on either side.

The last question brought forward for discussion was that of the measures proper to be taken against the cholera, but here, as elsewhere in the conference, nothing new was developed. Koch enumerated various measures of disinfection, cleanliness, thorough cooking of food, etc., and repeated that he considered carbolic acid as the most practicable disinfectant which we have at our disposal. Virchow remarked that if a strict quarantine were possible, as, for example, on an island, he would be in favor of it, but he regarded a land quarantine as wholly impracticable. Von Pettenkofer said that when the cholera visited Bavaria in 1836, it was universally regarded as non-contagious, and people acted upon this belief. Of course there was no disinfection, but further than that no especial efforts were made in the direction of cleanliness, and no attempt was made to isolate the sick. Yet, notwithstanding all this, Bavaria, and especially its chief city, Munich, had never been visited by so mild an epidemic as this. He thought that even if measures of thorough disinfection and isolation could not be carried out, there was no occasion for alarm or special anxiety. The question of the diet of individuals in time of an epidemic was broached, but Koch said that as yet no special rules could be laid down.

In the course of his remarks Koch took occasion

several times to attack Cunningham's views, and said that these were not held by many of the other medical men in India, but that they were afraid to express their real convictions if opposed to those of Cunningham, as they would be in danger of losing their positions. Von Pettenkofer defended Cunningham's character, but Koch repeated his assertions several times. If these charges be true, their public statement may lead to a reform in the Indian Medical Service, and then the second cholera conference will have accomplished something after all.

After an exchange of compliments and of apologies for any acrimonious remarks dropped in the heat of debate, the members bade adieu one to the other, and the conference was at an end.

Besides those mentioned, Kersandt, Fränkel, Pistor, Günther, and others participated in the debates.

A WORD OF ADVICE.

At this season of the year our city receives a material addition to its population, classified under genus, student —species, medical. We trust that all the gentlemen included in this category have come to the metropolis with a zeal for study, with habits of perseverance, and with a desire to do creditable work. This new body will contain many recent college graduates as well as those whose previous scholastic privileges have been more scanty. May we offer to both classes alike a word of advice, which we hope they will heed? To both alike it may not come amiss, for the evil against which we would warn them is rife in undergraduate as well as professional schools. Many acquire it early in their course of study, and despite their efforts to emancipate themselves, they remain in perpetual bondage. We would name this evil —lack of independence in study.

By a man of independent scholarship we understand one who relies on text-books and lecture notes for only an outline of what to study, who regards them as only a means to an end. He may not be a genius. He may be below the average. He does not accept facts, however, unless he understands their relation to other facts; in short, he assimilates what he studies. Hence his armamentarium, small though it may be, is yet brightly polished and ready for instant use. He may graduate at the foot of his class, but he has learned to think readily and accurately. Such thought leads to decisive action. He has within himself the elements of assured success.

Contrast with him the man who relies wholly on text-books and lecture notes, who does not develop a single independent sturdy idea.

He may stand high at the final examinations, but he lacks real mental vitality. He has not developed that "emergency" element so prominent in action in the life of a physician. He has laid narrow foundations and has not a warranted self-confidence. Many men are now about to begin their course of medical study. Hundreds have come to New York for the first time. To all of them we would give this exhortation, "think for yourselves." Be no man's servile imitator. To do independent work requires courage. There are many difficulties to be overcome. Many apparent contradictions will require reconciliation. If these ends cannot be attained after reasonable exertion, let a clue be given by the instructor. It is his business to aid the student by the development of the latter's mental resources. Then when the student lays aside any work as finished, he is able to give a reason for the hope that is within him. "That's right, why?" is a frequent class-room expression of a professor of mathematics, in one of our leading universities. The phrase illustrates the spirit in which all true study should be conducted.

Most men make the mistake of attempting too much the first year. Anatomy, physiology, chemistry, and physics alone are a sufficient task for the majority, especially if laboratory work in these branches be followed in addition to the lectures. Of course the amount of work which can profitably be undertaken depends on a man's previous experience, but we would earnestly advise that all the spare time of the first year be devoted to anatomy. This subject is at examination time the student's bugbear, primarily because he did not at the outset recognize its relative importance and did not govern himself accordingly. It is a difficult subject to learn and an easy one to forget, because from its very nature the greater part of it is purely arbitrary and has to be learned by rote.

One word more in regard to clinical instruction. There is a fascination about attending clinics, but it is simply a waste of time until a man has by study fitted himself to appreciate them. Otherwise, having eyes, he sees not; having ears, he hears not. Clinical instruction will come in due time, but it is strong meat not adapted to the milk age.

A most praiseworthy aim it is to shape one's course as to compete for a hospital position upon the attainment of a degree. The competitive examinations for these positions are free from many restrictions which cluster about college examinations. The best man wins, and he is rightly adjudged best who can answer practical as well as theoretical questions; who is, to use a common phrase, the best "all-round" man. This status of scholarship is not attained by servile study, but by fearless, independent thought. One need not despair of success. There are, we believe, more good hospital positions offered here every year than there are thoroughly first-class men to fill them. Thus, with such a combination of theory and practice will a man go forth into the world conscious of his own mental integrity, confident in his own powers, and bound to do well. He has laid a firm corner-stone, the superstructure will be solid and permanent.

THE REUNION OF THE PROFESSION ON THE MATTER OF CODES.

In an address delivered before the New York Academy of Medicine, and published in the Medical Record of October 3d, the learned President takes occasion to offer congratulations upon the prospective reuniting of the profession on ethical issues. He refers to the explanatory declaration of the American Medical Association made at its last meeting.

This declaration sets forth that, no emergencies or circumstances can make it necessary or proper to *enter into formal consultation*, with those "who assume a name indicating to the public a sectarian or exclusive practice, or belong to an association or party antagonistic to the

general medical profession." The declaration also states that the National Code "does not exclude from professional fellowship on the ground of differences in doctrine or belief;" nor is there any article "of said Code of Ethics *that interferes with the most perfect liberty of individual opinion and practice.*"

Dr. Jacobi shows with natural satisfaction the close resemblance between the principles set forth in this declaration and those of the Code of Ethics of the Medical Society of the State of New York. He says:

"After these resolutions had been passed in New Orleans, many of the professional men who always persisted in adhering to the Code of the American Medical Association, were of the honest opinion that they had, by accepting them, removed every discrepancy of opinion or difference of action on the part of those adhering to either the Old or New Code. For it is true that the explanatory declaration of Chap. II., Art. IV., Sec. I., exhibits a great resemblance to the New York Code of 1882. For the Medical Society of the State of New York it must be a source of intense gratification to be convinced, by the passing of that declaration, that a few years have sufficed to so change public opinion as to oblige even the American Medical Association to recognize the justness of most of the New York proceedings. Upon this result the New York State Society can but be sincerely congratulated, and the spirit of equity and justice, as displayed by the Committee drafting the explanatory declaration, must be commended."

We trust that Dr. Jacobi interprets rightly the spirit exhibited by the framers of the declaratory resolution. It certainly seems that under its provisions regular physicians can meet in formal consultation many who hold to the doctrine of homœopathy, and can meet in cases of emergency, though not "in formal consultation," any legal physician who seeks their services. In other words, the hard and fast rule—which has been tacitly if not formally upheld—forbidding consultations with all homœopaths, is set aside. There is, in fact, given "the most perfect liberty of individual opinion and practice" to the members of the American Medical Association.

There can be no doubt that the medical profession is gradually reaching complete harmony on the subject of its relations to irregular practitioners. No one will again be punished simply for consulting with a homœopath, or eclectic; but the whole drift of professional feeling will be more strongly than ever set against associating with men who are believed to be dishonest, ill-educated, or quacks.

THE HEALTH AND FERTILITY OF EDUCATED WOMEN.

An instructive report upon the health of college alumnæ has recently been published. It is based upon statistics collected by a Special Committee of the Association of College Alumnæ, of whom Miss Annie G. Howes is Chairman. Circulars of inquiry were issued to one thousand two hundred and ninety alumnæ, and answers from seven hundred and five of these were obtained. The colleges in which the higher education was bestowed were twelve in number, and included Vassar, Smith, Wellesley, Cornell, Oberlin, and Wisconsin. The history of the seven hundred and five is briefly given as follows: The average age at which they began to study was 5.64 years, at entering college 18.35 years, and the average present age is 28.58 years. During college life the majority studied but moderately, and only forty-four per cent. did not worry over their studies or affairs. Since graduation all seem to have found congenial occupation, a great many as teachers, while eight only are occupied with social duties to the exclusion of other occupations. Somewhat over one-fourth have married, and of the whole number of children borne by them the greater part are living and in good health. On entering college 78.16 per cent. were in good, 1.98 per cent. in fair, and 19.86 in poor health. Since graduation the percentages are 77.89, 5.11, and 17.02, respectively. In other words, 138 report a deterioration in health, 418 have had no change, and 149 show an improvement in health. The most prevalent cause of disorders is constitutional weakness. The present health of graduates seems to have been affected according as their parents have enjoyed either good or poor health, the figures showing three per cent. increase in health for those whose parents were both in good health, and a decline in health of over seventeen per cent. for those whose parents were both in poor health. For those who entered college at sixteen years of age or under, an increased deterioration in health of between ten and eleven per cent., as compared with those who entered at a later age, is observed.

The conclusion from the above is that which any observant physician would independently have drawn, viz., that the health of women is not much affected either one way or the other by an American college education. We know no especial reason why any deterioration should be expected, and we confess that, so far as this point is concerned, the statistics will have their chief value in the relief of lay prejudices.

It may as well be borne in mind, however, that out of some ten millions of women in this country, there are less than two thousand who have received a classical education, and it is very safe to say that those who have won this distinction are not exactly types of the average woman. Even if they were, however, it is rather straining a point to speak of our college alumnæ as "highly educated," simply because they have gone through an American college for women. It is the later and harder struggle for technical and professional learning that breaks down the aspirant for a real education. This later struggle our college alumna rarely enters, but she becomes a school-teacher, and that ends her.

Some interesting facts are brought out with regard to marriage and fertility. Of the 705, only 196 or 27.8 per cent. are married. Of those married, 66, or over one-third, have had no children. The remaining 130 have had 263 children, of whom 232 are living. This gives an average of two children per family, the parties having been married on the average six to seven years. It will be seen that the college education of women does not as yet promote connubiality or fecundity.

Some interesting facts are given regarding the establishment of the menstrual function. The average age at which this was established in 705 women, was 13.62 years. There were 169, or 23.97 per cent. only, who

reported having experienced no trouble during the menstrual period.

Nervousness appears to be quite common (in 333 out of 705), although in the great majority of cases it had nothing to do with education. Indeed, education properly conducted tends to lessen nervousness.

One more fact of interest, if not of significance, and we conclude our review. It appears from the tables that the 361 who began study at or under five years of age, give about the same report as to health as do the 328 who did not begin study until later.

DECLINE THE INVITATION.

The month of grace allowed for the return of the gentlemen who withdrew from the organization of the Ninth International Congress has passed. There are no signs, yet of the hoped-for return.

The possibility, as suggested by us last week, of affecting in some way the ruinous course of the present Committee, is now destroyed by the recent action of the Executive Committee, which has formally assumed dictatorial powers.

We think, therefore, that it would be better, for the credit and harmony of the profession, that the acceptance of the invitation to hold the Ninth International Medical Congress in this country be withdrawn.

CHEAP DYING.

The cost of cremation by the new company in this city, it is said, will be only twenty-five dollars. The fact that a person dying in New York can have suitable mortuary rites performed for the comparatively small sum of twenty-five dollars is most interesting, and will, we feel sure, do much to rob death of its terrors. The company, indeed, promises to open up a new era in municipal mortuary history; for while there has been a great deal said and written here about cheap living, we have heard but very little of a serious and practical nature about cheap dying. Dying in New York is a luxury, and one about which most people show a strange amount of thoughtlessness and inconsideration. A citizen can live three years in Arkansas for the price of a conventionally respectable interment in New York. Yet few take such a fact as this into the slightest consideration in consenting to a demise. We are, indeed, acquainted with one conscientious old Irish woman, with a complication of diseases, who faithfully attends her Dispensary, because she is "on her relations," and she knows and admits that they cannot afford to bury her.

Such a spirit deserves a historical record and wide emulation. The fact is, we are much in need of a Society for the Cultivation, not of plain living, but of Plain Dying. In these hard times it is often little less than criminal that a man subject his estate to the prolific expenditure of a funeral. We have heard of a gentleman who, at the solicitation of his wife, gave up tobacco and thereby, in the next fifteen years, saved over five hundred dollars, which all went at last for his burial expenses. Here was certainly a disproportion between effort and its result that is most painful to well-balanced minds, and very disheartening to the anti-tobacco propaganda.

We do not advocate extremes, however. It appears quite possible that if a person can die respectably for $25, not only is final dissolution within the reach of all, but it may even be a positive temptation, and lead to the cutting off of a large amount of agreeable, not to say lucrative, invalidism. The whole matter of cheap dying, in fact, needs much further discussion. At present the subject is in a state of painful confusion, reminding one, in this respect, of the Germ Theory, and of the Ninth International Congress.

News of the Week.

The First Meeting of the Executive Committee of the possibly International Medical Congress, was held in this city, on September 24th, ten of the twenty-one members being present. Dr. Henry H. Smith, was elected Chairman; Dr. F. S. Dennis, Secretary. The latter gentleman was also elected Associate Secretary-General.

The Committee does not seem to have done anything except to pass a declaratory resolution emancipating itself from the authority of the American Medical Association, as follows:

"*Resolved*, That this Executive Committee enters upon the management of the affairs of the Ninth International Medical Congress, with the understanding that, in accordance with Rule No. 10, its powers are not restricted, except by the rules and regulations adopted September 3, 1885, by the Committee of Arrangements appointed by the American Medical Association in April, 1885; and that the actions of this Executive Committee are final, not being subject to revision, amendment, or alteration by either the Committee of Arrangements or the American Medical Association.

It is rather unfortunate that the original committee did not think to adopt some such resolution as the foregoing.

A New Journal.—The *Cincinnati Medical and Dental Journal*, is the title of a new monthly journal, published in Cincinnati. It is edited by Dr. Sage and Dr. Thrasher; and so we expect that it will show wisdom and concussive vigor.

The Origin of the Montreal Epidemic is believed by many to be as follows: In the month of March, 1885, the city having been free from the disease for three years, a conductor in the employ of the Pullman Palace Car Company arrived from Chicago and was taken to the Hospital Hotel Dieu with an eruptive disease. He was placed in a ward with other patients, and, as it afterward was ascertained, passed through the stages of a mild case of variola. A nurse, who took care of this conductor, contracted small-pox and died. In this manner the present epidemic had its origin, according to the statements of the Board of Health. It is quite possible, however, that the disease existed in Montreal previously and was unknown to the Board of Health. In the month of April, 1885, the pest-house of St. Roch was opened and there were 6 deaths. In May, 10 died of the disease; in June, 13; in July, 46, and in August there were 241 deaths. In the early summer the venerable Bishop of Montreal, M. Borget, was gathered to

his fathers, and his public funeral was attended by thousands of the faithful. Coming as many of them did from tenements reeking with pestilence, the contagion was disseminated among the immense concourse of those who were in the church, and a marked increase in the death-rate was at once apparent. Since September was ushered in the death-rate has climbed to its present proportions, and the returns for the month will show a mortality of upward of 1,200 from the grisly destroyer. The seat of the pestilence is in what is known as the East End. Montreal, like most other cities, has its court end and its poorer section. The English-speaking population inhabit the western portion of the town, with the mountain for a background, while the French inhabitants almost exclusively reside in the immense district lying east of the big stone municipal palace on the Champs des Armes.

The Preventive Inoculation of Yellow Fever seems to be suffering from the same marasmus as does the preventive inoculation of cholera. In a session of the Imperial Academy of Medicine on September 14th, at Rio de Janeiro, Dr. Araujo Goes claimed to have shown Dr. Freire microscopic preparations of earth taken from his yard, on the Praia de Flamengo, in which was the bacillus discovered by Dr. Freire. Dr. Goes further states that Dr. Freire having failed to discover the sporuliferous cells (*cellulas sporadulas*) in the preparation, he sought for these and in a short time showed them to his colleague. He kept the matter quiet with the intention of not discrediting Dr. Freire, but he now regretted his action. On the 17th, the emperor is said to have examined microscopic preparations made by Dr. Vieira de Mello, who claims to have discovered a bacillus in the excretions of patients suffering from acute and chronic malaria, exactly similar to that discovered by Dr. Freire in the excretions of yellow fever patients.

The Cost of the Plymouth Epidemic, according to the Philadelphia *Ledger*, is about as follows: The price in human lives was 107. There is no way to equate that in terms of money. The cost in dollars was nearly sixty thousand in extra expenditure, and about the same sum in loss of wages from enforced idleness among the sick and those who had to wait upon and nurse the sick —in all about one hundred and twenty thousand dollars. Costly experience that for a little town like Plymouth, but the remaining consideration is, Will the people there profit by it?

The Montreal Epidemic.—It is difficult to get the exact truth with regard to the amount of small-pox now in Montreal. For the week ending September 23d, there were 235 cases officially reported. Since then the number of deaths daily from the disease has ranged between twenty and sixty. Estimates as to the present number of cases reach nearly to 4,000. There is some evidence that the epidemic is declining. The Board of Health has not had very much authority—and, perhaps, less inclination—to deal vigorously with the epidemic. It has perhaps been too severely criticised, however, for not doing what it really had no power to do. The prejudice against vaccination among the French Canadians is still very strong, but is yielding a little to necessity, and spiritual and municipal authority. It would be less difficult to overcome traditional prejudice on this subject in the city but for the frightful examples set by those to whom the ignorant look up as guides. A correspondent of *The Times* writes: "Dr. Legault, a physician practising in St. Jean Baptiste, had small-pox in his own family without isolating it or reporting it to the authorities, nor did he let that circumstance deter him from going daily rounds among his patients, thus making himself no doubt an agent for spreading contagion." It is stated also that another physician, one of the staff of the French Medical College, a very influential man among his people, is a fanatic on this subject. He not only publicly denounces the method of Jenner, but he teaches non-vaccination to the students at the Victoria College. It is reported that there are several other "cranks" of his kind in the list of the French medical profession, and the result of their open prejudice against scientific repression of the small-pox is that the ignorant masses have become thoroughly imbued with the fatal error. There is another story to the effect that, a number of years ago, owing to the use of impure virus, many people, especially children, became impregnated with scrofula and other noxious disorders. Politics also entered into the question. There are many small demagogues among the French who are always striving to stimulate race prejudices.

Dr. Charles F. Withington was the author of the paper to which reference was made in the editorial of September 26th.

New York College of Veterinary Surgeons.—The opening lecture before the New York College of Veterinary Surgeons was delivered on Saturday evening, October 3d, by Professor James Law, F.R.C.V.S., of Cornell University. The regular session of the college commenced on Monday, October 5th.

The International Medical Congress.—"It will also be noticed that the opinions of certain distinguished foreigners with reference to the committee's office and work were ignored *in toto*, not being accorded even the courtesy of a polite remonstrance. The committee has doubtless done just the work its manipulators set to its hands; but, whether its policy be voted wise or foolish, the denouement will show that the breach between the opposing parties is widened beyond repair, and that the contending voices are dissonant beyond the hope of harmony."—*Louisville Medical News.*

A Doctor and His Spiders.—The daily papers announce the death of Dr. Francis A. Daeumer, one of the oldest physicians in Paterson. He had been for many years one of the remarkable characters in Paterson. His father was a prominent government officer in Bohemia, where the doctor was born nearly seventy-seven years ago. He was liberally educated in Saxony, studying medicine at the Universities of Bonn and Magdeburg. The doctor was licensed in 1840, and served for six years in the Prussian army, as Surgeon of the Eighth Brigade and Seventh Regiment of Lancers. In 1848 he took part in the revolution, was arrested for high treason, and sent to prison, where he spent four years in the dungeons of Rastadt, Ehrenbreitstein, and Julich. While in these prisons, often doomed to solitary confinement, his only companions were the spiders that festooned the walls of his dungeon. He conceived a strange attachment for

these repulsive creatures which he never forgot. The doctor came to America in 1857, and has lived in Paterson ever since, enjoying a moderate practice, and the general esteem of the German-Americans, with whom he almost exclusively associated. He owned a house in Ellison Street, renting out part of it, and occupying two or three rooms himself, and living entirely alone. From his love for spiders he would allow no repairs to be made to the rooms, while house-cleaning was out of the question. The dust of many years was allowed to accumulate undisturbed, and his beloved spiders multiplied apace. If a parcel of drugs or an instrument left overnight had a spider's web on it in the morning, the doctor would patiently sally out and buy articles to replace them rather than disturb the spiders.

The Cost of the Epidemic of Small-pox at Montreal is likely to reach $5,000,000.

Congress of Naturalists and Physicians.—The fifty-eighth annual meeting of the Congress of Naturalists took place at Strassburg (September 18th to 23d). The number of communications presented to the various medical sections was very large.

An International Congress of Physicians Engaged in the Cure of Mental Diseases was opened at Antwerp on the 11th ult., under the presidency of M. Victor Desguin, President of the Belgian Society for Mental Diseases. The scope of the Congress comprises: 1. The bases of good International statistics concerning the mentally diseased; and 2, the relation between criminality and mental disease. An International Committee has been charged with the duty of determining the headings for the first of these subjects.

Photography in Medical Jurisprudence. — M. Gosse, at the recent French Congress, read a few notes on the importance of photography in medical jurisprudence. By placing a few drops of glycerine and water on the cornea of a dead man, the living expression is, he declares, reproduced, the exact position at the moment of death being represented in the photograph. This remarkable discovery at least deserves cautious consideration. It is hardly in accordance with current theories on the eye as an optical instrument, yet has been already suggested by other writers.

The New "Cancer Cure."—M. Landowsky, of Paris, has studied the Brazilian plant called by the natives alveloz, and believed by them to cure cancer. M. Landowsky believes this plant to be an euphorbia, discovered by Martin, and described by Muller under the name of *Euphorbia heterodoxa*. A preparation of its juice possesses the combined properties of a caustic and of papaïne. It promptly destroys the affected tissues layer by layer. At Pernambuco, after it has been well painted on the tumor, it is covered with a tobacco-leaf. M. Landowsky, in his communication at the Grenoble Congress, stated that, after applying it, he places over it a sublimate of vaseline and borax dressing.

M. Pasteur.—It is reported that M. Pasteur, who is now in the Jura, will, on his return to Paris, organize a system for protecting animals from rabies. He has arrived at a prophylactic method applicable to man and beast. Before leaving Paris, M. Pasteur applied the process to a boy who had been bitten on both thighs, both legs, and hands. The child is as yet in perfect health.

Rush Medical College, Chicago.—Rush College, of Chicago, by a recent action of its faculty, is to have, after the present college year, an additional condition of graduation. This consists of a course of practical instruction in the laboratory of physiology and pathology. The details of the course are not fully arranged, but it will include instruction in the management of the microscope, study of the histology of the simple tissues, and study of the urinary sediment.

A Library Lost by a Flaw in the Will.—By his will, made on October 27, 1881, the day before his death, Robert R. McIlvaine, of this city, bequeathed his collection of books and pamphlets to the Mayor of the city of New York, and the Presidents of the New York Academy of Medicine and the College of Physicians and Surgeons, as his trustees, for the purpose of establishing and maintaining an institution to be known as the McIlvaine Library. To maintain it he bequeathed to his Trustees all the residue of his estate—estimated at about $60,000—after the payment of certain legacies. The heirs have brought suit for the purpose of breaking the will, and the Court has decided that the provisions with regard to the library were invalid.

The Congress of Russian Physicians and Naturalists, which was to have been held this year at Kharkoff, has been postponed until August, 1886.

The International Congress of Pharmacy.—The sixth meeting of this Congress was held during the first week in September at Brussels. Measures were taken looking to the establishment in every country of a uniform course of study for pharmacological candidates, the graduates to receive a diploma, without which no one would be allowed to practise pharmacy. It was suggested also that the successful candidates should be entitled to the degree of Doctor of Pharmacy. The discussion of the question of an international pharmacopœia was postponed to the next Congress, in 1888.

Treatment of Mastitis by Rest.—Dr. W. F. Milroy, of Omaha, Neb., writes: "The issue of The Medical Record of August 22d contains a letter from Dr. P. A. Harris, entitled 'The Treatment of Mastitis by Rest and Compression.' That gentleman states that it is his object to 'review certain assertions' made by myself in an article published in The Record of August 8th. In the beginning of his letter he makes an unmistakable insinuation which is very damaging to my personal character. In The Record of September 5th Dr. Paul F. Mundé, very kindly and wholly unsolicited, comes to my aid, and I am released from the uncomfortable position in which Dr. Harris placed me. In order that the conclusion of Dr. Harris might be true, it was necessary that the case which I related in my paper should have been the first in which I used the treatment by rest, etc. In drawing this conclusion Dr. Harris says: 'It will be seen that Dr. Mundé's acceptance of my paper is dated June 11, 1884, and Dr. Milroy first employed his compression and rest under the service of Dr. Mundé, June 23d, of the same year.' The assertion that this was the

first case in which I made use of this plan of treatment, Dr. Harris has made entirely on his own responsibility. I have carefully re-read my paper and I find in it no trace of a clue as to whether the case in question was the first or last one of the thirteen to which I referred. In point of fact it was the eleventh. There are other points in the work of my 'reviewer,' upon which additional light is needed, but in consideration of the spirit in which he writes, I prefer to pursue the matter no further."

Complete List of Withdrawals from the Organization of the International Congress.—Out of the forty-two members of the Original Committee on Organization, there now remain only the following eight: Drs. Austin Flint, H. F. Campbell, R. A. Kinloch, N. S. Davis, Robert Battey, L. A. Sayre, Surgeon-General U. S. A., Surgeon-General U. S. N.

After the meeting of the American Medical Association in New Orleans, it was directed that the original committee of seven be enlarged by adding representatives from each State, Territory, etc., so as to make the total number forty-seven. This, known as the New Committee, met and organized permanently at Chicago. From this committee seven gentlemen have withdrawn: Drs. John S. Billings, John M. Browne, U. S. N.; Geo. J. Engelmann, I. Minis Hays, Christopher Johnson, *N. Senn, *T. F. Wood. From the rest of the general organization the following have withdrawn: Drs. A. Stillé, *H. H. Skillman, *John L. Atlee. *Oliver Wendell Holmes, Vice-Presidents; John H. Packard, Secretary-General.

The following is a list of the gentlemen who have withdrawn from the organization, in Sections, of the Congress as first planned at Chicago. The names marked thus * are of gentlemen appointed to fill vacancies, but who have declined the honor.

Section on Medical Education, Legislation, and Registration: Drs. S. E. Chaillé, President; Wm. Pepper, L. McL. Tiffany, Professor D. C. Gilman.

Section on Anatomy: Drs. Joseph Leidy, President; W. W. Keen, *G. E. De Schweinitz, Secretaries; Harrison Allen, Frank Baker, Thomas Dwight, F. L. Parker, C. T. Parks, T. L. Sabine, R. W. Shufeldt.

Physiology: Drs. John C. Dalton, President; H. P. Bowditch, J. F. Hibberd, M. Michel, H. G. Beyer, Wm. Lee, Henry Sewell, *J. H. Wythe, Vice-Presidents; John J. Mason, Council.

Pathology: Drs. F. Delafield, President; Wm. Pepper, Vice-President; Wm. H. Welch, Secretary; C. Fenger, R. H. Fitz, G. M. Sternberg, W. F. Whitney, *M. Longstreth.

Medicine: Drs. J. M. Da Costa, President; J. B. McCann, R. McSherry, *S. Weir Mitchell, Vice Presidents; Wm. Ogler, Secretary; S. C. Chew, T. F. Rochester, W. H. Geddings, W. W. Johnston, F. Minot, Beverley Robinson, J. T. Whittaker, *C. F. Folsom, *R. Bartholow, *F. T. Miles, *S. G. Webber.

Surgery: Drs. David W. Yandell, President; D. Hays Agnew, S. W. Gross, R. A. Kinloch, Vice-Presidents; John Ashhurst, Jr., D. W. Cheever, P. S. Connor, F. H. Gerrish, C. Johnston, T. M. Markoe, A. P. Smith, T. A. McGraw, J. R. Weist.

Gynecology: Drs. *Wm. T. Howard, *J. C. Reeve, *Albert H. Smith, *T. A. Reamy, H. P. C. Wilson, Vice-Presidents; Jas. R. Chadwick, Secretary; *Robt. P. Harris, *A. F. A. King, Theophilus Parvin, *E. S. Dunster, W. H. Baker, Wm. Goodell, A. R. Jackson, J. Taber Johnson, E. Van de Warker.

Ophthalmology: Drs. *E. Williams, President; H. D. Noyes, Wm. Thompson, Vice-Presidents; Swan M. Burnett, Secretary; H. Derby, E. G. Loring, W. W. Seely, Samuel Theobald, O. F. Wadsworth, H. F. Williams, *J. J. Chisolm, *B. E. Freyer.

Otology: Drs. Clarence J. Blake, President; H. N. Spencer, Vice-President; S. O. Richey, Secretary; J. O. Greene, G. Strawbridge, C. H. Burnett, E. H. Hazen

Dermatology and Syphilis: Drs. W. A Hardaway, President; L. A. Duhring, J. N. Hyde, I. C. White, Vice-Presidents; J. E. Atkinson, E. O. Wigglesworth, H. C. Yarrow, L. N. Denslow.

Laryngology (combined with Otology): Drs. John N. Mackenzie, President; F. I. Knight, Vice-President; D. Bryson Delavan, Secretary; E. C. Morgan, E. L. Shurley, *R. P. Lincoln.

Public and International Hygiene: Drs. Hosmer A. Johnson, President; A. L. Carroll, Vice-President; G. P. Conn, William H. Ford, J. H. Kidder, J. R. Smith, H. P. Wolcott.

Collective Investigation, etc.: Drs. E. M. Snow, Vice-President; Nathan Allen, James Tyson, *E. P. Hurd.

Military and Naval Surgery and Medicine: Drs. D. L. Huntington, President; Hunter McGuire, Vice-President; S. P. Moore, D. Bloodgood, J. H. Brinton, C. H. Martin, J. R. Tryon, A. A. Woodhull.

Practical and Experimental Therapeutics: Drs. Horatio C. Wood, President; Robert T. Edes, Vice-President; E. T. Reichert, Robert Meade Smith, Secretaries; R. Amory, H. M. Lyman, S. Nickols, D. Webster Prentiss, C. H. White, T. F. Wood, *G. M. Garland, *J. M. Flint.

Diseases of Children: Drs. Samuel C. Busey, President; F. Forcheimer, J. M. Keating, William Lee.

This makes a total of one hundred and forty-three vacancies made by the withdrawals.

In The Medical Record of July 11th, we gave a list of twenty-seven leading physicians of this city who were forced out of the organization by the introduction of an ethical issue. This makes a total of over one hundred and sixty.

The Florida Medical Association is to be congratulated upon displaying the good sense and self-denial illustrated in the following resolution, which was adopted at the last annual meeting: "*Resolved*, That it is the sense of the Florida Medical Association that it does not consist with the promotion of medical education and the best interests of the profession that any medical college should be instituted or encouraged in Florida at this time, and that the members of this Association will use their influence toward directing students of medicine to some of the many colleges of established reputation and reliability beyond the limits of this State."

Death of Professor Robin.—A cablegram from Paris announces the death of Charles Philippe Robin, a well-known physician and scientist, and member of the French Senate. He was sixty-four years of age.

Evolution and Obstetrics.—Dr. H. G. Anderson, of La Moure, Dakota, reports that out of eighteen births in his practice this summer seventeen have been girls. The doctor, says the St. Paul *Globe*, is a scientist and insists that it is not an accident, but the intelligent provision of nature to satisfy local demand. That is a very new region, in which the male settlers greatly predominate. Such disparity, it is alleged, is never found in the older towns, where the sexes are nearly equal. The La Moure instance is not an isolated one.

The Results of the Sanitary Inspection of Food in this city during the past three months are given as follows: During that time there were 1,169 milk inspections made, 1,356 specimens of milk examined, 617 quarts of impure milk were destroyed, and 22 persons were arrested for selling adulterated milk. The fruit, fish, and meat inspectors inspected 353 vessels, 2,402 stores, 1,895 licensed vendors' wagons, 168 markets, and 2,399 stands, and seized and condemned 37,905 pounds of canned goods, 109,144 pounds of meat, 43,981 pounds of fish, 7,169 pounds of cheese, 472 barrels, 197 crates, 387 bushels, and 187 baskets of apples, 1,740 pineapples, 9,000 bananas, 2,651 cocoanuts, 311 egg-plants, 20 boxes of lemons, 408 barrels of musk-melons, 13,706 water-melons, 5 crates of oranges, 1,000 barrels of pears, 900 baskets of peaches, 30 bushels of plums, 23 barrels of potatoes, 100 crates of tomatoes, 1 barrel of turnips, 21 tons of miscellaneous fruits and vegetables, 4 tubs of butter, 5 boxes of eggs, and 2 barrels of pickles. The total number of fruit inspections was 7,313; 1,289 violations of the sanitary code were discovered, and 483 inspections of offensive trades were made. The entire number of inspections of all kinds was 15,112. Dr. Cyrus Edson is entitled to much credit for his energetic and successful work.

The American Public Health Association will hold its thirteenth annual meeting in Washington, D. C., beginning December 8th. It is rare that a national organization so soon achieves the membership and strength of the Association in question. There is every prospect of a large and useful meeting. Dr. Smith Townsend is chairman of the Committee on Arrrangements. The headquarters of the Association will be at Willard's Hotel.

The Results of creating "Legal Doctors" in Indiana are given in the *Indiana Medical Journal*. In Marion County 275 out of the 470 physicians have registered. Of those registered, 195 have diplomas from regular medical colleges, 78 are graduates of irregular institutions or take advantage of the ten or three years' clause. The law has shown up the educational history of the quacks; it has, on the other hand, put these quacks on a legal footing.

Longevity of German Professors.—It is said that there are at present at the various German universities no fewer than 157 professors between the ages of seventy and ninety. Of these 122 deliver their lectures as usual. The oldest is the veteran Von Ranke, the historian, who is now in his ninetieth year, but is not considered fully equal in vigor, memory, and other faculties to Professor Elvenich, who is thirty-nine days his junior.

Obituary.

DR. JOHN LIGHT ATLEE.,

LANCASTER, PA.

The death of Dr. John Light Atlee, at the venerable age of eighty-six, removes one of America's most distinguished surgeons, and one who assisted to create a new epoch in surgery.

Dr. Atlee was born in Lancaster on November 2, 1799, and was the son of Colonel William Pitt Atlee, a Revolutionary officer. He was educated in Lancaster and Philadelphia, studied medicine under Dr. Samuel Humes; and graduated from the University of Pennsylvania in Philadelphia in 1820. After graduating he returned to Lancaster and began the practice of medicine. He soon became very successful in surgical operations, and in this branch of his profession his reputation was very high. Dr. Atlee's operation for double ovariotomy in 1843 was the first in the history of medicine, and the patient is still living in Lancaster in good health. He was one of the founders of the Lancaster City and County Medical Society and twice served as its President. In 1848 he assisted in organizing the Pennsylvania State Medical Society, and became its President in 1857. He was also one of the organizers of the American Medical Association in Philadelphia in 1857, was elected Vice-President in 1865, and President in 1882. He was Professor of Anatomy and Physiology in Franklin and Marshall College for many years; was School Director for forty years; was President of the Board of Trustees of the Pennsylvania State Lunatic Asylum at Harrisburg; was Associate Member of the College of Physicians of Philadelphia; was elected Honorary Fellow of the American Gynecological Society in 1877, and was trustee of numerous public institutions. He was a contributor to many medicial periodicals.

Reviews and Notices.

The Use of the Microscope in Clinical and Pathological Examinations. By Dr. Carl Friedlander; translated by Henry C. Coe, M.D. 8vo., pp. 195. New York: D. Appleton & Co. 1885.

Much good has been done in placing this little work in the hands of the profession. The technique of preparing, cutting, and staining specimens is given at some length; also rules for the examination of the various bodily fluids in both health and disease. The use of the microscope with high powers, immersion lenses, and other accessories, is explained very clearly. It is a very readable volume, even for those not engaged in actual laboratory work. A chromo-lithograph shows the various forms of disease-germs which have been definitely isolated.

Reports of State Boards of Health: Of New Hampshire for the year ending April 30, 1885; of Tennessee, October, 1880, to December, 1884.

Both of these volumes are published in an attractive form, and though primarily of interest to physicians residing in the States named, they yet contain articles relating to epidemics, etc., that cannot fail to be of interest to those interested in our national medical history.

Mind-reading and Beyond. By William A. Hovey. Boston: Lea & Shepard. New York: Charles T. Dillingham. 1885. Pp. 201.

Mr. Hovey presents to us in a succinct form the work of the Society of Psychical Research (London), regarding the subjects of mind-reading, thought-transference, etc. Mr. Hovey and his school are well intentioned, but are, we fear, in pursuit of a will-o'-wisp. However, those who like such sport will be interested in his book.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 1, 1885.

A. Jacobi, M.D., President, in the Chair.

The Library Committee, Dr. John C. Peters, Secretary, reported that since the last meeting there had been donated to the library seven hundred and one bound volumes.

The Statistical Secretary, Dr. Francis V. White, announced the death of William C. Hunter, M.D., and the President appointed Dr. E. H. Janes memorialist.

The President then delivered an address, which appeared in The Record for October 3d.

OBSCURE CASES OF WEAK HEART.

Dr. R. Van Santvoord read a paper on the above subject, which will be published in The Record.

Dr. J. C. Peters referred to a case of weak heart occurring in a man, sixty years of age, of regular habits, and in apparent health, and brought on, probably, by the error in diet, consisting of the use of prepared foods and condensed milk. He was a bachelor. The result was indigestion and deficient supply of nutrition. When he first saw the man, there was evidence of slight congestion of both lungs, exceedingly weak pulse and action of the heart, dyspnœa, albumen in the urine, evidently of recent occurrence, and for ten or twelve days he was in a desperate condition.

With reference to remedies for feeble cardiac action, Dr. Peters had found nux vomica to be more reliable than digitalis. He had seen several cases of death with weak heart in pneumonia, and formerly thought the fatal termination was due to the formation of blood-clot in the right ventricle, but he had come to regard overstrain of the heart as the real cause of death.

Dr. L. Weber spoke of weak heart, with or without organic disease, where there may be some dilatation and sometimes more or less fatty degeneration. In these rather chronic cases, as stated by the author of the paper, he had not seen any good effect from the use of caffeine (hydrobromate). He had, however, seen the usual results from the use of digitalis—infusion of the English leaves or Squibb's fluid extract.

In the acute cases, such as met with after typhoid fever, scarlet fever, etc., he had given from two to six grains of hydrobromate of caffeine, three times daily, in addition to the usual tonics, and he had thought that the patients did much better than with the use of tonics alone.

Dr. E. Darwin Hudson said that the proper recognition of the nervous connections and conditions of normal cardiac action, associated with a proper knowledge of what might exert a toxic influence on the nervous centres, gave the physician landmarks from which to start in the differential diagnosis of cardiac diseases and conditions. The careful physician first eliminates organic diseases, and then all the disturbing influences, such as those which come from disorders of the kidneys, the liver, the stomach, etc. Failing in all these directions to detect any cause, he suspected the existence of some obscure organic change not readily recognizable.

Dr. J. P. Garrish mentioned a remedy used by the late Dr. Valentine Mott in cases of feeble cardiac action; that is, tincture of digitalis and tincture of stramonium, equal parts, administered in ten-drop doses three times a day.

Dr. Andrew H. Smith referred to the double function of digitalis: *first*, to affect cardiac action, and, *second* to promote cardiac nutrition. Small doses are administered with the hope of improving the nutrition of the muscular structure.

Dr. J. H. Fruitnight referred to cases in which he had used digitalis, convallaria, etc., without benefit, and in which the use of the tincture of the night-blooming cereus, in doses of from three to ten minums, had served an excellent purpose.

Dr. Van Santvoord regarded Dr. Peters' case as instructive and one to which he had referred in a general way, namely, the development of general cardiac failure, but not manifesting itself until some special strain is placed on the organ. In the case mentioned, there was a condition of the lungs which gave rise to strain on the right side of the heart, but probably not sufficient to be serious if the heart had not already been affected.

With Dr. Hudson he agreed that all these cases could be analyzed by careful study and exclusion; but in two of the cases which he had reported the patients were examined by exceedingly competent men, who had said that the heart was entirely healthy, and by one who examined again after the sphygmographic tracings had been taken, and still said that the organ was not diseased.

AN OLD CLINICAL THERMOMETER.

The President presented a clinical thermometer, received through Dr. George F. Shrady, from Dr. Samuel Francis, of Newport, R. I., it having been used by his father, Dr. John W. Francis, one of the founders of the New York Academy of Medicine. It seemed quite probable that the instrument was made as early as 1830.

On motion by Dr. Agnew, the gift was accepted, with the thanks of the Academy to the donor.

The President also presented a beautiful portrait of

THE LATE CHARLES M. ALLIN,

donated by the widow of the deceased.

On motion by Dr. E. Eliot, it was accepted, with the thanks of the Academy.

The Academy then adjourned.

THE SURGICAL SOCIETY OF PARIS.

Stated Meeting, July 22, 1885.

M. Horteloup, President, in the Chair.

(Special Report for The Medical Record.)

M. Segond read a short communication upon the

TREATMENT OF ABSCESSES OF THE PROSTATE.

He maintained that the incision of abscesses of this gland through the rectum was attended with many disadvantages. It was, in the first place, usually insufficient to permit of thorough drainage and evacuation of the pus; there was the danger of hemorrhage; if an opening into the urethra should also occur there would result an urethro-rectal fistula, a very difficult matter to cure; and finally, in this mode of operating, it was impossible to obtain antisepsis. All these difficulties, the writer maintained, were obviated by opening the abscess through a perineal section.

M. Reclus agreed with the author of the paper in his preference for the external operation.

M. Pozzi related a case of

ENCYSTED CALCULUS

of the bladder. The stone was carried for a long time without discomfort, but becoming dislodged, gave rise very suddenly to acute symptoms. The speaker exhibited the calculus to the members of the Society.

M. Lucas-Championnière related a case of

HYDATID CYST OF THE ANTERIOR BORDER OF THE LIVER.

The patient was a young woman, aged twenty-two, who presented a tumor of rapid growth situated in the right side. It was apparently a tumor of the kidney, but was accompanied by no urinary troubles, and was painless. An incision was made in the median line of the abdomen, when the tumor was found to be attached by a pedicle, about two inches in thickness, to the anterior border of the liver; it had also formed adhesions to the

omentum and to a fold of intestine. The kidney was small but healthy, and pushed back behind the liver. The tumor was seen to be a hydatid cyst with very thick walls, in several parts of which were small points of suppuration. It was removed after a somewhat laborious dissection.

The same speaker also reported a case of

TOTAL EXTIRPATION OF THE RIGHT KIDNEY.

The patient was a woman, aged forty, who was suffering from severe pain and vomiting, and presented a large tumor in the right side. This had grown very rapidly, and, when punctured, gave exit to about twenty-four ounces of pus. An exploratory incision showed that the kidney was the seat of the lesion. Pus now began to be passed in the urine. A few days later the diseased organ was removed through an incision, made from the false ribs obliquely toward the iliac fossa, avoiding the peritoneum. The operation was tedious and difficult, but was followed by excellent results. The wound healed by first intention, and the patient was able to get up on the ninth day. The kidney was of an enormous size, with greatly thinned cortex, but with a thickened capsule.

M. GILLETTE then read a paper on

TUMORS OF THE KIDNEY IN THE MALE.

These were not common, the speaker said, yet through the labors of MM. Horteloup and Poirier, who had chosen this as the subject of their theses, we were now in possession of quite a number of facts of this nature. The author exhibited the cast of a fibrous carcinoma of the kidney, which he had recently removed from a man. The tumor had existed for six years, but the patient would not have thought of having it removed, so little annoyance did it give him, were it not for an oozing of blood and serum which took place from it. Fibrous carcinoma, the author stated, was one of the most common varieties of renal tumor in the male subject. The disease was apt to return, indeed, in man as it was in woman, but it was of a less malignant nature. The characters which distinguished renal tumors in man from those in women were less tenderness, less radiation of the pain, and less tendency to glandular involvement. But, although the symptoms were often apparently of such little moment, the tumors should be removed as early as possible, for they were undeniably malignant.

M. GUERMONPREZ related a case of

TUMOR OF THE ANTITRAGUS

which he had removed from a patient not long before.

M. DUBAR sent a communication concerning a

CONGENITAL CYST OF THE NECK.

The patient was a little girl, nine years of age, who had had a small tumor, the size of a hazel-nut, removed from the neck by means of an injection of chloride of zinc. Six months later the tumor reappeared and was extirpated, and three months afterward it again appeared and was again removed by the knife. This time the cure seemed to be permanent. Microscopical examination showed that the tumor was formed of a sac-wall covered with epithelium, from the under surface of which epithelial prolongations passed down into the subjacent layers of the cutis.

M. RECLUS said that he had had a similar case, in which, however, a fourth relapse had occurred.

M. ANGER thought that the insuccess of cauterizations with chloride of zinc was due to the presence of a membrane lining the sac, and similar to the mucous membrane.

M. TILLAUX said that it was often very difficult to cure these cysts, and attempts at cure were not infrequently followed by the formation of fistulous tracts.

M. POZZI said that these fistulous tracts should be dissected out with great care, and he thought the operation might be facilitated by the injection of some coagulable substance into the sinuses.

M. MONOD thought that the introduction of a fine sound would make the operation less difficult.

The Society then adjourned.

ACADEMY OF MEDICINE OF PARIS.

Stated Meeting, August 18, 1885.

M. BERGERON, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

M. LE ROY DE MÉRICOURT read a letter which Dr. Solari, of Marseilles, had written to him in regard to the

CHOLERA EPIDEMICS OF 1884 AND 1885.

The writer said that gastro-intestinal troubles had not existed in any notable degree in Marseilles and Toulon prior to the arrival of the ship Sarthe in the latter place, in June, 1884, but since that time they had been prevalent, even during the winter months, and had increased in proportion as the weather became warmer in the spring. The cholera had been imported from the Tonquin delta, where it was endemic, as it was in all the deltas of Southern Asia. It was true that the sanitary condition of these two cities was bad, but it had been so for many years, yet cholera was not known there until it was imported from the East. It could not originate there, but found a ready field for its development upon its arrival. Now that there was to be ready communication between France and Tonquin, there was no doubt that cholera would be a frequent visitor unless the authorities should institute efficacious sanitary measures.

M. BROUARDEL maintained that Dr. Solari's statements were incorrect in nearly every particular. He denied that the disease had been imported by the transport Sarthe and said that it was not endemic in the Tonquin delta. The municipal authorities of Marseilles were not to blame for the insalubrity of the city, for they had done all they could, but the law was defective in not giving sufficient powers to the health commissioners.

M. FÉRÉOL related a case of

CHROMIDROSIS,

which had been seen in consultation with Dr. Sabourin. The patient was a young woman, about twenty years of age, who had had several violent hysterical attacks. She had convulsions and neuralgia, and almost incessant vomiting. One of the ovaries was tender on pressure. A cure was obtained in the course of time by the application of ice over the ovary and the internal administration of ice and brandy. About two months later, while the patient was in M. Féréol's office, and sitting in a strong light, he noticed on her lower eyelids a bluish tint which gradually became more pronounced. On being spoken to about it she said that she had noticed it for the past two months, and that it was a great annoyance to her. Taking her handkerchief she rubbed the skin briskly for a few seconds, transferring the color from her face to the linen. The patient remained about twenty minutes in the office talking about her trouble, and, as she left, Dr. Féréol noticed that the blue tint was again becoming visible. There was no perspiration, nor could any granules be seen, even with a magnifying-glass, but it seemed to be a uniform staining of the skin. The same phenomenon was present on the chest in the intermammary groove and in the axillæ.

M. JULES GUÉRIN then read a paper upon

SUBCUTANEOUS SYNDESMOTOMY IN THE TREATMENT OF CLUB-FOOT.

He said that in a case of talipes in an infant or an adolescent which had resisted tenotomy, success might be attained by the division of certain of the ligaments.

In over a thousand cases of club-foot he had not met with one which was not amenable to treatment by tenotomy and syndesmotomy, combined with manipulation and the adjustment of suitable mechanical apparatus. For the correction of equino-varus he practised division of the internal lateral ligament of the tibio-tarsal articulation and of the internal calcaneo-scaphoid ligament; and in talipes varus the inferior calcaneo-cuboid ligament. There was no danger if the subcutaneous operation was performed, and if the cutaneous wound was made as far as possible from the point of division of the ligament. The subsequent manipulations, without which no cure could be effected, were not to be attempted until cicatrization of the external wound had taken place. The speaker exhibited some plaster casts showing the good results obtained by this method.

M. Bouley said that he had had an opportunity of witnessing the success of M. Guérin's operation. A boy, who before the operation could scarcely walk, and who stepped upon the dorsum of the foot, was able, a few weeks after syndesmotomy was performed, to walk naturally and easily with the sole of the foot resting squarely upon the ground.

M. Gibier then read a paper entitled

EXPERIMENTAL RESEARCHES ON CHOLERA,

which embodied an account of the labors undertaken by himself and Dr. Van Ermengen, of Brussels.

M. De Villiers communicated the results of observations upon the

PRESENT EPIDEMIC OF CHOLERA

in the South of France, which he had made during a recent tour of the infected districts. This present epidemic, unlike that of last year, had been preceded for some time —the entire winter indeed—by numerous gastro-intestinal disorders.

M. Léon Lallemand, member of the Society of Political Economy, read a paper entitled

A CHAPTER IN THE HISTORY OF INFANT ABANDONMENT.

The paper dealt principally with the statistics of mortality of the foundlings in the *maison de la couche*, at Paris, during the seventeenth and eighteenth centuries.

The Academy then adjourned.

THE BERLIN SOCIETY OF INTERNAL MEDICINE.

Stated Meeting, June 15, 1885.

Herr Leyden, President, in the Chair.

(Special Report for The Medical Record.)

The President announced that the Imperial Normal-Standard Commission had been asked to undertake the work of testing thermometers, and at his suggestion it was voted to send a delegate from the Society to attend the next meeting, at which this subject would be considered.

Herr Becher presented a case of

ECHINOCOCCUS OF THE LIVER.

The patient, a boy, nine years old, had always been healthy, with the exception of a severe attack of pleurisy through which he passed three years ago. Five weeks ago a tumor was noticed over the liver in the right mamillary line. It was about the size of half a Borsdorfer apple, with tense walls through which fluctuation was distinctly perceptible, and painless on pressure. The boy was in the habit of playing with dogs, and allowed them to lick his face and hands, and it was probable that the tape-worm eggs were transported by the dogs' tongues to the boy's hand, and thence gained admittance into the stomach. The principal interest in the case centred upon the question of treatment. Formerly surgeons were loath to operate in such cases, and treated them more on an expectant plan. In many instances a spontaneous cure took place, but not infrequently also death resulted from peritonitis or rupture of the cysts. The present tumor had increased one-quarter in size in the past five weeks, and it therefore seemed inadvisable to delay. The speaker had determined to operate, and he would inform the Society of the result at some subsequent meeting.

Herr G. Behrend asked whether the urticaria wheals, which were visible here and there on the boy's body, were there before, and whether they had been more numerous than they were now. He said that urticaria was not uncommonly seen with hydatids, especially after rupture of the sac and absorption of its contents.

Herr Becher replied that he thought the wheals were the effect of the cold water compresses which the patient had worn.

Herr Litten bore witness to the truth of the fact alleged by Herr Behrend. He had himself observed a similar occurrence in Frerich's clinic.

Herr Köbner exhibited a case of

RHINO-PHARYNGEAL SCLEROMA.

The patient was a strongly-built man, forty-six years of age, a Polish wheelwright. His nose was enlarged, of a deep-red color, hard to the touch, and the nostrils were stopped up with a dark-red, lumpy, scabby looking mass. When this was removed the nasal cavities were seen to be completely filled, to such an extent that even air could not pass through, with an immense number of small growths attached to the septum, alæ, and floor. These growths were comparatively soft, and when cut were painful and bled freely. The velum of the palate was covered with erosions, and some deep, but small ulcers, and in some parts, especially on the right side, were little tumors of an almost ivory consistence. The posterior portion of the velum was contracted by cicatricial tissue, and attached to the posterior wall of the pharynx. Where the velum passed to the anterior palatine arches there was a shining, yellowish, white growth. The hard palate was normal, as were also the gums and the tongue. The larynx and trachea were not involved, and the patient was perfectly well in every other respect, and gave no evidence of syphilis. He said that when twenty years old he had had gonorrhœa and epididymitis, and later a chancre which had healed rapidly without any subsequent symptoms of constitutional trouble. He had always been subject, as a boy, to nose-bleed. He first noticed that something was wrong ten years ago, when he began to be troubled with the accumulation of large quantities of dried mucus in the left nostril. Six months later there was a profuse secretion of mucus, and he noticed that his voice had a nasal twang. At the same time he felt a burning in the palate when drinking spirituous liquors or smoking. Two years after this the right nostril was affected in the same way. The patient had taken iodide of potassium, and had had inunctions of mercury, but with no result.

Herr Jarowitz related a case of

TUMOR OF THE CEREBRUM.

The growth was the size of a hen's egg, situated in the right frontal convolution. The first symptoms had appeared suddenly five weeks before death, and were those of meningitis, dizziness, intense headache and vomiting. The paralytic symptoms were an indication for the diagnosis, as regards location of the tumor, which was confirmed at the autopsy. The patient died suddenly in coma.

Herr Lassar exhibited a case of

ERYTHEMA EXUDATIVUM.

The patient was a man, sixty-five years of age, who had previously been in good health. His body was covered with bright red, in some portions livid spots, with more or less elevated base, which showed a slight tendency to symmetry on the two sides of the body. In many parts there were sub-epidermal exudations of fluid,

sometimes going on to the formation of large blisters. The case was one of exudative erythema, or

EXUDATIVE PHLYCTENOID HERPES.

The speaker had now five similar cases under treatment, not all, however, as severe as this. This patient had no fever, but in one of the cases there was a considerable elevation of temperature. The origin of the inflammation was to be referred to irritation from a plaster containing turpentine which the patient had applied for the relief of a severe colic.

HERR A. FRÄNKEL then read an exhaustive paper on

DUODENAL ANCHYLOSTOMA.

The disease, which had been known for a long time, was thought, until very recently, to be confined to the tropical regions of Asia, Africa, and America, the only exception being its existence in Italy. Griesinger was the first to recognize the parasitic nature of the affection, having discovered the anchylostoma during his study of the disease in Egypt. Professor Perroncito found the same parasite to be the cause of the anæmia from which the laborers in the St. Gotthard Tunnel suffered, and also of miners' anæmia. There is still another affection,

BRICK-MAKERS' ANÆMIA,

which has long been recognized, and which was supposed to be a form of essential anæmia. This has now been shown to be due to the presence of the peculiar parasite, and the speaker thought it not improbable that the same cause might be concerned in the production of pernicious anæmia.

The parasite is a round worm, varying in length from six to eighteen millimetres (one-fourth to three-fourths of an inch), the females being the longer. The mouth is characteristic; it is provided with strong teeth, by means of which the parasite attaches itself to the wall of the intestine and opens a blood-vessel. The eggs of the worm are found in great numbers in the intestine and pass off with the fæces. They are not further developed in the intestine; but outside, if kept in a hatching-oven at a temperature of 76° to 82° F., the larva is hatched out in forty-eight hours. The process is again arrested and the larva develops into the anchylostoma only when in the body of its host. The larvæ are usually taken in with the drinking-water.

This disease is manifested, clinically, by severe gastric disturbances and by anæmia. The latter is caused partly by the direct loss of blood and partly by the interference with normal digestion. The patients become gradually paler and suffer from colic, vomiting, and diarrhœa. Examination of the blood shows a decrease in the proportion of red globules to the extent even of one-fifth of their entire number.

THE TREATMENT OF ANCHYLOSTOMA DUODENALE

consists, of course, in the removal of the parasite. The most effective means, though not always a perfectly safe one, is the administration of one-half to one ounce doses of the ethereal extract of male fern. Thymol in powder, in doses of one-half to two and a half drachms per diem, is also effective. A safer drug, which has found favor in Brazil, is doliarina. This is a mixture of the juice of the *ficus doliaria* with iron and aromatic powder. The daily dose is one drachm. After the expulsion of the worms, tonics and a nourishing diet are necessary.

The Society then adjourned.

TEN CENTS' WORTH.—We have rarely seen a more striking illustration of dewy freshness, or of fine appreciation of the value of medical services than is shown in the following letter, forwarded to us by Dr. E. H. Greene, of Atlanta, Ga.: "Dr E. H. Greene Dear Sir Please send me a medicine that will cured my diseas: send .10ct worth and as soon as possible. my diseas is the "Clap.' send carfully to S. F. F——." Five two-cent stamps were enclosed.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE SHORTCOMINGS IN LONDON MEDICAL TEACHING—FACILITIES FOR MEDICAL STUDY TO MEDICAL VISITORS—GENERAL AND SPECIAL HOSPITALS.

LONDON, September 22, 1885.

A GREAT deal has been said about the shortcomings of London as a medical centre. I must confess there is a good deal of truth in much of what has been said. Considering the vast size of this metropolis and the enormous amount of clinical material available, London medical teaching is not what it ought to be—not what it might be. This is partly due to the size of London and the indiscriminate way, so to speak, in which its medical institutions are scattered over it. A foreigner visiting London will find no such concentration of clinical material as at Vienna, where in the vast Krankenhaus he will find a conglomeration of almost all the diseases under the sun—at any rate of those under the sun of Austria. I may also add, parenthetically, that he will also not find in London such absolute disregard of patients' feelings and modesty as he will see displayed at Vienna. In London he will have to rush about from hospital to hospital if he wishes to see all there is to see, and see some of the practice of different schools. As elsewhere, he will also find that not every man who holds an important hospital appointment makes the best use of it for teaching purposes. Some cannot teach; others will not. Of those who both can and will, many are too busy with private practice to give much time to clinical teaching. They pay a hurried visit to their wards, and perhaps when they have seen half their patients a glance at the clock shows them that they are due at some private appointment, and, with just a glance at the more important of the remaining patients, off they go. Private practice is much more lucrative than teaching, and when it begins to come apace it is not to be wondered at that it should be set first. Many men, too, who would make excellent teachers in the wards have to drudge for years in the out-patient department before they get charge of beds. They spend their best energies and the best years of their lives in prescribing for chronic bronchitis, ulcerated legs, and so forth. If a man is a good teacher and naturally fond of teaching, ten years among out-patients is likely to dampen his zest a little. Then, again, the rule which requires a physician or surgeon to retire from his hospital appointment after twenty years, although a good rule on the whole, yet sometimes deprives our medical schools of some of their best teachers. Jenner, Walshe, and Hutchinson may be instanced as examples.

Still there is something to be seen in London, and a medical visitor may see a good deal if he uses his time aright. I will give a few hints which may be useful to American medical men visiting London.

First of all, as to the general hospitals, and more particularly those with medical schools attached. In all of these there is regular clinical teaching in medicine, surgery, and the various specialties, though for the latter some of the special hospitals may with advantage be visited. The best way of seeing the working arrangements of a London hospital is to make an early morning call, and for the medical visitor to send in his card to the house-surgeon or house-physician on duty. They will usually be pleased to give him any information in their power, and will probably allow him to accompany them a few times in their morning visit to the wards. He will thus see much more of the hospital than if he only accompanies the physician or surgeon in his rounds. In the surgical wards he will see the dressers at work, and if the house-surgeon is not very busy he will generally find him both able and willing to give him information about

the cases and the various methods of treatment employed. He can then accompany the physicians and surgeons in their rounds. At the London Hospital an American graduate can hold a dressership or clerkship for a few months, if he wishes, on payment of a small fee.

Antiseptic practice may now be seen at all the general hospitals, but a visit should certainly be paid to Sir Joseph Lister's clinic at King's College Hospital.

It is in studying the various specialties that the greatest drawback is felt. Although almost all our general hospitals now have special departments—in many of which there is excellent teaching—yet a specialist visiting London would naturally wish also to visit some of the special hospitals. Then will he find his troubles commence, and he will sigh for the centralization met with in Vienna. If he is interested in more than one specialty —or even if he wish to attend two or more institutions devoted to the same specialty—he will find a good deal of time consumed in getting from one part of London to another. He will often also be disappointed by finding that two clinics which he wishes to attend are both held at the same hour. Still, by a judicious planning out of the day's work it is quite possible to go about and see a good deal, and the expenditure of a few shillings a day in hansom cabs will enable the visitor to get over the ground very quickly. I may remark *en passant* that for short distances a hansom cab is by far the most rapid means of transit, even more so than the Metropolitan Railway, unless the traveller is close to a station of the latter. For eye diseases the practice of the Royal Ophthalmic Hospital in Moorfields (City) should be watched. It is decidedly the largest ophthalmic clinic in London, and systematic instruction is given. Patients are seen early in the morning, so it can be attended without missing the afternoon clinics elsewhere. Those who are located at the West End will find a good deal to see at the Westminster Ophthalmic Hospital (Charing Cross), where the clinic is in the afternoon. The largest clinic in skin diseases is at the Blackfriars Hospital (Stamford Street), though there are several others. Laryngeal diseases may be studied at the Golden Square Hospital (which is the oldest), also at the Central Throat and Ear Hospital (Gray's Inn Road). There is an ear hospital in Soho. There are two orthopædic hospitals at the West End and one in the city. Dental practice can be well seen at the Dental Hospital in Leicester Square. There are several hospitals for women, of which those in Soho Square and at Chelsea are the most worthy of a visit. The gynecologist would do well also to visit Dr. Mathews Duncan's clinic at St. Bartholomew's Hospital, and Dr. Playfair's at King's College Hospital, the latter being near the Law Courts. Antiseptic midwifery may be seen in operation at some lying-in hospitals, viz., Queen Charlotte's (in the Marylebone Road), the British (in Endell Street, Long Acre), and the General (York Road, Lambeth). At either of these he will find the resident medical officer or matron ready to give him any information he may desire. We have, however, in London no institution resembling the Rotunda Hospital in Dublin, where clinical midwifery may be studied fully and systematically. We have also no clinics where venereal diseases are systematically considered, though there is a small Lock Hospital for men in Soho, and a much larger one for women at Westbourne Green (Harrow Road). As the Contagious Diseases Acts are not now in force the syphilographer will not find much of a field for study, even in those towns to which they applied, and to the hospitals of which lock wards are attached. It is perhaps needful to remark that the acts never were in force in London.

The medical visitor who wishes to see something of British practice, and has not much time to spare, will do well not to be too ambitious. By confining his attention mainly to one or two hospitals he will see a great deal more in a short time than by frittering away his time between half-a-dozen. He may, it is true, find time to pay a flying visit to a good many of our medical institutions, but to gain a real insight into British practice he will do well to confine his attention mainly to a few. Which these should be must depend on his tastes and partly on his location in London. If he is not a specialist he will do well not to devote too much time in going the round of the special hospitals, but to content himself with attending the special departments of one of the general hospitals. In many of them he will see good practice and find the physician or surgeon in charge both able and eager to teach. The neurologist, though, should scarcely omit to pay a few visits to the National Hospital for the Paralyzed and Epileptic in Queen Square. The Brompton Hospital for Consumptives, too, is well worthy of being inspected, whether the visitor be interested in chest diseases or not. (So is that at Ventnor, Isle of Wight, where every patient has a separate bedroom.) The Cancer Hospital and the Chelsea Hospital for Women are both near, and might be seen on the same day. No medical visitor to London should fail to visit St. Thomas' Hospital. Architecturally, if for nothing else, it should command attention. I need scarcely say it is also an important centre of clinical study. Guy's, The London (which has the largest number of beds of any hospital in Great Britain), and St. Bartholomew's should all be seen once at least. As specimens of model parochial infirmaries those of St. George's, Hanover Square (at Fulham), and of Marylebone (at Notting Hill) may be visited.

I presume no medical visitor to London would fail to visit the College of Surgeons and inspect its library and museum. Many hours might be spent in the latter. The museums, too, of many of the hospitals are well deserving of attention. Guy's Hospital Museum contains a very valuable and unique collection of wax models.

THE GRAPE AS A FOOD AND MEDICINE.

To the Editor of The Medical Record.

Sir: In view of the fact that the administration of drugs is becoming every day more and more the opprobrium of medicine, and now that the grape season is at hand, I desire, through the medium of your excellent journal, to call the attention of the profession to the physiological and curative virtues of grapes when employed as a medicament.

I may remark, at the outset, that I have, in connection with the subject, figured several times in the somewhat anomalous character of a physician taking his own prescription, and have, moreover, never felt the force of the Gallic facetiousness that objects to taking wine in the form of pills.

The grape cure is a therapeutic means that seems to be very little known, not only in the United States, but among English-speaking people generally. As far as my limited time will allow inquiring into the literature of the subject, the English references appear to be extremely scanty. Nevertheless, the subject has a history and a bibliography of its own, ancient, mediæval, and modern, extending from the time of Dioscorides and Pliny to recent Spanish, Italian, French, and even modern Greek memoirs on ampelotherapeutics. It is, however, to German literature that one must look for the most intelligent and interesting accounts, which are to be found in the numerous monographs published in the last few decades. Some years ago my attention having been directed to the subject through one of the latter sources of information, I shortly afterward had an opportunity to prove some of the results of the grape cure by personal experience. Arriving in Cadiz after a long voyage and the monotonous diet of a sailing ship, and my system being considerably below par, I determined to try for a time a diet consisting almost exclusively of grapes, which at the time were plentiful in the sherry region of Andalusia. The result was rapid re-establishment of all the bodily functions, with a sense of well-being, and a feeling of more

than ordinary strength and agility. Here, however, arose a difficulty in distinguishing the results of the effect of the grapes from the results of the regimen, the other dietetic adjuncts of the cure, and the change of surroundings.

But the advocates of the grape cure having made satisfactory observations on the action of grapes, independently of the dietetic and hygienic adjuncts of the cure, and having studied the grapes chemically as well as clinically, I was prompted, while in San Francisco, to resort to the grape cure for the second time and under circumstances almost analagous to those detailed in the first instance. The result being highly satisfactory, I recommended the cure to several other persons who were much run down from overwork and bad diet, and I soon had the satisfaction to see a rapid gain both in their weight and appetite.

The quantity of grapes that one may eat with impunity is something astonishing. Most persons at the European uval stations consume from three to six kilos. daily. I have, however, greatly exceeded this quantity while sojourning on a California grape ranche. Grapes constitute a perfect nutriment which encloses in remarkable proportions the nitrogenous, albuminoid, and respiratory principles indispensable to a good alimentation; and the grape cure is an essentially alimentary regimen in which the principles of a vegetable nature predominate over those of an animal nature. Doubtless the knowledge of the alimentary properties of grapes derived from the fact that certain migratory birds fatten on them, and that the flesh of young foxes after a grape diet becomes palatable, may have had more to do with the employment of grapes as a medicament than any knowledge deduced from their chemical study. According to the analysis of Henry and Chevallier, a striking anology exists between the juice of grapes and woman's milk. These chemists find in 100 parts as follows:

	Human milk.	Grape juice.
Albuminoid and nitrogenous matters	1.5	1.7
Sugar, gum, etc.	11.0	12 to 20.0
Mineral substances	0.4	1.3
Water	87.0	75 to 83.0

It is further consistent with the chemical deductions of the properties of grapes that cures analogous to those obtained by natural mineral waters may be accomplished with great success. In Germany, the grape cure is looked upon as a necessary and indispensable complement to the thermo-mineral treatment, and it is customary to send patients after such treatment to places like Bingen, Durkheim, Vevay, Aigle, and Celles-les-Bains. At certain of these uval stations patients are recommended to drink two or three glasses of the freshly expressed juice; and they are also provided with baths for persons who want to be plunged into the mash of the grapes while it is in a state of fermentation. These baths, much in vogue at some of the stations, are highly recommended against rheumatic pains.

Some of the affections for which the grape cure may be used as a reparative medicinal agent of great value are those arising from troubles in the functions of the organs of digestion, diseases of the liver and spleen, suppression of the hemorrhoidal discharge, menstrual derangement, etc. The cure is especially recommended by its partisans to persons of irregular digestion who have deluded themselves into the habit of taking purgatives. In simple opposition to this, the capital virtue of grapes has been demonstrated in the cure of inveterate diarrhœa — the *rationale* of which is that diarrhœa is rather a symptom of several diseases than a distinct morbid entity. The cure is also advised in catarrhs of the air passages, and to remedy the state of general exhaustion that keeps up all troubles of the respiratory apparatus. Alkaline and sweet grapes are used to relieve the vomiting of acid dyspepsia, or when it is desirable to liquefy the materials of the blood or bile; in hypertrophy of the liver or spleen, grapes containing large quantities of sulphates and phosphates are preferable. Treatment by the more astringent grapes along with general analeptic measures always gives good results when the object is to reconstruct the blood of anæmics, chlorotics, and convalescents. The grape diet is said to augment the urinary secretion and to diminish the formation of acids and salts of the urine, as in gravel and gout. Some German physicians, however, consider its indication as problematical in the uric acid diathesis. The uval cure may likewise be used as an adjunct or as a complementary cure in the treatment of impotency, since grapes taken in large quantities are decidedly aphrodisiacal.

But it is in certain neuroses, especially those in which there is great psychical depression, as hypochondria, melancholia, and hysteria, or in nervous states less cerebral than abdominal, that the virtues of the grape cure are brilliantly demonstrated. Relative to this subject, a confirmatory and most interesting case has occurred in my own practice. In February, 1884, I was consulted by a prominent business man of Washington, of middle age, who had suffered from obstinate insomnia and its train of evil consequences for eleven years, and during that time he had contracted the bromide habit. In addition to treatment by local physicians, he had successively been under the care of eminent neurologists in Philadelphia, New York, London, and Paris, with but indifferent results. His atavistic antecedents were not entirely satisfactory; but his venereal history was fairly good; he had stopped the use of tobacco, and his habits were temperate, though he was not a teetotaler. The patient complained of general languor and debility; of a clawing pain within the head; of inability to concentrate his thoughts, and of loss of will-power. He had, moreover, many of the symptoms peculiar to agoraphobia, the most prominent of which was the fear of an impulse to commit suicide. The patient stated that he had taken the bromides of potassium and sodium in almost incredible doses since 1873. From 1874 to 1876—a period of two years—he took daily one hundred and thirty-five grains, without missing a day. The quantity was gradually decreased in 1878 to eighty grains a day, and to fifty grains in 1883, during a visit to the "Healing Springs" of Virginia. He subsequently took ninety grains daily. The patient was cachectic in appearance; but there were no sensory, motor, or mental symptoms indicative of organic lesion. Examination with the differential calorimeter, however, revealed the existence of a considerable degree of cerebral hyperæmia. Under treatment my patient made but indifferent progress toward improvement, and having nearly exhausted my efforts to break up the bromide habit, I wrote to my friend, Dr. William A. Hammond, who informed me in reply that he had cured several cases of this habit by prescribing a solution of chloride of sodium, the dose of which is gradually increased, the bromide, at the same time, being correspondingly decreased until a few minims is reached, when the patient breaks off the habit on being told that he is taking nothing but table salt. This plan did well for several weeks, but during my summer absence in Europe, the patient accidentally learned from his druggist what he was taking, and immediately discontinued the prescription. On my return in autumn, I at once directed the patient to eat large quantities of grapes, the object of which was explained to him, and within a week I had the extreme satisfaction to see an important and salutary change in the symptoms. The languor and debility had left; the sleep was improved; there was not so much psychical depression, and the craving for the bromides was lessened. The habit is now entirely broken up; the patient sleeps fairly, is rid of melancholia, has regained his virility, to his great delight; and is in every respect improved and reconstructed.

As a matter of course, it is not pretended that positive deductions are to be made from the foregoing hasty out-

lines without the concurrent testimony of other observers and a more profound study of this subject. In view of the effects obtained by the grape cure in Germany, Switzerland, and Italy, it is regretable not to see it also common in America, notably in such regions as California, whose pure air, beautiful climate, and great abundance of excellent grapes, make it best adapted for the experiment of a uval station. With a view to farther comment on the subject, I take the liberty to solicit from those who may be prompted to try the grape cure a communication of the results of their observations. Since it is sufficiently demonstrated that the methodical and rational use of grapes suddenly breaks up all habits of nutrition, rapidly reconstructs the blood, and exercises a salutary action upon the nervous system, the grape-cure would apply to many persons in our large cities, who, in consequence of extreme heat and improperly cooked food, suffer from congested livers and intestinal catarrh, which they miscall malaria. Overworked clerks and newspaper men, who keep late hours and live on boarding-house fare, may derive from the vegetable milk of the luscious but inoffensive grape a rational means to re establish the physiological conditions of clear thought and correct expression; scrofulous subjects, lately under treatment at the Hot Springs, may complete the cure by means of the grape regimen, and ailing humanity of various grades may be benefited in many instances if they would replace the nasty drugs of the apothecary by the excellent fruit that graces the table and brings to pass so many delights.

IRVING C. ROSSE, M.D.

WASHINGTON, D. C.

"THE DUTY OF THE CONSULTING TO THE ATTENDING PHYSICIAN."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: After reading the article in THE MEDICAL RECORD of September 26, 1885, bearing the above heading, I thought I would relate a case that occurred in my own practice, if you will kindly allow it.

Soon after graduating I settled at U——, a country village, about two miles from Dr. H——, who had previously had nearly the entire practice at U——. My practice was good from the first, a fact more pleasant to me than to Dr. H——, doubtless.

About six months after my settlement I was called to attend I. T——, a boy of eight or nine years, the only son of an influential merchant of this town, and an acknowledged leader of his "circle." The case was one of bronchitis, quite severe, but with no unfavorable symptoms or complications.

About the fifth day I fancied I noticed a growing dissatisfaction, and I proposed a consultation, which was accepted with such alacrity as to confirm my fancies, They proposed Dr. H——, but I overruled them with the plea of not being acquainted, and they agreed to my sending for Dr. B——, whom I knew to be friendly. He came, saw the patient, agreed with me in diagnosis and treatment, gave a good prognosis, not only to me but to the friends.

I then believed everything to be satisfactory, until two days afterward, when, on returning home from a short trip of less than two hours, I was informed that Dr. H—— had been in to see my patient. On making my evening call the father excused Dr. H——'s call; said the boy grew worse; I was out of town; saw Dr. H—— drive by; called him in; looked at child; refused to say or do anything during my absence; had finally agreed to come and consult with me, if I wished, and as the father wished him to, I consented. He came; the patient was duly examined; we retired to a private room; I gave him all the facts in the case as I understood them; *he perfectly agreed with me in diagnosis, with me gave a good prognosis, and volunteered the statement that he did not see where my treatment could be bettered, unless it should be by the use of the atomizer, which he advised.* I accepted the suggestion and everything seemed amicable.

At my next visit I was startled with the information that as Dr. H—— had agreed to take the case, my services would no longer be required! That they presumed I had done as well as I knew how (!!), but they thought it better to have a doctor of longer experience.

I have since learned that Dr. H—— went back and told them that if the treatment was not changed the boy would die!! and with the anxiety that only parents can feel on contemplating the loss of an only child they made the change.

I shall always feel that I was cruelly treated by this doctor; but, as "Justice" says, "What remedy have we?"

Probably none. Cathell says, "Never expect justice from a rival."

JUSTICE, No. 2.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from September 27, 1885, to October 3, 1885.

MCPARLIN, T. A., Colonel and Surgeon. Directed to transfer his duties and the public funds for which he is accountable, as Assistant Medical Purveyor, to Captain Henry Johnson, Medical Storekeeper, who will, in addition to his present duties, temporarily perform the duties of Assistant Medical Purveyor, New York City. S. O. 223, A. G. O., September 29, 1885.

CALDWELL, D. G., Major and Surgeon. Ordered from Fort Laramie, Wyo., to Fort D. A. Russell, Wyo. S. O. 97, Department of the Platte, September 28, 1885.

BARTHOLF, J. H., Captain and Assistant Surgeon. Ordered from Fort Ringgold, Tex., to Fort McIntosh, Tex., for duty as Post Surgeon. S. O. 125, Department of Texas, September 28, 1885.

BRECHEMIN, LOUIS, Captain and Assistant Surgeon. Ordered from Fort D. A. Russell, Wyo., to Fort Laramie, Wyo. S. O. 97, Department of the Platte, September 28, 1885.

MACAULEY, C. N. B., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort A. Lincoln, Dak. Ter., and ordered for duty at Camp Poplar River, Mont. Ter. S. O. 105, Department of Dakota, September 21, 1885.

KNUDLER, WILLIAM L., First Lieutenant and Assistant Surgeon. When relieved from duty at Camp Poplar River, Mont. Ter., by Assistant Surgeon Macauley, to report to Commanding Officer, Fort Snelling, Minn., for duty. S. O. 105, Department of Dakota, September 21, 1885.

WALES, P. G., First Lieutenant and Assistant Surgeon. Relieved from temporary duty at Boisé Barracks, and ordered for duty at Fort Cœur d'Alene, Idaho. S. O. 160, Department of Colorado, September 21, 1885.

EWING, C. B., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Stanton, N. M., and ordered for duty at Fort Leavenworth, Kan. S. O. 147, Department of Missouri, September 25, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 3, 1885.

JONES, WILLIAM H., Surgeon. To Navy Yard, League Island, Pa., October 15th, as the relief of Medical Inspector M. Bradley.

BRADLEY, MICHAEL, Medical Inspector. Detached from Navy Yard, League Island, Pa., October 15th, and placed on waiting orders.

OWENS, THOMAS, Assistant Surgeon. To Naval Station, New London, Conn., as the relief of Surgeon William A. Corwin.

Corwin, William A., Surgeon. Detached from Naval Station, New London, Conn., and ordered to the U. S. S. Adams, October 31st.

Magruder, A. F., Surgeon. Ordered to the U. S. S. Yantic, without delay, as the relief of Surgeon H. L. Law.

Law, H. L., Surgeon. Detached from the U. S. S. Yantic, and wait orders.

Simon, W. J., Surgeon. Detached from the Naval Academy, October 1st, and wait orders.

Drennan, M. C., Surgeon. Detached from the Naval Academy, October 1st, and wait orders.

Cabell, Arthur G., Passed Assistant Surgeon. To the U. S. S. Adams, October 31st.

Medical Items.

Nickel-Plated Corpses.—An ingenious Frenchman has conceived the thoroughly Parisian idea of preserving bodies by covering them with a metal skin. Burying, he says, has been condemned by experience, cremation is bad, as it destroys all evidence of crime in case murder has been committed, and embalming is expensive. But galvanizing is safe and cheap. The poor can be zinc-plated, well-to-do individuals may acquire a copper coat, and the millionnaires can enjoy the luxury of silver or gold plate. M. Kergovaty, the inventor of this method, says he has already used it successfully eleven times in the case of human beings, and over a hundred times for animals.

International Congress of Otology.—The Fourth Otological Congress will be held at Brussels in September, 1888. At the Congress of Basle this year, it was announced that Baron Leon de Lenval, of Nice, had offered a prize of three thousand francs to the author of "the best application of microphonic principles in the construction of an easily portable apparatus for improving the hearing." The instruments, complete and ready for use, should be sent to one of the members of the Committee prior to December 31, 1887. In the examination of instruments regard will be had to the excellence of mechanical construction, to the proper observance of the laws of physics, but chiefly to the amelioration of hearing produced by the instrument. The prize will be awarded during the sessions of the Fourth Congress. If no instrument shall be deemed worthy of the prize, the Committee may extend the period of competition up to the date of the opening of the Congress. The members of the jury of award are Dr. E. Hagenbach-Bischoff, President, Missionsstrasse, 20, Basle; Dr. Benni, 16 Bracka, Warsaw; Dr. Burckhardt-Merian, 42 Albanvorstadt, Basle; Dr. Gellé, 20 Avenue de la l'Opéra, Paris; Dr. Adam Politzer, 1 Gonzagagasse, 19, Vienna.

Artificial Conception.—Not long ago a candidate presented to the Faculté de Médecine, of Paris, a thesis upon artificial conception, but after a long and somewhat heated discussion, it was determined to reject the thesis, and to destroy all the printed copies. The grounds given for this decision was, that if the thesis were approved, it might give an opportunity to certain unscrupulous physicians to carry on an unclean business, dangerous to the family and to the State. It is not often that Paris gives evidence of the possession of many scruples in such matters.

Operations in Mission Hospital in Cashmere.—Cashmere contains, in addition to its numerous shawl manufactories and papier maché and silver industries, an admirably conducted hospital attached to the mission of the Church Missionary Society, the present medical officers of which are Messrs. Arthur Neve, F.R.C.S.E., and H. D. McCulloch, M.B., C.M. In the report of last year's work, just issued, they say: "Although the number of out-patients is not larger than last year, the wards have been much fuller, and the operations more numerous and more severe. There have been 5,366 out-patients who paid 13,700 visits to the hospital. About 1,000 other patients were treated when itinerating in the valley or on a journey to Ladak; 1,054 operations were performed, of which 339 were major. Only 6 deaths occurred. During 1883, with 800 operations, we had only 1 death. Last year growing experience and the increasing confidence of patients has allowed bolder measures. No cases in which operative relief seemed possible were turned away. Many patients have come over 200 miles for treatment. One man totally blind was brought 250 miles and over snow passes. Both his eyes were successfully operated on. He walked back seeing." In the detailed list of operations there are mentioned 32 successful cases of nerve-stretching for leprosy, 3 excisions of the hip, 344 minor eye operations, and 3 lithotomies. The Maharajah has shown his appreciation of the work done for his subjects by giving substantial help in repairing and adding to the Mission Hospital.

Personal Medical Nomenclature.—A correspondent writes: "From your excellent editorial in last week's Record, I have more fully realized what has always seemed a great blunder in medical literature. I refer to the 'Personal Medical Nomenclature.' I trust you will keep up the hammering at this subject." By another correspondent we are reminded that we failed to mention Menière's disease, or labyrinthine vertigo. Sciatica has gone, in times past fortunately, by the name of Cotugno's disease. French writers speak of Parrot's disease, or syphilitic pseudo-paralysis of children. Recently nosology has been in labor again, and we have Gillis de la Tourette's disease, a peculiar form of chorea, described sometimes as latah, and myriachit.

Western Medical Colleges and Instruction in Mental Disease.—Dr. G. F. Harvey, of Parsons, Kans., criticizes a statement of Dr. John W. Wood, of the Trenton Insane Asylum (Medical Record, June 20, 1885, p. 694), to the effect that "general paresis" is a disease not mentioned in lectures at medical colleges. Dr. Harvey sends us excellent notes of a lecture on this disease by Dr. Walter Hays, delivered at Rush Medical College, January 19, 1876.

Some Lay Advice to Doctors.—Avoid the society of your patients. Physicians should have no familiars; to be thoroughly respected they must stand aloof from the gaze of society. A prophet has no power in his own country, neither has a physician in his own circle. Without skill it is impossible to become a flourishing physician, but without good manners all the skill of the most eminent physicians will not avail you in a large capital. A good address is everything to a doctor. Never refuse a fee from any person who is able to give one, in order that you may never have occasion to take one from a man who is too poor to well afford one. It matters not how mercenary you may be accounted by the rich, so long as you are merciful to the poor. If you cannot get fees without depriving them of bread, it were better you had never been a doctor.—*Brooklyn Eagle.*

Chloroform and Tapeworms.—Dr. A. T. Boder, of Grand Rapids, Mich., writes that he has successfully treated a patient suffering from tapeworm by administering chloroform, ol. fil. mas, āā ℥ ss.; olei ricini, ℥ jss.

Performing the Operation for Strabismus on a Hypnotized Patient.—Dr. S. L. McCurdy, of Dennison, O., writes that he has recently performed the operation for strabismus successfully on a mesmerized patient, a young man of eighteen. The patient showed no signs of pain, and was brought out from his mesmeric state at once, when he showed none of the disagreeable after-effects that result from the use of ether.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 16 NEW YORK, OCTOBER 17, 1885 Whole No. 780

Original Articles.

OBSCURE CASES OF WEAK HEART.[1]

BY R. VAN SANTVOORD, M.D.,

NEW YORK.

WEAKNESS of the cardiac muscle, occurring independently of valvular lesion, is recognized as an important pathological factor in a large number of morbid conditions. It is one of the chief sources of danger in most acute febrile diseases, and it remains as a residual disorder after many of them, particularly after typhoid fever. It occurs as a result of long-standing anæmia, and of various toxic conditions, among which alcoholism is prominent. Failing cardiac compensation is frequently the cause of death in chronic renal disease. The right ventricle is often affected in pulmonary diseases involving obstruction to the lesser circulation. Degeneration may result from inflammation of the cardiac muscle occurring in the course of various general diseases, or as the secondary result of lesions of the coronary vessels. The heart may give out as the result of repeated strain. The heart-muscle itself after death may be in a state of granular, fatty, fibroid, or waxy degeneration, as the result of one or other of these conditions; or its histological structure may be apparently normal, although the ante-mortem history and the dilated cavities of the organ point to cardiac failure as the cause of death.

It is not my intention to attempt the impossible task of covering this wide field in a single paper. Many of these cardiac conditions are among the best recognized features of the general morbid states with which they are associated. In others, again, the connection between symptoms and the underlying cardiac lesion is obscure and easily overlooked, from the absence of striking physical signs of cardiac disease. It is my purpose to confine my attention to this latter class of cases, considered from a clinical point of view. As a positive diagnosis can frequently be made *only* after careful study of the individual case and balancing of the various symptoms and physical signs observed, it has seemed to me that my not very easily circumscribed subject could be most suggestively presented by the relation in brief of a few cases which have come under my personal observation, with comments upon the special points of interest which they present.

I.—My first case was that of a fresh-looking, slightly corpulent man, aged forty-two, who was apparently the picture of robust health. He was a dry-goods salesman by occupation, and beyond occasional drinking with a customer, and too rapid eating, his habits were in every way good. His indulgence in alcohol was never excessive. He complained of sleeplessness. It was difficult to rouse him in the morning after a full night's rest. He would frequently fall asleep at any time during the day when not actively occupied. He suffered from frequent headache, which glasses prescribed by an oculist to correct hypermetropia relieved but little. He was forgetful and not able to attend to his business as well as formerly. On being questioned he recalled that he was somewhat short of breath on going up stairs, but had not been much annoyed by this symptom. He suffered also at times from slight disturbances of digestion. His urine was normal. The only evidence of organic derangement discovered was that the heart-sounds, especially the first, were rather weak, and reduplication of the second sound was audible at the base. The pulse was 75. The patient's symptoms dated from a severe attack of pneumonia, two years previous to any attendance, his health having been good prior to that time. A diagnosis of weak heart following pneumonia was made, and ten minims each of the tincture of digitalis and tincture of nux vomica t. i. d. were prescribed, the latter being given to correct existing derangement of digestion. After two weeks of this treatment the heart-sounds were louder, but the patient's condition was not materially improved. A single sphygmographic tracing showed no obvious abnormality and was not preserved. Five grains of the citrate of caffeine after meals was now substituted for the digitalis, and one-thirtieth grain of strychnine for the nux vomica. Owing to a misunderstanding the caffeine was at first taken before meals and caused much gastric irritation. When the mistake was corrected the good effect of the drug at once became manifest. His heart-sounds became louder and his disagreeable symptoms disappeared. At first, if he forgot a powder, the sleepiness would return. After two or three weeks the dose was reduced to three grains, and was continued for a week or two longer. Ten weeks after commencing the caffeine treatment he had retained his gain, but had to take an occasional three-grain powder after breakfast, to avoid sleepiness. His weight had been slightly reduced, and a tendency to flatulence was controlled by abstinence from sugar and potatoes. When last seen, twenty-three weeks after the commencement of treatment, he was in a comfortable condition, though still slightly short of breath, and flatulent from dietary indiscretions. His sleepy attacks had recurred two or three times under strain, but had quickly yielded to caffeine, taken without consulting me. The only abnormality noticed about the heart was the persistence of the reduplication of the second sound, which was heard at the end of inspiration and beginning of expiration over the left of third intercostal space near the sternum.

II.—My second case was that of a stock-broker, aged thirty-eight. Several relatives had been gouty, and one had been asthmatic. He had had several slight attacks of gout, and had been much worried about business losses and had been drinking freely, chiefly spirits, for three or four years. He had been short of breath for years on going up-stairs. A former medical attendant had found albumen in his urine. His ankles would become puffy from time to time, especially after drinking brandy. He had been rejected by a life insurance examiner some months before on account of the rapidity of his pulse. He had for some time vomited every morning on rising, the matter vomited being usually mucus, but twice it contained blood. His custom had been to take from twelve to fourteen drinks of whiskey a day, and to eat only one meal, that being in the afternoon. I was called to see him on account of attacks of dyspnœa and wheezing, which had been coming on every night for some time.

I found him to be a pale, worried-looking man, gray, and appearing much older than he was. At my first examination, the dyspnœa was slight. The lungs were normal. The first sound of the heart was weak, the second hard, metallic, and not quite clear. His tongue was coated, and he complained of flying pains in his muscles.

[1] Read before the New York Academy of Medicine, October, 1885.

The urine contained a small amount of albumen, had a specific gravity of 1.024, and one fatty cast was seen after considerable searching. Six days later, after appropriate treatment of the stomach, the stopping of alcohol, administration of food, and the use of morphia and Hoffman's anodyne at night, great improvement followed. He passed something over a quart of urine, of a specific gravity of 1.014, in twenty-four hours, containing no albumen. As soon, however, as he began to go about again, dyspnœa and inability to lie down without distress recurred. The first sound and the apex-beat of the heart were feeble, the pulse 102. His appetite began to fail again. He had occasional shooting pains from the apex of the heart to the scapula.

Ten minims of the tincture of digitalis t.i.d., combined with a bitter tonic, were given—as were also other remedies rendered necessary by the condition of the stomach and bowels. In two days he was able to sleep flat on his back through the night. His pulse dropped from 102 to 84. Its tension, which, as shown by the sphygmograph, was very low before the digitalis was given (Fig. 1),

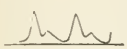

Fig. 1.

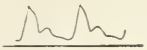

Fig. 2.

increased considerably (Fig. 2), but did not become normal. He succeeded in abstaining from alcohol and, when examined six months later, had gained markedly in flesh, no longer suffered from dyspnœa, and, in spite of constant business worry, was in a very comfortable general condition. The first sound was still short and valvular, the second metallic and sharp, the arterial tension low, the pulse 82. The urine showed a faint trace of albumen, by the mercuric iodide test, and a considerable number of hyaline casts.

In this case the patient's abuse of alcohol and underfeeding had undoubtedly caused a pretty general degeneration or state of malnutrition of all his organs. Reform of these habits was the *sine qua non* of his recovery. His rapid and persistent improvement after a course of digitalis, with corresponding improvement in his cardiac action, is proof, however, that his heart was the organ predominantly affected. The normal quantity of his urine, the small amount and inconstancy of the albumen which it contained, the absence of elements in the deposit pointing to active kidney trouble, the persistent low tension of his pulse, and his rapid improvement, go to prove that the albuminuria was probably not associated with grave organic changes in the kidneys. The lesion in this case is conjectural. From the association with abuse of alcohol it may be assumed that the heart was fatty, but the very rapid response to digitalis seemed to indicate that a less grave state of malnutrition probably predominated. There was also a persistent irritability of the heart, due apparently to his mental worry, and analogous to the irritability noted by Da Costa[1] as the result of the physical and moral hardships of campaign life, the abuse of tobacco, etc. It is, I believe, customary to regard these cases of irritable heart as of little gravity. Da Costa, however, has recorded a case of dilatation and hypertrophy following irritable heart due to worry and uterine disease, and also a case of dilatation and hypertrophy, with mitral regurgitation, following irritability from the abuse of tobacco and worry. Similar cases have been recorded by other authorities.

III.—My third case is that of a gentleman, aged fifty-four, who had always been much addicted to outdoor sports. His health had been good until his present trouble began, except that he had always suffered from constipation. Some months before consulting me, he began to suffer from lassitude, drowsiness, indisposition to exert himself physically or mentally, and a constant distressing headache felt chiefly at the vertex. He had been treated for hæmorrhoids by ligature a few months before. His eyes had been recently examined by Dr. Knapp, who told him that they presented the lesions usually associated with myopia, but nothing to explain his general symptoms. For a long time he had been obliged to get up at night to urinate. The immediate occasion of his consulting me was an unusually severe attack of pain in the vertex and back of the head, in part shooting in character, but not following any definite nerve distribution.

The patient was a thin, sallow, anxious-looking man. His tongue was slightly coated. His appetite was good. The apex of his heart was in the sixth interspace in the nipple line, and a very faint systolic murmur was heard at that point. The cardiac sounds, especially the second, were weak. The lungs were normal. He passed about ninety-six ounces of urine in twenty-four hours, the specific gravity of the specimen measured being 1.010½; it contained no albumen. A mixture containing bicarbonate of soda and gentian given for two days, with the idea that the head symptoms might be reflex from the stomach, produced no effect. Of various remedies used for the bowels, faradization only had any effect. Ten minims of the tincture of digitalis and twenty of the tincture of the chloride of iron t.i.d. were now prescribed. During the twelve days that the patient remained under observation, the heart-sounds increased markedly in force, the pulse became stronger, and his general condition improved remarkably. The urine fluctuated in specific gravity between 1.010½ and 1.019½ in four examinations. Its frequency of passage, and presumably its quantity, did not diminish. No albumen or sugar was found. On one occasion a few hyaline casts with adherent renal epithelial cells were seen; spermatozoa were observed in three of the four examinations, and a few pus-globules were always present. It was then ascertained that the patient had been treated for urethral stricture, originating in the usual way, thirty years before. A No. 14 English sound was the largest that could be passed through a constriction two and a half inches back of the meatus. Seminal emissions had occurred, and ejaculation had been painful of late years. From the enlarged heart, and the large amount of urine passed, it was concluded that the patient was suffering from contracted kidneys with secondary cardiac failure, although the specific gravity of the urine was usually normal, and no albumen was at any time found. The patient spent the winter in a southern climate, and remained in a fair state of health, taking no treatment during most of the time, but avoiding exposure and muscular strain. A year after his first course of treatment he presented himself, stating that he was a little short of breath on going up-stairs, that he had no pain but only a sensation of something not quite right in his head, which he could not define, and occasional shooting pains in his arms and legs. His condition was somewhat aggravated by recent unusual exertion. The apex of the heart was in its former situation; the sounds, especially the second, were weak; a distinct reduplication of the first sound was heard to the left of the sternum at the level of the fourth rib, but not at the apex, where the muscular element seemed to cover it. There was no murmur. The sphygmographic tracing (Fig. 3) was of very large amplitude, but the tidal wave was more marked, the aortic notch much higher in the tracing, and the dicrotic wave far less developed than in the second case narrated. The pulse was 75. Digitalis in ten-minim doses t.i.d., first alone and after five days with half a drachm of fluid extract of ergot, continued for ten days, caused a diminution in the amplitude of the pulse, a lessening of the dicrotic wave, and a lowering of the pulse to 64. The sphygmogram, after this treatment, differed from the most common healthy type only in being a little below the average tension. The shooting pains became somewhat less under treatment, but there was no great

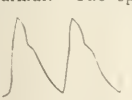

Fig. 3.

[1] Toner Lectures on Heart Strain, 1874.

change in his, at this time, not very markedly disagreeable symptoms, owing probably to unusual exertion and the temporary discomfort of an acute coryza. The urine, examined once, had a specific gravity of 1.015, contained no albumen, and the microscope showed only a few pus- and red blood-globules. He passed seventy ounces in the twenty-four hours.

The facts that the patient had held his own for a year, that the specific gravity of the urine was normal (considering the amount passed), and that the sphygmographic tracing taken on four different occasions showed low arterial tension, even after the heart had been strengthened by appropriate treatment, led me to conclude that the polyuria was due to some cause other than contracted kidney, it being possibly a reflex result of the urethral lesion such as was observed by Masson[1] in four per cent. of the cases of stricture studied by him. Masson found polyuria, especially in patients with stricture of long standing. After treatment of the strictures the polyuria disappeared or lessened. My patient did not remain under observation long enough at any one time to enable me to test this question by treating the stricture.

The cardiac failure, therefore, seemed to be an independent matter. The age of the patient (fifty-four years) points to an early stage of one of the chronic degenerative processes. His addiction to athletic sports suggests the weak, dilated heart without recognizable histological change, such as has been noticed by Münziner[2] among the Tübingen vine-dressers, who are accustomed to carry heavy loads on their backs in a hilly country, or the cardiac dilatation observed after Alpine climbing;[3] but any absolute conclusion on this point seems impossible.

IV.—My fourth and last case can hardly be classed as one of obscure cardiac weakness, as the symptoms were very striking. I introduce it on account of certain features of especial interest which it presents. The patient was a boy aged fourteen, who had a severe attack of measles last May, he having been previously in good health. After his convalescence, he suffered from dyspnœa and lancinating pain in the cardiac region on running. He was admitted into the Randall's Island Hospital on July 30th. The boy was thin and pale. Cardiac pulsation was marked over the apex, in the epigastrium, and in the second left intercostal space. Both ventricular areas were enlarged. The heart-sounds were loud. Distinct reduplication of the second sound was audible in the third left interspace near the sternum. A loud blowing systolic murmur was heard over arteries at the base of the neck, and was transmitted into the brachials and femorals. Under iron, strychnia, and rest the boy's general condition improved; the dilatation of the heart had diminished; the arterial murmur had disappeared, the venous hum had lessened, and the reduplication of the second sound still persisted at my last examination.

Although endocarditis and pericarditis occur as occasional complications of measles, the absence of cardiac murmurs and the rapid improvement, both local and general, point to the condition as one of cardiac dilatation, with perhaps some fatty degeneration such as has long been recognized as occurring in long-standing anæmia, especially in chlorosis; the dilatation sometimes proceeding so far as to cause relative incompetence of the mitral valve and consequent regurgitation.

On reviewing this little group of cases, attention is arrested by the fact that reduplication of one or other of the cardiac sounds was present in three of them. The etiology of this phenomenon has been much discussed. The simplest explanation is, that the reduplication of the first sound is due to asynchronism in the contraction of the ventricles; that of the second to asynchronism in the closing of the outer and pulmonary semilunar valves. Bramwell is of the opinion that this is the explanation in at least the great majority of cases. Other high authorities have invented a number of ingenious hypotheses to meet certain cases in which there are apparent objections to this simple theory. These alternative explanations, being apparently incapable of *experimental* proof or disproof, must be accepted or rejected on purely theoretical grounds. None that I have met with seem to my mind mechanically possible. Dr. Bramwell[1] states that he has seen, felt, and heard asynchronous action of the ventricles. "Each side" of the heart, he says, "has more or less independently its own nerve-supply, its own peristaltic action; and notwithstanding that both sides are set to the same time, and that there is a complex interlacement of fibres, yet it is quite possible, nay, it is an experimental fact, that one side may begin or end contraction before the other." It therefore seems to me that Bramwell's opinion is correct. Both forms of reduplication are said to occur physiologically as temporary phenomena, owing to the effect of the respiratory movements on the circulation, especially when those movements are forcible. Reduplication of the first sound occurs at the end of ex- and beginning of in-spiration. Reduplication of the second sound, at the opposite point of the circle, *i.e.*, at the end of in- and beginning of expiration. The physiological stimulus to contraction of the ventricles is recognized to be the distention of their cavities with blood. One ventricle may therefore contract before the other, according to Bramwell, when either the blood-pressure in one is greater than in the other, or when, the blood-pressure being the same, one ventricle is more irritable than the other, owing either to a relatively greater derangement of its nerve-apparatus, or to structural changes in its muscular wall. The lack of synchronism caused by the influence of respiration is due probably to the fact, that at the end of expiration more blood is actually delivered to one ventricle than to the other. Usually during tranquil respiration the lack of synchronism, though probably present, is not sufficient to be appreciable. In the case above cited of the patient with a dilated left ventricle resulting possibly from heart strain, the reduplication of the first sound was heard during tranquil respiration on two different occasions, and was therefore probably not of the physiological type.[2] There existed manifest dilatation of the left, but not of the right, ventricle. Now the amount of blood delivered to each ventricle at a given cardiac contraction is about the same, the variations caused by respiration being probably unimportant so long as that act is tranquil. The undilated right ventricle would therefore be more distended than its dilated fellow by a given quantity of blood, and would consequently contract sooner, thus giving rise to a reduplication of the first sound. The contraction of a weak ventricle is, however, less sustained than that of a normal one, so that, in spite of a later start, the left ventricular contraction might terminate synchronously with the right. It must be borne clearly in mind that it is here a question of intra-ventricular pressure during ventricular *diastole*. In other pathological cases, as above stated, it may be a question of a disturbed balance of the relative irritability of the ventricles. Marked degeneration or nervous derangement may exist, but as long as both ventricles are equally affected no reduplication would be produced. Apart, however, from purely theoretical speculations, which some unknown or unconsidered factor may entirely vitiate, persistent reduplication of the first sound has been found clinically associated with functional disorders of the heart, and with grave organic changes of the cardiac muscle with or without valvular disease. It is at least within the limits of our present knowledge of the subject to say that its presence in a given case is presumptive evidence of some cardiac lesion, the character and gravity of which must be determined by the other factors of the case.

[1] V. and H. Jahresber., 1880, ii., p. 216.
[2] Das Tübingen Herz., Arch. für klin. Med., vol. xix., p. 449.
[3] Overstrain of Heart and Aorta (with discussion). Allbutt: Brit. Med. Jour., March 15, 1873.

[1] Bramwell: Diseases of the Heart, 1st ed., p. 160 (note).
[2] My recollection is that it was also continuous, *i.e.*, not depending on respiratory influences, but my notes of the case are not specific on this point. Such reduplication would of course be entirely unphysiological.

In the case of the second sound, reduplication may be due either to derangement of the nerve-apparatus, or lesions of the muscular fibres of the heart, which cause the contraction of one ventricle to be shorter than that of the other, or to disturbances in the relative amount of resistance to be overcome by the respective ventricles. The semilunar valves must close the moment that the arterial tension is greater than the pressure from behind. Increased resistance, however, is met by increased vigor of contraction on the part of the ventricle upon which the strain comes. This increased vigor of contraction involves a lengthening of the ventricular systole. It is this increase which, according to some authorities, gives rise to the reduplication of the second sound, which is observed in a large percentage of cases of mitral stenosis, the right ventricle in this case being called upon to make so prolonged an effort in the performance of its work that the closure of the pulmonary valve is later than that of the aortic. There are objections to this theory advanced by high authorities, such as Guttmann and Sansom. My limited time will not permit me to consider these objections in this place. I must content myself with remarking that to me the objections offered seem to admit of plausible answers, but the alternative explanations seem improbable. The reduplicated second sound in the case of dilated heart in an anæmic boy, above cited, was probably one in which the high tension of the greater circulation, shown by the sphygmograph, together with a factor to be mentioned later, caused a prolongation of the left ventricular systole, thus causing a reduplication, in which the aortic element was the last (Fig. 4).[1]

Fig. 4.

When the peripheral resistance in both circulations is normal, reduplication of the second sound may be supposed to occur from unequal length of contraction in the ventricles, due to a preponderance of muscular degeneration or nervous derangement in one as compared to the other. Possibly the reduplicated second sound in the case of weak heart following pneumonia, cited above, was due to enduring predominant weakness of the right heart, upon which the greater strain comes in that disease. Its shorter contraction would, in that case, make the pulmonic the first element of the double sound.

It is theoretically conceivable that in mitral stenosis, for example, a time would arrive at which the ventricle upon which the extra strain was thrown would lose its power of prolonged contraction owing to advancing degeneration, and that a reduplication which was present earlier in the case would disappear. This seems to me to be the answer to Guttmann's most formidable objection to the above-accepted explanation of reduplication of the second sound in these cases, his objection being that the reduplication is often absent in the most marked examples of the lesion. Now, it is in precisely those cases in which we would expect secondary failure of the right ventricle.

Again, it is conceivable that an obstruction to either circulation which would not produce a sensible prolongation of the systole of the affected ventricle in health, might have that effect when *both* ventricles were somewhat weakened. In such a case the contraction of the unobstructed ventricle would be shorter than normal. The systole of the affected side would be longer than that of the other, but still not as long as the contraction of a healthy organ would be in parallel circumstances, *i.e.*, when acting against an obstruction which bore the same proportion to its strength. These considerations may explain why, in the case of the anæmic boy, the increased arterial resistance was able to cause a perceptible reduplication of the second sound. In the case of weak heart resulting from the abuse of alcohol and general malnutrition, the cause being a general one, both ventricles may be supposed to have been equally affected. The absence of a reduplication of the second sound in this case may have depended on the low arterial tension.

Apart, however, from all theory, as a matter of clinical observation, reduplicated second sound is so frequently associated with obstructions to the greater or lesser circulations, with lesions of the cardiac muscle, or with a combination of both, that its occurrence, as in the case of reduplication of the first sound, should lead to a careful study of the case, with a view to determining the presence or absence of important cardiac disease. In my case of weak heart following pneumonia, the reduplication of the second sound was heard, when last listened to, only at the end of inspiration and beginning of expiration, *i.e.*, it was of the normal type. The patient's condition at the time was comfortable, and an observer knowing nothing of his former history might readily have concluded that the sign was without significance. The facts that he was still slightly short of breath on exertion, that his morbid symptoms had returned under strain on two or three occasions, and that the reduplication was heard during quiet respiration, go to prove that such a conclusion would be incorrect.

Weakness of the first sound of the heart, accepted generally as an indication of cardiac debility, was present in three out of the four cases. In the case of dilated heart in an anæmic boy, however, the first sound was sharp and ringing. Reference to the sphygmographic tracing (Fig. 4) shows that the condition of high arterial tension common in anæmia was present. Recalling the fact that during ventricular systole the cavities of the ventricle and aorta are continuous, and that vascular tension is produced by the *resistance* to the flow of blood, it is at once evident why weak cardiac contraction may yet be accompanied by a loud cardiac sound.

A striking feature, however, of Cases II. and III. was that even when after treatment the ventricles were acting fairly well, as indicated by the improvement in the symptoms of the patients, yet the first sound of the heart, though stronger than before, was still noticeably weak, and there was no extra-cardiac factor, such as thickness of the chest-walls or emphysema of the lungs, to explain that weakness. On referring to the sphygmograms (Figs. 2 and 3), the explanation is obvious.

In both these cases persistent low mean arterial pressure was present, a condition due obviously to persistent dilatation of the small arteries. At the moment of the ventricular systole, therefore, the blood met with very little resistance on entering the aorta. Consequently the intracardiac pressure and the reverberation of the valves thereon depending, remained below normal in spite of the more vigorous contraction of the ventricles. It is obvious, therefore, that in interpreting the meaning of a short, weak valvular first sound, the peripheral resistance to the circulation is quite as important a factor as the strength of the ventricular contractions.[1]

Another striking point of contrast between these cases was, that in the weak irritable heart following the abuse of alcohol the second sound was loud and metallic, while that in the case of dilated heart following muscular strain was markedly weak.

Referring again to the sphygmographic tracings, in the former it will be observed that the pulse wave is pointed and the tension falls off without interruption (Figs. 1 and 2), showing a quick, sudden ventricular contraction. The semilunar valves close, of course, at the moment that the pressure in the aorta becomes greater than that in the ventricle. In this case, from the form of the ventricular contraction, it seems obvious that the valves were

[1] In the interpretation of this tracing, it is to be remembered that the patient was young (fourteen years), and his arteries therefore elastic. The rapid falling off of the primary wave is the result of this factor. The high tension of the vessel is shown by the gradual descent of the pulse wave from the "tidal wave" onward.

[1] I do not know that this condition of permanent relaxation of the peripheral arteries has been or can be regarded as a distinct pathological entity. I have somewhere seen the statement, though I have not been able to recall the reference, that persons in whom this condition exists show very little power of resistance when attacked by serious acute disease.

closed by the full force of the retraction of the aorta, unresisted by any pressure from behind. In the second case, however (Fig. 3), the presence of the tidal wave and the higher position of the aortic notch in the tracing show that the ventricle contracted more gradually, and that the aortic valves were probably closed in the face of a still advancing column of blood, their vibration being consequently weaker than in the former case. In interpreting, therefore, the meaning of a strong or a weak second sound, it is necessary to consider not only arterial tension, but also the form of the ventricular contraction. It must be remembered, however, as Cohnheim insists, that many degenerated hearts functionate in an absolutely normal manner, so long as the demands upon them are within their ability to respond. In such cases diagnosis can be made only on such evidence of cardiac distress *under strain* as the history of the patients may furnish. I am convinced, however, that closer observation and analysis of the less striking evidences of deranged cardiac action would greatly lessen the number of cases of grave cardiac lesion which remain totally unsuspected during life, with which most physicians, who have opportunities for comparing their ante-mortem diagnoses with the revelations of the autopsy room, are probably only too familiar.

In conclusion I desire to say a few words about the contrasted action of the two cardiac tonics, digitalis and caffeine, suggested by the above cases. According to the careful experiments of Riegel,[1] caffeine, like digitalis, slows the action of the heart and increases the amplitude and tension of the pulse, both in health and disease. In cardiac failure, like digitalis, it renders the heart contractions more regular, increases the amount of urine, and decreases the amount of albumen and the specific gravity. The slowing of the normal pulse by caffeine is spoken of as moderate. It differs from digitalis in its more rapid action and in the absence of cumulative effect. In some cases of failing heart caffeine was efficient after digitalis was found useless. In the above-cited case of weak heart following pneumonia, digitalis, given in doses which are ordinarily efficient, produced little or no good effect, but improvement followed at once on using caffeine. In Cases II. and III. marked improvement followed the use of digitalis. In the first case the sphygmograph showed no abnormality of the pulse tension. In the other two a permanent relaxation of the peripheral arteries was shown to exist. It is an old theoretical objection to digitalis that in a patient with degenerated heart the contraction of the peripheral arteries which it causes may more than offset its tonic effect on the cardiac muscle, the heart being unable to respond to the stimulus by virtue of its degeneration. Bramwell cautions against its use in fibroid heart on this ground. Trousseau[2] states that certain cases of dilated heart are made worse by it. It is suggestive that in the two cases cited above, that were benefited by digitalis, the tension of the pulse was only slightly increased by its administration. There seemed to exist a permanent dilatation of the peripheral arteries, upon which digitalis produced little or no effect. In the case which was not benefited, as far as could be judged from a single tracing, arterial tension was normal. It seems plausible to suppose that the contrasted effects of the two remedies may lie in the slighter influence of caffeine on the vaso-motor apparatus. This suggested explanation requires, of course, further study.

The fact remains nevertheless, that caffeine sometimes is efficient when digitalis fails. In Riegel's experience the contrary was the case in only a single instance, and in that the caffeine could not be tolerated on account of the gastric irritability and cerebral excitement which it caused. These symptoms are, however, not often produced. The greater safety and more rapid action of the drug point to it as preferable to digitalis as a cardiac tonic in heart failure occurring in acute diseases or primary degenerative processes of the cardiac muscle. The soluble and stable combinations of the drug with salicylate or benzoate of soda are to be preferred to the insoluble and unstable so-called citrate which has been long in use. It should be given in divided doses, at first small, but pushed as high as two grammes daily, according to Dujardin-Beaumetz,[1] if smaller doses are not efficient.

In my narration of cases and my comments I have probably said little that is not already known to many of my hearers. I believe, however, that cases of the kind under discussion do not, in practice, receive the recognition which their frequency and importance deserve. It has *not* been my aim to treat my subject exhaustively, but to call attention to the fact that conclusions of the greatest practical importance can be arrived at, not by rule-of-thumb diagnosis, but by careful study of the symptoms and less striking physical signs present in *individual* obscure cases of weak heart.

26 East 125th Street.

[1] Berlin. klin. Wochenschr., v. xxi., 1884, p. 289.
[2] Trousseau and Pidoux: Traité de Thérap., 9th ed., t. ii., p. 1091.

NOTE ON THE THERAPEUTICS OF HAY-FEVER (SO-CALLED).

By BEVERLEY ROBINSON, M.D.,

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The proper season for a contribution on this subject, be it never so brief, has in the opinion of many come to an end. To my mind this is not true. Of course, if I were willing to admit that "cocaine" is the panacea for this troublesome disease, as the daily press and a few of our prominent medical brethren believe, I should be willing to await the advent of another summer, or autumn, before I felt called upon to "mark time" with other observers.

But this is not my conviction. Neither cocaine nor the relative severe means of the electro-cautery appears to me essential in redeeming our hay fever victims from actual or future attacks. Within a period of a few weeks, I have been called upon to treat three sufferers from hay fever. In the first case, that of a young lady of a neighboring city, the attack of hay fever was *evidently* occasioned by a sudden and considerable fall of temperature, and had nothing to do with the *pernicious pollen*, or a *derangement of the nerve-centres*. To this patient, and in anticipation of an attack, her physician had given a four per cent. solution of hydrochlorate of cocaine. When the periodical attack of hay fever took severe hold of her, when sneezing was repeated and violent; when the conjunctivæ were red and swollen, when rest at night was impossible, on account of the severity of dyspnœa due to asthma, cocaine was repeatedly and faithfully tried. At first it was dropped into the nasal passages; later it was used in the form of a fine spray. During two days partial relief was afforded, so far as the symptoms of *sneezing* and *nasal obstruction* were concerned. Subsequently the sneezing was stopped for a short time, but the obstruction was more marked, and the asthma was not at all relieved. Thereupon I made a very thorough and complete application of carbolic acid, one part, glycerine, three parts, to the nasal mucous membrane and gave very great temporary relief, which, indeed, lasted almost twenty-four hours. The following day I repeated the local application and had no further occasion to make use of it. The sneezing, nasal obstruction, and bronchitic asthma had nearly disappeared, and a few days later my patient was entirely well.

Since the time I treated the case just reported I have had two others under my care, marked, however, by more or less continued nasal occlusion, but having already passed beyond the period of paroxysmal sneezing. In neither of these cases was there any asthma, or nota-

[1] Bull. gén. de Thérap., 1884, cvii., 97-111.

ble ocular suffusion. Cocaine had been used freely and often. It had relieved during the first few days in a temporary manner; subsequently it had increased nasal obstruction. What I have noticed in this place in regard to hay fever, I have already seen several times, where cocaine had been used frequently in the nasal passages, for other diseases, viz.; that it causes secondary occlusion of the nasal passages, due, as I believe, to a paralytic condition of the turbinated structures caused by its action. In my two late cases of hay fever I obtained notable relief by two or more applications of carbolic acid, one part, glycerine, two parts, but not to the remarkable degree that I did in my first case. I explained this by the fact that these were very different as regards the pathological conditions present. In one case there was considerable thickening of the septum, and a small bony exostosis situated posteriorly in the nasal passages; in the second case there was septal deviation and marked posterior turbinated hypertrophies with bands of membranous tissue going from the right inferior turbinated body to the posterior border of the septum. These cases were much benefited for the while by alterative ointments and applications of compound tincture of iodine. Subsequently, they may both require the use of the cautery, or that of the saw and rougene forceps. These patients' general condition was unimpaired; at all events there was no satisfactory evidence of a hyper-sensitive state of the "cervico-occipital sympathetic."

I spoke two years ago, at a meeting of the Laryngological Association, in the city of New York, of a case of hay fever much benefited by applications of carbolic acid. I again wish to direct attention to its use at the present time. I presume it does good, when it is of any use, mainly by modifying or destroying "sensitive areas of mucous membrane." I do not yet know whether it will accomplish its purpose as well as the galvano-cautery, but I have, at least, some ground for this belief.

Certainly, the cautery is not applicable to *all organic diseases* of the nasal passages, and I am, also, *now* of the belief that in the majority of cases, hay fever is quite *independent* of any morbid condition of the *nerve-centres*. It seems to me apropos to make this statement, in view of Dr. J. H. Mackenzie's elaborate, but somewhat speculative articles, all pointing to an omnipresent "rhinitis sympathetica," or of Dr. Morell Mackenzie's remarkable apology for the nearly discredited *pollen theory* of hay-fever among scientific observers.

Eating Glass for a Living.—Dr. C. C. Burke, of Texarkana, Tex., sends us the following curious account, for the authenticity of which he vouches: "I witnessed on our streets a few days ago what seemed to me to be an impossibility, a human being eating glass, I might say by the wholesale. I had heard of the negro before he reached our town, and I, like all others, disputed his ability to eat the glass without its doing him serious injury. When he arrived in our city I witnessed his exhibition, both in private and public, and I am now thoroughly satisfied, from careful examination of his mouth and throat, before and while eating the glass, that he eats it fairly and squarely. He is not very particular to chew it fine. I saw a piece in his mouth, after he had chewed it, one-quarter by one-half inch long, made into all kinds of shapes and sizes by crushing it with his teeth. He informed me that he had been at it for twenty years, and had never had the least discomfort from its effects. He told me that he has daily passages of glass through the bowels. He eats it in any quantity from a small piece to a whole lamp-chimney at a time, and keeps it up during the day, making his living by exhibiting his extraordinary power of eating glass."

Clinical.—Science is good, Experience is better, Art is best of all.

THE METRIC SYSTEM IN MEDICINE.

By LLEWELLYN ELIOT, M.D.,

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Being one of the pioneers in the introduction of the metric system of weights and measures into general use among physicians and druggists of Washington, I feel, to a certain extent, competent to judge the manner of its reception. When, in 1881, the writer made his first attempt in this direction, there were but few of our druggists able, without the assistance of tables and rules, to compound metric prescriptions. To this day there is an undercurrent of opposition to its adoption. Considered as a system its workings are as simple as are those of the old and familiar one so long in use; as to accuracy there is but little or no appreciable difference. For simplicity of rules for conversion and reconversion of quantities it is unequalled. Still, with all of these advantages, it will be many years before its general adoption. Its scale—deci, centi, milli, deca, hecto, kilo—is as simple of application and as easy to remember as the grains, drachms, and ounces of the old system. With the educators, medical and pharmacal, rests the ultimate success and adoption of this method of prescribing and compounding prescriptions, but compulsory measures will undoubtedly fail.

The table which is given below is one which I prepared some years ago, and has a degree of exactness which the revised or American system lacks. By reference to it we see that it is based upon .067 gm. (sixty-seven milligrammes), and to correctly follow it there must be three decimal figures. In expressing any quantity of grammes the word gramme should be abbreviated and underscored, thus, gm. The terms decigramme, centigramme, milligramme must never be used except in reading the quantity; in this way mistakes will be avoided. A good way to preserve regularity and prevent errors on the part of the prescriber, as well as on the part of the druggist, is to have a line running down the blank used, to take the place of the decimal point.

Table of Metric Equivalents.

Gr. or Min.		Gm. or C.c.	Gr. or Min.		Gm. or C.c.	Gr. or Min.		Gm. or C.c.
1/1000	=	.0001675	1/8	=	.022	22	=	1.466
1/2500	=	.00026	1/2	=	.033	24	=	1.600
1/3000	=	.00033	3/4	=	.050	26	=	1.733
1/1875	=	.00050	1	=	.067	28	=	1.866
1/1000	=	.00067	1 1/2	=	.100	30	=	2.000
1/960	=	.00065	2	=	.133	32	=	2.133
1/800	=	.00083	3	=	.200	33	=	2.200
1/600	=	.0010	4	=	.267	34	=	2.267
1/500	=	.0011	5	=	.333	36	=	2.400
1/375	=	.00134	6	=	.400	38	=	2.533
1/288	=	.0013	7	=	.467	39	=	2.600
1/300	=	.001675	8	=	.533	40	=	2.667
1/272	=	.0020	9	=	.600	42	=	2.800
1/244	=	.0025	10	=	.67	44	=	2.933
1/300	=	.0033	11	=	.733	45	=	3.000
1/256	=	.0041	12	=	.800	46	=	3.067
1/192	=	.0055	13	=	.867	48	=	3.200
1/150	=	.0066	14	=	.963	50	=	3.333
1/128	=	.008	15	=	1.000	56	=	3.733
1/96	=	.011	16	=	1.067	60	=	4.000
1/75	=	.0134	18	=	1.200			
1/64	=	.01675	20	=	1.333			

1 gr. or min.	= .067 gm. or c.c.		1/8 inch	=	.0125 mm.
1 dr.	= 4. gm. or c.c.		1/4 inch	=	.00625 mm.
1 oz.	= 32. gm. or c.c.		1 kilo	=	1,000 gms.
1 inch	= .025 mm.		1 litre	=	32 oz.

The following rules will be found of service in teaching and studying this system:

1. To convert troy grains or minims into grammes or cubic centimetres: Divide the number by 10, and from the quotient subtract one-third.

2. To convert apothecaries' or fluidrachms into

grammes or cubic centimetres: Multiply the number by 4.

3. To convert troy or fluid ounces into grammes or cubic centimetres: Multiply the number by 32.

4. To convert grammes or cubic centimetres into troy grains or minims: Add fifty per cent., or one-half the number, and then multiply by 10.

5. To convert grammes or cubic centimetres into apothecaries' or fluidrachms: Divide by 4.

6. To convert grammes or cubic centimetres into troy or fluid ounces: Divide by 32.

7. To convert inches into metres: Divide by 40.

8. To convert metres into inches: Add ten per cent., or one-tenth the number, and then multiply by 36.

510 E STREET, N. W., September 29, 1885.

THE COMPARATIVE RESULTS OF OPERATIONS IN BELLEVUE HOSPITAL.

By STEPHEN SMITH, M.D.,

SURGEON TO BELLEVUE HOSPITAL, NEW YORK.

As we drift with current events, we but imperfectly estimate the real advance which any art or science, with which we are daily familiar, has made within a limited period. It is only when we considerately pause and deliberately compare, in detail, past methods and results with those now practised and obtained, that we fully appreciate the vast changes which have so insidiously and imperceptibly taken place.

Perhaps there is no better place in which to test the progress of practical and operative surgery than the wards of Bellevue Hospital. This ancient institution has within its walls and its immediate environments all the conditions that in modern times are regarded as unhealthful and unsanitary. It was built between the years 1811–16, on the made lands of a cove of East River, without drainage, or adequate sewerage, and without regard to ventilation. During nearly three-fourths of a century the sluggish tides have ebbed and flowed through the sodden soil of its foundation, depositing far more filth than they have removed. Since its occupation it has been used for a prison, an almshouse, and a hospital. Its wards have, from time to time, been crowded with patients suffering from all forms of contagious and infectious diseases. It has been the common receptacle of typhus and typhoid fevers, small-pox, puerperal fever, cholera, and yellow fever. Although many changes have been made in its interior, yet the great and most serious defects of location and construction have remained unaltered, and may be regarded as permanent.

Bellevue may be regarded as having been a surgical hospital only since 1850, a period of about thirty-five years, during most of which period I have been personally very familiar with the practice in the several surgical divisions. The amount of surgery in the wards of Bellevue has been a gradual increase. With the removal of the New York Hospital, and during the long interval of its non-existence, the surgical practice of Bellevue became large and important, and has remained so to the present time. The surgeons of Bellevue have always ranked among the best in the city, and, as much of their practice in hospital has been public and clinical, it must be assumed that they have endeavored to the best of their ability to illustrate to their classes the highest type and best results of the science and art of surgery of their day. And yet the practice of surgery in Bellevue Hospital has, within the period mentioned, undergone so complete a revolution that one of the older surgeons would scarcely realize that he was in the same hospital where he had practised a decade ago. He would see, with horror, operations fearlessly performed that he had formerly regarded as without the pale of legitimate surgery. He would witness procedures in the after-treatment of operations which would seem to him to be fantastic, and even ludicrous. His astonishment would be extreme on finding that the first week passed without fever, and that no change in the dressings had been made. But, perhaps, the most remarkable feature of modern practice would be the rapid convalescence and final complete recovery without complication or exhaustion of ordinary operations, which formerly gave so much trouble and anxiety. To make more evident the change in practice, we may contrast in detail the several steps of operations in general, and of individual cases, the methods of treatment, and the results.

The older surgeons of Bellevue Hospital had practised in the period anterior to the use of anæsthetics. The most important general principle governing the operator was *celerity*—in order to limit as much as possible the amount of pain. Long after anæsthetics came into general use surgeons dwelt with much emphasis upon the necessity of cultivating the habit of operating rapidly. The preparations for an operation were all made with reference to this one feature. So much did this thought absorb the operator that he often became excited and annoyed by the delay. One surgeon, noted for the rapidity of his operations, was often seen, during the last moments of preparation for an amputation, to seize involuntarily the saw and move it rapidly, as if sawing a bone. Now, while every surgeon aims to diminish the period of anæsthesia, mere haste at an operation is only mentioned to be condemned. No part of the elaborate preparations are designed to render the operation simply more rapid. One thought and purpose occupy the mind of the surgeon, and that is recovery without suppuration. To this end all his preparations are made, and the entire procedure is subordinated. Formerly the surgeon prepared his instruments only by keeping them free from rust, and giving them a fine edge. When he operated the instruments were taken from the case, and, without any cleansing, were so placed that he could most readily select the one required. During the operation he laid them down, or dropped them, and without cleaning applied them again to the wound. Now instruments are not only protected from rust and all soiling and kept sharp, but long before the operation they are placed in a carbolic solution, in order that any possible septic matter on them or their handles may be destroyed.

During the operation one assistant devotes himself entirely to the duty of handing the instruments to the operator, and of receiving them from him and at once submerging them in the disinfectant liquid. To avoid the possibility of laying an instrument down on an unclean surface, and then putting it in the wound soiled, towels wrung out of the antiseptic fluid are spread around the wound.

In preparing a part for an operation, as amputation, the surgeon used to do nothing farther than, perhaps, to have superfluous hair shaved off, and that, too, often without soap and water. Patients brought directly from the street or shop, with limbs begrimed with dirt and filth, were subjected to operations without bathing. Even when there was ample time for preparation little or no thought was given to the immediate condition of the part about to be incised. The accumulated secretions of the skin, and the dead epidermis, charged with poisonous animal matters, became part of the wound and its immediate surroundings. Through this layer of filth the surgeon passed his knife into the living tissues beneath, conveying to the deepest parts of the wound matters of untold septic virulence. In this simple failure to secure ordinary cleanliness of the surface, more wounds were poisoned and induced to suppurate than from any other cause. In the closure of the wound the filthy margins were often brought in direct contact with the cut surfaces, and thus the propagation of the germs of fermentation or putrefaction were implanted in a fertile soil. Now, the greatest pains are taken to cleanse the part about to be operated upon. In addition to a general bath, the entire limb, including the hand or foot,

is washed with soap and water, with a flesh-brush, and all the hairs are shaved cleanly from the part. This washing is followed by a douche of an antiseptic solution, and then all the parts adjacent to the wound are covered with towels, wrung out of bichloride solution.

The personal preparation of the surgeon and his assistants for the operation was limited to self-protection against soiling their clothes or person. No special thought was ever given to the condition of the hands and nails. The assistants came directly from other ward duties, their hands soiled by contact with the thousand impure matters which they must handle, and with slight or no washing, engaged actively in the manipulations of the operation. Now the surgeon and his assistants take infinite pains with their hands. Soap and water and the flesh-brush are brought into active use, to be followed by a douche of bichloride solution. The nails, the most fertile source of filth in the body, are rendered scrupulously clean. Many will recall with a shudder the long claw-like nail of one surgeon, which penetrated, unwashed, every wound where he was present. Not only is no bystander invited to put his finger in the wound, but scarcely an attendant at Bellevue would allow such an intrusion.

The sponges of former times were universally believed to be the carriers of filth to the wounds, and yet little was done to purify them except to cleanse them in water. They may have been boiled at first to free them from sand, but they were not purified by any adequate means when first prepared, nor after their use in suppurating wounds. Now, the process of purification of sponges is elaborate in the extreme, and is so exact in details as to render them positively harmless in wounds.

The ordinary silk ligatures were formerly regarded as necessarily foreign bodies in wounds, and no care was taken of them to improve their condition. They were carried about in any convenient pocket, and at the operation the silk was cut of proper lengths, waxed, and then drawn through a buttonhole of an assistant, or laid on any convenient surface. Now, the ligature thread undergoes a long process of cleansing and disinfection at the hands of a chemist, and is then applied to a reel enclosed in a corked bottle filled with antiseptic fluid. From this bottle it is removed only as it is drawn out at the moment of using it. Considering the well-recognized fact that the ligature, as formerly used, was an intense irritant to wounds, it is not surprising that surgeons applied as few as possible. From time to time they resorted to other methods of closing arteries, as by torsion, or metallic wires, to avoid the use of silk. But all these devices bore no comparison to the simple and efficient antiseptic ligature of to-day. Reeled off from the bottle, clean, strong, and supple, the surgeon applies them without other limit than the complete suppression of hemorrhage.

Recognizing the silk ligature as an irritant, the surgeon always used to cut off but one end, and left the other end depending from the wound, to be removed by traction when it had finally separated from the end of the vessel to which it had been applied. And well and faithfully did the ligature meet its indications, for, during the first week, the most critical period in the history of the wound, it did not fail to induce free, and often profuse, suppuration. But now, not only does the surgeon freely apply the ligature, but he cuts off both ends, and closes the wound as completely as if there was no foreign substance left between its surfaces. Nor is he disappointed. No suppuration follows the presence of the ligatures, and union takes place as promptly as if no ligatures had been used. The operation being completed in the shortest possible time, the operator concluded by exploring all parts of the wound with his unwashed fingers. If it was a hernia, he thrust his fingers as far into the abdominal cavity as possible, and explored it freely. This act completed, it was a very common occurrence, also, for the surgeon to invite any bystander to examine the wound with his fingers, and sometimes several persons would avail themselves of the opportunity to improve their tactual sensibilities.

Many a wound, that may possibly have escaped previous poisoning at the hands of the operator and his instruments, has received its final charge of septic matters from the dirty fingers of a casual looker-on. Now, the most scrupulous care is taken to protect the wound from injury, either at the hands of the surgeon or his assistants. Exploration is cautiously made with fingers cleansed and disinfected, and even that act is completed by a douche, over the entire surface examined, of the bichloride solution. If the finger of a bystander were introduced into the wound unwashed and undisinfected, the surgeon would regard the act as probably fatal to recovery without suppuration. Hence, no one is now invited by courtesy, or to obtain an opinion, to examine the wound by digital exploration unless they have made due preparation for the act.

In closing an ordinary wound the surgeon formerly took great pains to provide for the drainage of pus. The most dependent part of the wound was left open, and all of the ligatures were drawn out at that point. The edges of the skin were brought into apposition by the interrupted suture, at intervals of half an inch, and the intervening skin was approximated by adhesive plaster. The suture and adhesive plaster were alike unprepared by any process that would relieve them of filth, and far too often both contained the germs of putrefaction. Now the surgeon employs sutures that, like the ligatures, have been relieved of all possible elements of poisoning, both in their preparation and in the method of preserving them. In closing the wound he aims to avoid suppuration altogether, and to secure the immediate union of parts. The suture being non-irritating, he freely stitches together all the deeper structures first, wherever they can be approximated, and then the more superficial parts are brought into firm and exact apposition. Instead of the interrupted suture, which leaves the wound gaping at intervals, and necessitates the use of adhesive plaster, he employs the uninterrupted, or glover's suture, which closes the wound throughout, and relieves it of all necessity of additional support. Wherever there is liability of the collection of fluid from the immediate drainage of the surface of the wound, he inserts a drainage-tube, as a temporary expedient to prevent distention of the wound, and possible putrefaction. The advantages of this latter dressing over the former are apparent. No irritant is allowed to enter the wound. The suturing of the deeper structures brings into close and permanent apposition parts that formerly separated.

The continuous suture has great advantages over the interrupted suture, especially when it is taken deeply in the margins of the wound. It not only brings the surfaces into firm apposition at the points where it traverses the wound, but by whipping the edges, in the parlance of the tailor, where it passes over the wound externally, it relieves us of the necessity of any additional supporting dressings. The advantages of this method of dressing, therefore, are great, and, indeed, vital, in the effort to secure immediate union.

The final dressing of the wound formerly was the adhesive plaster and the bandage for support and retention. The plaster was never rendered aseptic, and by its close relations to the wound was dangerous. The bandage was usually of unbleached muslin, and had no special cleansing or preparation for the wound. It may not have been harmful, but it added to the risks of infection. Now, the wound once closed, is protected from external infection by dusting the surfaces with iodoform. Then pads of disinfected materials, with iodoform sprinkled between the layers, are applied; sometimes over a large area around the wound, and in considerable numbers. The whole is retained by bandages of disinfected materials, carefully preserved in a disinfected atmosphere. The

addition of these external dressings, prepared with so much care, and adjusted with so much painstaking, has been very much criticised. It is possible that they are often unduly multiplied, but the results justify the faith which so many surgeons have in them.

In speaking of the closure of wounds, it should be stated that while the older surgeons did not close many wounds, as those of exsection, surgeons now close all such wounds. This difference in treatment is one of the most striking features in the comparison of the surgery of the present time and that of a decade past. The former surgeon prepared the wound for suppuration, the later surgeon dressed it as for union without suppuration. Both uniformly realized their expectation.

If we follow the wounds treated by these two methods from the first to the last dressings, the contrast is remarkable. If the wound were large, on the second or third day the fever formerly began, announcing suppuration, and from this date, for weeks after, the dressings were changed daily, one, two, or three times. The pus-basin, the irrigator, and the dressing-forceps were in constant demand. In many wounds the suppuration was so profuse that vessels were placed under them which received the continuous discharge. The fever generally ran high, with consequent exhaustion and depression of the patient. Septicæmia, as we now understand it, was the intermediary fever of that day, and was regarded as a usual, if not a necessary, sequel of all considerable operations. Following this fever, or rather insidiously engrafted upon it, were chills, fever, and profuse sweatings, now recognized as pyæmia, but then regarded as only another stage of surgical fever. Few indeed survived this fever; and in the diffused or metastatic abscesses revealed at the autopsy the surgeon discovered a cause of death quite beyond his power to prevent, control, or even comprehend. The vast change in the progress of operated cases during the past ten years can scarcely be realized. Surgical fever, with all its disastrous variations, is, in practice, rare in Bellevue Hospital. Pus, as an outcome of surgical operations, is a thing of the past. On one occasion last winter, a teacher in one of the medical colleges sent to the wards of Bellevue for a specimen of pus for exhibition to his class, but none was to be found in the four surgical divisions of the hospital, although there was at that time an unusually large number of wounds and operated cases under active treatment. The wound is now dressed with no expectation that fever will rise, or that suppuration will occur, or that the dressings will require renewal on account of the presence of pus. The patient sleeps and eats well from the first, and the surgeon removes the dressing, often only to find the wound united. This remark is true, not only of incised wounds, but equally of wounds of amputation, excision, ligation of arteries, etc.

If now we turn from this review of the several stages of operations in general to particular operations, we find many curious illustrations of the remarkable progress of practical surgery in this hospital. It must be understood that in every operation all of the general precautionary measures already described are scrupulously taken and carried out, and, therefore, only special differences in treatment will be mentioned.

Compound fractures were formerly regarded as proper cases for amputation, if the local injury exceeded a single fracture, with a simple penetration of the soft tissues. And even the simplest cases of compound fracture were reserved for treatment with many misgivings as to the result. The dictum of Hunter that "compound fractures commonly suppurate" was ever the guiding principle in the mind of the surgeon. If, therefore, the wound was extensive, or the bones comminuted, or a joint involved, amputation was the rule. If it were decided to endeavor to save the limb, the only measures adopted were sealing the external wound with some imperfect substance, and placing the limb in a comfortable position. The old fracture-box for the leg and the fenestrated gypsum bandage were the only measures employed. The fracture-box, with its bed of bran or sawdust, was regarded as a remarkable advance in the treatment of compound fractures of the tibia. Placed in the box, with the foot fixed to the foot-board, the wound was covered with bran, and suppuration allowed to go on *ad libitum* and *ad infinitum*. The contrivance had no merit whatever. On the contrary, it greatly aggravated the suppuration by fixing the lower fragment, while it allowed the upper fragment to move freely upon it every time the patient moved. The gypsum splint and bandage had the merit of keeping, or aiming to keep, both fragments at perfect rest. This method of treating compound fractures was a real step in advance, but it did not prevent suppuration in some measure. To-day compound fractures are welcomed to the wards of Bellevue as a class of cases which give the most satisfactory results.

Amputation is not thought of unless arteries and nerves are so far destroyed that death of the extremity must follow. Even when the wound involves a joint, the question of amputation is not more pressing. The treatment pursued is designed—1, to remove from the wound every particle of matter liable to injure the tissues and induce suppuration; 2, to place in fixed apposition all of the tissues composing the wound; 3, to cleanse and disinfect the wound, and protect it from becoming soiled during recovery; 4, to protect the wound from any movement of the parts entering into it while the process of repair is going on. The procedure, so far as concerns the wound, consists in freely exposing the injured parts by incision, removing all effusions of blood, shreds of injured tissue, fragments of bone, and then wiring the bones together so that fractured parts exactly fit each other, next stitching together all cut or torn tissues with prepared catgut thread, as far as they can be brought together; then the final closure of the wound, except where a drainage-tube may be inserted into a cavity of the deep parts; and, finally, the external antiseptic dressings and a light bandage of plaster-of-Paris, and over all a wire-gauze splint for suspension. This treatment of compound fractures is so uniformly successful that the surgeon has none of that care and anxiety after the final dressings which formerly harassed him. If there should be symptoms indicating suppuration, the dressings are at once removed, and the source of the trouble searched out and destroyed.

Amputation wounds rarely, if ever, recovered at Bellevue, except after long-continued suppuration. From the smaller amputations patients recovered in due time, but often greatly enfeebled by the drain of suppuration. The larger amputations were terribly fatal. A resident surgeon once made the statement that a recovery after amputation of the thigh had not occurred in Bellevue Hospital "since the time that the memory of man runneth not to the contrary." Though this remark was not strictly true, it had a painful significance to the surgeons of that period. Suppuration, with its sequelæ, septicæmic, pyæmic, and hectic fevers, was the scourge of the surgical wards. The open method of treatment of amputation wounds, advocated by Dr. James R. Wood, had only the merit of not confining the pus within the wounds, and of thus diminishing somewhat the liabilities of septicæmia and pyæmia. It did not prevent suppuration, the source of all the evil. The treatment consisted in closing the upper part of the wound, and placing the stump in such position that the pus flowed freely out into a vessel placed to receive it. The period of suppuration was undoubtedly diminished by this free exposure of the wound to the air, and the application of balsam of Peru, a favorite remedy with Dr. Wood. The open method was, therefore, a decided improvement upon the old method of closing wounds, but it came far short of the present method, which prevents suppuration altogether, or reduces it to a minimum. Except for the unfavorable conditions incident to the injury, amputations

are now among the most successful operations at Bellevue. Death, by suppuration and its results, does not occur.

Excision of the larger joints was formerly a most doubtful and dangerous operation. The wounds were flooded with pus for months; and if the patient survived, it was only after the most desperate struggle. The specimens of exsected joints in the Wood Museum, honeycombed with channels through which pus flowed out from the deeper parts of the wound, will be lasting witnesses to the destructive pathological processes which the surgeons of a former period could not avert, and which brought to an untimely issue the best-planned operations. In dressing exsection wounds the older surgeons made ample preparation for suppuration. The wound was left open, and the limb was placed in such position as would allow the pus to escape most freely. For months the patient lay in the same position, wasting under the excessive drain, and often having as a dreaded complication extensive bed-sores. Now the surgeon completes the operation by firmly and accurately closing the wound at all points, except where the drainage-tube emerges. This tube is used only for the temporary purposes of relieving the wound of accumulating serous fluid, and is soon removed. As a rule, excision wounds now do not suppurate; union takes place by rapid and healthy granulation.

During the past year or two we have had under observation many cases of excision of the knee-joint, the hip-joint, the elbow-joint, and the ankle-joint, which have been repaired without suppuration. In one instance of an old and destructive inflammation of the ankle-joint the articular ends of the tibia and fibula, the surfaces of the astragalus and os calces, and all of the surrounding tissues had to be thoroughly scraped to remove the dead bone and fungous granulations. When the cavity was prepared for dressing it was enormous. But as all diseased structures seemed to be removed, and the wound appeared everywhere clean, it was dressed for union without suppuration. The wound did heal without other suppuration than a slight amount of pus, which discharged from a small carious surface. The health of the patient began at once to improve, and in due time she was about the ward, on crutches. We may now say of excisions as of amputations, that they are regarded as simple and very safe operations.

The ligation of large arteries was formerly justly estimated as a very serious operation. The common silk ligature, prepared by unwashed hands, was left depending from the wound. To do its work properly it must in due time sever the strangulated artery by the ulcerative process, and then be removed by traction. With the keenest and often most painful anxiety, the surgeon daily watched the wound to note the amount of suppuration, and gently tested the firmness of the ligature. If after the separation of the ligature the suppuration diminished, and finally ceased, the surgeon was happy and boastful of his success. But far too often the suppuration did not diminish, and to the dismay of the surgeon a slight oozing or gush of blood indicated to his practised eye a fatal issue by secondary hemorrhage.

How desperately yet vainly he struggled against fate, by resorting to pressure, position, styptics, etc., the older surgeons can alone realize. The repeated hemorrhages, or uncontrollable outburst, at length placed the case in the category of unsuccessful operations. Now, how completely are all the conditions of the operation changed! It is no longer necessary to divide the artery by the ligature to accomplish our object, and thus endanger life by hemorrhage; but, on the contrary, we seek, while we interrupt the circulation sufficiently to effect our purpose, to strengthen the artery by our operation. The indications now are the opposite of those which before obtained. The ligature now selected is non-irritating, and preferably absorbable, as catgut. When applied, it may, or may not, divide the internal coats of the artery. In either case the wound is completely closed and no suppuration occurs. In the repair the artery enlarges externally at the seat of the operation by nutritive action, while the coagula organizes internally and closes its calibre. Secondary hemorrhage after the ligation of arteries has, therefore, become an incident of the past. The conditions no longer exist which make it possible. Ligation of the common carotid is a familiar operation at Bellevue, and was often performed with great skill by Dr. Wood, who published an elaborate monograph on that subject. I aided him in the examination and collection of cases, and in the preparation of the text, and was impressed with the destructive effects of the ulcerative process which attends the separation of the ligature. Some time since I had occasion to ligate this artery, and applied the catgut ligature, cutting both ends close to the knot, and closing the wound perfectly. Union promptly followed, and nothing farther was seen of the ligature. The patient died at the end of two months of cancer of the mouth and pharynx, and the autopsy revealed an enlargement of the artery at the seat of the ligature to twice its normal size, by a ring of new tissue completely encircling it. On incising the artery at this point, the remains of the ligature were found in this ring, and the coagula had organized and closed its cavity permanently. It was evident that the ligature had greatly strengthened the artery instead of destroying it, as in the old operation.

It follows that, if the major operations are now performed with so much success, the minor operations are correspondingly successful. If we take as an example the treatment of cold abscesses, the improvement is very noticeable. Formerly a cold abscess unconnected with bone, as in the thigh or on the back, were preferably allowed to open themselves. If the surgeon ventured to operate, he usually made a "valvular incision," and allowed part of the contents to flow out, and then closed the wound. This operation was repeated many times. When aspiration was introduced, it was regarded as a great advance. The fear of the surgeon was that air would enter the abscess cavity, and set up active suppuration. I recall a case of large abscess of the back, in a young woman, which, after consultation and much deliberation, Dr. Van Buren ventured to puncture directly. The interest taken in this bold operation was very great, and the progress of the case was watched with much anxiety by the operator. Profuse suppuration followed, and the patient nearly lost her life. Now these abscesses are promptly cured and without suppuration, by opening them freely, and, with the curette, scraping out all the old granulations and diseased tissues; then thoroughly cleansing the cavity with bichloride solutions, and finally pressing the walls gently together with disinfected sponges and bandages, or other antiseptic dressings. The walls of these abscesses, sometimes of enormous size, and many square feet of surface, promptly unite, and often under the first dressings.

And not less important is the change in the treatment of abscesses connected with carious bone. Abscesses in the lumbar and femoral regions, caused by caries of the spine, were once greatly feared at Bellevue.

Billroth's advice was very rigidly followed, viz.: "If the abscess comes from a bone on which an operation is impossible or undesirable, do not meddle with it, but be thankful for every day that it remains closed, and wait quietly until it opens, for thus there will be relatively the least danger." Now these abscesses are immediately opened and kept thoroughly cleansed, together with their sinuses, by bichloride solutions, with a marked diminution, and in some cases, a complete suppression of suppuration. In several instances of both lumbar and femoral abscess from spinal caries incisions have been freely made, the pus evacuated, and by means of the soft rubber catheter gently passed along the sinus, the carious abscess itself has been thoroughly and repeatedly cleansed and disinfected with carbolic or bichloride solutions, followed by rapid diminution and final complete cessation

of suppuration. Meantime, the patients have rapidly recovered from the symptoms of blood-poisoning from which they have been suffering.

At a recent period a method of treating large abscesses and diffused collections of pus in cellular tissue by the introduction of large perforated drainage-tubes was practised. Through these tubes the antiseptic solutions were frequently injected, with a view to irrigate the diseased surfaces and tissues. It was a most unscientific method, and was soon abandoned. Instead of it, we have the present rational practice of carefully opening all collections of pus, cleansing the cavities, removing all granulations and other diseased tissues, and closing the wound permanently. The former method often resulted most disastrously, the present never fails of complete success when properly performed.

Perhaps the most marked illustration of the great improvement in operative surgery in Bellevue may be found in the unvarying success which attends the treatment of simple fracture of the patella by wiring together the fragments. It was eminently fitting that this operation, so novel and startling as to be received with almost universal ridicule by older surgeons, should have first been proposed by the great apostle of antiseptic surgery. By proposing and successfully executing this operation, he expressed his faith in his teachings in form more emphatic and convincing than language could. This procedure does, indeed, embody the very spirit and genius of the surgery of to-day, viz.: Boldness to audacity in the conception of an operation, and conservatism the most absolute in the method and means employed in executing it. And yet this operation is now accepted as legitimate in Bellevue, and is of almost weekly occurrence in one or the other of its surgical divisions. And no operation, so inherently dangerous when performed according to old methods, has ever proved more successful. It has now been performed in more than a score of cases without an unfavorable result.

Though this paper was to be limited to a review of the comparative results of the ordinary surgical practices of Bellevue, formerly, and now, with a brief commentary upon the means and methods employed, I cannot pass unnoticed the success which attends the practice of gynecology in that hospital. The surgery of the pelvic organs of the female is based on the same principles as those which govern the general practice of surgery in Bellevue. And the results are equally remarkable.

Septicæmia and pyæmia are almost unknown in the pavilion devoted to this branch of surgery, and recovery after operations is rapid and complete, unless the case is complicated with conditions quite beyond control. The following statistics show the great success of operations in this branch of practice at Bellevue. Dr. Wylie states that since November, 1883, he has performed laparotomy thirty times, chiefly in the Marquand and Sturgis pavilions, with five deaths. Of the cases proving fatal, two were hysterectomies, one for cancer of the uterus and the other for a myoma weighing fifty pounds; two were cases of pelvic abscess, complicated with purulent collections in the fallopian tubes. All of the cases of ovarian cysts recovered.

In reviewing the surgical practice of Bellevue, it is not difficult to determine the essential feature of the present methods as compared with those of the past. Cleanliness is the one great object sought to be attained in all operations. Whatever may be the final conclusion of scientific students as to the cause of putrefaction in wounds, practically it is determined that the surgeon may, with the most absolute certainty, protect an ordinary open wound from suppuration. To effect this object he finds that he has simply to resort to those measures which are known to secure perfect cleanliness of the wound. The agents now relied upon and found efficient are: 1. Soap and water to external parts. 2. Carbolic solutions for the instruments. 3. Bichloride solutions to all surfaces and tissues. 4. Iodoform for external dressings. We may summarize the conditions regarded as essential to success as follows, viz.: *A clean operator; clean assistants; a clean patient; clean instruments; clean dressings.*

COCAINE IN BONE SURGERY.

By MILTON JOSIAH ROBERTS, M.D.,

PROFESSOR OF ORTHOPEDIC SURGERY AND MECHANICAL THERAPEUTICS IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL, VISITING ORTHOPEDIC SURGEON TO THE CITY HOSPITALS ON RANDALL'S ISLAND, ETC.

To Dr. C. Koller, of Vienna, the civilized world is indebted for the practical suggestions which have led to the widespread use of cocaine as a local anæsthetic. The results already obtained by numerous clinicians and scientific observers, along the line of research originally pointed out by Koller, form a phenomenal chapter in the progress of knowledge regarding relief from pain. But it has been in the application of the drug to mucous membranes that its most brilliant and beneficial effects have been obtained. The results of its hypodermatic use in other localities, though exceedingly gratifying, did not give promise of all that was desired in the way of a local anæsthetic. Thus used its effects were so transient and limited in extent as to require the administration of an excessive amount of the drug, which in turn gave rise to unpleasant constitutional disturbances.

It remained for the genius of Dr. J. Leonard Corning,[1] of New York, to point out and experimentally demonstrate the value of a fundamental departure in the method of its administration, which is to yield by far the most extraordinary practical results yet obtained in its local use as an anæsthetic.

In brief, Dr. Corning's experiments showed "that simple arrest of the circulation in the part, shortly after injecting the anæsthetic, is sufficient to prolong and intensify the anæsthesia." It is clear, therefore, that circulating blood is the active agent in washing the drug out of the tissues into which it has been injected, and thereby shortening the period of anæsthesia.

September 30, 1885, I performed a minor surgical operation in soft tissues, upon a delicate young lady patient in my office, Dr. Corning kindly administering the local anæsthetic according to his method. The profound anæsthesia produced, the small amount of cocaine used, and the great duration of its effects were gratifying surprises to me. For the first time it now seemed probable to me that in the use of cocaine according to this method, I was shortly to realize the practical execution of an idea which I have long cherished, viz., the local anæsthetization of bone and overlying soft tissues.

On the following day (October 1, 1885), having pondered over the subject, I ventured to predict, at my clinic at the New York Post-Graduate Medical School and Hospital, the successful application of this method in bone surgery; I proceeded to detail, on that occasion, the plan which I would try when the first opportunity presented itself. I called attention to the great convenience of the local anæsthetization of bone in the elaboration of the line of work proposed by me in February last.[2]

Assisted by Drs. George R. Elliott and Charles E. Bruce, on Wednesday, October 14, 1885, at the New York Post-Graduate Medical School and Hospital, I proceeded as follows, with a young lady brought to me by Dr. Martin Burke, of this city: She was twenty-seven years of age, and suffered from chronic disease of her elbow-joint of several years' standing. Pus was being discharged from three openings about the joint. The tissues round about were infiltrated with inflammatory

[1] On the Prolongation of the Anæsthetic Effects of the Hydrochlorate of Cocaine when Subcutaneously Injected. An Experimental Study. By J. Leonard Corning, M.D., *vide* New York Medical Journal, September 19, 1885.

[2] The Exploration, Excavation, and Illumination of the Interior of Bones in any Part of the Body. Being Remarks addressed to the Clinical Society of the New York Post-Graduate Medical School and Hospital, February 21, 1885.

products and œdematous. The patient came into the operating-room fully expecting to have ether administered, and when told that a local anæsthetic was to be used, was so apprehensive of pain from the proposed operation, that it was with great difficulty that she could be persuaded to get upon the operating-table. She was weak from hunger and anxiety regarding the operation. An ounce of brandy, in water, was given her.

Having provided myself with a hypodermic syringe, loaded with a five per cent. solution of Merck's cocaine, I began puncturing the skin, injecting at each point about one minim of the solution as near the surface as possible. The area over which these injections were made was an extensive one, covering a segment of the limb from about three and a half inches above the joint to an equal distance below the joint, and involving its entire circumference. It was observed that the diffusion of the anæsthetic drug was very slow, on account of the infiltration of the tissues with inflammatory products, thus interfering with the local circulation, and consequently with the distribution of the drug. About twenty punctures were made, and a like number of minims of the solution, representing a grain of the drug, injected. At the expiration of about fifteen minutes an Esmarch's bandage was applied to the limb, extending from the tips of the fingers to within three and a half inches of the elbow-joint. The object of this was, in the first place, to get as much blood as possible out of the limb prior to beginning the operation, and, in the second place, to relieve the patient of the sensation of engorgement of the limb when subsequently girdled with an elastic band above the joint.

Superficial anæsthesia having been secured, the deeper tissues were penetrated by the needle, and about two minims of the solution injected at each point. The patient no longer winced under the repeated introductions of the needle. The evidences of profound anæsthesia were now manifest to all present, though the patient was still exceedingly apprehensive of pain. The arm was next encircled with a strong elastic band, at a point about four inches above the elbow-joint. With a scalpel a five-and-a-half inch longitudinal incision over the external condyle of the humerus and to the outside of the olecranon process was made, in order to connect two openings from which pus was being discharged. The patient's head being turned, she did not realize that the knife had been used.

Having reached the bone in the neighborhood of the external condyle, the needle of the syringe was introduced under the periosteum in several places and minim injections of the cocaine solution made.

For the purpose of locating the bone lesion and determining its extent, I introduced a drill one-sixteenth of an inch in diameter into the head-piece of my electro-osteotome, closed the circuit, and rapidly penetrated the condyles of the humerus. No pain whatever was experienced by the patient. As the drill passed transversely through the lower end of the bone, I could easily appreciate that it had entered a cavity. Upon withdrawing the drill, the débris lying in its groove was, at my request, immediately submitted to microscopical examination by Dr. George R. Elliott. He reported that the specimen removed was composed of bone spiculæ, fat-droplets, a few red blood-corpuscles, and numerous pus-cells. The lacunæ in the particles of bone removed were variously arranged in comparison with each other, and presented an abnormal appearance. In many of the minute spiculæ of bone the canaliculæ were absent and replaced by fat-droplets. In small areas also the intervening substances was entirely composed of fat-droplets. Fat-droplets were also to be seen in the corpuscles occupying the lacunæ. These findings were regarded as indicating beyond all doubt the existence of a carious process.

In order to explore the site of disease more thoroughly, I introduced a quarter-inch drill into the electro-osteotome and followed the path made by the smaller one through the bone. Absolutely no pain was experienced by the patient in the passage of this large drill. Upon its withdrawal and examination of the cavity by means of a probe it was found that the dissolution of the internal condyle of the humerus was nearly complete. The cavity was cleaned out, the soft tissues on the inner aspect of the arm punctured, and a drainage tube introduced.

It was still uncertain, however, whether the other bones entering into the formation of the joint were involved in the carious process. To determine this I again made use of a small drill, transversely penetrating the ulna on a level with the coronoid process. Again my patient manifested no discomfort. The débris lodged in the groove of the drill was at once kindly examined microscopically, by Dr. Elliott. He found it to be composed of small bone spiculæ which presented a perfectly healthy appearance. No further exploratory punctures of bone were deemed necessary. A second drainage-tube was introduced through an opening which existed on the lower posterior aspect of the arm and was passed through a counter-opening on the upper and inner aspect of the forearm. The longitudinal incision in the soft parts was closed by interrupted sutures, antiseptic dressings applied, and the patient permitted to go home.

Clinical Department.

LAPAROTOMY FOR ILEUS.

Dr. Henry F. Beam, of Johnstown, Pa., reports the case of a lady, aged forty-eight years, who had been confined to bed for two months suffering from an obscure trouble. She had jaundice, the pulse was small and rapid, the temperature was 101° F., the patient suffered intense pain, and had fallen away forty pounds in weight. For three days she had had occasional attacks of stercoraceous vomiting. Palpitation of the abdomen caused great pain, especially in the right iliac region, where there was a prominence resembling a hernia, beneath which could be felt a hard, round substance. An attempt to move the bowels by enemata was unsuccessful. It was finally determined to operate, and accordingly, chloroform having been administered, an incision two inches in length was made over the point of swelling. The ileum was opened at its point of junction with the cæcum, and the knife immediately struck a hard body. The incision being prolonged, a calculus the size of an English walnut was removed. This was found on section to consist of a small nucleus, the size of a buckshot, surrounded with concentric layers of a material resembling lime, about one-sixteenth of an inch in thickness. The patient made a good recovery.

MILK DIET IN THE ALBUMINURIA OF PREGNANCY.

Dr. L. Swartwout, of Prospect, N. Y., was called to see a patient in the eighth month of pregnancy who was suffering from clear evidences of albuminuria. She was put under suitable treatment, and was restricted to milk diet. The general condition was much improved, and at the expected time the patient was delivered of twins. There were no signs threatening eclampsia during labor, and the woman is now doing well.

COCAINE IN HAY FEVER.

Dr. J. W. Stickler, of Orange, N. J., writes that he has suffered from hay fever for six years, and never succeeded in materially mitigating the severity of the attacks until he used cocaine.

"The symptoms were violent, and repeated sneezing, profuse discharge of a thin watery fluid from the nostrils, itchiness of pharynx, nose, and eyes; headache, impaired appetite, and restlessness at night. While suffering from all these symptoms I sent for a bottle of soluble hypo-

dermic tablets of cocaine, 1.25 grain each, and introduced three into each nostril, keeping them in position, and favoring rapid solution by forcing the alæ against the septum nasi with a handkerchief. As soon as the tablets were dissolved, I snuffed the solution up the nostril in order to secure a thorough application of the drug to the nasal mucous membrane. After using the first six tablets I experienced great relief, and after using fifteen or twenty I was as free from hay fever as I think it possible for anyone to be. I used two bottles full, and then discovered that the disease needed no further treatment, as there was no disposition to sneeze, the nerves of the nasal mucous membrane having become non-susceptible to the various irritants which before had caused so much trouble.

"I wish to say that cocaine tablets are worthless as a remedy for hay fever. I say this because they were recommended as a good 'article,' but careful trial failed to show any cocaine effect."

TREATMENT OF ACUTE EPIDIDYMITIS WITH SUBNITRATE OF BISMUTH.

Dr. J. A. Comingor, Professor of Surgery in the Medical College of Indiana, writes: "In your issue of July 11th a paragraph is published from the *Gazetta Medica di Roma*, setting forth the value of Fuller's-earth in the treatment of acute epididymitis. For several years and in many cases, both in hospital and private practice, I have been treating this affection with subnitrate of bismuth with results nearly identical with those claimed for Fuller's-earth. Under its application, pain is speedily relieved and tenderness and swelling subside in a short time. In fact, its action has been so uniformly beneficial I have not found it necessary to use anything else in ordinary cases. I direct it to be used as follows, to wit.: Bismuth in indefinite quantity, water sufficient to make a paste about the consistence of thick cream, and with a large camel's hair brush paint the scrotum two or three coatings, and repaint at intervals several times daily. To make the directions more definite, take bismuth and water in equal parts, mix, and apply as above. For the purpose of taking the weight off the cord and blood-vessels I order some sort of scrotal suspension; if the ailment is severe enough to bed the patient, a broad strip of adhesive plaster or bandage fastened across or around the thighs, with sufficient padding under the scrotum and contents to elevate above the level of the body to favor the return of blood, will be found serviceable. This method of treatment, in my hands, has been so beneficial and satisfactory I have for several years thought I ought to give it to the profession.

"As to its mode of action I am by no means clear. I have given it a great deal of thought, and have theorized in a variety of ways without being able as yet to reach a satisfactory solution of the question. In the meantime I have observed on making the application on the smooth shining surface, that scrotal corrugation and shrinkage, with alleviation from pain, immediately followed. Now whether these effects are the direct result of the astringent and metallic properties of the agent, or whether they were due to the mere protection given the sensitive surface from the air, I know not. But that it is highly serviceable I verily believe."

Salicylic-Acid Suet in Hyperidrosis.—The reports of the German army-surgeons on experiments recently made with salicylic-acid suet agree in recommending its use as a remedy for extreme sweating of the feet. It is composed of 2 parts of pure salicylic acid to 100 parts of best mutton suet. The Minister of War has, therefore, permitted the introduction of this preparation into the army medical stores, for the benefit of soldiers suffering from sweating of the feet or soreness from riding.

Progress of Medical Science.

Alleged Abortive Treatment of Trichinosis.—Dr. Gottlieb Merkel (*Deutsch. Arch. für klin. Med.*, xxxvi.) reports the case of a man who had eaten sausage containing trichinæ. He was admitted to the hospital twenty hours afterward, and was at once given about ten ounces of compound infusion of senna. Encysted trichinæ were found in the latter portions of the stools. The following day he was given fifteen tablespoonfuls of glycerine, which produced no other unpleasant results than dryness of the mouth and thirst, which was appeased by taking a little seltzer water. Nothing was found in the urine. On the third day the patient left the hospital. He continued well, while those who had eaten the same sausage at the same time were very ill. Glycerine was recommended by Heller ("Ziemssen's Cyclopædia," vol. iii., p. 643), who says that it caused the shrivelling and destruction of the trichinæ, by depriving them of water.

Pneumonia Treated by Intraparenchymatous Injections.—Lépine presents an argument in favor of the local treatment of fibrinous pneumonia by intraparenchymatous injections (*L' Union Médical*). If, says the author, an injection of a few cubic centimetres of a very weak aqueous solution of corrosive sublimate be made into the hepatized lung on the third or fourth day of the disease, in three or four places equidistant a few centimetres from one another, and preferably at the periphery of the lesion, with a view of preventing the extension of the disease, the following phenomena are observed. 1. At the seat of infection an immediate diminution of the crepitant râles and tubular breath-sounds, which are in part replaced by respiratory silence and some larger râles. 2. Sometimes, later, a transient exacerbation of the temperature of the body. 3. The next day a great improvement in the general condition, and notably a precocious defervescence. 4. A resolution which, to judge by the persistence of the harsh breathing, especially in the hepatized parts that have not been treated, takes place very much earlier than would have been the case under ordinary circumstances. As to the relative innocuousness of the intrapulmonary injections in the doses employed (twenty to twenty-five grammes of one in forty thousand solution of bichloride of mercury), when care is taken to keep away from the large vessels at the hilus of the lung, and not to penetrate the lung more than three to four centimetres, M. Lépine urges that he has not lost a single patient, and has not had one accident. The only inconvenience is the pain, but this is not great, and may be still further relieved by adding morphia to the solution. After the introduction of the sharp needle, and before the syringe is fitted on, a few drops of blood are allowed to escape; the injection must not be delayed, or the needle will become plugged. When the needle is inserted into healthy lung, or into tuberculous lung, it does not, as a rule, yield blood. In the healthy lung such injections produce sufficiently defined lesions. Experiments on the lungs of healthy dogs showed that at the site of injection of a rather stronger solution than that mentioned above there was a circumscribed and indurated area, which was made up of blood and congestive œdema. The lesions were less marked with the one in forty thousand solution.

Division of the Supra-orbital Nerve for Traumatic Cephalalgia.—An Amsterdam medical journal relates the case of a young man who received a blow on the forehead, which was followed by a tender swelling over the supra-orbital notch, and by intense general headache, so that he was unable to obtain any sleep at night. Last April Professor Wurgman divided the supra-orbital nerve just above the notch, with a fine tenotome introduced under the skin. This operation relieved the pain almost entirely; the swelling, also, almost disappeared. Anæsthesia was, however, produced over a surface of the extent of a hand's breadth above the orbit, and this has continued unchanged up to the present time.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, October 17, 1885.

A CLINICAL STUDY OF CANCER.

THE publication of the records of the late Dr. Willard Parker on the subject of cancer is of particular interest. They reach back to a period nearly three score years ago, when there was almost an entire absence of definite knowledge respecting the histology of malignant neoplasms. The fact was not then recognized that the infiltration of an organ with carcinomatous elements might be very extensive before any outward manifestations of the disease presented themselves. Also many tumors were considered malignant, *e.g.*, adenoma, which our later researches and observations have lifted out of this category.

This frank statement of the views entertained by the profession half a century ago somewhat weakens, we think, certain conclusions which Dr. Parker drew from his clinical experience, that is, conclusions affecting the distinction of cancer from other malignant growths. In all cases of tumor our problem is primarily to discover its nature. The pathologist relies upon the microscope. Many a surgeon with years of experience relies mainly on the clinical history. In perhaps the majority of cases the conclusions of both are in unison, though reached from different premises. We believe that most men would, in a disputed case at the present day, decide with the pathologist rather than with his opponent. In other words, according to our present knowledge of tumors, any classification of tumors must have, to be accredited with value, an anatomical basis.

Now, in no small number of the three hundred and ninety-seven cases of mammary cancer (?) in the record under discussion, the data given are not sufficient proof to the investigator that the disease really was mammary cancer. No one doubts that such a diagnosis was conscientiously made in every case. All cases seen were not operated upon, however, and many passed out from under observation. Their ultimate fate is unknown. The correctness of some of the diagnoses is at least a debatable point, because the cases were not subjected to the test which we now regard as necessary for confirmation—*i.e.*, microscopical examination.

When we come, however, to that part of the work treating of the causes of cancer, its increasing prevalence, and its geographical and social distribution, we touch upon matter that is really valuable. Of the 397 cases, 253 were in married women, 55 in single, and 89 in widows; of the married and widows 37 had had one child, 240 two or more children, 58 were childless, and of 7 there is no record. The greatest number of cases in any five years, of ages reaching from twenty-five to eighty, was 80 cases between the ages of forty-five and fifty. The left breast alone was involved in 189 cases; the right alone in 174; both in 14; no record, 26. In regard to the relation between tubercle and cancer, Dr. Parker regarded the views of Bennett essentially true. "Taking then the products of simple inflammation (say pus) as a standard, we cannot fail to remark that, while the cell-development of tubercle is below, that of cancer is above the standard; one is deficient in the power of development, the other possesses this power in excess. It seems to me to be probable that tubercle is connected with some derangement of the function of primary, and cancer with some derangement of the function of secondary digestion."

The effective causes of cancer are grouped under four headings: first, luxurious living, and particularly excess in animal food, and facts are adduced showing that the disease has increased in frequency *pari passu* with the march of civilization; second, local irritation of an epithelial surface, particularly in mammary growths; the pressure of a corset against a breast which has suffered from some disorder of lactation; third, mental affliction, as predisposing to a condition of low vitality from nervous depression; fourth, dysmenorrhœa and other uterine irregularities. From these etiological factors some leading principles of treatment are deduced. "There is such a consensus of opinion as to the advisability of early removal of the growth that discussion of this subject would be useless." In order to forestall the development of the disease, we should avoid "unnecessary luxury in the mode of living, especially abstain from food rich in nitrogen. Urge your patient to take sufficient exercise; point out to her the necessity of cleanliness and of avoiding all articles of dress that would induce irritation of the skin. Persuade her to cultivate cheerfulness of disposition and regulate her various functions, particularly that of menstruation."

Dr. Parker does not admit the heredity of the disease: "Looking at the incurable nature of the disease . . . and the time during which it has existed, we could hardly expect a single member of a civilized community to have escaped, were the disease hereditary." He recognizes the fact that there are in some families several cases of cancer, "a fact pointing strongly to some common cause—if not to inheritance, then to habits and modes of living which have been practised by members of the family and which are sufficient to induce the disease."

THE EMPLOYMENT OF THE HIPPURATES OF LIME IN THERAPEUTICS.

M. V. POULET, a French physician, of Plancher-les-Mines, calls attention to the very superior powers of the hippurates of lime and of lithium in the treatment of many disorders of assimilation.

To begin with, M. Poulet announces that the principal acid of the gastric juice is not hydrochloric, as generally taught, but is *hippuric acid*. Like all scientific Frenchmen who believe that they have discovered something, M. Poulet feels no wavering doubts about his results, but states that he has "demonstrated peremptorily" that the

acid principle of the gastric juice is no other than hippuric.

Starting with this new physiological dogma, M. Poulet reasoned that salts formed with the hippurates would be very soluble and efficient. He, therefore, had prepared a hippurate of lime, and has used this extensively for several years (*Gazette hebdom. de Med. et Chir.*, 1884, and *Bulletin Général de Thérapeut.*, August 30, 1885).

The utility of the lime salts in many disorders is admitted. Dr. Poulet, however, contends that the practice of giving them in strongly acid media, as at present is done, works eventual injury. On the other hand, Professor Sansom, of Grignon, shows that phosphate of lime given undissolved passes unchanged through the intestines. The problem, therefore, is to get a lime-salt which will be easily absorbed and yet will do no harm by reason of the excessive acidity of the vehicle. This salt has been found, it is thought, in the hippurate of lime. M. Poulet advises that the rachitic, the scrofulous, the phthisical, persons suffering from osteo-malacia, or from ununited fractures, also infants with imperfect dental development be given hippurate of lime in combination with phosphate of soda. In this way both lime and phosphorus are taken and assimilated.

The hippurate of lime, according to the enthusiastic Dr. Poulet, possesses wonderfully specific properties: 1, Against affections of the urinary passages; 2, against affections of the liver; 3, against certain diseases of the skin and mucous membranes; 4, against a great number of diseases of the stomach and intestines; 5, against diabetes, and 6, against chronic rheumatism and gout.

In subacute cystitis and in lithiasis the hippurate given in the form of a syrup is recommended.

In diseases of the skin dependent upon the tuberculo-scrofulous or upon the neuropathic diathesis the hippurate is believed to work many cures. Poulet cites some instances in which diabetes was much improved by his remedy.

It would be useless to catalogue all the disorders in which the wonderful hippurate is indicated. In the main they are disturbances in assimilation, and are disturbances in which some mineral food is needed by the organism. It is quite possible that M. Poulet has obtained a very digestible mineral preparation, and one which deserves a trial on that ground. His claims for its wonderful efficacy, however, are extravagant and ill-founded.

OX-GALL AS AN ANTIPYRETIC.

Bile in the form of inspissated ox-gall has been alternately highly praised and sharply condemned as a therapeutic agent. Rossbach and Nothnagel state dogmatically that ox-bile when introduced into the stomach neutralizes the acidity of the gastric juice, precipitates the pepsin, and causes digestive disturbances. Other authors have regarded bile as a bitter tonic and laxative. Bonorden claimed that it reduced the action of the heart. Locally he used it with great success in the treatment of hypertrophies. It has also been employed in cancer, diarrhœa, constipation, and especially in conditions in which there is supposed to be a deficiency of biliary secretion.

The adult secretes about three pints of bile daily, of which the solids amount to between four and five ounces. The potent medicinal factors in these solids are probably the alkaline bile salts, which make up more than half the bulk and amount to several ounces daily. Cholesterine, an active poison, is also present in a very small proportion.

The ordinary dose of inspissated bile is from five to thirty grains, the large doses generally causing digestive troubles. It can be readily seen that these amounts are very small compared with the normal amount of daily secretion, even assuming that the bile ever gets unchanged through the stomach. There is, therefore, no very good reason, *à priori*, for supposing ox-gall to have a supplementary value in deficient action of the liver. Its value must be established empirically.

In the *Bulletin of the Clinical Society of the Post-Graduate Medical School*, Dr. George G. Van Schaick makes an ingenious and plausible plea for the use of ox-gall in the treatment of typhoid fever. It is given in doses of ʒ ij. to ʒ iij. daily. Under its use he believes that the fever is reduced, and the symptoms ameliorated. Three cases are given in illustration, one of which seems to have some value. Ox-gall has been used by other physicians in this city as an antipyretic, and in cases of deficient biliary secretion with, it is claimed, good results.

AMERICAN AND GERMAN METHODS OF VACCINATING.

The question whether one or several pustules should be made in vaccinating is one that is hardly raised at all in this country. Even in the elaborate and careful article upon the "Technics of Vaccination," by Dr. Foster, in "Pepper's System of Medicine," no reference is made to the matter. Yet it is well known that the profession in Germany have very settled convictions that several pustules should be made. The German Commission, which met a year ago at Berlin to discuss and formulate conclusions upon the subject of vaccination, took up, among other things, this point. "In what relation," it was asked, "does the number of vaccinia pustules stand to the protective influence of the vaccination?"

According to Dr. R. Koch, out of 703 small-pox patients, in the Stockwell Hospital, there died, of those having no scars, 47 per cent.; of those having poor scars, 25 per cent.; having one good scar, 5.3 per cent.; having two good scars, 4.1 per cent.; having three good scars, 2.3 per cent.; having four or more scars, 1.1 per cent. From this it would be inferred that a person having four scars on his arm is almost certain, even if he gets small-pox, to go through it safely. Koch himself takes the position, positively, that the protective power of vaccination is in direct relation to the number of vaccinia pustules.

Professor Grossheim cited cases to show that in revaccination the virus "takes" less often on those who have several scars. Similarly, Siegel found that among children presented for revaccination, the successes were the rule if the child had but one scar, and the exception if it had four to eight.

Arnsperger had observed during a small-pox epidemic that the protective influence of the vaccination increased with the number of the scars.

On the other hand, Reissner did not observe much difference. In revaccination of patients with one scar he got 96 per cent. of successes, while of those with two or more scars he got 94.7 per cent. of successes.

There is evidence in English statistics that persons having a number of scars are more surely protected against variola. It is true, however, that in England more than in Germany, these scars represent several successive vaccinations.

The conclusion of the Commission referred to was that two was the minimum number of pustules to be made in a protective vaccination. Professor Eulenberg even urged that the minimum should be three.

Here are conclusions quite opposed to American practice, and they are worthy certainly of attention.

MIRACLE CURES.

The latest miracle cure, as far as we are aware, has been performed at the shrine of St. Anne de Beaupré, in Canada. A cripple (of what variety not stated) had restored to him here the strength of his limbs, and, after discarding his crutches, left the place indulging in profuse encomiums of the Saint, and decidedly uncomplimentary remarks about the doctors at home who had failed to relieve him. Unfortunately the accounts that reach us from time to time of these miracle cures generally come from regions somewhat removed from any scientific centre, hence a careful investigation of the alleged facts is not undertaken, and does not appear to be encouraged. When we consider, however, that in the town farthest removed from superstition, and the favored home of culture, the "mind cure" is now in apparently fairly successful operation, we are led to inquire whether the saints and transcendentalists have not some common mode of effecting cures. It appears indeed, that the relief experienced is always in direct ratio to the capacity of faith in the individual, and the first and essential quality of being cured is for the unfortunate sufferer actually to believe that he is cured. Persons who have no confidence in the good offices of the Saint, or the benign influence of the mind cure, had better stick to drugs and potions, as otherwise they will perforce experience no amelioration of their ailments. We do not wish to deny that relief is sometimes experienced in a certain class of cases by apparently occult influences, but a perfectly natural explanation can readily be given for these so-called supernatural occurrences. It is solely the power and force of an intense faith that works the cure, and not any outside miraculous influence. It is entirely possible in certain individuals for this kind of faith to cause such a condition of mental exaltation and enthusiasm as to overcome long-seated functional trouble. The body appears to be transformed under the influence of the mind, even to a certain extent to the checking of morbid processes. Exactly the way in which the mind can thus influence bodily functions we do not know, but we have here a satisfactory and natural explanation of these miracle cures. Let us not, then, deny the possibility of some of the cures, although they generally come from ignorant and untrustworthy sources. If in the excitement of battle soldiers may receive painful wounds without being conscious of their existence, why may not a similar state of exaltation, produced in a different way, and with the addition of expectancy, sometimes be sufficient to remove a neuralgia?

If the mind by any means can be raised to a certain pitch, pain, danger, and death itself become trival to the body. History is full of examples of this fact. Cromwell's Ironsides, or Arabian spearmen throwing their lives away on English bayonets, alike exemplify this condition. The utmost self-confidence being engendered, the greatest obstacles appear as trifles to be overcome. Why may not a condition of exhilaration and confidence produced by an intense superstitious faith be at times sufficient to send an impulse through a nerve that for some reason has long ceased to respond to natural stimulation? We must note, however, that these cures take place apparently only in functional and subjective troubles. Modern miracles are never constructive. We have yet to hear of the saint who could restore a leg that had been amputated at the hip-joint; not a few happy individuals, however, with two limbs in such a condition of defective innervation as to preclude walking without crutches, have suddenly had their locomotion completely restored. If carefully followed up, we fear that most of these cures, except in cases of trivial functional derangements, would be found to suffer relapse when the mental confidence that engendered them had somewhat subsided. The most diverse agencies, from a patent liver regulator to a kidney or corn cure, doubtless produce a mild subjective exhilaration as long as the faith holds out, particularly if they are otherwise harmless. At any rate, the quack-medicine business will continue to thrive until the masses are cultivated up to a point above having faith in nostrums. The thirtieth dilution and other infinities of homœopathy can also be placed beside modern miracle cures as far as their method of operating is concerned.

THE PROPOSED NEW NATIONAL MEDICAL ASSOCIATION.

It is a pleasure as well as a duty to call attention to the suggestions of our learned and conservative contemporary the *New York Medical Journal* regarding the matter of forming a National Association of the Physicians of the United States. We have already urged the necessity and usefulness of such an organization. Our contemporary has gone further and offered a specific plan upon which to base it. This consists in forming a medical association "that shall be few in numbers and so honorable a body that membership in it would carry the highest reward that medical men here would have to hope for."

It is advised that a convention be called of eminent physicians from all parts of the country, and that this convention appoint one-half of the members of the proposed association, the remaining half to be filled up later.

The successful establishment of a society of the character indicated would certainly do much to elevate the status of medicine in the country.

The plan, however, as so far outlined, will at once strike American physicians as having this objection: It is not democratic. The association fills its own vacan-

cies and can very easily become the victim of cliques unless some further and special provisions are made. We should most decidedly advise that the several State, and perhaps certain local or special organizations, have authority to recommend physicians for membership.

Again, there is a strong disinclination among many physicians to take any step that looks like "seceding" from the American Medical Association. The proposed new association need not, however, be looked upon as at all a seceding body, but rather as an adjuvant. Its objects would be almost exclusively scientific, and its work would be in quite a different plane.

The American Association as an educational and medico-political agent may yet do something, but its organization and character make it inherently defective for securing the best scientific work; and it has of late shown such extraordinary and hopeless incapacity in dealing with certain practical questions that many of those who have been its best friends feel the necessity of a radically different organization.

We trust that the subject of establishing such an organization will be widely agitated, and that some definite and feasible plan can be drawn up.

MEDICAL STUDENTS AND THEIR PROFESSORS.

With the commencement of all metropolitan activities after the summer's rest begins anew that of medical instruction. Even in so large a city as New York, where one is almost as much lost and unobserved as if in a wilderness by himself, the medical student makes himself felt and known. There is something in his gait as he hurries from college to clinic; something in the stoop of his shoulders; a great deal in the note-books which he carries under his arm, and not a little in the expression of his eyes, which are opening for the first time on much to which the majority of mankind's are closed—that mark the disciples of Æsculapius.

While the members of the medical profession command the undoubted respect of the community, the medical student is not looked upon with that degree of approbation which the law student, art student, or the scholar in any other department of science wins for himself.

He suggests unpleasantnesses. He dissects; possibly vivisects. sickness and distress are "material" which are profitable to him. He is the one to whom the "ill wind" blows good, and is not yet empowered to make it shift into a favorable direction for others.

It is the time, too, when the professors in the Medical College arouse themselves to renewed activity. Rested by the summer's relief from lecturing they begin with zeal and vigor; as they open their lectures and call the attention of their hearers with the well-known word, "Gentlemen!" there is a crispness and freshness in it which marks the beginning of a new, though oft-repeated, enterprise. It is the old verification that "Hope springs eternal in the human breast," and the professor hopes more than ever this fall to astonish, to enlighten, to edify those who have the supreme privilege of listening to him.

We had it in mind to make a few suggestions with reference to the coming together of these two peculiar classes—students of medicine and professors of medicine—that there might result more of a mutual benefit; but the task is so difficult, one naturally hesitates, though actuated by the feeling that the present system might be improved; that better doctors might be turned out in the springtime if a somewhat different plan were pursued from that of old. The question of the *how* is not easy to settle.

There is an ever increasing tendency to make clearer compilations for students. It saves them time, but it is a questionable benefit which they derive from them. Most lectures are condensations, more or less enlivened with the experience of professors. The students, therefore, need the broadening effect of consulting "authorities" for themselves, and coming in contact with the great minds. It is possible that the students might reap a greater benefit from the methods used in ordinary school teaching rather than those which usually prevail in colleges. The recitation system is based on physiological laws. Repetition of knowledge through speech or sight secures familiarity and consequent recollection.

Professors, lecturers, and clinical instructors strive ever to find the "royal road" for their pupils in pursuit of knowledge, notwithstanding it is ever asserted with proverbial sententiousness, "There is none."

Those who hold up the banner for a higher standard of medical education in this country often become faint-hearted. A desire for patronage, a continuous rivalry batter down high aspirations in this direction. The world, however, moves, and each year sees the requirements for students somewhat in advance of the preceding. Examinations of candidates for the study of medicine would weed out many unfit to undertake it. Upon the faculties of the various colleges rest the duty and responsibility of requiring these, and that they should be more than nominal in character.

The post-graduate schools are doing an excellent work in filling up the deficiencies of graduates from the colleges. The student content with having obtained his degree, and not pressed with an extensive practice, is in a receptive frame of mind and studies the practical workings of medicine to great advantage.

Canadian Opinion on the International Medical Congress.—The new committee met in New York, September 3d, and made some concessions to public opinion, though not so many as we hoped to see. The name of Austin Flint, Sr., will be worth much among the shattered fragments that remain. Many able men in different parts of the Union will assist. We may derive what comfort we can from these considerations; but, after all, the broad, sad fact remains that the cream is principally gone, and we are left to feast on skimmed milk.—*Canadian Practitioner.*

Dr. Flint, Sr., is to be President, and N. S. Davis, General Secretary. These gentlemen are well known both at home and abroad, but many of the Presidents of Sections are scarcely known to the profession of their own country. It seems a pity that the committee had not gone a little further and removed all impediments to a complete success of the coming Congress.—*Canada Lancet.*

News of the Week.

Short-sightedness not Increasing. — There has been a great deal of rather dismal writing on the subject of the increase of myopia, especially in Germany. Dr. Emmanuel Roth, of Berlin, in a recent work on heredity, affirms that there is no such increase. He bases this view on investigations in the higher schools of Baden in 1846, and from the tests of the recruits of the district of Heidelberg. Myopia is, according to Dr. Roth, a constitutional defect, which appears about the second period of dentition.

Further Resignations from the International Medical Congress.—It is announced that Professor H. Newell Martin, of Johns Hopkins University, has declined the vice-presidency of the Section on Physiology, and that Dr. Robert Battey has resigned the presidency of the Section on Gynecology. Dr. Charles Stedman Bull, of this city, writes: "I have *long since* resigned from the council of the Ophthalmological Section of the Ninth International Medical Congress, and decline to serve in that capacity."

The Vermont State Medical Society held its seventy-second annual meeting at Montpelier, on October 15th and 16th.

The Killing of Dr. Barton.—Dr. E. Mammen, of Bloomington, Ill., writes: "This sad event did not take place in Bloomington, but at Saybrook, a town some distance east. Bloomington physicians have no reasons to slay each other. Only sweet peace and harmony prevail here."

Suspending Action as to the International Medical Congress.—We have received some very warm endorsements from active members of the American Medical Association, of our suggestion that some change be made in the present unhappy management of the Congress at the next meeting of the Association. Since, however, the Executive Committee of the Congress have issued a Declaration of Independence, little possibility of doing anything at St. Louis exists.

Dr. Nelson B. de S. Sizer, of Brooklyn, N. Y., writes: "My attention was called last night, for the first time, to a note in The Medical Record of September 12th, from Dr. Lyman, of Chicago, who refers so some statistics published by me in a recent issue of the *Lancet*, which were derived from his work on 'Anæsthetics.' I regret, with him, that there were no more recent ones available on the subject, but I am still engaged in looking up our recent literature on this very interesting topic. Dr. Lyman's name ought most certainly to have been mentioned as their compiler, but the list was taken from some manuscript notes which I made on this question some time last year, and I had entirely forgotten their origin when I wrote the letter referred to."

Foreign Advice as to the Congress.—The *Medical Times and Gazette* of September 19th says editorially: "In our opinion, the time has now come for the officers of past International Medical Congresses to meet together, and decide that, unless the pledge given at Copenhagen is kept, and all attempts to embroil the Congress in ethical disputes are unconditionally given up, the acceptance of the invitation to meet at Washington should be rescinded, and arrangements made to hold the Congress of 1887 in a country where the medical profession possesses greater solidarity."

Further English Opinion on the International Medical Congress.—The Congress Committee of the American Medical Association met on September 3d last, to "repair the damages" caused by the wholesale refusals to accept office on the part of the eminent physicians elected to this end, and the result has been so much of a makeshift, patchwork arrangement as could be accomplished under the circumstances. Meanwhile, however, resignations come merrily in, and before long the executive of the Congress will comprise an assembly of American practitioners with whose names, save for a very few exceptions, all ranks of the profession in Europe, and the majority of medical men in the States, will first make acquaintance as those of office-bearers under the patronage of the self-elected committee of management. It is thus apparent that all the good advice given to this last-named body has been uttered in vain, and that it is obstinately bent on acquiring for America the unenviable reputation of being the only country in which it has been found impossible to hold an international congress of physicians and surgeons. Such an unfortunate ending to what at the outset seemed to bear promise of eventuating in a brilliant success is greatly to be regretted; and we deeply sympathize with the disgust and chagrin that is naturally felt by the representative heads of the profession in America. The prospects of a Transatlantic Congress must now be regarded as entirely hopeless, and we presume that early steps will be taken to arrange for the 1887 meeting to take place in some country where science reigns superior to party passion and petty jealousy; and the sooner the matter is taken in hand, the better will it be for all parties.—*Medical Press and Circular*

Dr. Edwin M. Snow, Superintendent of Health of the city of Providence, has, we learn, been invited by the city officials of Montreal to take charge of the small-pox epidemic in that city. He has been tendered the absolute control of the sanitary department of the city for a period of three months.

An American Cholera Commission.—The President has issued an executive order directing Dr. E. O. Shakespeare, of Pennsylvania, to proceed, under the direction of the Secretary of State, as the representative of the United States, to Spain and other countries in Europe where cholera exists, and make investigation of the causes, progress, and proper prevention and cure of the disease, in order that a full report may be made to Congress during the next session.

The New Hospital at Gouverneur Slip is now completely built, and ready for patients. It is well built, at a cost of $14,000, and contains thirty beds. It is an emergency hospital for four precincts—the Third, Seventh, Tenth, and Thirteenth—and is a branch of Bellevue. Its visiting surgeon will be Dr. O. J. Ward; the assistant surgeon, Dr. J. D. Odell.

Small-pox in Montreal and the Attitude of the Ecclesiastical Authorities.—Mgr. Fabre, Bishop of Montreal, has, through the pastors of the various parishes in the diocese, issued a second notice, warning all Catholics that they are "absolutely prohibited" from attending religious services in any place of worship, either when they are afflicted with small-pox, or when they have it in their families, or are in any way directly exposed to the disease and liable to spread it. The Montreal *True Witness* remarks that, under the circumstances mentioned, the presence of any Catholic at church is not merely an optional matter; it is his duty and a matter of obedience to ecclesiastical authority to keep away from all assemblages of the faithful.

A Cremation Furnace Ready.—The Crematory of the U. S. Cremation Company is reported finished. Forty bodies are awaiting combustion.

Reviews and Notices.

A Reference Handbook of the Medical Sciences, Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by Albert H. Buck, M.D. Vol. I. Imperial octavo, pp. 808. New York: William Wood & Co.

Subscribers to this work will exhibit a great deal of curiosity in examining the first volume of the series. The general plan of the work can best be appreciated by so doing, and an estimate can be made as to what may be expected of the others. The undertaking is a huge one, requiring careful selection of subjects, systematic arrangement of them, and judicious apportionment of space to each. The accomplished and painstaking editor, Dr. Buck, has given an earnest of his endeavors in these regards which cannot be gainsaid. Messrs. Wm. Wood & Co., the enterprising publishers, have spared neither expense nor trouble in ensuring the performance of their part of the work. Typographically and artistically the volume is a model of its kind. In many respects the work differs from any heretofore published. It combines the features of a dictionary with the arrangement and elaboration of an exhaustive encyclopædia. Judging from the present volume, the field to be covered will be larger and more comprehensive than any venture of its kind, and promises the practical discussion of a greater variety of topics of interest to the general practitioner than have ever before been compressed in a given number of volumes. It is evidently the aim of the editor to give a comprehensive and condensed view of all the more important topics belonging to the broad domain of medicine. Each of the contributors has worked with those ends in view, and the reader is surprised and delighted to find how much there is in a comparatively small space which he feels he ought to know. Few, indeed, could have arranged and selected the topics with better appreciation of the means to the end. The articles have all varieties in length, but each is complete in itself as giving a bird's-eye view of the subject. Oftentimes volumes are compressed in the discussion of a single theme. Never was condensation so utilized to practical ends. From such a point of view the name, "Reference Handbook," is singularly appropriate.

The details of arrangement can hardly be described to do them justice. They must be studied to be appreciated. This can better be understood when we state that the length of topics varies from that of a few dozen lines to over seventy pages. The relative importance of each decides this matter, but there is a consistency about the whole arrangement which thoroughly harmonizes with the comprehensive design of the editor. We turn over its broad, double-columned, compactly-printed pages, each of which contains three times as much reading matter as the page of a full-sized octavo volume, and glance here and there at the make-up of the body of the work. We obtain a good idea of its true inwardness by perusing the article on abdominal tumors. Under this heading, in an admirably concise manner, are described the etiological and clinical features of abnormal growths connected in turn with the liver, stomach, kidneys, spleen, pancreas, intestine, omentum, bladder, uterus, ovaries, and miscellaneous tumors of the abdominal cavity. All this in a space of ten double-columned pages; and yet no busy practitioner who wishes to study up a case can fail to be thankful to the author for the concise, practical points which are so tersely presented. The student of materia medica seeking information regarding aconite, for instance, finds three fine illustrations respectively of the plant, root, and flower, with the therapeutics, properties, and uses of each. To the pathologist the admirable description of adenoma, with its handsome microscopical illustrations, commends itself. The surgeon will be interested in the article on amputations, comprising thirty pages with numerous illustrations, also with the different subjects discussed under the heads of aneurism, antiseptics, diseases of the rectum, anus, bladder, and breast; these varying from twelve to twenty pages in length. The physiology and pathology of the blood, occupying, with its wood engravings, over thirty pages, contains in such a space all which the general practitioner will need for reference as to literature and practical application as to his treatment of disease. The topic most exhaustively treated is that referring to the development, anatomy, histology, and pathological lesions of the brain. In the space of seventy pages we have condensed an elaborate treatise. Each of the authors of these articles has vied with the other to make the crooked paths straight and to light up the dark places. The entire area of this much-studied field is thus intelligently presented to the student. This is certainly saying a great deal, in view of the numerous futile efforts that are repeatedly made with such an object in view.

In speaking of the excellence of the five hundred and eighty-six wood-cuts, the great majority of which are original, we must not forget to refer to the beautifully-executed full-page chromo lithographic plates, four of which adorn this volume. Nothing equal to them in color and finish has been published in this country. Judging from the first volume, the success of the "Handbook" is assured. We cannot see how it can be improved. The publishers have every reason to be satisfied with their venture, and there can be no doubt that the profession at large will appreciate in a substantial manner their efforts to fulfil a promise the like of which has never before been made.

The Science and Art of Midwifery. By William Thompson Lusk, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Bellevue Hospital Medical College, Consulting Physician to the Maternity Hospital, etc. New Edition, revised and enlarged. 8vo, pp. 763. New York: D. Appleton & Co. 1885.

In the course of a little over three years Prof. Lusk's admirable work has advanced to a second edition. True to his purpose of keeping abreast with the times, and recording the result of advancing experience, he has not only thoroughly revised his book, but has elaborated many parts of it. Some portions have been virtually rewritten. The notable changes made are manifest in the sections on the pathology of labor and the diseases of childbed. Under the latter heading all the advanced ideas regarding the prevention and treatment of the puerperal state are presented. The author of the work has established its reputation as a leading medical authority, and in the

present edition there are abundant evidences of his ability to hold it. The style is terse and perspicuous, while the subject matter is treated from that practical standpoint which is so acceptable to the student and so interesting to the practitioner.

A Text-Book of Medical Chemistry. For Medical and Pharmaceutical Students and Practitioners. By Elias H. Bartley, M.D., Adjunct Professor of Chemistry and Lecturer on Diseases of Children in Long Island College Hospital; Chief Chemist to the Department of Health, City of Brooklyn; Chemist to the New York State Dairy Commission; Inspector New York State Board of Health; President of the American Society of Public Analysis; Member of the American Chemical Society; Member of the American Society for the Advancement of Science. With forty illustrations. Philadelphia: P. Blakiston, Son, & Co. 1885.

Of the seven primary branches of study which the aspirant for medical honors is obliged to pursue, it is safe to say that chemistry is the most neglected. The average student is accustomed to regard his attendance on chemical lectures as a bore and a waste of time, and devotes to this study only so much of his attention as is absolutely necessary to enable him to pass the required examination. This neglect is due in a measure to the belief that a thorough knowledge of chemistry is of little practical benefit to the physician, and partly also to the lack of a really suitable text-book. There are many text-books, and good ones too; but they are for the most part either too large or too small, and the student is forced either to read much that is of little value to him, or to have recourse to little manuals so condensed as to be almost unintelligible. The work before us seems, however, to have avoided both of these evils. It treats at sufficient length of all the elementary facts in physics and chemistry which are necessary for the student to know, and which have a bearing upon medicine, but has little to do with those questions which are related exclusively to chemical science. The book will undoubtedly be popular among students, and there are few practitioners who could read it without learning many facts of practical value to them in their daily work. An appendix, containing tables of the solubility and specific gravity of different chemicals, a list of incompatibles, the analysis of various animal fluids, and a glossary of unusual terms, adds not a little to the value of the book for the general practitioner.

A Text-book of Pharmacology, Therapeutics, and Materia Medica. By T. Lauder Brunton, M.D., D.Sc., F.R.S., Fellow of the Royal College of Physicians; Assistant Physician and Lecturer on Materia Medica at St. Bartholomew's Hospital; Examiner in Materia Medica in the University of London, in the Victoria University, and in the Royal College of Physicians, London; Late Examiner in the University of Edinburgh. Adapted to the United States Pharmacopœia by Francis H. Williams, M.D., Boston, Mass. Philadelphia: Lea Brothers & Co. 1885.

This work will well repay students or practitioners for the time which they may devote to its perusal and study. It is divided into six sections, treating of general pharmacology and therapeutics, general pharmacy, inorganic materia medica, organic materia medica, vegetable materia medica, and the therapeutic agents derived from the animal kingdom. A large part of the book is devoted to a discussion of the general action of drugs upon the economy, and to the methods by which this action is determined. In the sections relating to materia medica the officinal preparations of both the United States and the British Pharmacopœias are given. In addition to a very full table of contents at the beginning of the book there are three copious indexes at the end—one of bibliographical references, one of diseases and their remedies, and a general index of the subject matter. These indexes are most carefully compiled and comprehensive, and add not a little to the value of the work, enabling any one to turn at once to the desired subject without a moment's waste of time. We have no hesitation in recommending this book to the practitioner of medicine and the pharmacist as well as to the student, and feel sure that no one will be disappointed with its contents.

A Complete Pronouncing Medical Dictionary, embracing the Terminology of Medicine and Kindred Sciences, with their Signification, Etymology, and Pronunciation; with an Appendix, comprising an Explanation of the Latin Terms and Phrases occurring in Medicine, Anatomy, Pharmacy, etc., together with the Necessary Directions for writing Latin Prescriptions, etc. By Joseph Thomas, M.D., LL.D. 8vo, pp. 843. Philadelphia: J. B. Lippincott. 1885.

This work will doubtless serve the purpose for which it was intended—viz., to aid the medical student who has little, if any, knowledge of the classics, and who is consequently ignorant of the etymology and pronunciation of words of classical origin. In so far as supplying such wants the work is tolerably complete, but beyond this it cannot pretend to replace or even be abreast of the standard medical dictionaries of the day. The definitions given, although terse, are, as a rule, far from being satisfactory. In fact, there is a notable want of appreciation of the relative importance of different subjects in the space allotted them. Some of minor moment have long explanations attached to them, while others, concerning which additional information would be very desirable, are dismissed by a mere definition. There is no excuse, in a work of this sort, for occupying ten solid pages in a discussion of pathogenesis. Nor is there a good reason for devoting six pages to the cranial nerves. There is a want of system in the make-up of the work which leaves a damaging impression on one accustomed to consult dictionaries. Aside from this, it fulfils its mission in giving aid to the student of medicine or pharmacy who wishes the etymology, definition, translation, or pronunciation of any scientific term. The directions for writing Latin prescriptions are excellent, and deserve the study of every practitioner. The work is well printed.

Diseases of the Tongue. By Henry T. Butlin, F.R.C.S., Assistant Surgeon and Demonstrator of Practical Surgery and Diseases of the Larynx, St. Bartholomew's Hospital, London. 12mo, pp. 451. Philadelphia: Lea Brothers & Co. 1885.

Such compact volumes as the one before us minister to a growing taste for works upon diseases of particular organs. The author has given a concise survey of his subject, and has presented its practical points in a clear and interesting manner. The various diseases which affect the tongue are discussed from clinical, pathological, and surgical points of view, and many curious facts are related in connection with them. Some excellent chromo-lithographic representations are given showing the gross appearances of the syphilitic, tuberculous, epitheliomatous, and inflammatory lesions of the organ. Lupus of the tongue is also shown by such means.

The author discusses quite fully and impartially the different operative procedures for total and partial excisions of the organs, laying down very practical rules for given conditions of disease. He favors Baker's or Whitehead's method for simple removal of whole or part of the tongue, Regnoli's method when the front part of the floor of the mouth is involved, and Kocher's when the disease has invaded the tissues at the base of the organ. The relative mortality is presented, and the different accidents following operations are duly described. The style of the author is terse and lucid, and he gives evidence throughout the work of a practical familiarity with the entire range of his subject.

Lithocystic.—A rolling stone gathers much pus.

Reports of Societies.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, October 2, 1885.

THOMAS A. McBRIDE, M.D., PRESIDENT *pro tem.*

THE subject for discussion was

DIABETES MELLITUS,

and first with reference to *etiology*.

DR. A. B. BALL referred to two cases which had a bearing upon what was known to be the most frequent cause of the disease—namely, some mental strain or anxiety or some injury to the brain. Of course there were many cases of diabetes in which the cause could not be traced.

The first case was that of a gentleman who was a member of the board of trustees of a charitable institution in which a defalcation took place, involving the character of one of his relatives. Up to that time he had been well, and had reached fifty-five years of age. He was placed on a committee appointed to investigate the question of defalcation, and the result was that he was obliged to attend a series of meetings which consumed his time, and involved an unusual amount of mental strain and anxiety. During the second week of the investigation he noticed that he was very thirsty, and was very much depressed mentally. Dr. Ball examined the patient's urine and found that it contained a large quantity of sugar. The case ran a rapid course, and terminated fatally within six months.

The second case was that of a lady who was living separated from her husband under peculiarly distressing circumstances, and not long after the separation she began to exhibit symptoms of diabetes, which ran a course of three years, and the patient died with diabetic coma.

DR. H. F. WALKER could confirm what Dr. Ball had said concerning mental, especially moral, strain by another case, that of a lady who experienced great grief on account of the loss of a favorite daughter, and has a son sick with consumption. She has, besides, probable fatty degeneration of the heart and has an enlarged liver. But the diabetes has appeared since the mental and moral strain from grief was brought on.

Another case, having a similar cause, was that of a lady who was stricken with grief by the death of her husband, and died with diabetic coma after the disease had existed about fourteen months. During the last two years he had had almost an epidemic of diabetes among his own patients; seven cases occurring during the last year; not cases in which the patients came because they were diabetics, but developing in his own practice.

DR. BALL remarked that Seegen had directed special attention to the frequent occurrence of diabetes among the Jews, about twenty-five per cent.

DR. WALKER said that he had seen in his own practice only one Jewish patient with diabetes.

DR. C. L. DANA had a diabetic patient under his care who had been a large eater all her lifetime, and he had understood that the diabetics in India were mostly women who had been overfed. That is, one source of diabetes was in overfeeding with insufficient exercise.

DR. WALKER thought it very difficult to determine whether or not people were large eaters, as many claimed to be small eaters, when it was known that they were not.

DR. C. S. WARD asked Dr. Dana if he thought overfeeding was common in this country?

DR. DANA thought it was not common in this country.

DR. BALL believed that overfeeding of itself would not explain the occurrence of diabetes. It was well known that persons could take large quantities of starch and sugar, if otherwise in good condition, without the appearance of sugar in the urine.

DR. WALKER said that almost all the diabetics he had seen were naturally fond of articles of diet containing large quantities of starch and sugar.

DR. DANA said the point to which he referred was that persons who have diabetes from mental strain, grief, etc., are those who have been in the habit of eating largely all their lifetime.

DR. BALL thought it was not so; at all events, he knew it was not true with regard to some of his patients.

TESTS FOR SUGAR IN THE URINE.

DR. DANA said he had been using Johnson's bed-side test-papers made by Parke, Davis & Co., and they had proved very unsatisfactory. With regard to the bismuth test, it was convenient, but it had seemed to him that it was not very delicate. The test consists in rendering the urine alkaline and putting in a pinch of subnitrate of bismuth, and then boiling the mixture; if sugar was present a black precipitate was thrown down.

DR. MCBRIDE said that he had the pleasure last year of meeting Seegen, of Vienna, who impressed upon him the importance of recognizing sugar in the urine, and since that time he had seen results which had made him say with great confidence that with organic disease of the nervous system the patient would be very much improved when sugar disappeared from the urine. He had repeatedly seen specimens where by the ordinary methods of examining urine, sugar was not detected, whereas by the Seegen method it was readily recognized.

The method consists in filtering urine through *blood charcoal*, then washing the charcoal with distilled water, and examining the third and fourth washings for sugar by means of Fehling's solution. Blood charcoal retains those substances which prevent the precipitation of the copper; not only the uric acid, but the substances with which we are not entirely familiar. The first filtrate sometimes does not show the presence of sugar; but the third washing always will, if it be present.

As corroborative of Seegen's views Lauder Brunton, in an article published in the "St. Bartholomew Hospital Reports, 1880," calls attention to the fact that certain specimens of urine give a purple color with nitric acid, which give no precipitate with copper; but if more water is added, sufficient to overcome the influence of those substances which hold sugar in solution, then the precipitate with copper is obtained. That is what Seegen gets when he washes the charcoal and afterward examines the washings for sugar.

Blood charcoal is difficult to obtain, and animal charcoal *does not* give the same results; the former is essential to the detection of small quantities of sugar.

DR. BALL remarked that it would seem that Seegen ascribed great importance to very minute quantities of sugar in the urine.

DR. MCBRIDE said that he did.

DR. R. F. WEIR remarked that most English authorities said that small quantities of sugar in the urine might be disregarded.

DR. MCBRIDE said that by the ordinary methods, as Fehling's solution, etc., five per cent. of sugar might be overlooked, the sugar being held in solution by certain other substances which the urine contained. He then cited cases of nervous disorders in which marked improvement followed the disappearance of sugar from the urine: for example, a case of left hemiplegia, in which the urine contained only a moderate quantity of sugar, but in which the paralysis disappeared entirely with the disappearance of the sugar from the urine.

DR. WEIR said, *per contra*, there were many cases of nervous affections with temporary glycosuria in which the cure of the former was followed by the disappearance of the latter.

DR. MCBRIDE said certainly, but here is another observer (Seegen) who makes the opposite statement and

has thousands of cases to prove it. Dr. McBride did not wish to convey the idea that when the precautions mentioned were adopted only traces of sugar were found, as it might be present in considerable quantities, and we are yet in the dark as to what substances hold the sugar in solution.

Dr. Weir asked Dr. McBride if by using Fehling's test and detecting one-tenth sugar he had in such specimens resorted to the new German test (Seegen's) and found that it precipitated a much large quantity of sugar.

Dr. McBride replied that, not finding the one-tenth, he resorted to Seegen's method invariably; but he could not speak positively concerning an increased quantity found by the newer test.

With regard to test-papers, he had used the English papers considerably, and had found that they answered very well; but the same objection applied to them that applied to Fehling's solution.

THE MOST FREQUENT COMPLICATIONS NOTICED.

Dr. Ball reported a case which illustrated the rapidity with which diabetic coma might appear. A man was brought into St. Luke's Hospital, nearly comatose, and the history, so far as could be obtained then, was that he was a bartender, who had been up all night, and at about five o'clock in the morning he suddenly fell to the floor and became unconscious. There was no evidence of violence, nor of paralysis, and in the absence of these the question of uræmic coma arose. The bladder was found distended with urine, and forty ounces were drawn. The temperature was 97° F. in the rectum, and the pupils dilated. The breathing was peculiar, rapid, with full inspirations, and it seemed to Dr. Ball to be very much like that he had recently seen in a fatal case of diabetic coma. He directed that the urine be tested, not only for albumen, but for sugar; both were found, and the latter in very large quantity. On the following day Dr. Ball obtained from the relatives a clear history of diabetes, from which the man had been suffering for some time. The urine was tested also for acetone, but none was found, nor did the patient's breath have the characteristic odor when it is present in the urine. The case terminated fatally within thirty-six hours after admission, and at the autopsy there was the usual absence of characteristic lesions. The feature of the case especially interesting was the rapid development of the coma.

Dr. Walker said that one of his patients was a man advanced in years, who died of *fibrous phthisis* developed in the course of the diabetes; it was the only case that had terminated in phthisis.

Dr. Dana remarked that an active discussion was being carried on, in which it had been claimed that there was no such thing as the bacillus tuberculosis in the phthisis of diabetes, and consequently that it was not tuberculosis.

Dr. Ball thought it was the ordinary and generally accepted theory that the phthisis of diabetes is not tubercular phthisis.

Dr. Walker said that in his case there was a history of a pneumonic process, but there was no examination of the sputa.

DIABETES AND LOCOMOTOR ATAXIA.

Dr. Dana brought up the subject of the relation between *diabetes and locomotor ataxia*. A patient who had been treated by a competent physician for locomotor ataxia came to him supposing herself to be suffering from that disease. On examining the urine sugar was found, and there were symptoms of diabetes quite well marked; there were also symptoms of locomotor ataxia rather more strikingly marked than those of diabetes; loss of tendon reflex, a peculiar gait with a certain amount of uncertainty in the movements, pains, especially in the legs, etc., but she did not have the symptom of inability to stand with the eyes closed, there was absence of the Argyl-Robinson pupil, the pupils were natural, etc. There had been persistent insomnia, which is rather more characteristic of diabetes than of tabes. Under treatment for locomotor ataxia she was growing worse, but under diabetic treatment she had been improving.

Dr. McBride thought it was not always easy to make a differential diagnosis between diabetes and locomotor ataxia. Since reading an article, some time since, on the patellar reflex in diabetes, he had observed and found its absence and presence about equal, and had also found that it was absent in temporary glycosuria, and that it returned on the disappearance of the sugar from the urine. He then referred to a case of diabetes in which there was diplopia, absence of patellar reflex, presence of fulgurating pains, with some disturbance of equilibrium on standing with the eyes closed, a history of facial paralysis occurring some years before, etc., and he certainly, a few years ago, would have regarded the case as one of locomotor ataxia. But he had not seen a case of diabetes in which the Argyl-Robinson pupil was present, but there had always been a great improvement in the nervous symptoms with the disappearance of sugar from the urine under the use of iodoform and Clemen's solution (arsenite of bromine).

Dr. Dana further remarked that his patient also had brief attacks of aphasia, which he thought was characteristic of diabetes.

Dr. McBride had had one patient in whom there was aphasia, which disappeared within a week after the disappearance of sugar from the urine.

TREATMENT.

Dr. Ball called attention to one case which showed what a marked effect a small quantity of starchy food could produce on the urine. A lady who had been suffering from diabetes for more than a year came under his care, and at that time was practically taking a diabetic diet, with the exception of thin slices of bread daily, the whole of which weighed about *three ounces;* but she was passing about two thousand grains of sugar daily. On confining her to a strictly diabetic diet, the quantity of sugar diminished rapidly, and at the end of a week the urine contained practically no sugar, according to the usual tests.

Dr. Beverley Robinson referred to a case in which a proper diet was instituted, and after the use of various drugs during a period of six or eight months, the remedy which gave the best results was the sulphide of calcium. Clemen's solution (bromide of arsenic) had been used without any effect on the quantity of sugar in the urine.

Dr. Weir had had five cases; two rather temporary, and the other three more permanent. Dietetic treatment was introduced, according to Cantani's plan; that is, to starve the patient for twelve or twenty-four hours before beginning the diet for diabetics. This method, with sulphide of calcium, three to five grains a day, had given better results than anything which he had heretofore tried.

Dr. Ball said that in a case, now under treatment, the sulphide of calcium had proved more successful than any remedy which had been used.

Dr. Weir further remarked that in *three* of his cases he gave bromide of arsenic (Clemen's solution) without producing any appreciable benefit.

Dr. Robinson said that in St. Luke's Hospital, since 1872, there had been admitted twenty-two cases of diabetes, twenty males and two females.

Dr. Dana had used codeine with good results. He had reduced the pain and diminished the quantity of urine with the oil of gaultheria more than with any other remedy. He thought that Clemen's solution was no more effective than Fowler's solution, and that it was substantially the same preparation of arsenic.

Dr. McBride had been very much pleased with the effects produced by Clemen's solution and iodoform. If

Clemen's solution was the same thing as Fowler's solution, it was much stronger. Iodoform, in three- or four-grain doses, had acted very favorably.

Within the last year he had seen several cases which were interesting because there were certain starchy articles that could be taken without doing harm; for example, potatoes and corn-cakes; and a case had been mentioned to him by Dr. W. M. Carpenter in which the patient could eat buckwheat cakes without producing sugar in the urine.

The best bread for diabetics which he had seen was that made by G. B. Hecker of Cherry Street, who became interested in the preparation of the bread, because of a son who had diabetes.

Dr. Walker had had one diabetic patient who could take buckwheat cakes with impunity.

Dr. Robinson referred to a case in which the patient was obliged to use the glasses for reading which he formerly wore when walking in the streets. There was a large quantity of sugar in his urine, and an oculist had told the patient that the necessity for changing his glasses was due to lessening of the intra-ocular tension.

Dr. Weir mentioned a life insurance company in which it was the custom to accept applicants whose urine contained only a very small quantity of sugar, because experience had shown that the longevity of the persons was as great as that of other people.

The Society then went into executive session.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

MESMERISM—A MESMERIC DISPLAY AT MANCHESTER—THE NEW GUIDE TO THE NEW PHARMACOPŒIA—THE LATE JOHN GAY, F.R.C.S. ENGLAND—THE LATE FRANCIS HARRIS, M.B. CANTAB.—MORE DEATHS IN THE PROFESSION — THE LATE DR. M'DOWELL—MR. HENRIQUES —MR. EDWIN CANTON—MR. T. S. WALKER—THE INTRODUCTORIES AT THE LONDON HOSPITALS FOR THE NEW SESSION—VIEWS OF MR. COWELL, DR. FOWLER, PROFESSOR SCHÄFER, MR. PEPPER, AND MR. HOLMES.

London, September 29, 1885.

There is nothing new in mesmerism, and yet it retains the power to set up violent assertion and contradiction. At Manchester a certain professor, of whom, as he hails from your side of the water, we must speak with respect, has been giving a sort of exhibition which has provoked much remark. By some kind of interest the professor secured the use of a hall in Owens College, and great is the outcry against the rulers of that institution for thus sanctioning the pretensions of this pseudo-science.

A certain class of mind is naturally excited by the wonders which are easily produced. Others resent what they regard as an attempt to impose on their commonsense and to take advantage of their easily deceived fellow-creatures. Doctors familiar with the strange truths and falsehoods of hysteria are not very tolerant of the pretensions of mesmerism, electro-biology, *et hoc genus omne*. I remember very well some years ago a lecturer giving a number of rather striking illustrations, in a provincial public hall, of the wonderful power he possessed over some of those present, compelling them to assume attitudes and perform antics which kept the rest of the audience in roars of laughter. A doctor in the town, with whom I was staying, went to the lecture, and at the conclusion proposed to give those who liked to stay an explanation. He entered fairly into it, and when the people seemed a little doubtful told them he could do the same things himself, and although, as he told me, he had never before seen the things done. Do them he did, and with great success, and as he and all the persons operated on were well known in the town, there was no collusion in the matter. He then asked the lecturer to operate on him, but I need not say he was not a good subject, and the electro-biologist could not control any of his actions.

There is in London a small building called the Mesmeric Hospital, and perhaps the American gentleman may get the use of that, now he has stormed the scientific castle of Owens College, where it seems the *medical* students were not so impressible as the rest of the audience.

In a previous letter I gave you some account of the new British Pharmacopœia (which appeared on the 2d of this month), so far as a first examination permitted. Of course it is the subject of common conversation; it being so long since the work was revised. I have now to announce that already one of the London teachers of materia medica has brought out a little volume to assist practitioners and students in digesting the new authoritative standard. I have before me a copy of this little book, entitled "A Guide to the New Pharmacopœia," by Prosser James, M.D., Lecturer on Materia Medica and Therapeutics at the London Hospital. It is a neat little book of over one hundred pages crown 8vo, and gives an epitome of all the changes, then a full account of all the new drugs admitted, their characters, uses, dose, and modes of administration, with a very full therapeutical commentary. The author aims to make it a supplement to the Pharmacopœia, as well as to manuals of materia medica. It is so full that really if bound up with the old Pharmacopœia it would save buying the new.

So it brings down to date, so to say, all the text-books of the materia medica. In these last many of the new drugs are, of course, treated, though more briefly than others, and the words "non-officinal" are generally prefixed. This serves to tell students to pass them by, and the result has been they were little studied. Dr. James' "Guide" can therefore be referred to in the margins in reference to these and also a mark should be put showing where to find other drugs, and thus an old copy of a text-book brought down to date and again made useful. Of course this will not last, as new editions will come out (a new edition of Dr. Whitla's little manual is announced as nearly ready) and new students will buy them; but in the meantime many will be thankful to get for half-a-crown all they need for the present in this little "Guide," which seems very complete, for I have found in it reference to mere trifling changes, showing how minutely it must have been examined.

In my brief summary in a previous letter I ventured to criticise some of the changes made, especially in regard to the strength of active remedies. It is gratifying to find this professor of the subject has similar opinions, and has put in the forefront of his "Guide" a signal as to changes which may be dangerous. He also interspersses the details of chemistry, botany, pharmacy, and so on, not only with a therapeutical commentary, which I suppose must be accepted as authoritative, but with bits of information and, *horribile dictu*, with criticisms on the conscript fathers of the medical council and their new Pharmacopœia which make it lively reading, so far as I have gone. The book only appeared yesterday, but I have read enough to predict it will create some talk, and here and there some of the sarcasms will not be relished.

Many of your readers will remember the name of John Gay with respect, and be familiar with his contributions to surgery. He died on the 15th inst., full of years, and the honor and respect of all who knew him, as a man of high principle, who had worked steadily and well in his profession, and achieved the distinction due to ability conjoined with industry. Your younger readers may imagine from the work he put into his Lettsomian lectures (1867), on varicose disease of the lower extremities, that he was still in his prime, but he was then getting on in life, having been born in 1813. So much the more creditable to be engaged in numerous dissections in order to give his lectures greater value. His last contribution was on hæmorrhoids, and meeting him about that time

I was forcibly struck with the degree to which he had aged since I saw him some years previously.

However, we spent a very pleasant evening together, and I found his mind as active as ever. Some time after, about two years ago, the cloud gathered—cerebral mischief occurred, paralytic symptoms appeared, and, with slow but steady progress, the end came.

Another notable death may be named, Dr. Francis Harris, who was Consulting Physican to St. Bartholomew's Hospital. He was only fifty-five years of age at his death. He had retired early from the active staff of "Bart's," as he had means sufficient without practice—but he had worked so well for his hospital that he was made "Consultant." He was a Cambridge graduate.

London, October 1, 1885.

My last letter concluded with a reference to some recent deaths. Others remind us how the enemy is always among us. Though not a Londoner, Dr. B. G. McDowell was not unknown to some of us. I had had various communications with him. He had achieved such distinction in Dublin that on the death of Dr. Hudson, four years ago, he was made Physician to the Queen in Ireland, to the satisfaction of all his brethren. He was a man of great ability and wide learning. He exemplified the possibility to some men of doing more than one thing well. He had been a hospital surgeon, then became a hospital physician, professor of anatomy, and eventually examiner in medicine. He contributed valuable papers to Todd's "Cyclopædia of Anatomy and Physiology," to the *Medical Press and Circular*, etc. He died on September 15th, after a few days' illness, at the age of sixty-five.

The late Mr. Henriques, who died on September 8th, in the ninetieth year of his age, was a somewhat remarkable figure. He had long retired, but had practised successfully in Jamaica from 1820 to 1825. He underwent lithotrity at seventy-five and enjoyed his after-life. He was the real hero of the story told by Sir A. Cooper of one of his pupils, a lad who came to study from the West Indies, and on his return had the skill and courage to operate on his father for double cataract. Success attended the venture, and the plucky young surgeon had the joy of restoring his parent's sight.

Contrasted with some of the peaceful deaths I have lately reported, how sad is the story of the close of Mr. Canton's life! He was found dead on one of the seats on Hampstead Heath, a bottle lying beside him which had contained prussic acid. He was Consulting Surgeon to Charing Cross Hospital, at which institution he had worked for many years, during which he added to medical literature some valuable contributions. Of these your readers may probably have remembered his book on arcus senilis. I well remember meeting him after its publication, and talking over that and other medical topics, little dreaming that the active mind to which I was then introduced would succumb to the cares of life in so sad a way. He was a popular teacher in his school, and his lessons in surgery and surgical anatomy were well exemplified in his care of patients and his dexterity and skill as an operator. With the most exact knowledge of the anatomy of the part, amounting to an ability to keep before his mental vision a perfect picture in every detail, his confidence never failed. Still he was never reckless—no precaution was ever omitted, and every operation was performed carefully, although with the dexterity of the most accomplished expert. There are young surgeons in London to-day who would do well to imitate Edwin Canton, rather than seek reputation as operators by risks which patients would not run if they were able to judge. Mr. Canton published some valuable illustrations of surgery and pathology, of which those on "rheumatic arthritis" will be specially remembered. He collected and carefully examined many specimens, which he afterward presented to the museum of his hospital and to the College of Surgeons. His literary abilities were also enlisted by non-medical papers, and among others he contributed to *Punch*. Active, zealous, witty, his company was very pleasant, and many will regret that his mind, which had for some time become clouded, should have been so completely unbalanced at last. He had retired from work for six or seven years, and at his decease was in his sixty-eighth year.

Mr. Whitefoord, M.R.C.S., formerly practising at Hammersmith, lately died by his own hand. He had the misfortune to contract blood-poisoning about four years ago, and had suffered much ever since. His mind at length gave way, and going into his consulting-room on the 25th he cut his throat and tried to jump out of the window.

To these sad fatalities may be added one or two reported in the papers as occurring abroad from overdoses of morphia, taken apparently medicinally, by members of the profession.

From Liverpool comes the news of the decease of Mr. Thomas Shadford Walker, who had achieved a position in ophthalmology which will have made his name known to your readers. He was Lecturer in the Medical School, and Surgeon to the Special Hospital in Liverpool. His contributions to the "Medical and Surgical Reports" of the same place were noteworthy, and had received extensive consideration among specialists.

October 2d.

October 1st—the great opening-day of all the English medical schools—has just passed, and the introductory lectures are to-day the one topic of medical gossip. Yesterday there was no address at St. Bartholomew's, which has for some time discontinued the custom, nor at one or two schools which have followed its lead. The London Hospital, now the largest in the kingdom, had also no opening ceremony, the college being in the course of enlargement. At the Westminster the new school buildings were opened, and the introductory lecture duly delivered by Cowell, who gave a short history of the four buildings in which the teaching has been carried on since 1834. He then said a word in favor of lectures, the value of small schools and demonstrations, and passed on to topics of more general interest—the restraint of lunatics, and the need for a real university in this great city. He objected to "watering down" the degrees of the so-called University of London, and would prefer the setting up of one or two new universities to do the work so urgently needed. It is strange how screwing up the standard, so as to compel men to cram for a degree, should blind even practical men to the injury thus inflicted on professional education. The time young men waste in getting up the minutiæ of theory—pure book-work—when they ought to be in the wards of the hospital, may give them success at an examination, but cannot make them either physicians or surgeons.

At the Middlesex Hospital the same subject was touched by Dr. K. Fowler, who though he said the present rage for titles was an evil, held it to be a much greater misfortune that for the sake of getting a degree a student should go to a school where clinical teaching hardly existed and where he had no chance of obtaining resident appointments, and he expressed his hope that the various schemes now before the professional world would result in the institution of a London degree which shall maintain in the purely professional subjects the high standard of the older universities, and for which the other requirements shall not be beyond the reach of men who are fully worthy of the distinction. Dr. Fowler fully recognizes that the relative value of all honors is only to be understood by the initiated, and so long as the mere accident of a man studying in London virtually deprives him of distinctions attainable on easy terms in Ireland or Scotland, the London schools must suffer from the injustice they have so long patiently endured. Dr. Fowler also dealt with the dangers of the present state of our lunacy laws.

At University College Professor E. A. Schäfer, F.R.S., delivered himself of his views on medical education, of

course putting his own subject first, after the manner of the majority. It must be confessed in some things he had much on his side, and it was refreshing to hear him say he should be sorry to confess how little he retained of the dry bones of anatomy with which he had been stuffed before he became a teacher of physiology. Then he fell foul of materia medica—probably as the subject too often abused, or as the one, if eliminated, which would make room for more time for physiology. He forgot, however, that the London teachers of materia medica have largely effected the reform, inasmuch as they have devoted their lectures to therapeutics rather than to botanical or chemical details; and this with the cognizance, and therefore the sufferance, of the examining boards. Mr. Schäfer sketched an excellent course of training, and one which industrious and wealthy men would do well to follow, but one, it is to be feared, quite impracticable. Students as a rule are not rich, if industrious, and they do not want to become investigators in the region of physiological research. They have a limited time in which to become practitioners, not scientists; doctors, not physiologists. It is the forgetfulness of this by examiners which is so much to be deprecated. It may be of vital interest to Mr. Schäfer to know that in the laboratory of Hinab a research was made which is in direct contradiction to the results obtained at Hinauf; but every general practitioners knows that he can afford to wait until the gentlemen of Hinauf are reconciled to those of Hinab, or until some quiet British experimenter, unendowed and unrewarded alike, shall show that neither Hinab nor Hinauf is to be trusted, as both are wrong.

Still every one must feel that Mr. Schäfer has right on his side when he protests against London being unable to get a shilling from the treasury for the endowment of science, while Ireland can get new universities and colleges, Scotland building grants and endowed professorships, and even little Wales a moderate subsidy.

The reason is obvious. Scotland would make it unpleasant to a minister who refused; Ireland has long taken the bribes offered and asked for more; the request of Wales is so very modest, still it is unanimously supported. But England, especially London, has no cohesion. Now and then a lecture like Mr. Schäfer's is delivered, but there is no union among the teachers, no possibility of approaching a ministry in a way to command attention, if not compliance; so statesmen of either party can afford to ignore the demands of doctors or scientists alike.

Mr. Schäfer sees this, and closed his lecture with a demand for unanimity in pressing on Government the duty of making a provision for medical education in London second to that of no city in the world.

At St. Mary's Hospital Mr. Augustus J. Pepper delivered the lecture, and he, too, dilated on education and degrees, his opinions serving to show how impossible it seems to be to attain the unanimity which Professor Schäfer demanded.

Mr. Pepper is a distinguished graduate of the London University, and he has a horror of any proposal to make its degrees more easily attainable. He says that he would "rather it ceased, and be henceforth only a name and an influence." He is willing to see a new teaching university, but not if that be made subservient to the design of rivalling Scotch universities. Mr. Pepper is a young teacher, he already sees some of the difficulties of the London student, and is half conscious of the injustice under which he labors.

But Mr. Pepper mistakes the position. He is not correctly informed as to the object of his university's foundation "by royal charter," and he talks of "the sacrifice to one of the most despicable traits of human character" in a manner to suggest he has not grasped the "exigencies of the situation." What are these "despicable traits?" Simply the demand for justice on behalf of London—that London students shall have the same distinctions open to them as their Scotch and Irish fellows, and that his university shall either do its duty or stand aside, and be nothing but a name. Mr. Pepper is one of those men who would always succeed at an examining board, and he cannot, apparently, see the difference between a passman and a prizeman. With "all his blushing honors thick upon him," it is almost shocking to hear him cry out lest others should get a degree more easily than he has done. He has become an examiner. What will happen if he is suffered to carry out such views, and keep up the pass standard to that of honors? Mr. Pepper then commended general literature to the attention of students. This is the more to be commended, since some people have whispered that he could not have paid much attention to this, or he would never have had time to gather so many medals. Readers of his otherwise excellent "Manual of Pathology" have expressed to me their chagrin that its style was so defective.

At St. George's Hospital, Mr. Timothy Holmes, whose "Manual" and "System of Surgery" are so well known, was the lecturer, and he passed in review the colleges, schools, and hospitals. He admitted the defects of the two royal colleges, but seemed to anticipate that the project for amalgamation might result in a remedy, and that if invigorated by a more popular organization, the influence of a body such as would be produced would be paramount, and we might then look for the redress of many abuses which are now felt in our daily life. The misgiving most will have as to this prospect arises from the doubt whether corporative selfishness can be exorcised from these ancient but corrupt bodies.

OUR CANADA LETTER.

(From our Special Correspondent.)

AN INTERESTING MEETING—PERSONAL ITEMS—NEW HOSPITAL FOR WOMEN—DEATH OF A VETERAN—SMALL-POX IN MONTREAL—A NEW THEORY—OPENING OF CANADIAN SCHOOLS OF MEDICINE.

THE recent meeting of the Canada Medical Association at Chatam is spoken of as one of the most pleasant gatherings since the formation of the Association. The welcome presence of several American visitors, and the interest they manifested in the different discussions in the several sections, gave rather an international character to the assembly.

Dr. Hingston, of Montreal, has the honor of being the first surgeon in Canada to remove the kidney for cystic disease of that organ. The patient, a young lady, made an excellent recovery.

Dr. Charles O'Reilly, the genial Medical Superintendent of Toronto Hospital, has just returned from Europe, where he has been making a tour of inspection through the large hospitals of the continent.

Dr. William Osler, of Philadelphia, formerly of McGill College, Montreal, has been selected to deliver the next course of the Cartwright lectures. Dr. Osler is a Canadian sojourner in the United States, and has many warm admirers in the Dominion, where he is largely known.

The Sisterhood of St. John the Divine, of the Church of England, have opened in the city of Toronto a hospital for women. Although this institution cannot claim great dimensions at present, a grand and useful career is predicted for it. The rules governing the hospital are simple and can without difficulty be complied with. Unlike many other such institutions, the surroundings do not savor of that red-tapery which too often lessens the usefulness of such enterprises.

The death of Dr. John Mackieson, of Charlottetown, P. E. I., is announced. He had been in practice for over seventy years and was the oldest practitioner in Canada. The positions he held during his lifetime indicate the high esteem in which he was held by his fellow-citizens.

The prevalence of small-pox in Montreal has awakened

the local boards of health in every section of the Dominion to somewhat increased diligence. The organization of local boards of health is much more advanced in Ontario than in any of the other provinces. Already there are between two and three hundred boards organized. Each municipality in Ontario is required by an act passed at the last session of the Legislature to organize a local board of health, and there are six hundred separate municipalities in the province. A medical health officer is generally associated with each Board. The Public Health Act of Ontario may well be copied by the other provinces in Canada. There are at present over eight hundred cases of small-pox in Montreal.

Dr. Buck, of London, Ont., has enunciated the fact that if a patient be not thoroughly under the influence of chloroform, any irritation of the fifth nerve will produce slowing of the heart and final stoppage through the pneumogastric nerve.

The Canadian medical schools are again resuming their work, and as usual the attendance is said to be largely in excess of that of any previous session. The buildings of the Toronto School of Medicine and Trinity School of Medicine have been greatly improved during the vacation, and the museums of each have been made much more attractive. McGill College, Montreal, which enjoys a large endowment, has been much enlarged, and is now said to be better equipped than at any previous time in its illustrious history. The faculty of the Royal College, Kingston, has been greatly strengthened by the addition of new material, although the past few years have witnessed the removal from the teaching staff there of some most excellent men—notably, Dr. M. Lavell, one of the oldest and most esteemed teachers in the province, and who has acquired more than a local fame as a practical gynecologist. He has retired to accept the position of warden of the Provincial Penitentiary, an office to which he will bring the best of qualifications. The Royal College has secured the services of Dr. William H. Henderson as Lecturer on Physiology. This gentleman has devoted a great deal of time and study to his specialty both at home and in Europe, and although a comparatively young man has secured considerable distinction as the reward of his industry. Dr. Sullivan, who has filled the chair in Surgery for many years at Kingston, has been called to the Canadian Senate, in the halls of which legislative body he will in future give vent to the same fervid eloquence that characterized him as a lecturer. No changes of any importance have been made in the faculties of the other Canadian schools.

How Brain-workers should Live.—A letter, written by Mr. Edward Everett Hale, is published in the *Herald of Health*, in which the writer relates the mode of life which he has found by experience to be most conducive to health while engaged in literary work. The letter contains some very practical points, especially upon the necessity of sleep, which are so apt to be ignored. He has found that, in order to procure sleep, the brain must not be excited or worked hard for at least six hours before bedtime, and consequently the greater part of the work must be done in the morning or early afternoon, and none at all in the evening. The latter period is to be spent in light reading or other form of recreation. Another point which the writer has learned well from experience is the necessity of good substantial food and plenty of it. Food and sleep are absolutely necessary for everyone, and above all for those who work with their brains. It is seldom hard work that kills, but irregular work, and work performed at the wrong time. Young men who perform their most severe literary labor in the evening, and there are many of them, are men who are abusing their powers, and who, in nine cases out of ten, will live to regret their imprudence, if they live at all.

New Instruments.

A NEW POST-NASAL CUTTING FORCEPS.

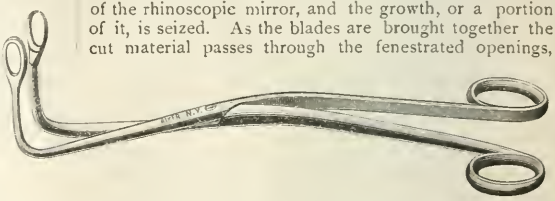
With Illustrative Case of Adenoid Tumor.

By H. HOLBROOK CURTIS, M.D.,

NEW YORK.

Several cases have presented themselves to me in which I found large adenoid growths invading the pharyngeal vault, about which it was difficult to adjust the wire of Jarvis' snare or the thermo-cautery, and for the removal of which no satisfactory cutting forceps have as yet been presented. I append the cut and description of a new instrument, which, in my hands, has proved very satisfactory, and which promises to do away with the difficulties which now present themselves, especially in those cases where the growth is flat and has no constriction at the base, or so large that the greater portion of the pharyngeal vault is occupied.

The forceps are made on the principle of a Thomas' double uterine curette, the sharp edges continuing all around the opening, the blades approximating as the instrument is closed. The forceps are introduced by aid of the rhinoscopic mirror, and the growth, or a portion of it, is seized. As the blades are brought together the cut material passes through the fenestrated openings,



which enables the operator to incorporate a much greater portion of the growth at one cutting than when the ordinary cup forceps are employed. I have had the forceps manufactured at angles of seventy, ninety, and one hundred and twenty degrees for greater convenience in operating, though the seventy degrees forceps are all that is absolutely required. These forceps will remove, piece by piece, with great ease, any adenoid growth in the pharyngeal vault with but the slightest amount of discomfort to the patient. Below is reported a description of the case for which the forceps were devised as being one of special interest.

Miss R——, Brooklyn, came to me on May 1st with history as follows: Patient had been unable to blow her nose for several years; was of necessity a mouth-breather; was growing deaf; eyes were very weak; had difficulty in breathing on slight exercise or going up-stairs; suffered from general malaise; was anæmic; digestion good; face had the characteristic, anxious look, and the contracted upper lip of a patient suffering from nasal stenosis; complexion eczematous; a watery discharge from the nose was constantly troublesome. Examination of the nostrils revealed much hypertrophic stenosis. The pharynx was congested. On saying Ah, the lower border of a pharyngeal growth appeared on either side of the uvula. Rhinoscope examination showed the entire pharyngeal vault to be occluded by a tumor attached to the basilar process, pale in color and very solid in consistency, as determined by palpation. The tumor was so large that it was impossible to pass a wire loop over it through the pharynx, as the anterior portion appeared to intrude upon the mares. The growth had pushed forward the soft palate, leaving abundant space behind the uvula for manipulation. Having procured the forceps made on the pattern of the cut inserted above, and after applying a six per cent. solution of muriate of cocaine, I attacked the growth with the forceps, each time removing pieces as large as a good-sized pea, until I had taken out six or seven such. The pain occasioned was not excessive, but I was obliged to delay operating on account of the hemorrhage, which, however, was slight and

readily controlled by means of a pledget of cotton and a simple astringent. My patient returned every third day, and in thirteen sittings the tumor was entirely removed. I sent pieces of the growth to Dr. Stowell, who reported it a simple adenoma. By means of the forceps I was enabled to trim with great nicety the pharyngeal vault in a more satisfactory manner than I have ever succeeded in doing with the snare. The removal of the nasal hypertrophy and Eustachian catarrh next occupied my attention. This was effected by thermo-cautery and chromic acid applications to the swollen tissues over the inferior turbinated bones, keeping the parts well cleansed and inflating the Eustachian tubes with the vapor of iodine and ether. The patient reported to me on the 20th of August. She was breathing through her nose; had increased much in flesh; was strong, healthy, and in good spirits, being most grateful for the benefit she had received. I consider this mode of extirpation the very best. Firstly, one is conveniently able to remove a small piece of the tumor from a difficult location and examine it for purposes of diagnosis. Disagreeable hemorrhage is prevented. The difficulty of adjusting the thermo-cautery wire or snare loop is overcome; and secondly, the idea of an operation, which in itself is ofttimes horrible to the patient, is done away with. The average person will be much more content to have a few pieces removed at a time than submit to an operation, with its necessary preparations, just as many persons insist on the frequent application of chromic acid to the tonsils instead of allowing amputation.

29 West Thirtieth Street.

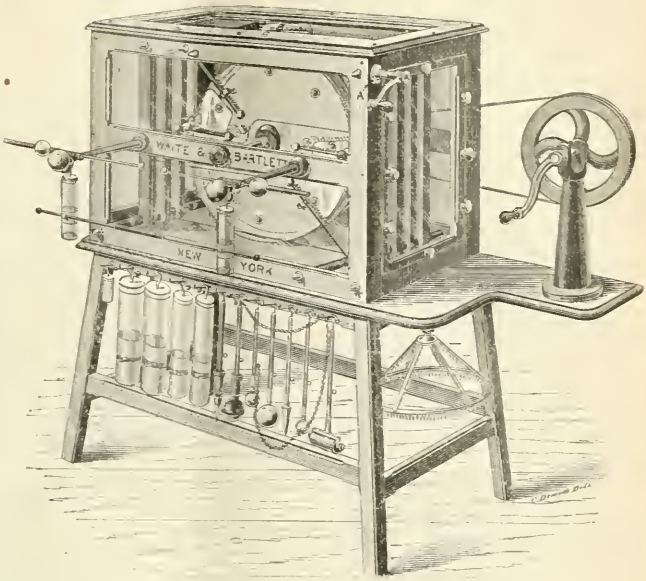
A NEW APPARATUS FOR GENERATING STATIC ELECTRICITY.

By AMBROSE L. RANNEY, M.D.,

New York.

I would call the attention of the profession to an improved static machine which has been lately devised by me.

It is the result of many months of experimentation, and is the outgrowth of the dissatisfaction which all other devices for generating electricity by friction have afforded myself, as well as others who have employed them. By those who have had experience with static machines it is generally conceded that they are frequently charged with difficulty and give but a feeble spark during damp weather; and that they are particularly unsatisfactory and of little service during the summer months, when such conditions are liable to prevail. It is also conceded that some form of motor is generally required to run a machine of large size, because the hand is soon fatigued in overcoming the friction of the plates upon the rubbers in addition to that produced by the bearings of the axle, and the belt which connects the driving-wheel with the axle. Furthermore, it is now well recognized that plates of large size (16 to 24 inches in diameter) and several of them are absolutely essential to a machine which is intended for medical use. Small single-plate machines do not give sufficient quantity or length of spark to be of any practical benefit as a curative agent. Again, it has been found by experience that building a glass case over a static machine does not thoroughly protect the plates of the instrument from dampness. No cabinetmaker can make joints of wood which will not admit of much moisture when the outside air is impregnated with it; and chloride of calcium, if placed within the case, will not absorb all the dampness



that enters and collects upon the plates and metal of the machine.

For a long time, I was in the habit of burning an alcohol lamp of large size within the case of my own machine during damp weather to obviate this serious objection; but to insert and withdraw the lamp the doors of the case had to be opened, and the plates were thus unduly exposed to moisture.

In the second place, I found by experience that all the electrodes of a static machine (being insulated by glass) were liable to be easily broken; and that the poles of the instrument, when by accident exposed to outside violence or a blow, were also liable to cause a breakage of the glass windows in the case of the machine which they perforate in most of the later models.

In some machines, the case is moreover too small for the plates and allows of an escape of more or less of the electricity generated. The first machine which I made upon the present plan had this objection. It would give the operator an occasional shock in consequence of this defect when the hand was used as a motor, and it lost a large percentage of the volume of electricity generated by "grounding" that proportion which jumped to the metal parts of the case.

Without entering further into numerous difficulties which I have had to encounter and overcome, I may summarize the more important improvements made in the machine shown here in the accompaning cut, as follows:

1. The case is so constructed that all of its joints are packed with soft rubber before its screws are tightened. This prevents the entrance of moisture from without and makes the machine a useful one at all seasons of the year.

Soft rubber now constitutes the best packing for steam apparatus, and is also used in hermetically sealing fruit-jars in preference to any known material. All imperfections in the joints of the case are perfectly sealed in this instrument.

The *doors of the case* are so arranged as to be drawn tightly in contact with a frame covered with soft rubber by means of milled screws.

The glass in the case is put into the frames with putty, which is impervious to air.

The poles of the machine perforate the wooden portion of the case instead of the glass windows. They are insulated with hard rubber and the apertures are protected by soft rubber packing placed between hard rubber buttons and the wood. Thus the danger of breakage of the case by accident is decreased without impairing its impermeability to dampness or allowing of leakage of the electricity generated when the machine is in use, while the strength of the case is materially increased by this modification.

2. The axle is so built as to reduce the friction to a minimum and to allow of its being oiled without opening the case.

3. The driving-wheel is very large and rests upon a cast-iron support. This insures both ease of motion and durability.

4. The glass plates of the machine are nine in number. Six of these revolve and three are stationary. The stationary plates are of peculiar shape. The revolving wheels are made of carefully selected glass, so as to be as true as possible and bear evenly upon the rubbers as they revolve.

5. The excitants consist of cat-skin rubbers between the inner plates and metal buttons upon the outer plates, which touch as they revolve upon fixed metal brushes.

6. The collectors have tinsel attachments which aid in gathering the electricity generated.

7. The electrodes are made with handles composed of hard rubber instead of glass. They are therefore less liable to be broken and are as perfectly insulated.

8. Each machine is provided with three pairs of Leyden jars of different sizes. It is arranged also with hooks upon which the electrodes may be hung when not in use.

In conclusion I would say that I have produced with the machine here described, and now in my office (24-inch plates), a spark of eleven inches in length during a muggy day in August, when most static machines would fail to charge. It runs, after a few turns by the hand, for nearly a minute without any power and generates without interruption. Any boy of seven years of age can run it without fatigue for half an hour.

Respecting the uses of static electricity in medicine I would refer the reader to my lectures, lately published in the *New York Medical Journal*.

The machine here described is manufactured by Waite & Bartlett,[1] of this city, who have been industriously occupied for several months in perfecting it under my guidance.

The cost of this machine has been materially reduced from the schedule prices of other makers for similar instruments, rather than increased by the improvements made.

156 Madison Avenue, September 1, 1885.

Number of Physicians in Sweden—Proportion to the Population.—The official report for 1883 gives 445 as the number of physicians, of whom 137 were "province" or county physicians. Further calculation gives for the country at large 1 physician for 7,909 inhabitants. Stockholm, with 122 doctors, has 1 for every 1,594. In some of the larger and sparsely inhabited provinces the disproportion is astounding; thus, Norbotten has 1 to 10,415; Vesterbotten, 1 to 12,262; and Elfsborg, 1 to 16,654!—(From the Swedish newspaper, *Nordstjernan*, published in New York.) The apothecaries shops for the whole country number 1 to 18,924 persons; in Stockholm, 1 to 12,964; in the province of Christianstad, 1 to 28,418!

[1] 202, 204, and 206 East Twenty-third Street.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from October 4, 1885, to October 10, 1885.

Weisel, Daniel, Captain and Assistant Surgeon. To be relieved from duty at Camp at Rock Springs, Wyo. and return to his proper station, Fort Fred Steele, Wyo. S. O. 99, Department of the Platte, October 1, 1885.

Adair, George W., Captain and Assistant Surgeon. Leave of absence extended one month. S. O. 232, A. G. O., October 9, 1885.

Biart, Victor, Captain and Assistant Surgeon. Sick leave of absence further extended six months on surgeon's certificate of disability. S. O. 227, A. G. O., October 3, 1885.

Bushnell, G. E., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month. S. O. 215, Department of the East, October 6, 1885.

Stephenson, William, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Niobrara, Neb., and ordered for duty at Camp at Rock Springs, Wyo. S. O. 99, Department of the Platte, October 1, 1885.

Chapin, A. R., First Lieutenant and Assistant Surgeon. Leave of absence extended one month. S. O. 230, A. G. O., October 7, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 10, 1885.

Bright, George A., Surgeon. To United States ship Brooklyn.

Fitts, Henry B., Assistant Surgeon. To Naval Hospital, New York.

Hall, John H., Passed Assistant Surgeon. Detached from Naval Hospital, Mare Island, Cal., and ordered to the Hartford.

Swan, Robert, Passed Assistant Surgeon. Detached from Naval Hospital, New York, and ordered to the Brooklyn.

Medical Items.

Bromine as a Disinfectant and Insecticide.—It is said that a bottle of bromine left in a closed room all night with the stopper out destroys all infection and insect life. It is far more effectual than the vapor of burning sulphur.

Tapeworm in a Young Infant.—At a recent meeting of the District Medical Society for the County of Hudson, N. J., Dr. S. A. Helfer, of Hoboken, exhibited portions of a tapeworm, in all about five feet in length, removed from a nursing infant five months old.

Eucalyptus Oil in Bronchitis.—Professor H. C. Wood says that the oil of eucalyptus in ten-minim doses (in gelatin capsules) four times daily, has, in his hands, replaced all stimulant expectorants in chronic or obstinate subacute bronchitis.

The Homœopathic Remedy for Diabetes.—Extract of sweet pea.

Another Vacation Chestnut.—One of the most prominent physicians of Indianapolis, on his return from a summer vacation of three weeks, was met by the leading undertaker, who said: "Ah, doctor, so glad to see you safe back; we have missed you so much."—*Atlanta Medical and Surgical Journal.*

The Pulp of the Cimmaroma, a plant found both in the Brazils and in Spain, is said to be valuable as a laxative, ten grains of the alcoholic extract being sufficient to produce an action of the bowels. Mixed with vinegar and water, it is used by the natives of Brazil for erysipelas.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 17 NEW YORK, OCTOBER 24, 1885 Whole No. 781

Original Lectures.

LECTURE ON BACTERIOLOGY.

DELIVERED IN THE MEDICAL DEPARTMENT OF THE CITY OF NEW YORK, OCTOBER 14, 1885.

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GENTLEMEN: Before commencing the history of the so-called infectious diseases, I will invite your attention to a brief consideration of those low forms of life which have become known to our every-day literature as Bacteria. The scientific world is at present devoted to their study, and it is a subject of especial importance to us in commencing our studies of the etiology of the class of diseases which are about to engage our attention.

If bacteria are active elements in the production of pathological conditions, their biology becomes a matter which must concern every progressive medical investigator. If, on the other hand, as many are inclined to believe, they have little or nothing to do with the causation of disease, it equally becomes us as intelligent men to investigate, and if possible determine their real significance. At different periods in the history of medicine different theories have been advanced, and for a time have held the minds of the profession, to account for the causation of disease, as well as for the peculiar phases which it assumes during its active progress.

There are at present two prominent theories in regard to the infections which produce disease. The first is based upon chemical processes; the second upon the multiplication of living organisms. The chemical theory maintains that after the infectious element has been received into the body it acts as a ferment, and gives rise to certain morbid processes, upon the principle of catalysis. The theory of organisms, or the germ theory, maintains that the infectious elements are living organisms, which, being received into the system, are reproduced indefinitely, and excite morbid processes which are characteristic of certain types of disease. This latter theory so readily explains many of the facts connected with the development and reproduction of infectious diseases that it has been unqualifiedly adopted by a large number of investigators. The proofs of this theory had not, however, advanced beyond the demonstration of the presence of certain forms of bacteria in the pathological changes of a very limited number of infectious diseases, until February, 1882, when Koch announced his discovery of the tubercle bacillus, since which time nearly every disease has its supposed microbe, and the race is indeed swift in which the would-be Kochs press forward with new germs for public favor.

It is my purpose this afternoon to pass in rapid review the subject of Bacteriology, noting first the different genera, their biology, etc., and the modern means employed in their study. In referring to the practical study of our subject, I shall do little more than describe very briefly the processes as employed in our own Laboratory of Biology. Here you will find every means for investigating this subject, and I hope you will avail yourselves of the facilities offered for practical work.

The term *bacteria*, or *microbe*, refers to minute particles of matter, microscopic in size, which belong to the *vegetable* kingdom, where they are known as *fungi*. If we examine a drop of decomposing urine under the microscope, amplifying say four hundred diameters, the field is seen swarming with minute bodies, some mere points, others slightly elongated into rods, all in active motion, rising, falling, oscillating—a ceaseless confusion. If the water be allowed to evaporate, all becomes still, and the slide seems covered with mere dust. Apply a drop of water, and after a short time the little, dried-up granules again show their activity, as though nothing had intervened to disturb their vocation. Similar minute forms are seen in every decomposing fluid, often in the blood and sputum of healthy persons. The air is full of them; the dust of our dwellings abounds with their spores in countless numbers, only awaiting suitable conditions to start into active and rapid reproduction. As I have said, certain forms are found in the blood of healthy persons, while other forms are found in the blood of disease.

All these different organisms have become familiar to us under the generic term *bacteria*, which is a very unfortunate use of the term, as it really applies to only a single class of *fungi*. Cohn, whose classification I think is the simplest and the best, calls them *schizomycetes*, and makes the following classification:

CLASSIFICATION OF SCHIZOMYCETES (BACTERIA).—1. *Sphero-bacteria*, or micrococci. 2. *Micro-bacteria*, or bacteria. 3. *Desmo-bacteria*, or bacilli. 4. *Spiro-bacteria*, or spirillæ, spirochetæ.

I will now briefly refer to the more important features of each of these classes.

First, of *sphero-bacteria*, or micrococci. This is the simplest of the fungi, and appears as a minute organism of spherical form. It multiplies by fission—a single coccus forming two—these two producing four, and so on. They present a variety of appearances under the microscope, as you will observe in Fig. 1. From single isolated specimens (which under the highest magnifying powers present nothing beyond minute points), you will observe them in pairs, again in fours, or in clusters of hundreds—yes, thousands (forming zoöglœa), and still adhering together, forming chains.

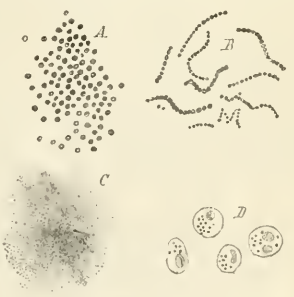


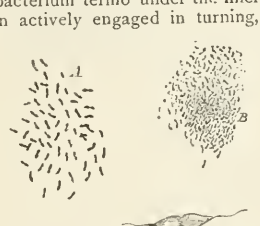
FIG. 1.—Sphero-bacteria (Micrococci): *A*, Micrococcus vaccinæ (× 1,000); *B*, same in chains (× 650); *C*, a zoöglœa mass; *D*, M. gonorrhœa (× 600).

When a given specimen is about to divide, it is seen to elongate slightly, then a constriction is formed, which deepens until complete fission ensues. Micrococci possess no visible structure. They consist of a minute droplet of protoplasm (myco protein), surrounded by a delicate cell-membrane; certain forms are embedded in a capsule. (Diameter, .0008 to .001 millimetre.)

These little organisms, when observed in a fluid like blood, sputum, etc., are found to present very active movements, although provided with no organs of locomotion. This Brownian motion is possessed by almost every minute particle of matter, organic and inorganic, and is not due to any inherent power of the individual.

Micrococci are almost omnipresent. They are always found in millions where moist organic matter is undergoing decomposition. They are associated with the processes of fermentation, in fact, they are essential to it. The souring of milk succeeds the multiplication of these germs. They abound in the air, the earth, the water. Certain varieties are pigmented, and you will observe colonies of these *chromogenic* cocci multiplying in our laboratory upon slices of boiled potato, egg, etc., presenting all the colors of the rainbow. Fortunately, all of these germs are not associated with, or rather are not the cause of disease. Certain species, however (termed *pathogenic*), are always associated with certain diseased conditions.

The second plate which I present (Fig. 2), illustrates the microscopical appearance of the *Bacterium termo, micro-bacteria.* You observe that they are slightly elongated, and inasmuch as they multiply by division they frequently appear coupled together, linked in pairs, and in chains. They are generally found in putrifying liquids, especially infusions of vegetable matter. They possess mobility to a remarkable degree. Observing a field of the bacterium termo under the microscope they may be seen actively engaged in turning, twisting, or



IG. 2.—Micro-bacteria (Bacteria). *A*, Bacterium termo; *B*, same in zoöglœa mass (× 600); *C*, same (× 2,100) showing flagella.

oscillating—a delicate tail-like filament, or *flagellum*, has been demonstrated as attached to one or both extremities. This is too minute to be generally resolved, even if it is a common appendage.

Micro-bacteria are of various kinds, and although many are pathogenic, the *bacterium scpticæmiæ* of Koch produces the most rapidly fatal results when introduced into the circulation of a living being. Other examples of this class, resembling in every respect, as far as their microscopic features are concerned, the septicæmic bacterium, are frequently found in the blood of perfectly healthy persons.

Desmo-bacteria (or bacilli) are rod-like bacteria, occurring of various lengths and of different thickness. On this account authors have introduced the term *vibrio*, as applied to the long, slender, curved, and thread-like bacillus; bacilli are not infrequently provided with a flagellum, which assists in locomotion. The different species of bacilli differ greatly in their microscopic appearance; while some are rounded at their extremities, others are square cut, and others pointed. Bacilli may develop by division, but their usual mode of development is by spores. You will observe in Fig. 3 the bacillus of tuberculosis and anthrax. Notice at intervals the dots, which represent the spores from which, as the rods break up, future bacilli are developed.

Spiro-bacteria. In Fig. 4, I present to you drawings of two different forms of spiro-bacteria—the spirilla and the spirochetæ. The former have short, open spirals; the latter long and closely wound spirals. The *spirillum volutans* is often found in drinking-water and, in common with some other specimens of this class, is provided with flagella, sometimes at both extremities, which furnish the means of their rapid locomotion. The spiro-bacteria multiply by spores, although little is at present known of their life-history. They not infrequently are attached together at their extremities, forming zigzag chains.

In this brief description of the principal varieties of bacteria (classified according to their form), we have

Fig. 3.—Desmo-bacteria (Bacilli). *A*, Bacillus tuberculosis (× 2,000); *B*, the same (× 350); *C*, Bacillus anthracis, from the blood in splenic fever (× 750); *D*, Bacillus leprœ, showing bacilli in cells isolated from tuberculous nodules by teasing (× 1,000).

seen that they differ greatly in appearance, from the minute dot of the micrococcus and the elongated dot of the bacterium proper, to the elongated rod or cylinder of the bacillus and the long spirals of spiro-bacteria. It is unfortunate that these minute forms of life are not sufficiently constant in habit to always attach themselves to one or the other of these genera. The micrococcus has a habit of elongating until it is impossible to recognize him except as a bacterium; while bacilli break up until their particles exactly resemble the micrococci. Again, there are other forms which cannot be classified with the above; but I will not at present burden you with the complicated forms of *fungi* which are found existing as moulds, yeast-plants, etc., but will pass to the consideration of the *biology of bacteria.*

Bacteria cannot exist without water. Certain forms require oxygen, while others again thrive equally well without it; some thrive in solutions of simple salts, while others fastidiously object to anything less than broths of albuminoid material.

The most important element in the successful multiplication and growth of fungi seems to be the maintenance of certain temperatures. The temperature of the hu-

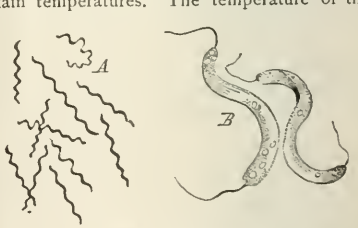


Fig. 4.—Spiro-bacteria. *A*, Spirochæta Obermeieri, from blood in recurrent fever (× 1,000); *B*, Spirillum undula, from bog-water, showing flagella (× 3,000). After Dallinger.

man body is necessary for certain pathogenic bacteria, while ordinary temperatures serve for many varieties. Still there are points above or below which all cease to live. Immersion in boiling water rapidly destroys most forms, while prolonged boiling is fatal to all. It appears that while many forms of fully developed germs are easily destroyed by a temperature much less than 212° F., their spores are capable of withstanding high temperature with less risk of injury. The peculiar behavior of

each species under observation, must, as regards the effect of heat, be carefully determined, ascertaining the most favorable temperature for their development, and the degree of heat necessary for their destruction. If the conditions of temperature, media, etc., are observed carefully they will develop with extreme rapidity.

In the study of the relation of a given bacterium to a certain disease, it becomes necessary to attend carefully to three different operations.

First, the organism supposed to cause the disease must be found and isolated.

Second, it must be cultivated through several generations in order that absolute purity may be secured.

Lastly, the germ must be again introduced into a healthy living being.

If the preceding steps be successfully carried out, and the original disease be communicated by inoculation, and the germs be again found in the diseased body—we have no alternative—we must conclude that we have ascertained the cause of the disease. The importance of being familiar with the etiology of disease before we can expect to combat it with any well-grounded hope of success is evident.

The three steps I have alluded to are surrounded with difficulties, and if you will follow me I will endeavor to indicate some of them.

Let us suppose, for example, that we wish to repeat the work of Koch with the bacillus of tubercle. Let me premise by saying that it is believed that certain little rod-like forms are invariably found associated with tubercle. If the sputum of a phthisical patient be submitted to the skilled microscopist he is always able to demonstrate the bacilli. This goes for very little. Because bacilli are found in phthisis it is no more certain that they are the cause of phthisis than is it certain that cheese-mites are the cause of cheese. But if with these bacilli we can inoculate a person, and thus produce tuberculosis, we have the chain complete.

Well, supposing we were to inject some sputum from a phthisical person into the blood of a healthy person, and then boldly announce to the world that you have demonstrated the relation of cause and effect between the bacilli and phthisis. You would start such an uproar of objection as would speedily convince you that there was much work yet for you in the domain of bacteriology.

Among these objections would appear this, and very properly too: "You have injected into the blood of your unfortunate patient pus, morphological elements, and, perhaps, half a dozen other forms of bacteria with the sputum, any one of which are just as likely to produce the lesion as the bacillus you have selected."

So you must begin again. You must first isolate your bacillus.

It is a fortunate fact in the biology of bacteria that nearly every specimen has a peculiar mode of growth. If I were to take a glass plate, one side of which is coated with a thick solution of hot, peptonized gelatine, and allow the latter to cool, the gelatinous matter will become solid. If, now, with a wire dipped in some tuberculous matter, I draw a line along the gelatine, I have deposited at intervals along this line specimens of T. bacilli. If this plate be now kept at a proper temperature, after a few days, wherever the bacilli have been caught, a grayish spot will appear, which, easily seen with the naked eye, gradually spreads and becomes larger. These spots are colonies containing thousands of T. bacilli. It is not probable, however, that we have been fortunate enough to have avoided depositing other germs along the line. If putrefactive bacteria are present, they will liquefy the gelatine. Various appearances are thus afforded, even to the naked eye, according to the particular bacterium present, and we soon become familiar with the characteristics of particular germs. Cultures of bacteria are usually made in test-tubes containing peptonized gelatine, coagulated blood-serum, etc.

Let us return to our gelatine-plate. We find a spot which answers the description of a colony of tubercle bacilli. We now take a minute particle from this colony on a wire and convey it to the surface of some hardened blood-serum in a test-tube. We plug the tube so that no air-germs may drop in, and place it in an incubator at the proper temperature. After several days, if no contamination be present, a colony of bacilli will appear around the spot where we sowed the spores. Let us repeat the process: take a particle from this colony and transfer to another tube; this is our second culture. This must be repeated until we are satisfied that we have secured a "pure culture." If this be carried to the twenty-fifth generation, we may be assured that there remains no pus, no *ptomains*, nothing but the desired bacilli. It is a proper material now for *inoculation*.

Practically, many precautions have to be thrown around every step of our work. You can see that spores might accidentally be attached to our tubes. They must be *sterilized*. This is accomplished by exposing them to prolonged high temperature in an oven. Similar precautions are taken with the plug of cotton used to stop the mouth of the tube. The wire must be heated to redness always just before using. We are in constant danger of contamination, and sometimes fail even with the utmost care. Fortunately, we can determine whether everything is as it should be. If a tube shows signs of admixture, it is discarded at once and another trial made.

Negeli has proposed a "dilution method" for obtaining "pure cultures." He had some urine containing large *micrococci* which he wished to cultivate. The urine also contained numerous *bacilli*. A single drop of the urine, supposed to contain five hundred thousand bacteria, was mixed with about two ounces of pure water and shaken thoroughly. This dilutes the urine a thousand times. One drop of this is now mixed with another two ounces of water, and a millionth dilution was obtained, in which every drop must average to contain one bacterium. He inoculated ten tubes of gelatine each with one drop of this dilution. After incubation it appeared that four tubes remained sterile, one contained bacilli, and five the *desired cocci*.

You will find in our Biological Laboratory the modern appliances for sterilizing the fluids, vessels, etc., as well as several incubating ovens, the temperature of which may be maintained at a given point for months. The large incubator constructed by Dr. Miller, will accommodate several thousand culture-tubes at once.

We have, then, finished the second step in our work, that is, we have obtained our bacilli pure, and have cultivated them through several generations, and it is improbable that our culture-tubes contain any contamination from the original source of our supply of bacteria.

It remains for us to complete the work, that is, we must now reproduce the disease by inoculation with our pure culture. Now we are forced to resort to the lower animals for experiment. No one, as yet, has sufficient admiration for science to inoculate himself. Hence it is impossible to complete a perfect chain of evidence. Objection can be reasonably made to the employment of mice and guinea-pigs. It is just possible that deductions from such experiments would not hold with human beings. But there seems to be no alternative. We proceed to inoculate several guinea-pigs with our pure culture of tubercle bacilli. The following are the results as first obtained by Koch, and which are almost identical with the phenomena obtained in our own work. The utmost care having been taken to avoid contamination of our virus (by heating the inoculating needle red-hot just before using), a puncture is made through the skin and a few drops of pure culture injected into the loose areolar tissue of the neck.

"The wound generally closes on the second day. The inguinal and axillary lymphatics become swollen on the eighth day. From this time the animals lose weight

rapidly, and die in four or five weeks from the time of inoculation. In the spleen and liver the characteristic tubercular changes are found." Koch's results led him to believe that "the bacilli occurring in tuberculous substances were not merely the attendants of tuberculous processes but the cause of them, and that *the bacilli actually represented the true tubercle virus.*"

I have spoken thus of the tubercle-bacilli in order to give you a general notion of the processes employed, and the precautions necessary in this work. The steps are nearly the same with the bacteria found in other diseases. The same extraordinary precautions are always necessary to avoid contamination. Some thrive in one fluid, some in another, some at ordinary temperatures, some at the body-heat.

From my remarks thus far you may have inferred that it is a very easy matter to find the bacterium of any particular disease, but I must correct this error. Let us place a particle from the discharges of a cholera patient under the microscope. Among the objects filling the field are numerous little curved rods—the comma bacilli. But if you now substitute a drop of fresh normal saliva for the choleraic discharge, you will find little curved rods in every respect like the commas of cholera. I may as well say at once that the microscope alone will not enable us to determine whether a given bacterium is pathogenic or not. You have already seen that each species possess peculiarities of growth in our culture-tubes.

Bacteria also frequently afford peculiar chemical reactions. For example, nitric acid will discharge the color from all bacilli, artificially dyed with anilin, *except those of tubercle and anthrax.* One species is stained readily with one dye, that leaves another unaltered. Thus we are enabled in the laboratory to determine whether the bacilli found in sputum, for example, are from tubercle or are the bacteria of decomposition.

From what I have said of the tubercle bacillus it would seem as thoroughly demonstrated that it was the cause of tubercle in these animals. But we must walk cautiously here. These are not human beings; who knows that like results would follow their inoculation? The animals used by Koch are animals very subject to tubercle.

We must, from the very nature of our environment, be constantly inhaling these germs as we pass through the wards of our hospitals—yes, they are floating in the air of our streets and dwellings. It becomes necessary for us to inquire, If bacteria cause disease, in *what manner do they produce it?* Ziegler says: "The healthy organism is always beset with a multitude of non-pathogenous bacteria. They occupy the natural cavities, especially the alimentary canal. They feed on the substances lying in their neighborhood, whether brought into the body, or secreted by the tissues. In so doing they set up chemical changes in these substances. While the organs are acting normally these fungi work no mischief. The products of decomposition thus set up are harmless, or are conveyed out of the body before they begin to be active." If bacteria develop to an inordinate extent, if the contents of organs are not frequently discharged, fermentation processes may be set up, which result in disease. Bacteria must always multiply and exist at the expense of the body which they infest, and the more weakened the vital forces become the more favorable is the soil for their development.

Septicæmia is caused by the absorption of the products of putrefaction induced by bacteria. Before bacteria can multiply inside or outside the body they must find a congenial soil. The so-called cholera bacillus must gain access to the intestinal tract before it finds conditions suitable to colonization. They do not seem to multiply in the stomach or in the blood, but once injected into the duodenum they develop with astonishing rapidity. The delicate epithelial cells of the villi become swollen, soften, and break down, exposing the mucosa.

But it becomes us to proceed in this matter with great caution. We must avail ourselves of every means of research, and patiently endeavor to ascertain what of pure gold there is in this new field of study. The subject is a fascinating one, and it seems to settle, or at least, open the way of settling, so many hitherto difficult questions in pathology, that it has been accepted by many without such a basis of facts as every careful investigator should demand. Another very extensive and important field opened by bacteriology is that of the prevention of disease by inoculation of attenuated or modified bacterial matter.

Pasteur, experimenting with the bacilli of anthrax, found by exposing the microbes to a certain temperature higher than that most favorable for their development, they lost their virulence to such an extent that he could vaccinate sheep without danger; and that animals so vaccinated were, for a given time, rendered incapable of contracting anthrax. Various opinions are held regarding the value of these experiments at present. You are all familiar with the newspaper accounts, at least, of Dr. Ferrán's experiments with the cholera inoculation. We are not at the present time able to speak with any degree of positiveness regarding the value of this work.

What is to be the future of the very interesting and fascinating studies to which I have this afternoon briefly directed your attention, no one as yet can determine. It is in the hands of ardent students, who are everywhere carrying out new investigations, and I shall not burden you with my own opinions in regard to it. The great question at present to be settled is, whether we are about discovering the ultimate cause of many hitherto obscure pathological states, or whether these microbes are only bacteria of health taking advantage of diminished vitality to develop with increased rapidity—*whether they are the cause or the scavengers of disease.*

Original Articles.

COMPRESSION MYELITIS OF POTT'S DISEASE SUCCESSFULLY TREATED BY LARGE DOSES OF POTASSIUM IODIDE.[1]

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THE paper this evening is presented with the object of recording a few cases of interest from a therapeutical standpoint. If any claims to originality are expressed, I beg that the claims will be freely criticised, and, if unfounded, corrected.

I am not aware that anyone has employed the drug in the doses that I have employed it in this disease, and with the same success. I confess, at the same time, that I have not searched the literature of the subject with that diligence that a paper laying claim to originality demands, and my apology is simply lack of time.

A few years ago, 1878, I had the honor of presenting before the Neurological Society a paper on "The Paralyses of Pott's Disease," being a clinical study of fifty-eight cases, and at that time I made a very careful search of the literature, failing to find any mention of potassium iodide in large doses as an efficient remedy. From a study of my own cases, and from the writings of Michaud,[2] I arrived at what I still believe to be the correct pathology of the compression myelitis of Pott's disease. Let me quote from my paper, as I do not believe I can do better now, seven years later:

"A study of the symptoms peculiar to lesions of the different tissues in the neighborhood of the diseased vertebræ, aided by a knowledge of the facts taught by neurophysiology, enables one to state with a great degree of precision the pathology in individual cases. In modern

[1] Read before the Section on Neurology of the New York Academy of Medicine, October 9, 1885.

[2] Sur la Meningite et la Myelite dans le Mal Vertebral. Paris, 1871.

text-books we have chapters on peripachymeningitis, on pachymeningitis, on meningitis and the inflammations of all such organic structures. The subject of neuralgia, and of pseudo-neuralgia, is constantly before the profession in many entertaining forms. The theory of the French school of pathologists is well fortified by the facts collected, and when one is satisfied as to the mode of reproduction of the impaired nerve elements, it (the theory) becomes easy of acceptation.

"Let me state as clearly as I can the theory. First there is the caseous osteitis of the bodies of the vertebræ, attacking by contiguity the perimeningeal areolar tissue, the vertebral ligaments, of course, becoming involved in the morbid process. Then the dura mater speedily partakes of the pathological changes—a "pachymeningite externe" being the result. This change is characterized by vegetations on its external surface and consecutive caseous alterations, which blend with the caseous detritus in the bone and thickening of the dura just named, from a chronic inflammatory process. The cord becomes compressed, a focus of myelitis is, as a consequence, induced, and from this focus there is a transverse myelitis followed by a fasciculated sclerosis ascending through the posterior columns, and descending through the lateral and anterior.

"This caseous external pachymeningitis in Pott's disease as a constant factor readily explains many of the symptoms peculiar to peripheral neuralgias and paralyses. Michaud believes that in all cases of angular deformity *myelitis* is the rule, and states that it may exist without giving immediate rise to paraplegia, claiming to have proven that myelitis is early in its development, and may even precede the paralysis.

"From a clinical study of the cases now under consideration, I think I can approximately arrive at the different lesions. *Three* seem to have been due to direct pressure from the bony angle itself; *twelve* gave the history and progress of cases of reflex paralysis due to obstruction of the blood-supply; the *remaining number* were, I believe, from a myelitis by slow compression."[1]

A modification of the pathology then taught has been made by the extraordinary researches in bone tuberculosis within the past two or three years. I have little hesitation now in pronouncing the osseous lesion a tuberculosis of the vertebræ, and whether the inflammatory processes induced by contiguity and extension are of a tuberculous nature I confess my inability to decide. Whether the pachymeningitis, the meningitis, and the myelitis are tubercular or non-tubercular, this question, I think, has not been settled by pathology. The cases of spontaneous recovery and the cases of recovery under this treatment and that, would seem to militate against a tubercular hypothesis. Furthermore, the most ardent disciple of Koch, I am sure, will admit the existence of non-tubercular dependent upon tubercular inflammation. At that time the remedies on which we placed reliance were fixation and traction, blistering, the actual cautery, ergot, belladonna, nitrate of silver, and potassium iodide in moderate doses. The results obtained were not such as enabled me to speak with confidence of the remedies either singly or in combination. I had made myself familiar with the natural history of the paralysis of Pott's disease, with cases that had recovered spontaneously after all treatment had been abandoned, and this knowledge had made me skeptical to an extreme degree. The pathology was well rooted in my mind and I entertained strong hope that some remedy would yet be found that would enable us to speak with more positiveness in giving a prognosis in a given case.

A paper read by Dr. Seguin at a subsequent meeting of the Society on large doses of potassium iodide in chronic nervous lesions not specific in nature, and the discussion which followed the presentation of his paper, directed my attention to this drug as the possible solution of my problem.

[1] Journal of Nervous and Mental Disease, April, 1885.

An opportunity was not offered until August, 1883.

A man, thirty years of age, by occupation a plasterer, applied to me for relief from an incomplete paraplegia depending upon a compression myelitis in the upper dorsal region. He dated his spinal disease from a severe fall fourteen years before. Apart from the few symptoms pointing toward spinal concussion he suffered no material injury. He soon recovered, to all appearances, and ten years subsequently after much exposure as a Texas "cow-boy," he first complained of symptoms indicative of spinal caries. There were epigastric pains, tenderness on concussion, much rachialgia, and a stooping gait. A thirty-mile ride on horseback at this time was described as agonizing. On his way to New York by steamer, he found relief only in the prone decubitus. Finally, he came under Dr. Sayre's treatment in Bellevue Hospital, where it seems his disease was first recognized. The relief from the plaster jacket was prompt and decided. The treatment was continued a year and he fancied himself cured. In two more years a relapse came on and the loss of power in the lower limbs was of one month's duration when he first came under my observation. A well-marked bosse was seen in the dorsal region and he suffered from paræsthesia in the limbs, and paresis of the vesical sphincter. The reflexes were greatly exaggerated and he could with difficulty stand. Locomotion by the assistance of two canes was barely possible. I immediately began the iodide in ten-grain doses and took steps to secure a spinal brace as speedily as possible. The Paquelin was employed. At the end of a week the apparatus was applied and he was soon taking thirty grains of the potassium three times a day. Vichy was used as a vehicle for the drug and his stomach rarely ever rebelled. Within a month the improvement was decided and by the middle of November he was able to walk with much ease. The maximum dose he reached was forty grains three times a day.

By the beginning of the year he was attending business again, yet he still continued the iodide in the doses above mentioned. From that time to the present he has been engaged quite actively, and has learned to promptly check any symptoms of returning paresis by a recurrence to the potassium in gr. xx. doses. The steel brace was substituted by a plaster-of-Paris corset, and this by the leather jacket. Three months, it will be seen, were required in which to bring about a cure.

Contrast this with a case in a male child, aged four, I first saw in May, 1882. This child came of a family in which phthisis existed, and with this diathesis as an inheritance had developed spinal caries four months after an attack of measles. The signs first observed were so like those of a lateral curvature that the case was thus diagnosticated by the family physician. A plaster-of-Paris jacket was applied, but it was not until the close of September that the patient was placed under my care. Signs were then suspicious of cervico-dorsal disease, instead of lumbar disease for which he was treated. All doubts were dissipated by November 1st, when a deformity in this region appeared, and explained at the same time the previous dorso-lumbar lateral curvature. A month later he began walking poorly, and complained of pains in the limbs. The reflexes were exaggerated, and areas of anæsthesia were discovered.

I immediately took the following precautions: Secured a head-support permitting no weight whatever to come on the cervical and upper dorsal spine; saw that he kept his bed, and under no circumstance was he allowed to stand or sit up; did not permit the mother or anyone to adjust the brace or head-spring, attending to this myself as infrequently as possible.

I ordered bromide of potassium to be taken at night when he was specially restless, and had him take belladonna carried to the physiological effect. As a matter of fact he seldom took the bromide; gave cod liver oil and plenty of nutrients generally. Faradism was administered daily. I gave as prognosis, recovery from the

paraplegia under such circumstances within six or eight months. Nothing eventful occurred until the following July, when improvement began, and by the middle of August he was able to move the limbs about freely. I did not allow him to stand or to make any attempt at walking until September. His recovery has been exceedingly slow, and despite the most assiduous care there is now a kyphosis three-fourths of an inch on a chord of five.

One of these cases was in an adult, the other in a child. In one I had an incomplete paraplegia to deal with, in the other the loss of power was complete. In both, however, I had the intelligent and faithful co-operation of the patient and family.

In another case I did not have the co-operation of the patient, and the obstacles have been peculiarly trying.

Some time during the early part of 1883, a female patient, aged thirty, was referred to me at the Forty-second Street Hospital, out-door department. She was an inmate of the Nursery and Child's Hospital. Shortly after the birth of a child a dorsal kyphosis was discovered, and although the deformity was not very marked there was little or nothing in the way of a history to be obtained. She was supplied with a steel brace such as is used at the hospital, and special care was given to the accurate fit of the same. The suffering was not relieved to any great extent by the support given, and to relieve pain the Paquelin cautery was employed occasionally. Blisters, too, were used, and even with all this counter-irritation, narcotics had to be employed, so great was the pain she experienced during the exacerbations. The support was inefficient by reason of her persistence in removing the brace whenever she felt so inclined. I saw her very irregularly, and it was difficult to maintain any interest in her case. She seemed to grow worse, and the visits finally ceased.

In the spring of 1884 I was appointed a member of the visiting staff of the Nursery and Child's Hospital, and the first case to which I was called was my old case of Pott's disease. I found her with an increased amount of deformity and totally unable to get about the ward. I learned that she had been slowly losing power for at least three months. She had always been very stout and was consequently now a very helpless patient. The old brace was reapplied, and potassium iodide ordered. She rebelled against the potassium, claiming that it produced nausea. During the next twelve months she had routine treatment. Plaster-of-Paris jackets were used and gave adequate support. The potassium dosage got to be an old story, and some days she took small doses, some days large doses, and some days none whatever. Faradism was employed daily for months; massage was employed, and still she remained paraplegic. In response to my urging large doses of the iodide, I was invariably told that her stomach would not tolerate more than twenty-five or thirty grains three times a day. Mineral waters were used too as a vehicle, and every precaution seemed to be taken against the stomach disorder. It was asserted that she couldn't be kept quiet, that she would lift her child and do all manner of things that a good patient should not do. The lady managers discussed her case (the patient herself was very aggravating), and finally in solemn conclave they decided that "Mrs. K—— must go." This was about the first of March of the present year. It had been assumed that I regarded the case as incurable. The date of her going was not fixed, and the day after the above edict had been announced, I said to Dr. Hance, the resident physician, that if he would make this a personal matter, and see that Mrs. K—— got sixty- or seventy-grain doses of the iodide three times a day during the next ten days, she would be able to walk out of the hospital when the date of her discharge arrived, if it must arrive. It was well known, however, that the kind-hearted ladies who composed the board had no intention of carrying into execution their threat.

At all events, Dr. Hance set about his task with right good will, and when I called again, at the end of the ten days, he greeted me with the joyful report that Mrs. Kelly was able to move her feet about in bed, that she had stood with very little assistance, and that by the aid of himself and the nurse she had walked nearly one-half the width of the ward. The iodide had been pushed to drachm doses. Let it be remembered that the jacket she then wore had been applied two months before the date of our new departure. From that time to the present she has been gaining in power and in sensation, and her complete recovery is not far distant. The summer months are not good months in which to apply plaster-of-Paris jackets to persons of corpulent habit, and hence Mrs. Kelly has not had the attention in this respect that her case demanded. The iodide is still continued, but not in as large doses, the stomach is as tolerant of the drug as one can reasonably expect, and, strange to say, she seems not to have lost one pound of flesh.

Indeed, I am inclined to the belief that large doses of this drug tend to produce flesh rather than destroy it. I have never known a patient with compression myelitis grow thin under this treatment. A girl in Yorkville actually became obese, and I feared that a continuance of the drug might make her an object of envy for some dime museum. This is her case:

A girl, aged seven, of large build, and moderately stout withal, came under my observation in the out-door department of the hospital, January 30, 1884. She presented a kyphosis in upper dorsal region of one and one-fourth inch on a chord of seven, and the deformity was of two years' standing. The acute symptoms, for the relief of which she applied for treatment, were of recent date, and pointed to an exacerbation after a long period of immunity.

A steel brace was applied a week later, and on February 25th it was recorded that paraplegia was imminent, the reflexes being greatly exalted. A fly-blister was ordered, and a week later a head-spring was attached to the brace. At this time her paraplegia was nearly complete, and confinement to bed was ordered.

On March 12th, the symptoms having become more marked, potassium iodide in ten-grain doses was ordered, and by the 19th was increased to fifteen grains, three times daily.

It was observed that she was gaining rapidly in flesh, and was indeed becoming quite corpulent. The brace was a good fit, but the mother did not follow directions, and the child was dragging herself about the floor and up and down stairs without let or hindrance.

In April a diarrhœa was thought to be dependent upon the iodide, and the dose fell from twenty grains to ten grains. May 1st paresis of the vesical sphincter was observed, and a fortnight later there was marked diminution of sensibility. It was observed at this time, too, that the brace and head-spring were very imperfectly worn. She did not keep her bed, although the paraplegia was complete and her corpulency was still a notable feature.

The case was reported to me as making little headway, and one evening in July, I called to see if any cause could be found for this sluggishness. As I drove up to the door I saw my patient, "sitting out in the cool of the evening," enjoying the street scenes with quite as keen a zest as did any of her playfellows. She sat in the conventional high chair, with her immense limbs dangling below the step, while her head was fully released from the spring intended for its support. The brace about the body I found barely hanging by shoulder-straps and corset lacing.

I here saw quite plainly that I must expect no co-operation at this house, and I decided to apply as soon as possible a solid plaster jacket, and adjust the head-spring so that nothing could be removed. A few days later, at the Polyclinic, I succeeded in applying a good jacket

and headspring. I saw that she had a saturated solution of the iodide, and she began again on ten-grain doses. I insisted on having her remain in bed, but the order was very imperfectly carried out, and she sat up about as much as ever. The jacket had to be replaced by another after six weeks, by reason of her continued corpulency. She took the iodide now in forty-grain doses, and no stomachic disorder was observed.

On December 4th the mother reported that our obese patient was able to stand assisted by the wall only. A month later she was walking about the floor, and before the winter closed she walked up and down stairs. In May I examined her, and found that the recovery was complete. She has had no relapse.

It will be seen that this case improved, not immediately after the application of a jacket, but after the dose of the iodide had reached respectable proportions. I am as ready as any one to give the plaster jacket the credit it deserves. I am as enthusiastic as any one in my advocacy of fixation and rest for the diseased vertebræ, and I have observed cases wherein the improvement began only when these ideals were approximated. Take as an instance the following, which will also illustrate quite as well, I fancy, the value of the treatment we discuss this evening. Note, too, the encouragement one gets from a combination of external and internal therapeutics.

A female patient, aged twenty-one, was seen first in the out-door department of the Hospital for the Ruptured and Crippled, October 26, 1883. She worked in a silk factory. A history of pain in her back dated from the January preceding. A short time before that she had a fall, striking on her back. The pain, however, did not become severe until the beginning of September. At the time she presented at the hospital she complained of intercostal and abdominal pain, concussion caused pain in the dorsal region, and there was a kyphosis at the seventh dorsal spine of five-eighths of an inch on a chord of three and a half. The only region that showed any tenderness was in the lower dorsal. The Paquelin cautery was used freely, and a spinal brace ordered. Before the apparatus was completed, and three days later, the mother reported that she was very unsteady on her limbs, and walked with great difficulty. Numbness was first a marked feature four weeks from the date she came under treatment.

It was not until December 10th that another opportunity was offered for examination, when it was noted that the patella tendon on both sides gave morbid exaggeration of the reflex, that of left side giving the more marked. The ankle clonus was increased on both sides. The brace had already been applied and an excellent fit had been secured. My interest in the case was sufficient to insure her attendance at home, and one of my assistants was detailed to visit her as often as occasion demanded. My instructions were to employ the cautery at least once a week, to keep her in bed, and to give potassium iodide in increasing doses.

A note was made January 21, 1884, to this effect: She had not left her bed since December 10th, her digestion was good, general appearance ditto, but for the past three weeks the paraplegia had been complete, without involving, however, bladder or rectum. A pill, consisting of colocynth, belladonna, and nux vomica, once daily, had controlled the constipation. Clonic spasm of the flexors had been very annoying for a week. Cod-liver oil was borne well by the stomach. The cautery had been used as directed.

In March another note recorded excellent health, complete paralysis of motion, but with improvement in sensation. At this time she was taking belladonna and strychnia. The deformity had not increased, and the tenderness had disappeared. I find no record of any administration of the drug on which I had placed so much reliance. My own duties precluded the possibility of personal supervision, and as the assistant was an attaché of a neurological clinic, I left the case in his hands.

In the summer he did begin the use of the iodide, and reached by September twenty grains three times a day. The progress seemed so slow that I was led to make a change in the treatment. I found the girl in fair condition, and following directions religiously. The brace seemed to meet all the indications that were demanded, it was seldom removed and then removed and reapplied with extreme care; she kept her bed faithfully, and she was the embodiment of patience herself.

The deformity had not increased to any appreciable extent, but there was not the faintest trace of voluntary motion in limb, foot, or toe. The customary exaggeration of the reflexes, and the ordinary anæsthesiæ and paræsthesiæ were present. The sphincters were but slightly involved. The date of my observation was August 30th.

Assisted by my friend Dr. Hunter P. Cooper, of this city, I partially suspended the patient on September 2d, exercising the utmost care in this preparatory work, and applied a solid plaster-of-Paris jacket. Before leaving the house I saw that she had a saturated solution of the iodide, and ordered gr. xxx. t.i.d., to be increased rapidly to gr. l. The mother reported to me on the morning of the 5th, three days later, that our patient was able to raise the left foot from the bed. On the 15th I called at the house, finding her able to raise the left limb from the bed, and to flex the toes quite easily. The improvement continued, but at the end of a month she was still unable to walk. I found that the jacket had broken horizontally, and applied a new one [November 22d, soon after which, December 9th, she was walking about the floor with the aid of a chair. The subsequent notes simply record a continuance of the medicine in smaller doses (she had reached drachm doses), the occasional application of the cautery, the substitution this summer of a removable for the solid jacket, and an uninterrupted recovery.

A mere extended narration of cases would seem unnecessary, and yet I am very desirous of presenting another which shows the two methods of treatment in the same patient, who had two attacks of compression myelitis with an interval of one year.

Her case illustrates the value of faithful nursing, and that hearty co-operation of the mother with the physician in his management of the patient.

On April 6, 1883, a gentleman from Pittsburg, Pa., brought his four-year-old daughter to me at the Forty-second Street Hospital, and a classical history of Pott's disease in the upper dorsal region was furnished by the father in a letter received a week before. The disease was of one year's standing, and her ill-health at the close of her second year followed in the wake of measles with extremely tardy convalescence. Two or three acute exacerbations had occurred since the first signs of caries, and the present one began seven weeks before the little girl came under my observation. Loss of power was first discovered about March 10th, and within a fortnight the loss of power was complete.

The child's general condition seemed good, and but for the careful dorsal decubitus in which she was brought into the hospital one would not have suspected that the child was a sufferer from any disease. I found her, however, powerless in the lower limbs, and with this loss of power was an extraordinary amount of reflex excitability. A tap over the patella tendon, or over the body of the quadriceps femoris, or a slight sudden flexion of the foot would induce the most violent tetanoid movements in either limb. The sensation was much impaired, but the degree of anæsthesia was not measured.

The spinal deformity was in the upper dorsal region, the spinous process of the third dorsal forming the apex of the angle. The kyphosis measured three-fourths of an inch on a chord of seven inches. Spinal tenderness was present to a light degree. No time was lost in securing a good fit with a steel brace and head-spring, the object being to secure the maximum amount of fixa-

tion. Within a week the apparatus was applied, and the administration of belladonna was already a prominent part of the treatment.

Various paræsthesiæ were observed, such as: a burning sensation at times, cold sensation at others, the child complained of the presence of different foreign bodies between the toes, etc. Ergot was substituted a week later for the belladonna, and this in turn gave way to a stomachic and an alterative tonic. She occupied the bed, her mother's lap, and a rolling-chair in succession throughout the day, and no attempt was made to secure rest in the dorsal decubitus. From this time to June 1st the treatment varied. Blisters were used in addition to the different drugs employed, and she was allowed to go home, the further treatment to be conducted by mail.

The mother was instructed to keep the child in dorsal decubitus as much as possible. During the summer the parents became extremely solicitous, and other physicians were called in to examine and report. The recovery did not begin until the middle of August, and by the close of November she was walking.

A year subsequently, in November, 1884, she was brought to me for a new brace, report having preceded her that the gait was becoming unsteady again, and that she became tired quickly on the slightest exertion.

The brace was found broken and giving very inadequate support. The child complained of pains in the epigastrium and in the feet. Loss of power was manifest, and there was exaltation of the tendon reflexes. The general health was apparently good, and I could see no other cause for the return of the compression myelitis than the failure of the brace to give support.

I clearly prognosticated a return of the paraplegia, and went about the renewal of the brace as speedily as possible. At the same time I determined to give the iodide in as full doses as her stomach would tolerate. So we began on ten grains three times a day.

It was not pushed rapidly, because I did not have the same knowledge then in its tolerance that I have now. The dose was increased by two or three grains daily.

There was, in fact, very little iodide administered until a week after her return home. We lost valuable time in giving oil and anthelmintics, waiting to have the "road clear" for the potassium. In the meantime, although a new brace had been fitted, the loss of power was increasing from day to day. It was two weeks before she began taking her medicine with any regularity, and then the paraplegia was nearly complete. By the time she had reached twenty five grains, three times a day, the limbs were powerless.

This was December 10th. By the 17th she was taking thirty-five grains, and the reports were encouraging, *i.e.*, her stomach bore it well, and she was very happy, rarely complaining of pain or discomfort.

December 30th.—She takes forty-five grains, and her stomach bears the dose well. Still no return of power.

January 6th.—The dose not having been increased, it was observed that her stomach was disturbed, and that diarrhœa was present. For a day or two this dose was given only twice a day.

January 21st.—It was observed that she could move one foot feebly.

The dose was carried to fifty drops, and by the first week in February, she was able to bear her weight on the limbs. The compound syrup of the hypophosphates was begun about this time, and the dose of the iodide soon began to fall. By March 1st she was walking.

The subsequent history shows rapid progress, and a transfer of my notes to these pages is quite unnecessary.

I saw the patient in September of the present year, and could find no trace of the paraplegia.

From November 22, 1884, to March 1, 1885, I treated the case entirely by correspondence. A file of the letters written by the mother give to the case an interest as thrilling as that of romance.

It has been unnecessary to record the occasional stomachics, the infrequent doses of bromide of potassium at night.

I am quite sure that the iodide could have been administered in larger doses earlier and with much better effect. It occurs to me that the deposits or inflammatory thickenings which we seek to control, could be better controlled while they are yet new. In June I had an opportunity of testing this in the case of a little patient from Missouri. The test was not as thorough as I shall make when another occasion presents itself, yet I think a lesson can be learned from a study of the following:

A girl, aged two, came from the West, and was placed under my care June 17, 1885. She suffered from spinal caries, involving the upper dorsal vertebræ, and already a kyphosis had appeared. The first signs of compression myelitis were observed a week or two before she came under my observation. I found the reflexes on right side diminished, on left side increased. The loss of power was not marked, yet easily recognized. A removable jacket with headspring attached was worn, and was as serviceable as one of this nature could well be.

I applied a solid jacket as soon as possible, which was on the 24th. In the meanwhile the iodide was begun in five-grain doses, administered in dilute Vichy water three times a day. By July 3d she was taking twenty-five grains. She never became completely paraplegic, and while the loss of power increased until the date above mentioned, a return was then observed. In August she began to stand, and could raise her limbs from the bed and move them about in all directions with great ease. Two months from the date I first saw the patient I permitted the mother to take her home, the convalescing treatment to be carried out under the direction of the family physician.

In selecting a title for my paper, I purposely selected the terms, "large doses of potassium iodide," knowing very well that the doses I meant to record were not heroic by any means. I seldom give over one hundred and fifty grains in the day, and often I find it quite sufficient to give only a drachm. I do not believe in the sorbefacient effect of this drug in doses less than a drachm in the twenty-four hours.

In cases of compression myelitis the dose should be rapidly increased, and within the first week the patient should get from thirty to sixty grains three times a day. Dr. Seguin advocates its administration on an empty stomach. In the few cases in which I have attempted this mode the stomach has rebelled sooner than I had anticipated. I always, when practicable, employ Vichy or some other mineral water, as a vehicle, and I seldom have any complaints about nausea. Occasionally a diarrhœa seems to depend on the dosage employed. One cannot lay down any hard and fast rules. Individuals differ, and the dose for one is not the dose for another.

Children, as a rule, are remarkably tolerant of the potassium iodide. One hundred grains three times a day for a child suffering from cerebral or cerebro-spinal disease is not looked upon as anything extraordinary by neurologists.

The results in the cases I have reported show that our prognosis as to time can be made much more favorable. Formerly I never dared give a mother any hope that her child would recover from the paralysis short of six months. I usually gave the prognosis that twelve months would elapse before the child would walk. It is well known that many of these cases hang on indefinitely and seem to resist all methods of treatment. It is also well known that cases occasionally recover within a few days after the application of a plaster-of-Paris jacket, or a brace of any kind, or after a lively cauterization. These cases lack many of the signs of compression myelitis, and may be due to reflex causes, to anæmia, or hyperæmia. Again, cases of pseudo-paraplegia, cases in patients who

do not walk because of the position of the body are cured promptly when this position is corrected.

From my former paper I take the liberty of quoting a paragraph bearing on the prognosis:

"Of the 58 cases, 13 have died, 6 dying from myelitis, 5 from other diseases subsequent to the establishment of a cure, and 2 from tuberculosis before the complete restoration of power to the limbs. The mortality, then, is about 10½ per cent. Twenty-nine recovered from the paraplegia; 8 of these relapsed, and all recovered again save 1, who is still under treatment, along with the remaining 14 still unrelieved."

A case, the notes of which were handed me by Dr. L. E. Holt, just as I was completing my paper, illustrates several points worth mentioning.

A colored boy, aged five, developed caries of the spine in the upper dorsal region, early in the winter of 1884. In March he became paraplegic, the bladder being affected but not the rectum. The paralysis lasted about eighteen months, when complete recovery took place. The patient was never under any treatment whatever, either for his bone disease or his paralysis.

Since I have used the iodide in the manner above described, I have been able to give a prognosis much more favorable both as to time and completeness of recovery. I seldom hesitate to name three months, four at the farthest, in which recovery will take place.

Let it be distinctly understood that I do not rely upon the drug alone. My patient must have an apparatus that will secure the maximum degree of fixation. The better the fixation the more rapidly the case will recover, other things being equal. Let me summarize the points in the management of a case of compression myelitis—points legitimately drawn from the experience I have recorded in this paper.

1. Secure at the earliest possible moment immobilization of the spine, especially in the neighborhood of the vertebræ diseased.

2. Begin with ten grains of potassium iodide in mineral water—Vichy, I think, is best suited for most cases—three times daily after meals.

3. Increase the dose daily by five grains, until the stomach shows signs of intolerance.

4. Maintain as large a dose as the stomach will tolerate until convalescence is fairly established.

5. Do not lose sight of the apparatus employed, and replace it without hesitation and without delay whenever its inefficiency is demonstrated.

6. Keep the patient in bed the greater part of the day, and if he goes out see that the recumbent, or at least a semi-recumbent position is maintained. Under no circumstances permit efforts at standing until convalescence is fully established.

7. See that the general health does not deteriorate while special treatment is pursued.

23 Park Avenue, New York.

Naples Ready for the Cholera.—According to a correspondent of the *London Times*, Naples, despite the scourging it received last year for its filthiness, is in but little better condition to resist the cholera now than it was then. The city has now an abundant water supply, but it would seem that little use is made of it either by the civic authorities or by private individuals. The streets and dwellings are, many of them, as filthy as a year's accumulation of dirt can make them. The authorities have, within a few weeks, ordered about two thousand wells of impure water to be closed, but the execution of this order is not yet. When cities or countries persist in endangering the safety of their decent neighbors by breeding pestilences, they should be taken in hand and forced to clean themselves. That would be something much more worth fighting about than the possession of a few islands in the Pacific, or a strip of land on the coast of Africa.

Clinical Department.

ANOTHER FAILURE WITH CHLOROFORM IN THE TREATMENT OF TAPE-WORM.

Dr. Herman Gasser, of Platteville, Wis., writes that he was called upon to prescribe for a young lady, eighteen years of age, who was suffering from tape-worm. She had been carrying the worm for five years, and had tried many physicians and many remedies, including kooso, turpentine, oil of male fern, and chloroform. The latter, either alone, or mixed with oil of male fern, had been tried four times without success. Finally Dr. Gasser had prepared a decoction of pomegranate bark, eight ounces to the pint, and gave it in two-ounce doses every fifteen minutes until five had been taken. Then the patient became drowsy and faint, and the remedy was discontinued. This attempt was successful. The worm, with its head, was discharged, and the patient has now been freed from her unwelcome guest for over a year.

Progress of Medical Science.

The Breasts of Male Consumptives.—According to M. Leudet (*The Lancet*, September 19, 1885) there sometimes exists a congestive swelling of the breast of male consumptives that is related to the pulmonary disease. There is no deposit of tubercle. The author has observed three cases of this mammary enlargement. The breast is first swollen throughout, and has the characters of a disk whose diameter is about three to five centimetres. The skin that covers the gland does not exhibit any change in color, and the subjacent connective-tissue is unaffected. After one gland has enlarged the opposite organ may be affected. Pain is experienced in the diseased gland and may radiate round the thoracic wall. This swelling is especially liable to occur on the side the lung of which is most diseased, or when pleuritic attacks are notably present. The swelling is regarded as due to a congestion the result of irradiation from the central disease. The lymphatic glands are not swollen. After lasting from one to several months, the swollen mamma returns slowly to its normal size; suppuration has not been known to occur.

Two Cases of Herpes with Motor Paralysis.—Dr. G. Waller reports two cases of herpes, in which motor nerves were affected. A widow, aged sixty-eight, had a painful patch of herpes, covering the whole of the right side of the face, stopping abruptly at the middle line. After some weeks, the herpetic spots and the pain disappeared, being, however, replaced by paralysis of the same side of the face, with loss of taste on the right half of the tongue. The other case was that of an old man, who had a herpetic eruption situated on the anterior aspect of the upper arm on the right side; this was accompanied with severe itching and a pricking sensation. Eight days after the appearance of the eruption, he found himself unable to raise or extend the arm. There was no pain or swelling in the muscles or joints, and the electric reactions were normal. The herpes and the paralysis both indicated the circumflex and musculo-cutaneous as being the nerves affected. The treatment was electrical, and brought the case to a successful termination.—*The British Medical Journal*, September 19, 1885.

Lipocardiac Asthma.—Under the name of "lipocardiac asthma," Professor Cantani (*London Medical Record*, August 15, 1885) gives an account of the affection described by him since 1864 as "fatty heart asthma." The patient is perhaps quiet in bed or in an arm-chair, when suddenly, without any apparent reason, the rhythm of his respiratory movements is disturbed. Little by little, sometimes almost insensibly, his respirations be-

come more frequent, shorter, and more profound, amounting at times to a laborious and even stertorous dyspnœa. Gradually the respirations become less frequent and profound, returning by degrees to the normal. Such attacks are usually short in duration; severe attacks last only a few minutes, and mild attacks only about two or three minutes. At first the outbreaks are unfrequent—about once a month, or three or four in the course of the year; and then they follow fatigue, muscular efforts, or emotional disturbance. As time wears on, the attacks begin to recur at short intervals and without apparent cause. The origin of these symptoms, according to the author, lies not in mere fatty hypertrophy of the heart, but in fatty degeneration of the muscular tissue of the organ. The symptoms show themselves when the heart begins to be tired. With this muscle, however, fatigue means impossibility to continue its work with its usual power. It requires, therefore, a brief period of relative repose, of less energetic contraction. This, however, involves a less complete emptying of the ventricles. Now, during this period of relative repose, of fatigue of the heart, the quantity of blood driven into the lungs by the right ventricle, and to the rest of the body from the left ventricle, is, for the time, diminished. Not merely, therefore, is there less blood oxygenated in the lungs, but the blood that is oxygenated is distributed more slowly throughout the body. This insufficient supply of blood to the tissues provokes a nervous erythism, or general hyperæsthesia. The recognition of lipocardiac asthma is important, inasmuch as the prognosis is much more unfavorable than in any other kind of cardiac asthma. It must be distinguished from angina pectoris, with which it is apt to be confounded, and with which, in fact, it is rarely conjoined. Another disorder of respiration with which it might be confounded is Cheyne-Stokes' respiration. Cheyne-stokes' respiration, however, is a symptom in various morbid states. It has a different pathogenesis and a different significance. In it there is apnœa; in lipocardiac asthma, on the contrary, there is only dyspnœa. Cheyne-Stokes' respiration occurs at brief intervals, and does not occur long before death. Lipocardiac asthma occurs at distant intervals, and may occur for many years before death. The treatment of lipocardiac asthma consists in improving the general health of the patient. Against the symptoms, digitalis, convallaria, valerianate of quinine, caffein, cognac, red wine boiled with canella, etc., may be useful. In fatty persons who are not too old, ferruginous preparations may be tried.

Epilepsy and Ear Disease.—According to M. Boucheron epilepsy may occur in consequence of various diseases of the ear, such as tubo-tympanic catarrh, otorrhœa, or lesions of the mastoid process or labyrinth. Convulsive attacks of this nature may be observed in childhood or in adult life. The prognosis is favorable, but relapses may occur coincident with relapses of the ear disease. The precursory symptoms of an attack are increased deafness, vertigo, a sensation of pressure within the ears, etc. It would thus appear that in man, as in the lower animals, the ear may be an epileptogenous region, excitation of the auricular nerves producing convulsive attacks.—*Revue Médicale*, September 5, 1885.

Phosphide of Zinc in Dysmenorrhœa and Sterility.—In Mathews Duncan's lectures on Sterility in Women, he places dysmenorrhœa in the list of the best demonstrated sources of, or attendants on, such conditions. But, even if we consider dysmenorrhœa the cause of the sterility, the question of the treatment of the menstrual difficulty does not in many cases admit of ready answer. Certainly there are cases of dysmenorrhœa which may be rapidly and satisfactorily treated by dilating the cervical canal, this dilatation being by double-bladed dilators, rather than by other means. But there remains a large number of cases that present no indication for this method of treatment, and which, of course, are not benefited if it be tried. Now, some of these may possibly be cured by the use of phosphide of zinc, as recommended by Decoux, who found this medicine useful in many cases of dysmenorrhœa and of amenorrhœa. Decoux narrates a case where it twice proved effective in curing sterility associated with the former disorder. In addition to the success of this medicine in dysmenorrhœa, amenorrhœa, and sterility, he has found it remarkably useful in cases of hysteria, ataxia, anæmia, and neuralgia. He gives two granules, of four milligrammes each, morning and evening. Only the crystallized preparation should be used, as the powder is inert. He states that its preparation is so difficult, that, with a single exception, one scarcely finds in commerce any but an impure product, which is partly or completely ineffective.—*Med. News*, September 5, 1885.

The Significance of the Spiral and Central Fibres in the Sputum.—Vierordt and Jacksch doubt, according to a recent publication on this subject, the specific nature of these fibres, and declare that they have also observed them in pneumonic sputum. Pell gives additional weight to the testimony of the stated observers by two cases under his treatment. The first case was one of pneumonia, in a woman forty-eight years of age, who for a number of years had suffered from asthmatic attacks. In the sputum were found spiral fibres, with and without central ones, and isolated central fibres, all embedded in mucus and pus-cells; besides, numerous Leyden's crystals were also present. After the sputum lost its pneumonic character the spiral fibres had also disappeared, and did not recur even later, when typically asthmatic paroxysms set in again. The second case was one of pneumonia, in a woman fifty-five years of age, who at no time had had any asthmatic affection. Spiral and central fibres were again found in the sputum. In the autopsy the spiral fibres were found not only in the larger and finer bronchi of the infiltrated lower lobe, but also in the non-infiltrated upper lobe of the right lung, while they were completely absent in the left lung. The spiral fibres being soluble in potash-lye and baryta-water, it follows that they consist largely of a mucous basis. A very satisfactory explanation for the peculiar spiral arrangements of these fibres has not yet been furnished. It is highly probable, however, that they are caused by the onward motion of a tough, elastic mass through a very narrow channel, viz., the finer lumen of the bronchioles under the influence of the ciliated epithelial cells, the unequal contraction of the bronchial muscles, and, finally, that of the diaphragm. The contents moving in the line of the least resistance is forced to make these spiral motions. The central fibres may be regarded partially as an optical delusion, partly as resulting from a stronger turning of the finest fibres and subsequently greater consistency of them.—*Therapeutic Gazette*, September, 1885.

Unilateral Œdema.—Dr. Bassi relates a case of serous infiltration, limited to one side of the body, recurring at every menstrual period, in a young woman of rather delicate health. The œdema was strictly limited to the right half of the body, but the coloration, temperature, and sensibility of the two sides were equal, except that the skin on the right side could be reddened by slighter degrees of irritation. Coincident with the external œdema there was an infiltration of the right lung, as evidenced by the physical signs. At the time of these attacks there was also complete anæsthesia of the cornea on both sides and of the isthmus of the fauces. The right ovary was painful. Examination of the urine gave negative results. The patient presented various hysterical symptoms. The cause of this intermittent unilateral œdema was obscure. The condition could not well be referred to vaso-motor paralysis since there was no elevation of temperature or redness of the skin on the affected side. After about a year's treatment with bromide of iron and hydrotherapy, the patient was much better, although the hysterical symptoms had not wholly disappeared. —*Rivista Inter. di Med. e Chir.*, July and August, 1885.

A Fall of Two Hundred and Fifty Feet without Severe Injury.—Dr. Evans relates, in the *Bristol Med.-Chirurg. Journal*, the history of a girl who attempted suicide on May 8th, by jumping from the Clifton Suspension Bridge. The bridge is two hundred and fifty feet high, and has been a favorite place for suicides. Sixteen persons have been known to have succeeded in self-destruction by making this same leap. One other only was picked up alive, but survived only thirty minutes. Twenty days after the fall the patient was considered convalescent and able to walk without pain. There was apparently no permanent injury. As far as the writer knows, no case of survival after a fall from as great a height as one hundred and fifty feet has hitherto been recorded, and considers this instance as probably unique.

Should Arsenic be Administered to Nursing Women?—The question whether an infant at the breast can be poisoned by its mother's milk, when the latter has taken a large quantity of arsenic, recently came up in a medico-legal case in Paris. Dr. Brouardel was called upon to investigate a case where an infant had died suddenly, and the father was suspected some six months afterward of having attempted the mother's life. The child's body was exhumed and found completely transformed into adipocere, so that the viscera could not be separated from the other part. An analysis *en bloc* was therefore made. The body weighed six and three-fourths pounds, and contained nearly a twelfth of a grain of arsenic. It was decided that this quantity could not have been derived from the clothing or the soil. To decide in what proportions, if at all, arsenic is eliminated by the milk, Fowler's solution was administered to wet-nurses in doses ranging from three to twelve drops. It was found that the milk contained a comparatively large quantity of arsenic after these doses had been taken for several days. As much as one-sixty-fourth of a grain could be obtained from about three ounces of milk. Experiments on animals, to determine the effects on the milk of one large dose, were not very conclusive, but it was shown that arsenic in these cases was constantly eliminated by the lacteal glands. The greatest care should, therefore, be exercised in giving arsenic to nursing women.

Cocaine in Sea-Sickness.—Dr. Manasseïne, of St. Petersburg, gives an interesting account of the employment of cocainum muriaticum in sea-sickness (*Berl. klin. Wochenschrift*, August 31, 1885). He argued from its usefulness in the vomiting of pregnancy, that it would likewise be of value in this bugbear of ocean travel. He made a voyage himself in order to test the drug, and, finding among his fellow-passengers a man and a woman who were especially prone to the malady, made the following observation: Upon embarking he administered to each every two or three hours a teaspoonful of a solution containing two and a half grains of muriate of cocaine in five ounces of distilled water, with the addition of a sufficient quantity of rectified spirits of wine. In spite of very rough weather for a period of forty-eight hours, both individuals escaped sickness for the first time in their lives. He also treated successfully a six-year-old child after it had begun to be sick, and a girl eighteen years of age who had been sick for twenty-four hours before the cocaine was given. Her case being severe, she was given a double dose every half hour, and the result is described as being "truly magical." She remained well during the rest of the voyage. Similar results followed in three milder cases. The writer thinks it justifiable to infer that in this drug we have a certain and harmless remedy against sea-sickness.

Dermatolysis Associated with Molluscum Fibrosum.—The relation of dermatolysis, or, as it was called by Valentine Mott, pachydermatocele, to fibroma molluscum, which has been suggested by dermatologists, has recently been aptly illustrated in a case reported in *The Indian Medical Gazette*, August, 1885. A laborer, aged forty, entered the Indore Charitable Hospital for the removal of a large pendulous tumor which hung down from the left mammary region, reaching the level of the great trochanter of the femur on the left side. Examination showed it to be a dermatolysis, or, as Kaposi calls it, elephantiasis telangiectodes. It was further discovered by Dr. Keegan, who reports the case, that the whole body was covered with fibroma molluscum. No part of the surface, excepting the palms and soles, was free from the tumors, which varied in size from that of a pea to that of a walnut. The disease had begun thirty years before as a small tumor the size of a pea, growing about two inches to the left of the mamma. The fibromata began to appear at about the same time, and quickly invaded the greater portion of his integument. The weight of the tumor on removal was found to be two pounds and six ounces, and consisted of thickened skin and connective-tissue well supplied with numerous vessels. In this case the disease appears to have been hereditary, as the patient states that his mother had a similar growth in the same situation, which, however, attained only about half the size of his own. The author believes that the disease is only an exaggerated form of fibroma molluscum, and thinks his opinion is strengthened by the fact that the pachydermatocele began in the same manner as the small fibromata.

When does Syphilis Become Constitutional?—Discussing this interesting question in the *Nordist Medicinskt Arkiv*, 1885, Dr. Pontoppidian states his belief that the first manifestation of syphilis (the chancre), in its early stage, is a local disease, but that the syphilitic virus will infiltrate the adjacent tissues and glands in a short time afterward. This period he places at two or three weeks. He claims that constitutional infiltration does not take place during the first stage, or period of latency of the syphilitic virus. In support of his views he reports five cases, out of a large number experimented upon at the Copenhagen Hospital, in which auto-inoculations were made. The following case will serve as an example, as they are all similar: L. A—— was placed in the hospital August 12th, with a small foul ulcer in the sulcus coronarius, and reported infected sixteen days prior. The second day the ulcer was cleaner but somewhat increased in size, with hard infiltration. Inoculation was then performed in three places upon the abdomen of the patient, which the fourth day was noticed as without effect. The sixth day the places of inoculation were hardly perceptible. The fifteenth day adenitis inguinalis was in existence. On the seventeenth day at the place of one of the inoculations a little red not elevated spot was seen. The nineteenth day induration was noticed; the red spot increased in size and was slightly elevated; no constitutional symptoms. On the twenty-fifth day the papule was about the size of a pea, elevated and hard; syphilis had then appeared. Syphilitic maculæ were seen on the tonsils, and slight enlargement of the glands about the neck. Constitutional treatment was resorted to. The fortieth day the local lesion, both on penis and places of inoculation, had disappeared. Here, what appeared to be a negative result, at first, developed, after a certain period of incubation, the characteristic signs of syphilis. If this second inoculation be performed before the initial sclerosis or chancre has had time to entirely poison the organism, the result remains negative at first, but the period of incubation being completed, a new sclerosis is developed. The writer quotes Wallace, Puche, Boeck, and others as having reported cases where secondary inoculation had given rise to one or more fully developed lesions, where the virus was taken from a chancre and inoculated upon the affected individual. From his observations he believes that the chancre thus obtained will disappear before full development if the inoculation be not performed in the early part of the secondary stage, from the fact that the infiltration from the first lesion has become universal.

Capsicum Annuum in Delirium Tremens.—Dulácska reports, in the *Pester Medicin-Chirurg. Presse*, four cases of delirium tremens treated with capsicum annuum. one of the cases was complicated with pneumonia, a second by extreme motor and psychical restlessness. The result in all the cases was more prompt than after giving chloral. Two grammes of the powder were given every hour; after the fourth dose sleep came on, together with profuse sweating, voidance of urine, and diarrhœa. The mode of action is surmised by Dulácska to consist in a reflex action of the intestinal irritation upon the pneumogastric, resulting in slowing of the heart's action. The venous circulation becomes more tardy and the consequence is sleep and profuse secretion of urine.

Multifœtal Pregnancy.—The following case is reported in the *Medizinskoje Obesrenije*: A peasant woman, twenty-seven years of age, has been married nine years, and has menstruated regularly every three weeks and six days since her fifteenth year. Pregnant six times, labor normal. The last menses occurred October 14, 1884. In February this year she applied to a medical man, as the abdomen had increased so much in size that respiration was impeded. It was ascertained that the uterus was considerably enlarged, of a rounded oval form, with the fundus at the level of the scrobiculus cordis. To the right of the linea alba feeble cardiac sounds were heard; on the left small portions of a fœtus could be felt. The birth of a dead child took place on February 28th, at 8 P.M.; a few minutes afterward a second appeared, both breech presentations; and some minutes later, three more children, with their heads presenting. They were all born enveloped in amniotic sacs. The four last lived a short time. There was one placenta, weighing 585 grammes, to the periphery of which the umbilical cords were attached. All the children were females, and corresponded in size to their period of growth, each weighing about 590 grammes, with the exception of the first, which weighed 934 grammes, and was 41 centimetres in length. Several fingers and toes were missing from the hands and feet.

Constituents of Brain.—Baumstark has examined the brain-substance of the horse by improved chemical methods, and finds that the soluble salts, albumen, and organic extractive matters are present in larger proportions in the gray than in the white matter, the nuclein, combined cholesterin and lecithin, are nearly equal in the white and gray matters, but the white substance contains a preponderance of neurokeratin, free cholesterin, and protagon, and the gray contains the more insoluble albumen and connective tissue. The phosphorus contained in the ash of the white and of the gray matter is about equal. The author has contrived to isolate and study the hitherto doubtful protagon in such a way as to establish its identity.

Treatment of Peri-uterine Hæmatocele by Electro-puncture.—At the meeting of the French Association for the Advancement of Science, held at Grenoble, in August of the present year, a paper was presented by MM. Apostoli and Doléris upon a new method of treatment of pelvic hæmatocele by negative galvanopuncture. A double advantage is claimed for this procedure. The first is that, if the negative pole be used, a soft, non-retractive eschar is formed and the resulting fistula remains patent for a sufficient length of time, while adhesions are formed between the pathological cavity and the mucous membrane. The second is that the electrical current causes a modification of nutrition and provokes a more or less rapid regressive action in the pathological formation. The puncture should be made as nearly as possible in the centre of the tumor, care being taken to avoid the uterus, intestines, or a large vessel. In order to determine the relations of the parts, a careful rectal and vaginal examination should be made. The current should be of the strength of one hundred milliampères, and the duration of its application should be from five to ten minutes. The Léclanché element is the one preferred by the authors. The negative pole is a trochar of medium size protected by a glass or caoutchouc sheath, and the positive pole a large cake of clay moulded over the abdomen or one of the thighs of the patient. Antiseptic precautions are used during the operation, and subsequently a strong solution of carbolic acid is injected twice a day into the vagina. The authors claim that, by the use of this method, a speedy cure of pelvic hæmatocele may be obtained, thus reducing very materially the gravity of prognosis. The operation should be performed at the earliest practical period. The danger of the procedure lies chiefly in the liability of wounding a large vessel and giving rise to hemorrhage, but this can usually be avoided by a digital examination made to determine the situation of any pulsating arteries.

Treatment of the Convulsive Cough of Children.—The remedies directed against the convulsive cough of children may be divided into 1, narcotics; 2, antizymotics; 3, purely empirical agents. 1. (*a*) Bromide of potassium has not verified its alleged value at the polyclinic of Berlin; one hundred and twenty-two cases came under observation, twenty-six were treated with this salt alone; six of these only improved under its use, while the duration of the malady was in no way shortened. (*b*) Belladonna is one of the oldest remedies used in this affection; three to four drops of an atropine solution of five per cent. are recommendable. Fifteen grains of the extract may be given after supper, and this dose increased every five hours, until one hundred grains have been ingested altogether. This remedy owes its great reputation to its power of modifying the course and intensity of the paroxysm, and of shortening the convulsive stage. (*c*) Opium has no specific virtues in this affection, and ought not to be administered. (*d*) Hydrate of chloral is employed by Lorey twice daily in doses up to fifteen grains, with gratifying results. (*e*) Lublinski (the well-known therapeutist of Berlin) combines the extract of belladonna and hydrate of chloral with very encouraging results. The butylate of chloral requires further clinical trials to give us a correct estimate of its therapeutic utility. (*g*) The same can be said of propylamine. (*h*) Atomized ether applied to the neck, with the view of influencing the trunk and branches of the pneumogastric nerve, is a remedy of doubtful effect. (*i*) Nitrite of amyl is inadmissible. J. Roubart recommends the continuous current to the medulla oblongata, especially in small children. 2. (*a*) Quinine, in the state of either the sulphate or the hydrochlorate, is recommended by many physicians. (*b*) Other practitioners praise phenic acid, given either by inhalation or internally, but there is little definitely known of the value of this drug. (*c*) Inhalations of oil of turpentine have repeatedly given good results. (*d*) Inhalations of petroleum are recommended by Lesser and Hildebrandt, though others doubt their value. (*e*) Salicylic acid and salicylate of sodium have given various results with different physicians, and do not hence appear to be reliable. (*f*) Porrot eulogizes the vapors of phenylate of soda in the sick-chamber. (*g*) Nothing positive is known of the corrosive sublimate in this affection. 3. (*a*) The extract of chestnuts, prepared from leaves gathered in the fall, is not a specific, but appears advantageous. (*b*) Oxalate of cerium, in a daily dose of forty-five grains for a child one year old, and of four drachms for a child of seven years, is well indicated and advantageously used. (*c*) Hydrochlorate of pilocarpine is more of an abortive than a specific, but is to be used in small doses. Cassel mentions still ammonium, calomel, the mercurial munctions, and tincture of myrrh, but none of these drugs can claim constancy and promptness of action.—*Therapeutic Gazette*, September, 1885.

Little drops of water,
Little grains of milk,
Make the little doctors
Of Homœopathic ilk.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, October 24, 1885.

A NOVEL VIEW OF MALARIA.

ONE of the most interesting problems in the whole range of medical science, and one which receives, and deserves to receive, the attention of some of the clearest thinkers of our day, is that presented by malaria in all of its manifold and erratic manifestations. Although, fortunately, in this latitude, the pernicious forms of malarial fever are, while by no means unknown, of comparatively rare occurrence, yet no small part of the physical ills from which we suffer can be referred directly or indirectly to the action of this poison. And in many portions of the globe not less than one-half of the mortality is due to this cause alone. But aside from the large part which this disease plays in the causation of human suffering and death, it is of itself an interesting subject of study. There are few other infections which are so proteiform in their manifestations, and so insidious in their progress as is the malarial, and it is equalled, if indeed it be equalled at all, only by the syphilitic and the tubercular. It is now very generally accepted, upon the authority of Tommasi-Crudeli, Klebs, Marchiafava, and others, that the malarial infection is due to the entrance into the organism of a special form of lower life, a schizomycete. But we are still in the dark as regards the mode of action of this parasite, for no satisfactory explanation has yet been vouchsafed us of the characteristic periodicity in the symptoms of malarial infection, or of the irregular forms which it so often assumes. For this reason any new theories, even if they be nothing more than guesses, are interesting, and, if advanced by men of scientific attainments and reputation for careful study, are worthy of some thought, however strange and improbable they may at first sight seem to be.

In the supplement of the *Gazzetta degli Ospitali* of July 12, 1885, is reported a lecture by Professor Arnaldo Cantani, in which he explains the theory held by him concerning the mode of production of the various types of malarial infection. Briefly stated, it is that the microbe of malaria, having gained admission into the organism, is carried to the spleen. The latter organ under this new stimulus suffers a disturbance of nutrition and increases in size. And the whole question of the febrile paroxysm, he says, depends upon the capsule of the spleen and the degree of elasticity of its contractile elements. When the capsule is yielding the organ increases little by little, but there is in no case access of fever, and we have the hypertrophied spleen of chronic malarial infection. When, however, the capsule is normally elastic it is stimulated by the presence of the malarial germs, and is excited to contract, squeezing the microbes out into the general circulation. Then a paroxysm occurs of chill, fever, and sweating. During the fever the micro-organisms are either destroyed or eliminated, and there follows a period of repose. But in the meanwhile the germs remaining in the spleen begin to multiply, the capsule is again stimulated to contract forcibly, and the blood is anew charged with the poison. Then comes the fever, and again a period of rest succeeds. If the spleen is normally sensitive the paroxysm occurs every day, for the strength of the contractile elements is speedily restored. But if the organ is less sensitive a greater stimulus is needed to excite a contraction, and a paroxysm occurs then only once in two or three days, the fever assuming a tertian or quartan type. Following out this line of reasoning the author accounts for all the various forms in which the malarial poison manifests itself.

This is an ingenious theory and serves not only to elucidate the vexing problem of malaria, but accounts also for the existence of the spleen and demonstrates its utility. For if there were no spleen to store up the microbes and squeeze them out as occasion requires, there might be no malarial fevers. We would suggest the extirpation of the spleen as a promising operation for the radical cure of malaria, and one that may in time assume a rank alongside of resection of the lung in pulmonary phthisis, or of decapitation for a cold in the head.

STARVING FEVERS.

IT was the wish of Dr. Graves that it should be written on his tombstone, "He fed fevers." It would appear to be the desire of Dr. Yandell, of Louisville, to have the opposite inscription, viz., "He starved fevers." In a recent number of the *American Practitioner* he gives some of his personal experiences upon this subject. He says: "While suffering from typhoid fever, during nine weeks I was delirious. Those weeks remain to this day a total blank, except in one particular, and that related to food. The recollection of my aversion to that is distinct. My nurse told me that I took food at no time without a remonstrance; that I not unfrequently flatly refused to have it, giving always as a reason that it was exceedingly distasteful to me. I made the same objection to every kind of drink other than water. I got no medicine, but was required to take milk, at first every three hours, then every two hours. I had frozen champagne, at about the same intervals of time. Three weeks after the delirium subsided, I stood on my feet for the first time. I am just as sure that food was given in this case oftentimes to my hurt, as it was always given against my inclination. Yet this was the practice of the time. And I fear it is far too much the practice of the present day. Since Tanner's protracted fast, I have been much less disposed than before to force food upon patients against their wishes. I have made some short fasts myself, in the hope of wearing out a rheumatism. My first attempt I continued for eleven days, taking in that time but three glasses of water a day. I felt no particular inconvenience from my abstinence. Last winter I fasted twenty-one days, also in a rheumatism, in which time I had not

more than a quart of milk, which I took hot. I cannot say that my disease was benefited in the least. But I was without appetite, was averse even to food, and, if I got no good from fasting, I at least escaped any of the inconveniences which might have ensued had I taken nourishment. In the last year I have treated five cases of typhoid fever practically without food, that is, without food except when called for, or when delirium was present, and then only when it was not refused."

Dr. Yandell is probably right in his view, that it is the practice of the present day to feed fevers and feed them well. Perhaps it is sometimes overdone; but, on the whole, it is safer to over-feed than to starve. Dr. Yandell is himself a personal illustration of the fact that overfeeding in typhoid does not kill. Typhoid fever is a long and exhausting disease. The tissues of the body are wasting with abnormal rapidity. It is rational to suppose that as much nourishment should be administered as can be digested, a point to be determined by watching the stomach, and by a careful examination of the discharges.

We feel very sure that the profession will never return to the practice of starving fevers, especially those which are long and exhausting. Yet it may be that Dr. Yandell's experience will prove useful in calling attention to the possibility of over-feeding, a practice which causes discomfort, if not absolute danger, to the patient.

ETHERIZATION DURING SLEEP.

It is settled beyond doubt that with extreme skill and care anæsthesia can be produced by chloroform in some cases during sleep. The possibility of accomplishing the same result with ether has, we believe, never been seriously discussed, and would seem *a priori* quite impossible. A case in which such etherization was successfully accomplished has, however, been recently reported in the daily papers. Two men, uncle and nephew, had been sleeping together for several days, when one morning the latter on awaking found that he had been robbed. Investigation led to the discovery that the uncle had purchased an ounce of ether, and had poured it on his nephew's pillow. While in a profound sleep, which he believed was induced by the ether, the thief stole the contents of his nephew's pocket-book, opened the window and made several ingenious arrangements in the room, so as to create the impression that it had been entered by some one from outside.

THE THEORY AND THERAPY OF OXALURIA.

The seeker after pathological certainty finds himself much baffled in studying the subject of the so-called oxalic acid diathesis. Dr. Prout first announced that the continuous and excessive excretion of oxalic acid in the urine, in the form of oxalate of lime, was accompanied by a peculiar train of nervous and dyspeptic symptoms, such as irritability, depression, hypochondriasis, flatulence, constipation, and palpitations. His views were endorsed by Golding-Bird, and became widely accepted. In 1845, Dr. Owen Rees threw doubts upon the correctness of Dr. Prout's views, and affirmed that oxalate of lime was formed after the excretion of the urine out of the ureters, and that its presence simply indicated lithæmia. Dr. W. R. Basham has subsequently confirmed the correctness of this view, which has of late years had its turn of popularity.

Dr. Dickinson does not accept the theories of either Dr. Prout or Dr. Rees in their entirety. Undoubtedly, he says, lithic acid in excess is a source of oxalate of lime, but in the condition known as oxaluria, where there is a long-continued excretion of pale, clear urine, rich in the oxalate of lime, the lithæmic theory is hardly sufficient, and the main fact of importance is the excessive excretion of lime and the other earthy salts. Oxaluria is not lithæmia, therefore, according to Dr. Dickinson, but it is a condition in which there is excessive loss of earthy salts associated with an active, restless, irritated nervous system. The term oxaluria might be abandoned, since the condition it designates is only a part or phase, a general condition (in which there is loss of earthy salts), and since most of these earthy salts are excreted in the form of phosphates. Dr. Dickinson reports cases in which the earthy salts are increased from an average of .003 per cent. to .03 per cent., or even .10 per cent., that is to say, from ten- to thirty-fold.

There has recently appeared in *Zeitschrift f. Therapie*, etc., an article by Dr. A Cantani, of Naples, on the subject of the "Theory and Therapy of Oxaluria." It is a very interesting contribution, in this respect at least, that it reproduces with a somewhat startling verisimilitude the early views of Prout and Golding-Bird. We do not wish to accuse Dr. Cantani of plagiarism, but if he has built up independently his views on oxaluria, it furnishes some corroboration of the old ideas as to the reality of such a condition as oxaluria.

Cantani states that oxaluria and oxalæmia (for he finds oxalic acid in the blood) is simply a symptom of a pathological condition in which the metabolic processes are at fault. The saccharine and oleaginous constituents of the food are not entirely oxidized into carbonic acid and water as they should be, but are in part changed into the incomplete end-product, oxalic acid. Oxaluria and oxalæmia are the anomalies of metabolism in which this process is simply slowed down. It is a kind of tissue laziness.

The most essential evidences of this disorder are, not the presence of oxalic acid in the urine or in the blood, but in certain clinical signs constituting a "symptom-complex" of the morbid state. These take on two phases, viz., (1) "oxaluria with hypochrondriasis and emaciation," and (2) "oxaluria with neuralgias and furunculosis." The first and severer form appears in persons of an irritable nervous system, the second and milder form in persons inclined to obesity. Under the first head, Cantani describes the familiar symptoms which have heretofore been usually associated with oxaluria as at first understood. Much the same category of symptoms has also been referred to neurasthenia and lithæmia.

With reference to therapeutics, Cantani follows with surprising closeness the views of Prout and Golding-Bird, viz., that the diet should be as near that of a diabetic as possible. He rigorously excludes almost everything but meat, fresh eggs, and soup. He even forbids green vegetables, and allows only a small quantity of milk. Out-door exercise, mountain air, and baths are recommended. In the way of medicines he prescribes

chiefly alkaline and saline draughts. In this he is supported by Niemeyer. On the other hand, the later English authorities advise mineral acids, strychnia, and occasional alkaline and mercurial purgatives. Neither Basham nor Dickenson believe in the need of a diabetic diet.

THE DOLLAR MEDICAL SHOP.

The task of reformers is generally a thankless one. They are compelled to fight against habit, indifference, and prejudice. Conscious of their own integrity of purpose, they press on, nothing wavering, until their aim is accomplished. This integrity of purpose is their solace at every rebuff and in every disappointment. It is in this spirit that we beg leave to say a few words more concerning the vexed "dispensary question."

That the prevalent methods of managing dispensaries tend to the abuse of medical charity, and to gross unfairness to the medical profession, no one denies. Many condemn these methods and hold themselves aloof from such institutions, but after awhile they are found in the places they formerly condemned, and justify their sudden change of heart under the plea of self-defence. The maelstrom has engulfed them. All that can be said of these prevalent methods of management is that they differ only in flagrancy, and at the head of the list in this respect stands, in our estimation, the Out-patient Department of the New York Hospital, which may justly be styled the "dollar medical shop."

Upon the payment of one dollar a patient is entitled to twelve visits to the dispensary for the ensuing month. As is learned from the annual report for the year 1884, five thousand one hundred and sixty-nine persons availed themselves of this imposition during that year, and the total number of visits was twenty-seven thousand, five hundred and sixty-five. Each patient paid for medicine from ten to twenty cents per visit. Splints and surgical dressings were furnished free. The average daily attendance in each class was about twenty. There are on the attending staff about twenty-five principals and assistants. The time spent by them there on the days of their service averages from one and a half to two and a half hours daily. This is what the profession is doing for the dispensary. What is it doing for the profession at large?

In the first place, it is not granting the full enjoyment of its clinical privileges. Out of all its classes, of which there is, if we read aright, one daily in each of the seven divisions, students are admitted, or, at least, publicly invited, to but three. All these facts call for some plain speaking. The violation of the principles of true charity of which they are most flagrant illustrations has been going on for some time. The institution was ostensibly established for the relief of the respectable poor—those who are to be accounted so by their recital of their circumstances, their dress, and general appearance. The dollar-a-month plan has drawn a class (abundantly able, as a rule, to pay a physician) who look down upon the "ordinary" dispensary patient with a "holier than thou" air which the scripturally historical Pharisee himself might envy. The clientele of this institution is drawn without doubt from a less needy class than is that of the German Dispensary, and yet the managers of the latter institution made in our columns some time ago (The Record, June 14, 1885), a statement to the following effect: During the first three months of the current year the cases of one hundred and ninety-two applicants for treatment were investigated by the Charity Organization Society. *Thirty-three per cent.* of this number, it was found, were abundantly able to pay for treatment outside. We characterized this work as the pioneer work in true charity reform, and such it was.

It is straining no point to say that an equal percentage of those applying for treatment at the dispensary of the New York Hospital do not belong to the "poor" class. Yet the institution is doing its work at the expense of the profession. The former takes all the glory; the latter does all the work. If this institution is sincere in its professions, it can no longer desire to see such a state of things continue. How can a remedy be applied? Through the agency we have indicated, by following the praiseworthy example of the managers of the German Dispensary. We know that the debt of the institution chartered by George III. reaches up among the hundred thousands, but we think they might afford one hundred dollars, which would secure the co-operation of the Charity Organization Society for six months. Sincerity would court investigation, but the latter is deferred. The number of persons treated must be as large as possible in order to furnish a justification of the chronic plea of the board of management for financial aid. The "governors" do not wish to be disturbed in their pose before the public as "dispensers of a great charity."

We realize that the dispensation of true charity on a large scale is no easy task. It never has been. So long as the present limitations of human nature obtain it never can be. A certain number of people in this city must rely on charity for medical attendance, but no encouragement should be given to that class who seek to evade their dues to physicians by the faulty management of dispensaries. The latter never ought to be money-making institutions. If the present abuse be not soon checked, it may be that each physician will have his own dispensary, that is, treat people free at his own office during certain hours. In that case the dispensaries would soon find their occupations gone, and their spheres of supposed usefulness properly narrowed.

THE SUPERVISION OF VACCINE COMPANIES.

Small-pox has appeared at Albany, N. Y., Newport, R. I., Peoria, Ill., Newark, N. J., New York City, and at several other places in the United States. Reports of its occurrence at new points are made almost daily. There is a prospect of a wide prevalence of the disease during the coming season, even if it nowhere takes on a markedly epidemic form. There is good reason, therefore, for municipalities and individuals to look sharply after the matter of vaccination, a matter which deserves a great deal more of public attention than it gets. At present, in all large centres, bovine virus in vaccinating is mainly used, and the steadily increasing demand for this has led to the formation of companies who undertake to cultivate and sell it, with a view, primarily, to making money. These companies are not, as a rule, under any official supervision, and are at perfect liberty to disseminate worthless crusts or septic poison among

the people. We learn, as an illustration, that with a lot of bovine virus recently sent to Montreal there were 102 trials and 102 failures, while other specimens have produced badly inflamed arms.

Here, surely, is a most anomalous condition of affairs. It is apparent, at once, that this cultivating and selling of virus should always be under some official supervision. Most States indirectly compel the vaccination of children, and they should, in all justice, see that this vaccination be made with pure and efficient material. Such supervision is exercised in some places, or else the health authorities supply vaccine, as in this city. But the public supervision of vaccine companies is not yet carried out as it should be, although it is a measure most imperatively needed for the security of the people.

PROGRESSIVE DISINTEGRATION.

The past two or three weeks have witnessed a steady and continued disintegration of what is left of the organization of the International Medical Congress. Besides the resignations given in our last issue, we learn that Professor Henry I. Bowditch has refused to accept the Vice-Presidency, and Dr. Henry F. Campbell, late President of the American Medical Association, has declined a similar honor. The resignations are also reported of Dr. E. O. Shakespeare, of Philadelphia, Dr. Henry G. Beyer, U. S. N., Dr. John J. Mason, of Newport. Dr. Jerome S. Kidder and Dr. J. M. Flint, U. S. N.

Dr. R. A. Kinloch, of Charleston, S. C., in withdrawing from the organization, sends an indignant protest against the high-handed methods adopted by the organizing Committee, and its refusal to consider or treat fairly the views of those members desiring to secure harmony rather than have their own way.

Professor Bowditch, in announcing his withdrawal, sends a scathing criticism on the course of the present Committee to the *Boston Medical and Surgical Journal.*

There is a steady growth in the profession of the feeling of indignation against the impudent and wicked conduct of the gentlemen who are so obstinately bound to wreck the Congress. Every week brings new evidences of this and fresh lists of withdrawals. No amount of editorial vituperation in the organ which the profession is now supporting to its own hurt and shame can obscure this fact.

At present the Congress looks to be very much such a thing as Bright's disease, viewed from the standpoint of Dr. Goodheart, viz., "a magnificent scheme of decay."

THE QUARREL OVER RAG DISINFECTION.

For some weeks a lively warfare has been going on between the health officer of this port and the rag importers, as to the question of rag disinfection. The importers have secured the support of a part at least of the daily press, and are frequently posed before the public as martyrs to the obstinacy and dulness, to say no worse, of the health officer.

This gentleman has, however, been right in the course which he has chosen, viz., that of insisting upon the disinfection of rags coming from ports in infected countries. It is both possible and upon record that cholera and small-pox may be transported by rags, which when moist are admirably adapted for the development of cholera germs; and the country has a right to demand that proper precautions be taken, even if importers do not make quite so much money for a time. This is the position taken by a country so alive to its purely commercial interests as Great Britain.

Incidentally the controversy has developed some interesting conclusions on the subject of disinfectants. Several series of experiments have been made to test the destructive power of superheated steam and of the sulphur process on pathogenic germs laid away in bales of rags. It has been shown with apparently a good degree of certainty that these germs can be destroyed by both the steam and the sulphur process. Although such experimental determinations do not furnish perfectly conclusive results, they are tolerably safe guides, and at least the best we can at present get.

THE ACTION OF DRUGS AT A DISTANCE.

At the last meeting at Grenoble of the French Association for the Advancement of Science, MM. H. Bourru and P. Burot, of Rochefort, presented reports of some very curious experiments with certain hystero-epileptic patients. MM. Bourru and Burot are attached, we believe, to the School of Naval Medicine at Rochefort, and their trustworthiness appears to be vouched for by the *Revue bibliographique Universelle.*

The most striking experiments were those illustrating the action of certain medicines at a distance. The hystero-epileptic patient being placed in a chair in the presence of the physicians, a fragment of opium is brought near him; it throws him into a heavy sleep.

Chloral placed at the back of the head caused a light sleep. Various emetics, such as ipecac and apomorphin, being placed near the patient, always, we are told, without his knowledge, caused vomiting.

In the same way alcohol caused a state resembling drunkenness; purgatives produced intestinal contractions; phosphorus produced tremor and hallucinations, etc.

All these phenomena were observed minutely, and sources of error, such as those of voluntary deception, of unconscious or conscious suggestion were believed to be excluded. It is highly probable, however, that the patient, through some of his senses, knew the character of the drug brought near him. The only interesting scientific fact is, therefore, that of the capacity shown to control the organic functions, so that at a certain suggestion diarrhœa, nausea, sweating, palpitations, etc., may be produced.

This capacity was further illustrated by observations in another case. Dr. Mabille, of La Rochelle, had a hystero-epileptic subject whom he mesmerized one evening, saying that at a certain moment he would bleed from the nose. At the hour specified the epistaxis occurred. In later experiments stigmata were brought out upon the arm by "auto-suggestion."

Not Far from the Truth.—Little Boy: Pa, what is a hypophosphite?

Father (busy reading): Oh, don't bother me with your eternal questions. Probably some kind of a crank.

News of the Week.

Arresting Pneumonia and Phthisis by Intra-pulmonary Injections.—M. Lépine, Professor at the Faculty of Medicine, Paris, in a memoir presented to the Académie des Sciences by M. Marey, states that intra-pulmonary injection of solution of bichloride of mercury in pneumonia arrests the progress of the malady and suppresses the rhonchi almost instantaneously. Dr. Truck, a pupil of M. Lépine's, has obtained important results by locally treating cases of tuberculous phthisis according to this method.

The Collodion Treatment of Cholera. — M. Bouley, at a recent meeting of the Académie des Sciences, presented a memoir by M. Arsène Drouhet, of Paris, on the treatment of cholera. He recommends painting the abdomen over with collodion. M. Marius Partrité, who practises in the War Department, appends a few pages to M. Drouhet's pamphlet. Last year he treated a great many cholera patients, and affirms that he effected some unexpected cures with M. Drouhet's remedy. M. Bouley said he should not criticize M. Drouhet's work, but could vouch for his honest intentions and scientific knowledge.

The Preponderance of Female Infants in the West has received further illustration, according to the *St. Paul Globe*, which narrates the following: "The accession of twin girls to the family of the popular County Treasurer, at Fargo, the past week, calls attention to the general fact that from three-fourths to four-fifths of the births in Dakota at present are of the female sex. Apprehension is felt that the thing is being overdone in that direction. Some attribute it in some undefined, mysterious, psychological way to the woman rights' furor and the romantic and absurdly exaggerated pictures drawn by Colonel Donan of the scarcity of females in Dakota."

Another New Medical College.—It is hard to see what possible need Florida has for a medical college. We have received, however, the announcement of one which has recently been organized in Tallahassee. Curiously enough it starts full-fledged with an Emeritus Professor, who necessarily has never been anything but "emeritus."

It is interesting to learn that there is a National Association of Undertakers, which held its annual meeting in Philadelphia last week, and voted not to offer a $1,000 prize for the corpse that had been best embalmed for sixty days.

"Epidemic" is said to be the title of a new journal just started in the South. It is expected that everybody will take it.

Death of Dr. William H. Coggeshall.—We regret to announce the very sudden and untimely death of Dr. William H. Coggeshall, Associate Editor of the *Virginia Medical Monthly*. Dr. Coggeshall was a gentleman of more than ordinary promise, and had already attained an enviable position in medicine and as a journalist.

Honoring an American Physician.— Under the title, "An English Welcome to Dr. Parrish," the *Medical Press and Circular* says: "Dr. Parrish, the eminent American apostle of temperance having visited this country with a view to inspecting the working arrangements of the Homes founded here for the treatment of confirmed inebriates, the occasion was seized to offer him a general welcome from the prominent temperance organizations in Great Britain. To this end the President and Council of the Society for the Study and Cure of Inebriety issued a large number of invitations to the Dalrymple Home at Rickmansworth, and on Saturday, the 19th inst., a special train conveyed the party to the Home, where, after lunch, a meeting was held in the new Concert Hall. The chair was taken by Dr. Norman Kerr, who, in an eloquent speech, welcomed Dr. Parrish to England. Among the subsequent speakers were Dr. Langdon Down, Dr. Danforth Thomas, Mrs. Lucas, and the Rev. Mr. Murphy."

The Total Number of Physicians in the world is estimated to be 190,000.

Newport and Small-pox.—According to a report furnished by the Secretary of the Newport Medical Society, Dr. W. Thornton Parker, the public vaccinators of the city, Drs. Barker and Sears, in a house-to-house vaccination, vaccinated 521, and were refused permission to vaccinate 707 persons. So that there is a large proportion of unprotected persons yet in that city. A great service would be done, according to the Secretary, if the teachers and pastors of private and parochial schools would insist on the vaccination of their pupils.

The Attempt of Anthony Comstock to obtain judgment against a number of New York druggists for selling an article prohibited by the Penal Code has caused considerable stir among that fraternity. We trust that Mr. Comstock will succeed in stopping the India-rubber branch of the drug business.

"The Medical Press of Western New York" is the title of a new monthly medical journal edited by Dr. Rosswell Park. It aims to represent the interests of the profession of Western New York and vicinity. In these progressive days it is perfectly natural that where there are two medical colleges there should be two journals. Both of our Buffalo contemporaries are interesting journals.

The Machine for Static Electricity: A Question of Priority.—Mr. D. Rosseau, of this city, writes: "I notice in your issue of the 17th inst. the description, by Ambrose L. Ranney, M.D., of a so-called new apparatus for generating static electricity. I am very much surprised at the similarity to the Induction Holtz Machine manufactured by me for nearly two years. With the exception of the rubber, the principle of the machine was discovered by Holtz, but the new construction, as described by Dr. Ranney, was devised by me, with the help of Charles Van Brunt and H. D. Hall. The first one I sold for medical use was to Dr. M. A. Pallen, in September, 1884; and one to A. C. Hutchinson, President of Morgan's Louisiana & Texas Railroad, also in the fall of 1884; and one to Dr. T. Hamilton Burck, December 18, 1884.'"

American Academy of Medicine.—The ninth annual meeting of the American Academy of Medicine will be held at the New York Academy of Medicine, No. 12 West Thirty-first Street, New York, on Wednesday and Thursday, October 28 and 29, 1885. Interesting papers

will be read by Drs. Sibbet, of Carlisle, Pa.; McIntire, Jr., of Easton, Pa.; Marcy, of Boston, Mass.; E. H. M. Sell, of New York; Turner, of U. S. Navy; Dunglison and Lee, of Philadelphia; Nelson, of Cambridge, Mass.; Cushing, of Boston, Mass.; Jackson, of Philadelphia; Kelly, of Utica, N. Y.; and Bush, of Wilmington, Del. The Address will be delivered at eight o'clock on Wednesday evening, by Albert L. Gihon, A.M., M.D., United States Navy, President, on "What is Medicine?" The annual collation will take place on Wednesday evening, October 28th, immediately after the President's Address.

How not to Remove Dampness in the Static Electric Machine.—A correspondent sends the following reasonable statement: "The device resorted to by Dr. Ranney for removing dampness from within the case of his static electric machine (see The Medical Record, October 17th, p. 447) will amaze his readers. Burning an alcohol lamp within the case is equivalent to filling the latter with carbonic acid and the *vapor of water*, which are the well-known products of the combustion of alcohol."

Vaccination in Montreal.—Dr. L. D. Mignault, Professor of Anatomy, Victoria College of Montreal, writes: "I have read with interest your items upon our epidemic, and I am pleased to see that your information has been in general gathered from reliable sources. It is always a satisfaction to see the medical journals of a distant city giving full and truthful details of all that passes around us. At the same time I am sure that you will allow me to modify a statement which affects the reputation of a large medical school, and which would be a great injustice to its members in general. While admitting that we have upon our staff the 'influential man' referred to, allow me to state that he is not at present engaged in lecturing, having retired nearly a year ago on account of his age and infirmities. He, moreover, never had much scope to ventilate his views, as he held the chair of Materia Medica. We have among our body the President of the Provincial Board of Health, and several others who are earnest and active workers in the cause of vaccination. Moreover, our school published over a month ago a resolution in favor of vaccination which I enclose, and finally, nearly all our students have been revaccinated since the outbreak."

The Therapeutics of Hay Fever.—Dr. F. A. Burrall, of this city, writes: "In Dr. Beverley Robinson's article, in The Record of October 17th, on 'The Therapeutics of Hay Fever (so called),' he refers to the effect of cocaine in producing 'secondary occlusion of the nasal passages, due, as I believe, to a paralytic condition of the turbinated structures caused by its action.' This observation confirms what I have observed in two instances, where I had given cocaine hypodermatically for the relief of what is usually termed nervousness. There was at first an agreeable calmative effect, which was followed, after one or two hours' interval, by what seemed to be not severe cerebral congestion. I think the expression which the patient used concerning the effect was that the 'whole thing rushed back upon him.' In this case there was probably a tonic contraction of the vascular coats, followed by sudden dilatation. The patient found the sensation rather disagreeable. It must be, judging from the published reports, that cocaine relieves some cases of hay fever very much, but it is not a panacea, as I have found from experience. I have recently, however, had an excellent result from its use in the case of a patient suffering from nasal catarrh, who had had frontal headache for about eight years. I prescribed a four per cent. solution, and told him to pass a brush dipped in the fluid well up into the nostrils whenever the pain troubled him. The relief obtained has been so great that the patient expressed his estimate of cocaine by saying that he considered it as 'worth its weight in gold.'"

Texas Physicians and Surgeons are working hard and ambitiously for the credit of the profession of their State. One interesting work, of which the first instalment was presented at the last meeting of the State Society, consists in a compilation of the surgical records since the year of annexation. This compilation has been brought down to 1877, and includes the notes of 1,837 operations, carefully classified. There will be an annual report of work of Texas surgeons, which will eventually bring the record to date.

Medical Affairs in Buffalo appear to be in a somewhat mixed state. There is a great deal of partisan feeling with regard to the two medical colleges. Certain gentlemen have also charged the medical staff connected with a large hospital with concealing deaths in making their annual report. The matter was unwisely brought before the Buffalo Medical and Surgical Association, and a great deal of bitter controversy resulted, to the great detriment of the interests of the Society. More brotherly love and fewer medical colleges are needed in Buffalo.

Medical Portrait Galleries.—The ordinary portraits of eminent physicians which appear in serial medical literature are apt to give painful impressions of artistic insufficiency and of wide departure from a high standard of personal loveliness. We are obliged to confess that we have seen several specimens which would furnish very admirable illustrations of unsuccessful pugilism and debauched manhood. It is with great pleasure that we congratulate the *Virginia Medical Monthly* on producing a finely etched portrait that has real artistic qualities. We commend it as a sample to those of our contemporaries who have contemplated conferring the questionable boon of a lithographed or wood-cut immortality upon their distinguished confrères.

A Minnesota Reformer suggests a tax on male celibacy, making forty years the limit of exemption. He proposes that the proceeds be directly devoted to the support of foundlings.

Professor Bamberger.—Great sympathy is felt for Professor Bamberger, of Vienna, who was accidentally killed while making the ascent of a mountain. Professor Bamberger had just been elected Rector of the University of Vienna, but felt obliged to decline the high honor.

A New Anæsthetic Mixture, composed of dimethyl acetal ($C_4H_{10}O_2$) two volumes, and chloroform one volume, has been used at the Strassburg surgical winter, and Dr. F. Fisher reports fifty cases illustrating its action. It is not followed by vomiting, and it stimulates the heart. It is especially useful in children, or in cases where there is heart or renal disease.

The Montreal Small-pox Epidemic does not decline in violence, and will not be likely to do so until all the material has been used up. The authorities, now that it is too late, are beginning to make strenuous efforts to limit the spread of the disease. On the 20th inst. the local Board of Health passed a resolution advising the closing for a month of all theatres, churches, skating-rinks, and all places of public resort. Such a measure would involve a great sacrifice for a doubtful return, and will hardly be adopted. Montreal must attempt a complete and systematic house-to-house vaccination with good virus. This, with thorough cleanliness and proper quarantining of cases, would have checked the epidemic at first, and may help to do it now.

A Misapprehension.—When the father of a family has been successfully vaccinated, says a Montreal paper, it is frequently his custom to ask for a certificate for the whole household, vaccinated or not. A good deal of trouble is caused the public vaccinators from this cause, paterfamilias often needing a good deal of argument to convince him.

Dr. William Workman, for more than forty years one of the leading physicians of Worcester County, Mass., died at his residence in Worcester on October 17th. He was born in Coleraine, Mass., in 1798, and was graduated at the Harvard Medical School in 1825. He practised for ten years in Shrewsbury. Dr. Workman joined the Massachusetts Medical Society in 1831. He removed to Worcester in 1835, and continued in active practice in that city until 1869, when he retired. He held numerous positions of public and private trust, and for ten years was a trustee of the Lunatic Hospital in Worcester.

Preparing for Hospital Sunday.—The Hospital Saturday and Sunday Association held its first meeting since January on Monday last. General Agent Frederick F. Cook said in his report that the outlook for the ensuing year was most encouraging. Circulars requesting contributions are to be placed at the disposal of merchants and manufacturers throughout the city, and all lines of trade are to be thoroughly canvassed. Benevolent lodges and all suburban churches within fifty miles of the city will be invited to swell the collections.

The Late Dr. George Alt-Müller.—Dr. George Alt-Müller, who died at Glen Cove, L. I., October 13th, was born in Schwartau, Germany, October 4, 1808. In 1832 he matriculated at the Frederick William University. Among his professors are included the names, Von Graefe, Schlemm, Rose, Link, Ehrenberg, and Mitscherlich. In May, 1835, he received his degree as Doctor Medicinæ et Chirurgiæ from the Christian Albert University, Berlin. His thesis, "Non nulla de Epilepsia," recorded original investigations, and conclusions which have been amply verified. He began the practice of medicine in Lübeck, where he was the colleague of Leopold in hospital work for several years. In 1848 he became a citizen of the United States, and two years later settled in Jericho, L. I. His practice grew rapidly, and extended over several townships, until in 1860, in response to the repeated calls of many friends, he removed to Glen Cove. He was a member of the Queen's County Medical Society, and was elected its President in 1867. Though actively engaged in the practice of his profession for many years, Dr. Alt-Müller's life was essentially that of the student; he was learned not only in his profession, but in the allied sciences. He was especially interested in botany, an accomplished microscopist and electrician. With his scientific attainments he united a rare charity and gentleness of speech and manner, and enjoyed the esteem and confidence of a large clientage. He died full of years and crowned with benedictions.

The Medical Faculty of Johns Hopkins University.—Five of the chairs in the future medical department of Johns Hopkins University have now been filled, as follows: Dr. H. Newell Martin, Professor of Biology; Dr. Ira Remsen, Professor of Chemistry; Dr. William H. Welch, Professor of Pathology; and Dr. John S. Billings, U.S.A., Professor of Public Hygiene; Dr. Matthew Hay, of Edinburgh, Professor of Pharmacology. So far, the chairs have been most creditably filled.

Cocaine in Hay Fever.—Dr. J. W. Stickler, of Orange, N. J., in correcting an error in an article of his on this subject in the October 17th issue, writes: "I wish to say that Allen's cocaine tablets are worthless as a remedy for 'hay fever.' I say this because they were recommended as a good 'article,' but careful trial failed to show any cocaine effect."

Reviews and Notices.

The Management of Labor and of the Lying-in Period. By Henry G. Landis, A.M., M.D., Professor of Obstetrics in Starling Medical College, etc. 8vo, pp. 334. Philadelphia: Lea Brothers & Co. 1885.

Obstetrical treatises, says the author in his preface, are usually written for both students and practitioners. If they are particularly adapted to either one of the two—alone—they are not of service to the other. "The aim of this book is to serve as a guide to practice, divested of all superfluous or irrelevant details." Its teachings are in the highest degree orthodox, but we fail to find in them any new information. In fact, it rather seems to us as if the spirit had said to the author "Write a book," and had been so unkind as to forget to name the reasons for so doing. It may save, however, some trouble in looking through more bulky volumes for the facts one is in search of. Its literary style is commendable; its typographical appearance is excellent.

Poisons; their Effects and Detection. A Manual for the Use of Analytical Chemists and Experts. With an Introductory Essay on the Growth of Modern Toxicology. By Alexander Wynter Blyth, M.R.C.S., F.C.S., etc. With Tables and Illustrations. Vol. II. New York: William Wood & Co. 1885. Wood's Library of Standard Medical Authors.

We have already spoken in terms of warm praise of the character of this work. Giving as it does a complete history of poisons in all but their strictly medico-legal relations, Mr. Blyth's treatise cannot but be of great practical service in many of the emergencies of the general practitioner. The present volume completes the vegetable and animal poisons and takes up the subject of metallic poisons. Two appendices—on the examination of the blood and on treatment of cases of poisoning—conclude the work.

Tracheotomy in Laryngeal Diphtheria: After-treatment and Complications. By Robert William Parker. Second Edition, pp. 124. London: H. K. Lewis. 1885.

This monograph has for its avowed purpose, first, "to advocate the utility and importance of local treatment in cases of laryngeal diphtheria (membranous croup); and second, to give, for the use of house surgeons and practitioners, short but detailed instructions as to how such treatment may be easily carried out."

The author justly recognizes that the after-care, as indeed is the case in most operations, is often more than two-thirds of the battle, and his concise and explicit directions will be appreciated by those who have sought in vain in more extensive works information in these particulars.

Inebriism: A Pathological and Psychological Study. By T. L. Wright, M.D. Pp. 222. Columbus, O.: Wm. G. Hubbard. 1885.

Dr. Wright has set himself the task of interpreting inebriety according to the most recent ideas of nervous force and its physical basis. It is a trifle, perhaps, but one cannot help stumbling over the coined word, *inebriism* which is used for a title, and suspect the author of straining for effect in substituting it for the legitimate word *inebriety*.

Anecdotes and cases illustrate the author's ideas and serve to clinch his arguments. The general reader, perhaps more than the medical, will find it interesting reading.

On Renal and Urinary Affections. By W. Howship Dickinson, M.D. Cantab., F.R.C.P. Pp. 343. New York: William Wood & Company. 1885. Library of Standard Medical Authors.

Dr. Dickinson's present work is supplementary to that on "Albuminuria" (published in Wood's Library in 1881). Together these volumes form a comprehensive treatise on renal affections, which must take a solid and enduring place in medical literature. Dr. Dickinson is one of the most satisfactory of medical authors. To a mind eminently practical in turn, he adds a large clinical experience, a thorough knowledge of pathology, and a mature and conservative judgment. He has few theories to advance, but prefers rather to present clinical facts as they are, and abides finally by the judgment of experience rather than scientific deduction. His present work takes up a large variety of topics: Abscess of the kidney, pyelitis, perinephritis, thrombosis and embolism, renal tumors, malignant disease of the kidney, tubercle, hydro- and pyo-nephrosis, renal cysts, renal calculi, movable kidney, urinary paraplegia, diseases of the ureters, renal parasites, chyluria, hæmaturia, phosphaturia, albuminuria, suppression. Among the most attractive features of this work are the tables showing the varieties of epithelium from the healthy urinary tract, the cuts illustrating the relations of renal tumors, and the tables showing the relation of albuminuria to other than renal disorders. The author gives a table showing the not very promising results of the excision of the kidney for malignant tumors. Of eleven cases operated upon only three recovered. Tables showing the results of nephrectomy and renal lithotomy are also given.

Diseases of the Heart and Thoracic Aorta. By Byron Bramwell, M.D., F.R.C.P.E., With Three Hundred and Seventeen illustrations. Pp. 773. New York: D. Appleton & Co. 1884.

Dr. Bramwell's treatise on "Diseases of the Spinal Cord" showed him to be a writer with tremendous powers of absorption, systemization, and illustration. Ability in all these directions is abundantly shown in the present large volume. We are not quite so profusely loaded with pictures, cross-sections, and colored lithographs, but there is sufficient of them, and the author shows himself to be a good pathologist and to have had a wide clinical experience on the subject of which he writes. The present work is evidently the result of long and patient labor and accumulation of material.

The author begins his treatise by an account of the anatomy and physiology of the heart. The physiological descriptions are based largely upon the views of Gaskill, and represent the latest theories regarding cardiac innervation. Dr. Bramwell gives us a taste here, also, of his skill in diagrammatic representation.

Proceeding with his usual system, the author then takes up the subject of the general pathology of the heart. This method of dealing, first generally and then specially with a subject is an attractive one to writers, but it must be confessed that it often leads to diffuseness, repetition, and ultra-refinements in classification.

The important subject of the clinical investigation of cases receives careful attention. The author gives a synoptical table for use as a guide in case-taking. A discussion of the symptoms as related to age, sex, occupation, with descriptions of the pathology of different symptoms, follows. The mechanism of Cheyne-Stokes respiration is discussed, and some interesting illustrative diagrams are given. We think that the author's explanation of this curious phenomenon is the most rational, as it is the most simple one.

A reader will naturally turn with interest to the chapters on the physical examination of the heart and organs of circulation. The author deals with this part of his subject with great minuteness. We have here given us, in fact, a very complete work on physical diagnosis as regards the heart. It is somewhat discouraging, however, to read so many opinions and theories bearing upon certain parts of this subject. The mechanism of murmurs, their reduplications, combinations, and significance are still evidently matters largely of speculation, and he must be a patient and enthusiastic student who will try to follow the why and wherefore of each different teacher's opinion. In his descriptions of the use of the sphygmograph, the author gives an account of the various tracings in disease and health, and shows us their helpfulness in the study of dicrotism, vascular tension, variations in pulse, volume, rhythm, etc. We miss, however, a comprehensive and practical summary of the uses of this much-discussed instrument.

The various chapters which take up the special diseases of the heart and its membranes cannot be discussed fully here. The same carefulness in method and preciseness of detail are exhibited as in the first half of the book. Numerous tables for differential diagnosis are given. We may mention briefly some of Dr. Bramwell's views upon the more interesting practical points. He believes that the salicylates in acute rheumatism tend to prevent heart complications. In dangerous pericardial effusion the author recommends puncture, without, as it seems, having had any personal experience in the matter. In the treatment of chronic mitral incompetence, the author places much confidence in arsenic. Caffein and glonoin are recommended in cardiac venous engorgement. The treatment for mitral stenosis is identical with that for mitral incompetency. In aortic regurgitation the prognosis is more favorable and life more comfortable, barring accident, than in mitral lesions. Arsenic, iron, iodide of potash, and digitalis are to be used in treatment. The author does not give a satisfactory account of the acute cardiac dilatation toward which so much attention has been directed of late years.

Dr. Bramwell has written a work on the diseases of the heart which is easily first among treatises on this subject. While not such easy reading as some of the older books, it is an indispensable work for study and reference.

The Universal Benefactor is the comprehensively philanthropic title of a new periodical devoted to the subject of preventing adulterations in food, drugs, etc.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 23, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

RECURRENT EPITHELIOMA OF THE PENIS.

DR. WILLIAM PERRY WATSON presented a specimen, and also the patient from whom it was removed, a laborer, forty-nine years of age, born in this country. The family history was good. The patient had always been in good health, barring accidents. Dr. Watson was called to see him about two years ago, at which time he had a profuse hemorrhage from the penis. The glans and a large portion of the body of the penis were in a state of ulcerative degeneration, resembling very much an epithelioma. The question arose, Was it an epithelioma or a case of simple ulcerative destruction of tissue? At any rate, the indications were to remove the diseased tissue, for the patient was reduced from repeated attacks of hemorrhage. It was learned that he had always suffered from a tight phimosis, interfering with the free escape of urine, and causing ballooning of the foreskin during micturition. In 1865, while sitting at table, a fork was thrown at him, and as he receded from the table one of the tines pierced his clothing and wounded the dorsum of the glans penis. Considerable hemorrhage followed, but not sufficient to cause him to call a physician. Soon afterward he was admitted to Bellevue Hospital, where he said Dr. Hamilton amputated the foreskin and indurated tissue, but did not touch the head of the organ. It was probable the induration, of which the patient spoke as having been removed by Dr. Hamilton, was simply a clot of coagulated blood. After this he had no trouble for about six months, when he noticed on the under surface of the penis, near the frænum, a small growth of bright red color, which looked like a wart. This continued to grow, and, being constantly irritated, he had it removed about six months later. Another six months passed, when, on the base of the wart, an ulcerative process set up and extended to the glans, and during the year prior to Dr. Watson's attendance, had caused hemorrhage sufficiently profuse to reduce his strength and necessitate amputation. There was no enlargement of the inguinal glands. Circular amputation was performed through healthy tissue; the urethra was slit up and stitched to the skin. The man made a rapid recovery, going out on the ninth day. His condition had since remained good; there was still no enlargement of the inguinal glands, but the epitrochlear glands were slightly increased in size. There was no history of specific trouble.

THE PRESIDENT said the fact that the man had had phimosis was worthy of attention. During the past eighteen months he had seen four cases of epithelioma of the penis, in three of which he performed amputation, and the nature of the disease was verified by microscopical examination, and in all four cases there had been a history of phimosis. Since then he had asked a number of surgeons who had performed this operation what had been their experience, and he had not learned of a single case of carcinoma of the penis in which there had not been phimosis. This was certainly another indication for circumcision.

DR. WATSON added that he presented this case as illustrating the necessity for relief of phimosis in children, as the epithelioma undoubtedly resulted from that condition.

VERMIFORM APPENDIX, SIX INCHES LONG, ATTACHED TO THE HEPATIC FLEXURE OF THE COLON.

DR. LOUIS WALDSTEIN presented an unusually long vermiform appendix (sixteen centimetres), found in dissecting a body at the German Hospital. Another point of interest was the fact that instead of the process lying in its usual position, pointing downward in the pelvis, it extended upward toward the hepatic flexure of the colon, to which it was attached. Its position was parallel to the long axis of the body. He had seen several similar but somewhat shorter specimens.

BILIARY AND RENAL CALCULI IN THE SAME PATIENT.

DR. WALDSTEIN also presented a renal calculus, composed of urates, which was interesting in connection with the clinical history. Mr. S—— was seen by him last April, when he was suffering from severe pain in the abdomen. On examination the greatest tenderness was elicited on pressure over and a little to the right of the epigastrium, from there radiating over the entire abdomen. There was also slight icterus of the conjunctivæ and integument. Further observation of the case, with examination of the fæces, led to the diagnosis of biliary calculus, with the occasional passage of a stone through the duct, causing the usual paroxysmal pain. The patient was put under the Carlsbad treatment and steadily improved. It was learned that he had been suffering from gastric trouble for eleven or twelve years, and in such cases, Dr. Waldstein remarked, there often developed after some time trouble with the biliary secretion, and we find small biliary concretions in the fæces. In this case he found large numbers of small stones in the fecal discharges. One night last June Dr. W. was called to see the patient in another attack, but he found the picture entirely changed; instead of locating the centre of pain in the epigastrium, it started from the right lumbar region and extended downward, and was traceable along the ureter and right leg. There was diffuse pain over the abdomen. The gentleman told him that while micturating he felt a peculiar sensation at the glans penis, and also a sensation of dizziness, and saw occasionally muscæ volitantes. A fact which struck Dr. W. as peculiar was that all the attacks of pain were associated with a tingling in the tips of the fingers of both hands. The conclusion was reached that there was some deposit in the pelvis of the kidney or high up in the ureter. Improvement took place under treatment, and a week ago the patient sent him the stone presented, which had been passed with his urine. Dr. W. presented the case without further comment than that here was a person who had suffered from digestive derangement for a number of years, and who finally developed both biliary and renal concretions.

THE PRESIDENT asked, regarding the first specimen, how firm was the attachment of the appendix?

DR. WALDSTEIN replied that its attachment to the colon was firm, but that it could be separated. He received the impression that there had been some local peritonitis, that there was some dislocation of the colon downward, during which the adhesion of the appendix took place; the colon afterward assuming its natural position, carried the appendix with it.

THE PRESIDENT recalled having seen a greatly distended vermiform appendix when in Bellevue Hospital. He believed it was now in Wood's Museum. He had not seen any as long as the specimen presented.

The Society went into executive session.

READY-MADE ILLUSTRATIONS. — Every medical man who records his cases either for publication or for private use, will appreciate the clinical figures published by Danielsson & Co., of London. These are outline illustrations of various portions of the body and of the different organs upon which the location of the lesions can be marked. Each diagram has a gummed back, so that it can be readily pasted in the case-book. The illustrations of various sections of the brain and spinal cord are especially worthy of note, and cannot but be very useful to every student of cerebral pathology. The labors of hospital internes would be much simplified, and the records kept by them rendered much more lucid, by a free use of these anatomical diagrams.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 15, 1885.

A. JACOBI, M.D., PRESIDENT, IN THE CHAIR.

THE ACADEMY FREE FROM DEBT.

DR. F. A. CASTLE, Treasurer of the Board of Trustees, reported that the final payment on the original mortgage of ten thousand dollars had been made, leaving the Academy entirely free from debt.

SECTIONS IN THE ACADEMY.

DR. A. B. JUDSON, Secretary, reported that the *Surgical Section* had organized with Dr. Stephen Smith, Chairman, and that the stated meetings would be held on the *second Monday* evening in each month, at the Academy, beginning at eight o'clock.

DR. A. S. HUNTER, Chairman, announced that stated meetings of the *Section in Obstetrics and Diseases of Women and Children*, would be held on the *fourth Thursday* evening of each month, at the Academy, beginning at eight o'clock.

DR. E. DARWIN HUDSON, JR., Secretary, gave notice that the stated meetings of the *Section in Practical Medicine* would be held on the *third Tuesday* evening of each month, at the Academy, beginning at eight o'clock.

The stated meetings of the *Section in Neurology* will be held on the *second Friday* evening of each month, at the Academy, beginning at eight o'clock; Dr. L. Putzel, Chairman.

The *Section in Ophthalmology* will be organized October 19th, the *third Monday* in the month.

DR. STEPHEN SMITH then read a paper entitled

THE COMPARATIVE RESULTS OF SURGICAL PRACTICE IN BELLEVUE HOSPITAL.

It was published in THE RECORD for October 17, 1885.

DR. A. C. POST was invited to open the discussion, and remarked that he had been very much interested in the lucid account, given by the author of the paper, of the marked improvement in the more modern surgery of Bellevue Hospital. He was prepared to sanction what Dr. Smith had said with regard to cleanliness, but thought there was still room for doubt as to how much antiseptics had contributed to the success obtained in surgery at the present time. Thorough cleanliness is in all respects very important, and the seclusion of the wound from external influences is also an important item in its treatment. His doubt was based upon the experience of European operators, especially Lawson Tait and Thomas Keith, who had been most successful in their laparotomies, and who regard antiseptics as not only useless but pernicious; that their use adds a small percentage to the fatality of this operation.

Dr. Post, however, was disposed to believe in the efficacy of antiseptic dressings in addition to cleanliness. There was no doubt that great improvement had been made within the last few years in the surgical treatment of wounds, but whether the success was due to antiseptics more than to cleanliness might still be an unanswered question.

DR. W. GILL WYLIE had nothing special to add to what had been stated in the paper. It might be remarked, however, that previous to three or four years ago, ovariotomies were not performed in Bellevue Hospital. The introduction of antiseptics had done good, and although it was probable that their use had been at times carried too far, still, if the methods of Keith and Tait were followed out, it would be found that if they did not use antiseptics they applied, besides cleanliness, such dressings as insured protection against whatever influences or agents might be in the air, and really employed a Lister dressing. Dr. Wylie used antiseptics as a supplement to cleanliness.

Many of the reasons formerly given why Bellevue Hospital should be removed had been rendered powerless by the introduction of cleanliness and antiseptic dressings, but none of us knew what surgical cleanliness was until Lister told us.

DR. F. V. WHITE referred to one successful amputation of the thigh while he was interne in Bellevue. He also asked Dr. Smith whether or not bony union took place in the cases in which the fragments of fractured patella were wired together.

DR. W. M. CARPENTER mentioned the notable disappearance of specimens of surgical kidney, and other grave lesions following surgical operations, during the last few years of his service as Assistant Curator to the Hospital.

DR. SMITH thought it probable that antiseptic surgery had led to extreme cleanliness. He also believed that those who were ridiculing antiseptics were doing great harm, and considered that the care with which Mr. Tait prepared his sponges showed that he did not operate as used to be done in Bellevue. It was very probable that Tait secured thorough cleanliness by means of hot water and other measures, and the employment of experts who devoted themselves to his work.

With regard to the kind of union after fracture of the patella, Dr. Smith had wired the fragments together in *seven* cases, and the result had seemed to be union by bone.

THE ERNST KRACKOWIZER PRIZE-ESSAY FUND.

The object for which a society of laymen and medical gentlemen was organized having ceased to exist, there remained the sum of $1,155, which, through Mr. Paul Baluff, Chairman, and Dr. Herman Guleke, Secretary, was presented to the Academy, with the special provision that the accumulated interest therefrom should be available every third year as an award for an essay, the standard and merit of which should be determined by a committee composed of the Presidents of the Academy, of Bellevue Hospital Medical College, of the Medical Department of the University of the City of New York, and of the College of Physicians and Surgeons, Medical Department of Columbia College, unless the Academy should decide otherwise. This sum shall be registered on the property returns of the Academy as the "Ernst Krackowizer Prize Fund."

On motion by DR. F. V. WHITE, and seconded by DR. F. A. CASTLE, the presentation was accepted with the thanks of the Academy, and referred to the Council with power.

DR. STEPHEN SMITH moved that a committee be appointed by the President, and that the President and the Recording Secretary of the Academy be the Chairman and Secretary of the Committee, to report at some future date their conclusions with reference to amendments to the Constitution and by-laws looking toward more complete work in the sections. Carried, and the President was empowered to enlarge the committee to make it correspond with the number of sections.

The Academy then adjourned.

TUBERCULOSIS AND VACCINATION.—Dr. Acker states (*Deutsche Medicinal Zeitung*, No. 29, 1885) that vaccine lymph taken from tuberculous individuals is entirely free from bacilli, and that consequently vaccination with pure lymph unmixed with blood cannot transmit tuberculosis. And the author even asserts that did the lymph contain tubercle bacilli there would be no danger of inoculation, for recent experiments have shown that tuberculosis cannot become developed in superficial cutaneous wounds.

A RUSSIAN CHOLERA COMMISSION.—The Russian Government has sent three physicians to Spain to study the cholera, and Ferrán's method of preventive inoculation. The commission is composed of Drs. Manassein, Rapcheffski, and Kurloff.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE PROVINCIAL SCHOOLS OF MEDICINE—MR. JONATHAN HUTCHINSON AT LEEDS—HIS VIEWS OF EDUCATION—OF KNOWLEDGE, WISDOM, HEREDITY, ETC.—SHEFFIELD SCHOOL AND FIRTH COLLEGE—MR. BRADLEY AT LIVERPOOL—"STUDY OF UNIVERSALITY"—THE SHADOW OF THE DEATH OF MR. WALKER—THE DEATH OF DR. JAMES RUSSELL—THE PRESENTATION ON HIS DEATH-BED—THE LATE DR. S. MONCKTON.

LONDON, October 10, 1885.

LAST week I gave you some notes about the opening of the London schools. I may supplement them by some remarks as to the same event in the provinces, for in England the provincial schools also open on October 1st, although in Scotland and Ireland they remain in vacation for another month.

As almost a London event I may put the Leeds school first, for there my versatile friend, Mr. Jonathan Hutchinson, F.R.S., delivered the introductory, and took for his subject "The Uses of Knowledge." Of course he was listened to with attention—he always is, mainly, perhaps, because he always has something to say. Then he is a Yorkshireman, and was therefore at home among his brethren, on a visit, too, after years of metropolitan success, and Yorkshire is hospitable and reverences success. Mr. Hutchinson's success has been steady as well as rapid. Few of our London consultants have advanced with more even, constant steps, and all along with the good wishes of his brethren. His secret many would like to learn, though it is no secret; he has merely done what was before him with steadfast, earnest purpose, without show or any attempt at brilliancy. He has proved himself prepared for whatever duty might come to him, and capable of advising on almost any case. He has cultivated more than one specialty—indeed so many, that he is a sort of general specialist, a thoroughly "good all-round man," with extra points in several departments. This is largely the result of industry. The mere reading he must have done would alarm many a man who cannot be called idle. His solidity is well exemplified in the operating-room. He never does anything to excite attention, still less enthusiasm, never seeks the applause of colleagues or students, but does his work cautiously, yet well, as if all he thought of was to do what was necessary for the patient with the least fuss or flurry. Some of our younger surgeons, some even brought up at his feet, would do well to copy him in this.

But about his address—well, according to the Leeds papers, I judge it capable of exciting discussion, even opposition. I could object to much myself, but can keep my objections to talk over with him—at any rate the chief. He urged the limitation of our memory, and held that it would be good to remember this: We can only store away, he said, a certain quantity, and the pressing of more in must force something out. Is the mind, then, like a travelling trunk, its capacity fixed beforehand? The doctrine would certainly tend to lessen the burdens of the student. Surely, however, it is expansible, or what a capacity it must naturally present—as we see in Mr. Hutchinson's own case! Whatever we do, he says, we soon reach the limit, and must then choose what to retain and what to commit to oblivion. Hear this, you examining boards, that are always adding something to the subjects which men are to cram up.

What to choose, then? Special things are to most of us in the way of duty, he says; beyond these is a range for choice. So a surgeon must ever retain what is essential for practice. That is first. The range of other knowledge acquired may make him a well-informed man.

But the uses of knowledge—and here, if accurately reported, he became a little less lucid than usual, though I have previously heard some mystical remarks of this kind from his lips. The noblest faculty, he says, is love, and this is not an abstract quality, springing up causelessly in our hearts, but the result of hereditarily transmitted faculties, by which we take cognizance of beauty. No doubt the young men who heard this thought they learned something. Let them tell it to their sweethearts, and I doubt if it produces more impression than a statement of the chemical composition of tears, when offered to show the futility of grief.

And Mr. H.'s favorite notion of heredity is applied also to wisdom, which, he says, cannot exist apart from the matured results of hereditarily transmitted knowledge; and to cap this handy assertion, he added, "No ignorant person, born of ignorant predecessors, can possibly be wise." I fancy few communities will indorse this doctrine. Heredity may be a factor in many things, but is it not a proverb that the sons and grandsons of wise men seldom evince a tithe of their wisdom?

Descending to matters of less importance, the kind of knowledge affecting education, Mr. Hutchinson would banish Greek and Latin from the boys' schools, and deliver our girls from the attempt to learn French, and some very smart things he said on this subject. Geology and poetry are better than French and German for an English boy or girl to study, and far better for a man or woman to remember; and as memory is limited, why burden it with languages, which are likely to be of little use? Audacious as this view will seem to many, there is something to be said for it in these days, when knowledge is so multiplied that the text-books of a student are more extensive than the library of the ancient sage.

Mr. Hutchinson would, as a counterpart to the dismissal of philology in order to make room for science, have all technical terms reduced to English, and compel the writers to find equivalents which every English reader could understand for the strange syllables which meet them on every page of botanical or geological manuals. He thinks an enterprising publisher who produced such books would succeed. Let us hope the hint will be taken, for why should the language of flowers be the most jaw-breaking combination of unnaturally conjoined syllables? But how can such a thing ever come if wisdom is only the result of hereditarily transmitted knowledge? Gamopetalous, monœcious, syncarpous, and so on, do not approach more closely to English than when first coined, and it is difficult to believe that generations of cacophonous syllables will hereditarily transmit euphonious language.

At Sheffield, Mr. Pye-Smith congratulated his audience on the prospect of incorporating the medical school with Firth College, which is fully equipped in all the departments of science. About £2,000 is required for new buildings and ought at once to be forthcoming, for Sheffield manufacturers are many of them rich, and examples of liberality have not been wanting among them. He appealed for public support to the hospitals, and deprecated the objections often made to *post-mortem* examinations, which were of so much value in promoting knowledge useful to the living. He also offered the students good advice in the pursuit of their work, and some remarks to stimulate their devotion to duty.

At Liverpool, Professor Bradley delivered the address, and took for his subject "The Study of Universality," as Bacon in his day called it when he complained of its neglect. Now that his college was formally associated with the new Victoria University, this subject was appropriate and would commend itself to many. Mr. Bradley would apparently like to see students more or less associated with other Faculties in the University than medicine, and plenty of people will agree with him. It is right, however, to remember that the medical curriculum is so overcrowded, and our students so severely tested by examination that they have no time to cultivate other branches of knowledge. It is unfortunate for

learning that the new Victoria University has followed to so great an extent the evil example of the London so-called University, which has done so much to sever medicine from learning. When men are compelled to cram with useless details in such quantity that only those with excellent memories need hope to pass, how can they be expected to look at other subjects?

I know men who have not dared to look at a book or picture or listen to a concert, and who have also absolutely restricted their professional reading to the books of their examiners and such other manuals as were reputed to "tell at exam." When remonstrated with on the narrowing effect on their minds, they would say it "is useless to think of anything but learning by rote until after the degree, then poetry or literature may perhaps be enjoyed." Could anything be worse for the profession? The London University turns out men who are ignorant of everything but a few favorite books and the fads of certain teachers, and who have to begin to acquire general knowledge after taking their degree. Could there be a greater condemnation of any university?

The opening day at Liverpool was saddened by missing from his place Mr. Walker, the ophthalmic surgeon, whose death I reported in my last letter.

Birmingham, too, had a sad opening, for Dr. Russell, who had lately retired from the teaching staff, lay on his death-bed. His pupils had prepared an address expressing their gratitude and affection toward him, but he was too ill for it to be read to him at length. He was, however, told the gist of it, and that over a hundred signatures were appended. He dictated a message of thanks—his last public effort. He died on October 5th, lamented by all Birmingham, of which town he was a native, after an honorable career which leaves a noble example.

Touching of deaths, I must mention another, Dr. Stephen Monckton, of Maidstone, who for years has been a prominent physician, known in London also, but most admired in his Kentish home, where he wielded enormous influence in political and social circles without losing the confidence of the profession or the public, as so many are apt to do if they display any but the faintest interest in subjects outside their daily work. Dr. Monckton was a man of broad sympathies, earnest purpose, ardent zeal, altogether a man to admire, as well as a physician to trust. He died on September 30th, aged sixty-one, of ulcerative endocarditis.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE DEATH OF PROFESSOR CHARLES ROBIN—THE RÔLE PLAYED BY NERVOUS HEREDITY IN LOCOMOTOR ATAXY—OCULAR TROUBLES IN LOCOMOTOR ATAXY—THE ESTABLISHMENT OF AN HISTOLOGICAL LABORATORY FOR THE EXAMINATION OF MEATS BY ELECTRIC LIGHT.

PARIS, October 9, 1885.

DR. CHARLES ROBIN, Professor of Histology at the Faculty of Medicine of Paris, died at Josseron, in the Ain, whither he had gone for the summer holidays. On Monday night, the 5th inst., he had an attack of cerebral apoplexy, to which he succumbed in a few hours in the sixty-fifth year of his age. The deceased gentleman took his degree in 1845, and was shortly after appointed Professor of Histology, in which branch he eminently excelled, and consequently he was dreaded as an examiner. He was a Senator, and Member of the Institute and of the Academy of Medicine. He has not published many works, but a dictionary that he brought out some years ago in conjunction with the late M. Littré is still considered the best standard work of its kind. It is a dictionary of medicines, of surgery, pharmacy, of the accessory sciences, and of the veterinary art. In fact, it is a small encyclopædia in itself—nothing has been published like it in any other language. All it treats of is in one volume, and it will probably be consulted for many a generation to come.

In a memoir by MM. Landouzy and Ballet on the rôle played by nervous heredity in locomotor ataxy, and for which the authors were awarded a prize at the Academy of Medicine, it is shown that in 138 cases of the malady it was found that in 61 cases it could not be traced to any particular cause or to causes other than syphilis and heredity; 36 cases of heredity, 35 of syphilis, plus 7 cases of syphilis and heredity combined, and 3 cases of probable syphilis and heredity. It will be seen that these statistics notably differ from those which have been cited in favor of the predominance of syphilis as a cause of locomotor ataxy (93 to 103, Fournier; 38 to 100, Erb). These etiological researches are enveloped in difficulties; nevertheless, the results obtained by the authors are very interesting. It will be seen that the number of ataxic subjects by heredity surpasses that of those by syphilis. Whence one is led to conclude that the part of the predominant influence in the pathogeny of tabes may be referred to heredity, syphilis playing a secondary part. The authors do not depend on statistics alone to prove the correctness of their thesis; they adduce arguments of another order in favor of the hereditary origin of locomotor ataxy; such, for instance, among a number of other observations that may be found in other works, the case reported by Dr. Carré, of a family in which, during three generations, there were not less than 18 tabetic subjects, grandmother, mother, 7 out of 12 sons, then 8 near relations, all of whom were affected with tabes. Other pathological coincidences have also been pretty frequently noticed in ataxic subjects, such, for instance, as the combination in a patient suffering from progressive locomotor ataxy, and of another nervous affection, hysteria, vesania, or some mental affection; the frequent coincidence of tabetic symptoms and psychic troubles of general paralysis; divers neuropathic manifestations, epilepsy, hypochondria, lypemania, the delirium of persecution. The conclusion arrived at by MM. Landouzy and Ballet from their researches is that the nervous system in ataxic subjects is affected with some defect which predisposes it to troubles the most varied, a fact which Charcot had already noticed in his lectures. The facts and arguments brought together in their work tend to this demonstration of hereditary predisposition, which, according to the authors, is the predominating, all-sufficient, and perhaps necessary cause of tabes, the other causes, such as cold, excesses, syphilis, etc., intervening as so many accessory or occasional causes.

In connection with this subject I may mention that Dr. Galezowski, a well-known ophthalmologist, in a clinical lecture on ocular troubles in locomotor ataxy, makes the following remarks: "I fully agree with Professor Fournier as to the frequency of syphilis in locomotor ataxy, and believe with him that nine times out of ten the disease is syphilitic in its essence. My opinion is based on a considerable number of observations where the presence of syphilis was not disputable; it is supported particularly by the good effects of the treatment applied."

The Municipal Council of Paris has resolved to establish an histological laboratory at the "Halles Centrales," or Central Market, for the examination of butchers' and other viands thereat sold. It is to be placed under the direction of a veterinary surgeon who will also be well up in micrography. It will form at the same time a practical and theoretical school, serving for the analysis of doubtful meats and for the instruction of inspectors not familiar with the microscope.

In a report by M. Lamouroux, a Municipal Councillor pointed out the necessity for substituting the electric light for that of gas in the pavilion allotted to butchers, as it has been found that microscopic analysis is impossible with the gaslight, which does not enable one to distinguish the proper colors. This renders the tasks of

the inspectors very difficult, as the butchers, who are well acquainted with this inconvenience of the gaslight, take advantage of this circumstance to sell their bad meat at night instead of by day.

LACTUCA GRAVEOLENS IN DROPSY.

To the Editor of The Medical Record.

Sir: In the experimental history of the Materia Medica of Dr. William Lewis, third edition, edited by the celebrated physician and poet Dr. John Aiken, in 1784, or just one hundred years ago, we read, page 375, that lactuca graveolens, vel sylvestris, vel odorosa, vel virosa, or strong-scented, stinking lettuce, by some erroneously supposed to be the wild lettuce, was highly prized by the celebrated Dr. Collin, of Vienna, who wrote a tract recommending it in the cure of dropsies. The preparation he used is an extract from the expressed juice, first sufficiently clarified, then evaporated by very gentle heat. This comes near our fluid extracts, and is better than those made from old dried plants. He begins with small doses, but in dropsies of long standing, originating from visceral obstructions, notably perhaps of the kidneys and portal system, he rises to the quantity of from one to three drachms in twenty-four hours. He has constantly found it a mild remedy, agreeing perfectly with the stomach, and usually keeping the bowels open, but without exciting purging. It also seldom failed of proving powerfully diuretic, and at the same time mildly diaphoretic. The patients' excessive thirst was totally extinguished by its use, but all were allowed to drink freely of diluting fluids during the course. Dr. Collin asserts that out of twenty-four dropsical cases all but one were cured by this medicine, a degree of success which, Dr. Lewis says, certainly entitles it to the further notice of the medical faculty.

Did Dr. Collin tell a whopper here, or rather twenty-three whoppers, or perhaps less, or has a valuable remedy been long neglected? Stephenson and Churchill, in their "Medical Botany," London, 1831, vol. i., article 12, say they consider lactuca virosa one of the most valuable native plants. They quote Dr. Collin and say in a dropsical case that lately came under their care it certainly produced a salutary action on the kidneys, and procured quiet sleep. They also ascertained to their own satisfaction that it possesses another most important virtue, viz., that of *reducing the velocity of the pulse*, at the same time that *it increases its tone*; and so remarkably efficiently did it act in one patient that three small doses of the tincture depressed the pulse from 130 to less than 70, accompanied by intermissions. Unlike digitalis, its effects on the brain were scarcely felt.

Pereira says the milky juice of L. virosa furnishes from fifty to fifty-five per cent. of lactucarium, while that of L. sativa only gives up seventeen to twenty-three per cent. François says it allays pain, diminishes the rapidity of the circulation, reduces body-heat, and favors sleep. Buchner says the same, and Dr. Bigelow that it promotes the secretions from the kidneys and skin. Dr. Seidel, a homœopathic physician, experimented on fifteen healthy persons with considerable doses of the tincture and extract. First it caused a sense of heat in the stomach, followed by coolness. Then contraction in the stomach or heart, with real præcordial anguish; the thorax seemed compressed, with a longing for the open air and frequent yawnings. Then the head became anæmic, or, at least, confused and a little giddy, with some buzzing in the depths of the ears. Then gurglings in the stomach and bowels, with eructations and flatulence, some mucus in the throat, with cough, followed by loose pappy stools, while the urine became considerably increased. The pulse was less frequent for several days. Dr. Seidel thought it suited to some cases of hepatic, cardiac, pulmonary, and renal congestion.

John C. Peters, M.D.

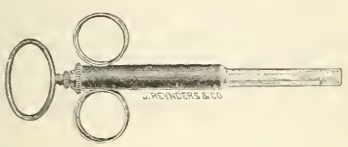
New Instruments.

A POWDER INTRODUCER.

By F. F. C. VAN ALLEN, M.D.,
Albany, N. Y.

Where it is desired to introduce a quantity of absorptive powder into the external auditory canal in the treatment of purulent otitis, a powder-blower is certainly an unsatisfactory apparatus to use. After using various contrivances I had an instrument made for me, and after employing it both in private and hospital practice for more than a year, I can say that it is very satisfactory.

This powder introducer consists of a small glass tube suitably connected with a piston. To charge it, the



piston is withdrawn to the full extent, and the tubular end is plunged into a shallow, wide-mouthed bottle containing the powder, which readily crowds up into the tube, the air escaping from a vent-hole at the upper portion. Thus charged the instrument is introduced a short distance within the meatus, and powder pushed into the canal by pressing the piston. By varying manipulation the powder can be packed firmly or loosely.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from October 11, 1885, *to October* 17, 1885.

Irwin, B. J. D., Lieutenant-Colonel and Assistant Medical Purveyor. Ordered from Department of Arizona to New York City, for temporary duty in charge of Medical Purveying Depot at that place, relieving Captain Henry Johnson, Medical Storekeeper. S. O. 233, A. G. O., October 10, 1885.

Morris, Edward R., First Lieutenant and Assistant Surgeon (recently appointed). Ordered for duty in Department of the Missouri. S. O. 233, A. G. O., October 10, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 17, 1885.

Baldwin, L. B., Passed Assistant Surgeon. Detached from Naval Hospital, Philadelphia, and ordered to Navy Yard, Mare Island.

Dickinson, D., Surgeon. Detached from Naval Hospital, Mare Island, and ordered to Training Ship Portsmouth as relief to Surgeon A. M. Moore.

Moore, A. M., Surgeon. Detached from Training Ship Portsmouth and await orders.

Shafer, Joseph, Assistant Surgeon. Detached from Receiving Ship St. Louis and ordered to Naval Hospital, Philadelphia, as relief of Passed Assistant Surgeon Baldwin.

Hester, F. A., Assistant Surgeon. Detached from U. S. S. Minnesota, and ordered to the Tennessee, as relief of Passed Assistant Surgeon Nelson H. Drake.

Drake, Nelson H., Passed Assistant Surgeon. Detached from the Tennessee, 31st inst., and await orders.

Medical Items.

Female Physicians for India.—There has just been established, under the auspices of Lady Dufferin, as lady president, a National Association for Supplying Female Medical Aid to Women in India. The object is to supply in hospital wards and within private houses that medical care and advice which respectable native women will only accept from their own sex. The association will provide scholarships for women under tuition, and will procure from Europe and America a sufficient number of skilled female medical teachers. The support and sympathy of influential native princes have already been promised, and aid from England and India is invited.

The Berlin Medical Society is house-hunting, and a very unsatisfactory task it finds it. It has recently held two trial sessions in different buildings, but has not selected either of them, and it appears not improbable when the summer vacation is over that it will find itself without a local habitation. The society numbers over 400 members, and it seems strange that it has not a building of its own.

Moss as a Surgical Dressing.—For some months past moss has been employed as a surgical dressing in the Teaching Hospital in St. Petersburg; it costs 50 kopecks a pood (25 cents for 36 pounds). The results have been very satisfactory.

A New Mercurial Ointment.—M. Ivan proposes to replace lard by soft-soap in preparing mercurial ointments (*Le Progrès Médical*). When one part by weight of soft-soap (as nearly neutral as possible) is rubbed up with three parts of mercury it is seen that the extinction of the mercury occurs as completely as with lard, and much more rapidly. The mercurial soap will keep indefinitely and does not become softened by heat, but retains its natural firmness in all temperatures. It is of itself unirritating, and is easily removed by washing. Mercurial soap would thus seem to be preferable in many ways to the ointment.

The Inheritance of Artificial Deformities.—In the course of a discussion at a meeting of the Société de Chirurgie of Paris, M. Magitot stated that for the past fifteen years, in the laboratory of the Faculté de Médecine, he had been cutting off the tails of all the rats in one descending line. But now, at the end of so long a time and after the deformity had been produced in so many generations, the rats were born with just as long tails as ever.

The Feuilleton of one of the Parisian Medical Journals consists now of a literal translation of the *Pall Mall Gazette* exposures of London vice. The tale is continued from week to week, and the feuilleton occupies very nearly as much space as does the scientific matter.

The Treatment of Pityriasis Versicolor.—Dr. W. Thornton Parker, of Newport, R. I., writes: "I notice in to-day's Record an item concerning the treatment of pityriasis versicolor, in which sulphur ointment and nitric acid ointment and the corrosive sublimate solution are recommended. All these may be good remedies, but to me they seem needlessly harsh. I find it sufficient to direct my patient to take a warm bath or sponge bath before going to bed. After this I direct that a cake of soap, common bar soap, or better still, Frank Siddall's soap, be well moistened by holding it in warm water for a moment, and then rubbed on the spot, in fact *well rubbed in*, until the soap becomes dry. The night flannel is then put on, and a cotton night shirt. In the morning the dried soap is to be *removed* by the sponge bath. The bath must be thorough, and every vestige of the soap removed. For the day wear a clean flannel every morning and a clean flannel every night until the discoloration has disappeared. The flannels must be boiled and well washed before using again. This simple treatment, carried out faithfully for a longer or shorter time, according to the extent and persistency of the discoloration, will be found successful. The application generally prescribed will not prove satisfactory in many cases, unless this plan is associated with the treatment. I am quite certain that in treating this affection harsh methods are entirely superfluous."

Malingerers in Galicia.—According to Filleabaum, the simulation of diseases has been reduced to a fine art among the conscripts of Galicia. The particular form of mutilation varies according to the different districts, in one place prolapse of the rectum being the favorite, while in another the recruits prefer to cut off their fingers. One plan which is very popular is to produce corneal opacities by a sort of tattooing process, and in one case the author observed a leech-bite on the cornea, a method that had been employed by over thirty men coming from Kars. Nystagmus is often simulated, but the deception is made evident by irregularity in the rhythm during a prolonged examination. The author saw twenty cases of artificial subluxation of the shoulder. The arm was abducted, the head of the humerus being displaced toward the axilla and fixed so that the scapula followed the movements of the arm. The muscles were strongly contracted, and the inner edge of the scapula was raised as in paralysis of the serratus magnus. A very moderate pressure was sufficient to reduce the dislocation, but it was at once reproduced by a sharp contraction of the muscles. Emaciation was caused by fasting, purgatives, and abstention from sleep. Twenty young Jews from the district of Zolkien were sent to the hospital for this cause, but refused to eat anything but bread, saying that the food was not prepared according to their rites, and it was found necessary at last to give them their discharge.—*Journal de Médecine et de Chirurgie Pratiques.*

Explosive Physic.—A list has just been published, in the *Union Pharmaceutique*, of accidents which have recently occurred during the preparation or carriage of explosive substances used in medicine. At Strasbourg, a chemist's assistant was changing some lycopodium-powder from one bottle to another; the particles that escaped mixed with the air, a jet of gas was burning, and a slight explosion occurred; the frightened assistant dropped the jar containing the lycopodium, the room was at once filled with the powder, and a violent explosion took place. Chlorate and permanganate of potash are also dangerous. M. Meyet has stated that a tooth-powder composed of chlorate of potash and cachou has been known to explode in the mouth of a person engaged in brushing his teeth. A druggist who dried some hypophosphite of lime in a receptacle containing sand was killed by its explosion. Oxalate and citrate of lime are also explosive, but only at a high temperature. Pills of permanganate of potash have been known to explode spontaneously. A mixture of perchloride of iron and glycerine exploded in the pocket of a patient who carried it. An eminent chemist at Paris prepared ozone with powders composed of equal parts of peroxide of manganese, permanganate of potassium, and pulverized oxalic acid; he took every recognized precaution, and the mixture was corked up in a bottle; a few minutes afterward an explosion took place, and the bottle was reduced to atoms.—*British Medical Journal*, August 1, 1885.

The Practical Results of Sanitation.—The effect of sanitary improvements upon the health of a community is well illustrated in the case of Merthyr Tydvil in Wales. In this place, during the last thirty years, sanitary improvements have lessened the death-rate from 332 to 232 per 10,000, while the average age of death has been increased from seventeen and a half to twenty-seven years.—*The Sanitary World.*

What the Chinese Eat.—That "one-half of the world does not know how the other half lives," is as true of eating as of anything else. Many of us, no doubt, have experienced a pharisaical satisfaction in contrasting the dainties which tickle our palates with the ragoûts, fricassées, and consommes of dog, cat, and rat, which we have believed to be the choicest tidbits of the heathen Chinee. It now appears that these animals form no part of a Chinese menu, except in the case of some cranky individuals who are found among the Celestials as well as among the Yankees. Now and then a Chinese woman resorts to rat-flesh to restore her fallen hair, or a man eats cat-steak to renew his blood, and persons too poor to buy even "bread and cheese," eat dog-soup rather than starve. But a gentleman who has lived fifteen years in China, and associated with all classes of people, avers that he has never seen cat, dog, or rat-meat served in any form whatever. "What, then, do the Chinese eat?" was asked of a Chinese gentleman, and *Wide-awake* gives his reply as follows: "Chinese gardens are prodigal of vegetables; our ponds, rivers, and lakes swarm with fish; our farm-yards are crowded with pigs, land-fowls, ducks, and geese; our fields are gilded three times every year with ripening rice. In some sections of the empire wheat and barley are produced; but rice is our usual substitute for bread. These articles make up the every-day food of the people. But there are certain things unknown to your tables that are considered great delicacies by everybody, one of which is edible birds' nests. Another is shark's fins. The Chinese do not keep many cows, and it is true that beef is not esteemed as good as pork, and that many will not eat beef on account of religious scruples. Milk, butter, and cheese are almost unknown articles of diet. The Chinese think it is robbing the calves to take milk from the cows."

A Sure Cure for Cholera.—The Spanish medical journals are publishing a letter addressed to them by a French physician, Dr. Laubie, who claims to have discovered something which is "really a sovereign remedy against cholera." It is, he says, very rapid in its action, an improvement being experienced within half an hour, and the course of the disease being thenceforth a rapid one toward recovery. After thus raising the expectations of his readers to the highest pitch, he forgets to state what his specific is. It is a peculiarity of "sure-cure" doctors the world over to keep the nature of their remedies secret.

Genius or Madness?—The *Medical Times* gives the following particulars about Victor Hugo: His uncle died insane; his brother, Charles Hugo, who at an early age gave promise of great literary talent, became insane before twenty, and spent the latter part of his years in a hopeless state of dementia; and one of the poet's daughters, still living, is the inmate of a "maison de santé." That in a family thus tainted with insanity a man of immense genius should arise is only another instance of that close hereditary connection between mental disease and highly intellectual powers which Moreau de Tours so forcibly pointed out in his celebrated book, "La Psychologie Morbide;" but any impartial reader will find in many of Hugo's best writings a large number of passages which could only have been conceived by a diseased imagination, and which bear the indelible stamp of madness. In this respect the French poet widely differs from his great prototype, Shakespeare, who in the wildest flights of his poetical phantasy still remains faithful to sound common sense. The mind of Shakespeare was evidently a healthy one; that of Hugo was not; and if some future Plutarch attempts to strike a parallel between these two great literary giants, he will do well to keep this fundamental difference in view. It may seem ambitious to compare Hugo to Shakespeare, but in this city and at the present day most people seem inclined to place the modern poet above the older bard, an exaggeration which time will doubtless dispel. Yet, as regards the conduct of his private affairs, no man could excel Victor Hugo in that shrewdness which persons "not quite right about the head" so often exhibit. No banker could more carefully have managed his fortune, no politician could more tenderly have nursed his popularity; and the man who left a fortune of more than two hundred thousand pounds sterling was the idol of a jealous democracy, while the politician who played at fast and loose with all parties was buried in the midst of universal applause. Such an instance of great "wit to madness near allied" the annals of the civilized world have never hitherto placed on record for the edification of posterity.

An Illinois "Ten-Year Man."—At Carbondale, Ill., there once lived a pretentious old quack—"a ten-year man"—by the name of O'Haven. One day he lounged into a store where were several of the more reputable physicians of the town and a literary man. The literary man knew of the ignorance of the quack and concluded to expose it, and, to do so, inveigled the pretender into a scientific conversation. Turning to one of the more reputable physicians present, our literary friend, with a significant wink, began: "Dr. R., what do you think of the controversy in the *Lancet?*" Dr. R.: "Well, the fact is, I haven't made up my mind about it." Literary Man: "But, doctor, don't you think it strange that so important a question as the position of the liver should not have been settled before this? I have always thought that there was no doubt but that the liver was situated above the diaphragm." Dr. R. (taking the hint): "Well, it's not so strange after all. I've seen cases in which it was hard to tell. I confess, however, I have been of the opinion that in most cases, at least, it was below the diaphragm." L. M.: "The question is certainly an important one, or the London *Lancet* would not spend so much time and space discussing it. Ah, there is Dr. O'Haven! Doctor, you have had great experience; what is your opinion on the question that appears to be vexing the professional mind?" Dr. O'H. ("ten-year man"): "Well, sir, that is a question to which I have given a great deal of attention. From my long study and extensive observation I have, however, been able to settle the matter beyond all dispute. The liver, sir, is situated *half above and half below the diaphragm!*"—*Cincinnati Medical Journal*, August, 1885.

Aqua Camphor, not Tinct. Camphor.—A correspondent says: "There is a serious error in Milner Fothergill's paper, p. 227, August 29th issue. The writer means aqua camphor, undoubtedly, as an ounce of tinct. camphor at one dose would be fatal, and a drachm is sufficient to cause in most people violent and dangerous convulsions."

Wounds of the Heart not Instantly Fatal.—Dr. Charles H. Cockey, of Baltimore, Md., writes: "In regard to wounds of the heart, Elwell, in 'Malpractice and Medical Evidence,' page 568 (edition 1866), says: 'A British soldier survived for thirteen days with a musket-ball in his heart. In a case tried in Glasgow in 1819, the medical evidence showed that the auricles and part of the aorta next the heart were destroyed by slugs and brass nails with which the piece was charged, and in that case he must have dropped down dead the moment he received the shot. But the evidence showed the body to have been found some distance from the door where the prisoner claimed to have shot him, as he was entering his house by force, as a stream of blood was found from the door to the place where the body lay. It was determined that the prisoner did not run into the street and shoot the deceased, but that the deceased did run from the house to the spot where he lay, though shot in the manner described. The prisoner was discharged.' In the *New York Medical Journal*, vol. xxviii., December, 1878, page 634, Dr. V. P. Gibney relates the following history as sent to him by Dr. F. M. Holly, of Greenwich, Conn.: 'A man, aged eighteen, was accidentally shot,

July 7, 1878, by a Smith & Wesson revolver, calibre 22. He was seen by Dr. Mead an hour after the injury, and was then in a state of partial collapse, from which he subsequently rallied. He had no remembrance of the shooting, or of having fallen into a brook near to which he was sitting. He recovered quickly without any unfavorable symptoms, except slight dyspnœa and slight pleuritic pain on both sides for a few days, and at the expiration of a fortnight was sufficiently well to resume work. He was engaged as a farm-hand, and was able to do his usual duties till August 30th, when, after a hearty breakfast, he went into the field, and was found, after twenty minutes, dead behind the plow. Upon examination a small cicatrix was seen near the left nipple, an inch and three quarters above and toward the median line. On opening the thorax, the left pleura and pericardium were found distended with serum and coagulated blood. A small cicatrix existed on the upper lobe of the left lung in line with the external cicatrix. Beneath, an opening one-fourth of an inch in diameter was found in the pericardium. . . . Opposite the opening in the pericardium, and on the anterior surface of the right ventricle, a small aneurismal sac, the size of a hazel-nut, was found ruptured. The walls of this sac were very thin, and a probe introduced in the rent passed into the ventricular cavity. The rupture of this aneurismal sac was the cause of the extravasation of blood into the pericardium and pleura with sudden death. . . . Dr. Gibney said that when he received the specimen, he opened the left ventricle and found the ball lying behind one of the pillars of the columnæ carneæ, above and to the left of the apex of the cavity. On a more careful examination, an opening was traced through the upper portion of the septum and contiguous semi-lunar valve, through the aorta itself, to the left auricle. All these openings were found on a line with the opening into the right ventricle.' . . . But undoubtedly the above cases are known to you."

Brutal Treatment of a Physician.—The following is an illustration of the sort of treatment to which physicians in the cholera districts bordering on the Mediterranean are exposed at the hands of the ignorant and frightened populace: At Puebla Larga, near Barcelona, a man died of cholera. The relatives told not a soul of what had happened, but, assembled in the front room of their cabin, awaited the arrival of the doctor on his daily round of visits, and when he came asked him quietly, as though all was well, to step in and see his patient. What was his astonishment on drawing near the bed to find that it held a corpse, and, on turning around, to see himself surrounded by the relatives, whose appearance had now become most threatening. They demanded of him what right he had to take their money without curing his patient, and called him a murderer, saying that this was the third person he had deliberately killed in one week. Then the wife of the dead man gathered all the medicines, pills, liniments, disinfectants, and the rest, which the unlucky physician had prescribed, and while the others held him down and forced open his mouth, she emptied the contents of all the boxes and bottles down his throat. For twenty minutes this man was held down while the fiend of a woman poured carbolic-acid solutions, hot liniments, drugs, one after the other, into her victim's mouth. An hour later he was dead. And in two days his father was also dead from the shock which the news of his son's fate gave him.

The American Medical Missionary Society was organized last March, with headquarters in Chicago. The objects of the Society are to assist young men desirous of becoming medical missionaries in obtaining a thorough education, and in qualifying themselves practically for the work which they will be called upon to do; to establish medical mission stations and dispensaries abroad; to supply medical missionaries with the necessary medicines and instruments, etc. The constitution is modelled upon that of a similar society which has been in existence for some time in Edinburgh. The objects of this society are laudable, and we wish the promoters of the work every success. But we cannot approve of some of the statements set forth by the Society in its "Plea for Medical Missions." One of these is, that in some parts of China, in case of delayed child-birth, if the child is not tempted to come into the outer world by a bait of rice spread upon the floor, "the woman is placed upon the floor and actually jumped upon." It may have happened some time or other that a Chinese woman was jumped upon while in labor, just as it has happened in our own happy land that women in childbirth have been jumped upon, but that such is an established custom in China any more than it is in America we know on excellent authority not to be the case. And the American Medical Missionary Society, or any other Missionary Society, will do no good and convert no heathen by giving circulation to such old wives' fables. However, we hope the Society, in spite of its "plea," will gain many recruits for medical work in uncivilized lands, for although the Chinese are not brutes by nature, they are lamentably deficient in the knowledge of the treatment of disease, and well-educated physicians may accomplish much good among them. The Secretary's address is 206 Twenty-eighth Street, Chicago, Ill.

Iodoform and Carbolic Acid.—It is not uncommon to read in accounts of operations that the wound was covered with iodoform over which carbolized gauze was applied. This practice is said by Mosetig-Moorhof to be wrong, and he attributes to this mixing of iodoform with various antiseptic acids most of the ill effects which have been unjustly laid to the door of the pure iodoform.

Arseniate of Gold.—A correspondent of *La Crónica Médica*, of Valencia, writes that arseniate of gold, which has been said to be a therapeutic agent of no mean value, does not and cannot exist. In order to make it, he says, it would be necessary to combine the protoxide of gold, Au_2O, with arsenic acid, AsO_5. But as the protoxide resists the action of the strongest acids, it is to be inferred that arsenic acid cannot affect it, and it is therefore, he reasons, impossible to have an arseniate of gold, therapeutists to the contrary.

Bacteria in the Air.—M. de Parville has published a paper on the presence of bacteria in the air we breathe. He says that the proportion of bacteria in a cubic metre is 6 in sea air, 1 in the air of high mountains, 60 in the principal cabin of a ship at sea, 200 in the air at the top of the Pantheon in Paris, 360 in the Rue de Rivoli of Paris, 6,000 in the Parisian sewers, 36,000 in old Parisian houses, 40,000 in the new hospital of the Hôtel Dieu of Paris, and 79,000 in the old hospital of Pitié in Paris. In Ryder Street, St. James's, London, a cubic metre of air contains only 240 bacteria, whereas in the Rue de Rivoli the same quantity of air contains 360. M. de Parville maintains that the superiority of London air as compared with Paris air is shown not only by the London air containing fewer bacteria, but also by the London rate of mortality being smaller. The greater purity, or less impurity of the air of London than that of Paris is accounted for by London being nearer to the sea, by its covering a larger extent of ground in proportion to the population, and by its houses being lower.

Tincture of Cobweb.—A correspondent writes that he has seen tincture of cobweb mentioned as of use in intermittent fever, but has been unable to find mention of any such tincture in any work to which he has access. He inquires where he can find a description of the manner of preparing it.

The Treatment of Mastitis.—Dr. J. A. Stilwell, of Brownstown, Ind., does not think there should be any controversy as to priority in treating mastitis by compression and rest. He has been treating it that way for ten years, and is sure it is not original with him, he having got the idea from an item in some medical journal.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 18 NEW YORK, OCTOBER 31, 1885 Whole No. 782

Original Articles.

THE CHOICE OF REMEDIES.[1]

BY LAURENCE JOHNSON, M.D.,

NEW YORK.

TWENTY years ago there was much less faith in the efficacy of drugs in the treatment of diseases than there is to-day. One of our most prominent medical teachers and authors was wont to say in those days, that medicine was worth all the study given to it, if for nothing else than to enable the practitioner to make a diagnosis and prognosis. And this remark meant far more than appeared in the mere words uttered, for while the carefullest attention was paid to the diagnosis, clinical history, prognosis, and pathological characters of disease, the treatment was dwelt upon in such general terms as to mean anything or nothing. In other words, disease was considered principally from the natural history standpoint, and the catalogue of self-limited affections, with whose natural course the physician should not meddle, grew to uncomfortable proportions.

It is unnecessary to discuss the causes of this particular form of medical scepticism. That it existed cannot be questioned; and that its existence operated as an obstacle to the success of medical men educated with that lack of faith is equally capable of demonstration.

Naturally this heresy, like many others which for a time have ruffled the current of popular belief, did not long survive; but none the less, like some other heresies, it led a train of evils that long outlived the cause which produced them. A generation of medical men went forth to unlearn the false precepts of their teachers by the hard road of practical experience. One cannot but smile at the pitying contempt which the recent graduate of twenty years ago had for the simple faith of the old practitioner, who actually believed he could with drugs moderate the course of a pneumonia or cure a rheumatism. Yet such was the fact. This evil was, however, of a somewhat personal character and served chiefly to handicap the individual practitioner. The faith of the public remained unshaken, and he who ministered most successfully to the public was most substantially rewarded. In reviewing this subject in the light of personal experience, bearing in mind also the experience of professional friends with whose history I am familiar, I am fully convinced that to this sceptical training more than to any other one cause, are due many of the difficulties encountered in the early years of practice.

But other evils followed. If drugs were of doubtful efficacy, they could not be dispensed with. As already remarked, the public faith remained unshaken. The public, when sick, would have drugs. The theory of the self-limitation of disease, together with the apparent financial success of homœopathic practitioners, who, it was believed, administered pleasant-tasting or altogether tasteless medicines, while the disease ran its natural course toward recovery or death, pointed the politic road—that of making medicines as palatable as possible. And here seems to me to be the origin of one of the greatest evils from which we, as a profession, and our patients are suffering. From striving to render remedies more and still more palatable, efficiency has been largely sacrificed to elegance, and unless the tide be stemmed in some way the whirligig of time will again bring around an era of scepticism, based, however, upon a more substantial foundation. While I would not for a moment decry elegant pharmacy, within reasonable limits, I do most vehemently protest against its abuse, as at present so largely practised. Granting for the sake of argument that the proprietary pills, elixirs, and other compounds so largely used are compounded in accordance with their published formulæ, it cannot be doubted that their use begets in the physician a routine practice altogether at variance with the intelligent exercise of his calling; and the more skilful he may be in diagnosis, the greater is the contrast of his treatment. But in very many instances, at least, these preparations do not contain what is claimed for them. This has been shown again and again by chemical analysis.

Then how shall we be guided in the choice of remedies to use in the treatment of disease? This question seems to me easily answered in words though practically it requires more thought than has been our custom to bestow upon it. In the first place, we should bestow upon materia medica and therapeutics the same careful study as is commonly given to other departments of medicine; the same careful attention to details as, for instance, is exemplified in practical, and consequently, successful antiseptic surgery. Knowing first the remedies within our reach, not by name merely, but having a practical familiarity with them as individuals, an intelligent appreciation of their properties and effects, and of their comparative relations to each other, we shall be prepared to use them intelligently.

But one may say, this of itself would require the study of a lifetime. By no means. Let one but learn to distinguish the wheat from the chaff, and the materia medica will, so far as he is practically concerned, soon shrink to comparatively small proportions. Suppose the practical surgeon were to provide himself with all the instruments which have been used since surgery began to be practised, how many of them would he employ to-day?

Our materia medica is certainly anomalous. Every root and herb at any time employed, from Hippocrates down, must needs be included, together with almost every chemical which man's ingenuity or nature's fertility has provided. But how many of them are used? How many are worthy of use? Hardly a larger number than of surgical instruments. So while in surgery the antiquated are labelled and placed in museums, in materia medica the good and the bad, the useful and the demonstrably useless are left side by side as if for use together.

While everyone is familiar, at least in a general way, with the articles of standard worth of the materia medica, few have paid sufficient attention to the subject to enable them to pass a decided judgment upon the great number of useless and inefficient ones; and it is in behalf of these little known drugs that our credulity is most frequently appealed to by blind enthusiasts or designing speculators.

The properties, uses, and limitations of the minera preparations of the materia medica are pretty well recognized and understood. Take the preparations of iron, for instance. Everyone recognizes that though iron in any form is a tonic, yet there is a wide difference in the applicability of different preparations to different con-

[1] Read before the Section in Practice of Medicine of the New York Academy of Medicine, October 20, 1885.

ditions. The same may be said of mercury, potassium, or sodium. The facts regarding these minerals are firmly fixed in our minds, simply because the knowledge of them is classified. Now, if the same plan be pursued with drugs of vegetable origin, our knowledge of them would be just as readily available. In a general way, the individual plants comprising a great natural family, may be said to be as nearly related to each other as are the different chemical compounds of iron to each other. Take, for instance, the order Solanaceæ, which furnishes us, among others, belladonna, stramonium, hyoscyamus, and tobacco. In these four plants we have about all the efficiency that this order is likely to afford us in the way of narcotic agents. Each one of these has a sphere of applicability almost entirely its own. This fact being conceded, why waste time and energy in fruitless experimentation in search of possible new agents in the order?

Take, as another instance, the great order Labiatæ—the mint family. We are all, I trust, reasonably well acquainted with the properties, uses, and limitations of peppermint. Well, now, this plant in itself represents all the medicinal activity of the entire order—a very large one. Other plants have different flavors, and may on this account be more or less agreeable to some persons, but their medicinal action is entirely similar if not absolutely identical. And yet it is not uncommon to find specific effects attributed to plants of this order, and some men believe it. The Cruciferæ, the mustard family, affords another instance of similar character. Mustard-seed represents all that is to be extracted from the order; all the rest may be dismissed without thought or hesitation. And so one may pursue his course through the vegetable materia medica, excluding, without hesitation, scores upon scores of drugs which but encumber his path.

When one has gone through the materia medica in this manner, and excluded the articles which reason and common sense convince him are beneath his notice, he will be ready to make his choice from those which remain, of the remedies to use. And here I would not wish to be misunderstood. For my own purposes I exclude a large number of drugs, not because they are altogether valueless, but because there are others much more efficient, and it seems to me that we should choose for our use only the best attainable. To illustrate, the number of vegetable tonics is very great. Almost anything bitter is possessed of tonic properties. Now, almost any vegetable bitter may be used in such a manner as to cure intermittent fever. The bark of the flowering dogwood, magnolia, tulip tree, or willow will do it, as will also tansy, wormwood, or boneset, but what man of sense would think of employing any of them when cinchona or its derivatives are attainable?

I believe it was Sam Patch who died while making an effort to prove "that some things can be done as well as others." It seems to me there is considerable Patch-work in medicine of a similar character, only it is not the operator who dies in the experiment.

But, some one may say, such a course as this would commit a man to contentment with his present choice of remedies for the balance of his professional life. Not at all. By accepting the verdict of his predecessors as to the worthlessness of certain drugs, he in no way binds himself to reject new discoveries with claims that can be substantiated. He will, however, be less credulous, and, on this account, less likely to experiment with anything and everything to which his attention is called.

Moreover, such an examination of the materia medica would show upon what an unsubstantial foundation the claims of many of the articles rest. I have, in not a few instances, traced back the history of a drug from author to author till I reached the original statement that it was used for such and such purposes by the aborigines. And in some cases it has been easy to observe that the original statement was copied by one after another with very little variation, the later authors including the article simply because their predecessors included it. Such medical histories of drugs, should, I think, make us slightly sceptical, and so this scepticism does not reach the point of blind prejudice, both we and our patients will be the better for it.

In days when journals are published for the sole purpose of pushing new remedies into notice; when men are employed directly or indirectly for the express purpose of manufacturing reputations for drugs, of which the proprietors of the paper have a monopoly, a little judicious scepticism is not far removed from wisdom.

However uncertain medicine may be, however inexact as a science, however disheartening it may often be in practice, it does present some things which are sure. Having, then, excluded from our materia medica the things which we consider beneath our notice, we can begin our choice of remedies for daily use by accepting at once all those whose reputations rest upon a solid foundation.

Of remedies of vegetable origin, we should probably err little in accepting all those which yield to analysis any principle capable of producing physiological effect upon the human system, taking into account, of course, the relation of the quantity of the crude drug to the principle found, and the amount of the latter required to produce sensible effect.

Of drugs which do not meet this requirement—the possession of a demonstrable active principle—we have at least the right to reserve our judgment. Accustomed as medical men of the present day are to look for a cause of every effect observed, it seems to me only rational that they should demand the reason why a drug does thus or so, and if this be not forthcoming, they have the right to expect a very clear demonstration of the fact that a therapeutic effect is produced before accepting it.

It is an easy matter to say that a drug produces good effects in this or that diseased condition, and not very difficult to compile statistics from medical literature in support of one's statements, but let one attempt to verify such statements by actual experiment, and he often finds the task a hopeless one. I refer, of course, to drugs having no appreciable active principle capable of producing physiological effects, at least in doses proportioned to the amount of the drug employed.

Take, as an illustration, viburnum, a drug introduced a few years ago as "nervine, antispasmodic, astringent, diuretic, and tonic, and especially useful in the nervous diseases of pregnancy and in the prevention of miscarriage" (U. S. Disp., p. 1521). Let anyone endeavor to verify these claims, and he will appreciate the difficulty of the task, and probably end with the conviction that the drug is wholly useless. Such, at least, has been my own experience. And yet viburnum is employed to a very considerable extent, notably in threatened miscarriage. If the patient does not abort, the drug gets the credit; if she does, why the case was too far gone to be influenced. While we as practitioners of rational medicine, so called, are uniformly sceptical regarding the therapeutic claims made by practitioners of other schools, and rarely esteem their statistics worthy of serious consideration, we will find plenty of just such unreliable material much nearer home if we care to search for it

As with viburnum, so with many other more or less fashionable remedies—their reputed efficiency is commonly greatest in cases incapable of demonstration. Of such remedies we should choose, at most, a very small supply.

But with all the drugs of vegetable origin possessing demonstrable active principles at our command, we still have more than we need, and further discrimination is necessary in order that our armamentarium be not too unwieldy. Classification of the most important ones, based upon the effects which they produce, is essential to final selection. Such a classification must, however, of necessity be artificial and somewhat arbitrary, because

of the varying effects produced by one and the same drug in different doses and in different conditions. Illustration of this point is scarcely necessary. Everyone has in his own mind, or should have, the drugs which he employs thus classified to a greater or less extent, but not every one uses wise discrimination in selecting the proper drug from a given class when prescribing at the bedside. How many of us use opium unnecessarily? How many employ quinine antipyretically, without rhyme or reason? How many administer ergot, digitalis, arsenic, or strychnia without careful consideration?

Having by the analytical course which I have endeavored to sketch, reduced the materia medica—both organic and inorganic—to a reasonable compass, and having those remedies which we will permit ourselves to employ classified, how shall we be guided in making the final selection? For the choice of proper remedies at the bedside is, of course, our ultimate end and aim.

This question appears to me to involve three considerations, namely, 1, efficiency; 2, liability to do injury; 3, ease or difficulty of administration.

There can be no question about the advisability of always using the drug which will most certainly produce the therapeutic effect desired, save as this may be modified by its liability to act injuriously upon the patient. This is a very important consideration. For example, opium is very potent in relieving pain, and, judiciously used, seldom does harm. And yet it cannot be safely used in very young children; and it should not be employed in adult life one moment longer than absolutely required, owing to the danger to the patient of the formation of the opium habit. I know that this danger is often exaggerated, but it does exist, and we should bear the fact distinctly in mind when we prescribe at the bedside. The same may be said of chloral, and of the inhalation of ether and chloroform. These drugs should never be used indiscriminately; the question of their efficiency should always be modified by their possible dangers, and when these dangers are greater than the ills for which it is proposed to use them, they should be replaced by safer, though less efficient, drugs. Take, as another instance, aconite, veratrum, and gelsemium, all used as arterial sedatives indiscriminately—commonly, however, by different physicians. Considered merely from the standpoint of efficiency, there is little choice between them, but a consideration of their relative dangers shows them in an altogether different light. Aconite need never do harm; veratrum often produces unexpected vomiting, purging, and dangerous depression; and gelsemium is nearly as unreliable as lightning. So that you may use aconite with safety, veratrum with fear, and if you push gelsemium, you should do it with positive dread of the possible consequences.

I might go on illustrating this point almost indefinitely, by comparing the drugs of different classes with each other, but it is unnecessary.

It remains to consider the efficiency of drugs as modified by the difficulties of administering them. As previously intimated, it has been more or less the fashion to consider this first. As this involves the question of how best to administer the drugs we have chosen, it deserves rather more attention than my limits will permit.

The patients to whom we administer drugs may be divided into three classes: 1, those who are so ill as either to offer no objection to swallowing anything prescribed, or, on the contrary, strenuously objecting to everything. To the latter division of this class may be added young children accustomed to rule the house; 2, people who, though perhaps not quite sick, are still not wholly well, and who consume medicine largely as a matter of habit; 3, people who consult physicians for want of some more active employment.

The first class of patients, those who are really ill, of course, comprises the bulk of those with whom there is any difficulty. With adults not too sick to appreciate their condition, and consequently both able and willing to co-operate with us, there is commonly little trouble in administering anything necessary, and we are only required to choose the most efficient preparation of the drug desired. And here at once arises the vexed question, what are the most efficient preparations? If we are willing to accept the opinions of those who claim to be extremely solicitous for our welfare—the manufacturing druggists—we can have this question settled for us readily in the shape of A's pills, B's granules, C's fluid extracts, etc. If, however, we consider it among ourselves, we shall probably reach different conclusions. Now, it is the habit of some to consider the alkaloids or other active principles of vegetables as the most efficient preparations, and to use them exclusively, making morphia, for instance, represent opium, atropia, belladonna, strychnia, nux vomica, and so on, overlooking the fact that these alkaloids do not fully represent the drugs from which they are derived. In other words, they fail to recognize the fact that there is a time to administer morphia, and another for solid opium; that, while strychnia has its uses, nux vomica has its peculiar sphere. Moreover, the extreme practitioners of this class often employ these potent active principles in the form of gelatin or other coated granules, whose ready solution in and absorption from the alimentary tract is a matter of conjecture. I am not in sympathy with this mode of practice; still less with that whose commonest dose-measure is the hypodermic syringe. The best preparation of a drug I conceive to be that which most completely represents the crude article; and, of vegetable remedies, this is more commonly in a liquid form. I would relegate alkaloids and other active principles to their proper place, and use them in solution, if practicable, by the mouth when possible, otherwise only when necessary. And when necessary to employ remedies in pill form, these should be freshly made, commonly by extemporaneous prescription, rather than turned out by the thousand dried, coated, polished, and impregnable. And I firmly believe there would be much less complaint of the uncertainty of drugs if they were employed in this manner.

And here I wish to add one word for the benefit of those whose bugbear is *polypharmacy*—the giving of numerous drugs in one and the same dose. I see nothing irrational in the intelligent combination of drugs, and, theoretically, at least, no limit as to the number which may be thus combined and administered at a single dose. On the contrary, it seems to my mind much more commendable than the practice of frequent alternations, which only serves to annoy the patient. A young physician, in my hearing, once boasted of his physical endurance in watching with a patient six weeks, and administering medicine every fifteen minutes. Though the patient lived, I hardly consider the case as evidence against the wisdom of combining remedies, if for no other purpose than to lengthen the intervals between doses. With remedies chosen in the manner indicated, I believe there will occur little difficulty in treating all really sick people whose co-operation is obtainable. Regarding the obdurate, and the fractious children, I have no suggestions to make. Certainly the most elegant pharmacy will be of little avail.

As to the second class of patients, the habitual medicine-takers, why, it is altogether immaterial. If they require medicine at all, give it in the most efficient form, without regard to taste. On the whole, I think a decidedly bad-tasting mixture, one which stays by them, suits them best. Certain it is that some of the vilest tasting proprietary compounds have had the largest sales, and not because they restored those who consumed them, either. The same is true of pills: those which are most drastic are most highly appreciated.

Regarding the third class, still less need be said. They consult you, as I have said, for the want of more active employment. If you care to bother with them at all—it is business that pays—let them have *elegant pharmacy*, the more elegant and the less efficient the better.

THE CLINICAL RESEMBLANCE OF TYPHOID FEVER AND ACUTE TUBERCULOSIS, AS ILLUSTRATED BY A CASE.[1]

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CINCINNATI, O.

Among the few diseases which the student is taught by nearly all text-books of practice of medicine to consider as possible, in making a diagnosis of typhoid fever, is acute miliary tuberculosis. The statement is generally made without any qualification or further explanation, and the student is left to reconcile, as best he may, the types of disease as he will find them carefully traced in this same text-book. There is to him great difficulty in understanding how the regular fever curve of typhoid, with its easy and accurate subdivision into first, second, third, and fourth weeks, can be in any way counterfeited by the fever line of the tubercular disease, and most puzzling of all, is the fact, that an affection characterized by so many local symptoms as typhoid, should possibly be mistaken for a generalized infectious process, invading simultaneously, or in rapid succession, nearly all the important viscera with their investing serous membranes. The student is apt to overlook two important facts, which may even escape the attention of the more advanced practitioner. These are firstly, that the typical fever-line of typhoid does not apply to all—scarcely, I should think, to a majority—of the cases observed here (and in this statement I am borne out by the recorded experience of the large Cincinnati Hospital); and secondly, that an acute tuberculosis may be localized as to symptoms, and often in its anatomical distribution to one great serous cavity, leaving the others entirely free, or affected so slightly as to cause no special symptoms. The impression most likely to be left in his mind from his reading, and from his didactic lectures, is that acute miliary tuberculosis means a development of tubercles in the brain, lungs, liver, spleen, intestines, mesenteric glands, arachnoid, pleura, and peritoneum; and I must confess to having retained this idea myself until a very recent date, when I found in a number of autopsies made upon patients dying of phthisis or of tubercular disease the actual distribution of the disease limited very frequently to the peritoneal cavity, leaving the lungs, the supposed starting point of infection, entirely unaffected by gray tubercle, though the signs of lobular pneumonia were frequently, not invariably, present.

The easy possibility of a clinical mistake was brought home to me by a case of my own, of which the following is a brief history:

A. B——, aged twenty years, American, a young man of exemplary habits and good social standing, was seen on the evening of July 15th. He complained of considerable pain in the abdomen, which he located in the right iliac fossa, and which he said had annoyed him for twenty-four hours; it had not been very severe through the morning, so that he rode into the suburbs, some four miles, being forced to return, however, by the increasing discomfort late in the afternoon. There was rather an anxious expression of face, the skin was hot, the temperature, 101.4° F.; pulse, 98, and the respiration, 18. Physical examination showed a very flat chest, the boy being remarkably tall, the muscles not very well developed, the body being rather thin, though not badly nourished; the lungs and heart normal. There was considerable tenderness on deep pressure in the right iliac fossa, some tympanitic distention of the entire abdomen, and the knees were flexed. There was loss of appetite, but great thirst. The tongue was slightly reddened, but moist and soft, and it was a noteworty fact, that, from the beginning to the end of his illness, there were never present, for as much as a single day, the changes which this organ records in typhoid. There was no redness at the sides, no V-shaped redness at the tip; no swelling, dryness, white or yellowish coating, no fissures or furrows, no sordes on lips or teeth; from first to last the tongue remained smooth, comparatively pale, moist and flexible, was never tremulous or protruded with difficulty, and only toward the end bore indentations of the teeth, as a sign of general muscular relaxation, such as accompanies all conditions of exhaustion. It happened that just at that time the hospital wards had received several cases of typhoid, that a case of peri-typhlitis and subsequent general peritonitis under my own observation was convalescing, and I at once expressed an opinion that the case was likely to be protracted. He was ordered quiniæ sulph., gr. iij.; pulv. opii., gr. ¼, every three hours, and a strictly fluid diet, to consist largely of milk.

At 4.15 A.M., July 16th, he had a violent chill, lasting about fifteen minutes, after which the temperature rose to 103°, the pulse to 120, and the pain in the abdomen slightly increased. Hot flaxseed poultices, large enough to cover the entire abdomen were ordered to be changed every half hour. The bowels were constipated. The fever gradually declined toward evening, but at 9.30 P.M. he had another chill, not so violent and of shorter duration than that of the morning.

July 17th.—A.M.: Temperature, 101°. Considerable distention of the abdomen; gurgling in the right iliac fossa; abdomen still tender; slight increase of resistance when pressing over right iliac fossa. Temperature, P.M., 101°; pulse, 96.

July 18th.—A.M.: Temperature, 102.4°; P.M.: temperature, 101.5°. Had an attack of epistaxis during the day. Otherwise symptoms unchanged.

July 19th.—Slight diarrhœa; two or three stools; temperature, 101°; pulse, 96.

July 20th.—Abdomen not so tender; tympanites diminishing; appetite fair. Is troubled with slight headache.

July 21st.—Temperature, 99°; abdomen becoming soft; says he can make pressure at any point without giving rise to pain. Feels very much easier; no diarrhœa.

On the 23d of July, having been free from pain for several days, the evening temperature not having risen above 99°, as tested in the mouth, he was allowed to get up, having received a caution as to remaining perfectly quiet and not attempting any exercise. However, the boy felt himself so well, that he walked several times into an adjoining room, spending the greater part of the day on a sofa there, and returning to his bed at four in the afternoon. In the evening, he complained of a slight return of his pain, and slight diarrhœa set in, two or at most three stools a day, light in color and of rather pasty consistency. His diet was limited to milk, of which he took about three pints daily.

On July 24th, the temperature was 99.4°; in the evening, 100°. It were a monotonous repetition to give the daily record of his illness from that date to August 2d, when a decided change for the worse set in. In those nine days, there was comparatively little change in his condition, the diarrhœa not again manifesting itself, the temperature remaining at or nearly at 101°, with a distinct tendency to morning exacerbations, the appetite varying from day to day, the pain in the bowels gradually getting better under the use of hot poultices most assiduously applied, and the tympanitic distention gradually giving way to a feeling of doughy softness, seemingly limited to the abdominal wall. There was not, at that time, any doubt in my mind as to the typhoid character of the malady; but I was rendered uneasy by a steady emaciation, whose progress was visible from day to day, almost from the morning to the evening visit, and which was out of all proportion to the intensity of the fever and other symptoms. The pulse, too, continued good, being moderately forcible and full, and varying between 88 and 96 per minute. The treatment with quinine and opium, in small doses was continued, and the constipation which had now become a persistent symptom was relieved by simple enemata.

[1] Read before the Cincinnati Medical Society, October 5, 1885.

On August 2d in the evening the temperature reached 103°. The boy had been doing fairly well; he received an unexpected visit from his father, was encouraged to talk rather freely, and owing to the presence of a number of visitors, a lively general conversation was carried on in the sick-room, in which he joined. The fever remained high for the next three days, there being no new development of any local symptoms, save a large area of pulsation over the abdominal aorta in the region of the cœliac axis, so that the impulse could be felt an inch and a half to the right of the median line down to the umbilicus, and about one inch to the left of the median line. Taken in connection with the rise of temperature, and my hypothesis as to the cause, it seemed not unlikely that infiltration, and possibly suppuration of the retro-peritoneal glands was going on, and I was in great measure strengthened in this belief when at 4 P.M., August 5th, he had a slight rigor, followed by fever and profuse perspiration. He was seen that evening by Drs. Mackenzie and Dandridge, in consultation, and I laid before them a proposition to make an exploratory incision for the purpose of giving exit to any pus that might be forming in or very near the peritoneal cavity. The plan was negatived—happily so, I think, for the operation would have been made to bear the opprobrium of the boy's death. The pulse now became very feeble, irregular, 120 per minute, the respiration 28, alæ nasi moving on inspiration, the face wore a more pinched expression, and the strength was rapidly declining. There was retention of urine, so that the catheter had to be employed, the urine, being dark in color, slightly alkaline, and, owing to the great heat, undergoing ammoniacal fermentation almost as soon as drawn; there was an abundant deposit of phosphates, no albumen

August 6th, at 4 P.M., had a very severe chill, so that he shook the bed, lasting fifteen minutes, followed again by profuse sweating. Owing to the cardiac feebleness he was ordered tr. digitalis, gtt. xx.; ether sulph., gtt. xxx.; spts. frumenti, ℥ ij., every four hours. The second chill occurred, notwithstanding a dose of quin. sulph., gtt. xx., taken at 5 A.M. After the chill, the temperature, which had reached its highest point at 4 A.M., being then 104.6°, and had gradually fallen until it marked 101.3° at noon, rose again to 104°. The chill was not again repeated, the patient suffering occasionally from slight rigors, and the temperature remained high for two or three days. There was again great abdominal distention, gurgling was elicited by very light pressure over the whole surface, and pain complained of on pressure in the right iliac, right lumbar, and umbilical regions. The pulsation in the latter region now became more distinct, and on August 9th, the tympanites having subsided, a hard indurated, irregularly rounded mass was felt through the abdominal parietes. Auscultation over this mass revealed a distinct double murmur, synchronous with the heart-sounds, and similar to the murmur obtained by making firm pressure with the stethoscope over the carotid or subclavian artery. It was interpreted to signify that pressure was being made either on the aorta itself or on the cœliac axis by a packet of enlarged glands. But my views as to the cause of this enlargement had undergone considerable modification by many of the anomalous symptoms presented, and Dr. Mackenzie, who had hesitated about accepting the diagnosis of typhoid fever, now agreed with me in regarding it as a case of acute miliary tuberculosis, limited to the peritoneal cavity. The most careful examination of the heart and lungs revealed nothing abnormal.

August 10th.—The patient passed the best day he has known in several weeks. The morning temperature was 99°, the pulse 84, the respiration 20 and fairly regular, his manner was more lively and cheerful, though he had been quietly hopeful from the first, and he expressed himself as feeling very hungry. It was apparent that he was becoming constantly weaker and that the emaciation was progressing. He moved freely from side to side, was able to pass urine voluntarily, and complained of no pain except on pressure over the umbilicus. The apparent improvement was so marked that his family became extremely hopeful of his ultimate recovery.

August 11th.—He passed an extremely restless night. Physical examination this morning reveals a loud, very distinct systolic murmur, heard with considerable intensity over the whole præcordial region, and having a musical, distinctly whistling character, very much like the sound produced by driving a whip forcibly through the air. The heart's action was rather feeble, but tumultuous, and the pulse small and easily compressible. The murmur over the tumor in the abdomen was now systolic, having lost its double character. It was not in any way related to the cardiac murmur, which had developed later, as there was between the two a distinct area in which no abnormal sound could be heard. The stomach, for the first time in the entire course of his illness, became troublesome, and all liquids taken were rejected, with large quantities of bile. There was not much retching, vomiting taking place without any effort. Bowels constipated.

August 12th.—Vomiting controlled by small doses of calomel and camphor. Perspiring very freely. Endocardial murmur not as loud as yesterday; has more the character of an ordinary murmur. Appetite good. Is losing ground perceptibly. Temperature, 102.6°; pulse 120, very small and feeble.

August 13th.—Countenance this morning has Hippocratic type. Had slight chill yesterday afternoon. Intellect perfectly clear. Some pain about the umbilicus, where the indurated mass can be more clearly felt, partly on account of its enlargement, partly because of the increasing emaciation. Abdomen neither tympanitic nor retracted; still has a certain boggy feel.

August 14th.—Died this morning at 8 A.M., having retained consciousness to within an hour or two of the end. An autopsy was not obtained, and yet I have not much hesitation in affirming the case to have been one either of acute tuberculosis or of pyæmic absorption from some focus in the peritoneal cavity. Typhoid can be eliminated, I think, because of the absolute freedom from all cerebral disturbance, because of the peculiarities of the temperature in the last week, because of the persistent constipation, because of the clean, moist tongue and the absence of any signs of feebleness or prostration, other than could readily be accounted for by the gradual muscular waste. We use the term typhoid, as applied to other diseases, to characterize the presence of these symptoms, probably of all nervous origin; and the absence of all of these, irrespective of the temperature or condition of the bowels, seems sufficient warrant to exclude this affection. It may be objected that the endocarditis, developing in the last few days, would be a very unusual complication of acute tuberculosis.

It may be a rare complication, certainly, but that this is not sufficient reason for altering the diagnosis, is in a measure demonstrated by the occasional reports of cases of supposed typhoid complicated by parotitis, the autopsy alone revealing the true nature of the case. Such cases are reported by Senator (*Berl. kl. Wochensch.*, 1881) and Samter (*Berl. kl. Wochensch.*, 1884). The case of Senator is particularly interesting, the patient's history containing many points of similarity with the case here reported, the tongue being moist, the intellect perfectly clear, epistaxis occurring in the first week, and abdominal distention and tympanites being prominent symptoms in the second and third weeks. A suppurative parotitis appeared two days before the fatal termination, and the clinical diagnosis, made by so careful and experienced an authority as Senator himself, was typhoid fever. It remained for the autopsy to demonstrate this plausible error. The fact of the patient's having had an attack of typhoid fever three years before could not militate against the diagnosis, as Senator and others had met with cases in which a second attack

undoubtedly occurred. There was a certain anomaly in the temperature curve, the morning remissions being very marked, but this was not considered sufficient in itself to cause a serious doubt, and when finally, after repeated occurrence of epistaxis, suppurative parotitis set in, a complication recognized as a comparatively frequent attendant of enteric fever, there seemed no longer any room for doubt or hesitation, the prognosis at the same time being thereby made very unfavorable. The latter was confirmed all too soon, and the autopsy revealed miliary tuberculosis of the lungs, caseous bronchial glands, miliary tuberculosis of the enlarged spleen, liver, and both kidneys. There were not the slightest indications, either of the old attack of typhoid, or of any more recent trouble in the intestines. The difficulty of diagnosis in this case was enhanced by the early appearance of the characteristic roseolar spots, a symptom of the greatest rarity in acute miliary tuberculosis; in our own case the external application of hot poultices and turpentine stupes would have made the very recognition of the rose-colored spots impossible, had they been present. Senator, in this very valuable and explicit contribution, refers to the comparative frequency of acute miliary tuberculosis in individuals who up to that time had been in apparently good health, thus rendering the diagnosis much more difficult. He refers to other symptoms of supposd diagnostic value, as *distention of the abdomen, dicrotic pulse, partial deafness, tendency to hemorrhages, particularly epistaxis,* in typhoid fever; and *cyanosis, dyspnœa, irregularity of the pulse, and an increase in frequency of the latter out of all proportion to the rise of temperature,* in tuberculosis. But his own case shows the unreliability of many of these symptoms, though he says that of all published cases he knows of only one other in which epistaxis occurred during miliary tuberculosis, and he concludes his paper by affirming the impossibility of correctly diagnosing such a case as his own.

In the case which forms the subject of this paper there was another symptom, which seems to me of special diagnostic value—a rapid and progressive emaciation, very decided, disproportionate to the amount of fever and general constitutional disturbance, and steadily increasing despite a very fair amount of nourishment consumed, and apparently assimilated, daily. This, in conjunction with the other facts which would not well comport with the hypothesis of typhoid, decided the diagnosis. It is true, the crucial test of its correctness, the autopsy, was denied us; yet it seems to me that there can be no question as to the exclusion of typhoid fever. There yet remains to be explained the acute endocarditis. Samter, in the article referred to (*Berl. kl. Wochensch.*, 1884), believes that there is in some cases of acute miliary tuberculosis a double infection, a septic and specifically tubercular one, anatomically distinct from each other, as evidenced by the presence of the bacilli of tubercle and micrococci, and it is possible that the septic element may have manifested itself here in the development of the endocarditis.

Perhaps it may be stated in objection to the diagnosis that typhoid and acute miliary tuberculosis may be simultaneously present; of such an association there are, according to Senator, but three authentic cases on record, and it is not necessary to seek for so distant a hypothesis, when the clinical history is sufficiently explained by assuming the case to have been one of acute tuberculosis. There is one point in connection with the history which has been the subject of some speculation with me, though it must be a fruitless kind of inquiry, and that is whether or no the permission to get up on the ninth day was in any way responsible for the farther development of the symptoms. It seemed unreasonable to confine the patient after his having passed three days with scarcely a trace of fever and with entire freedom from pain; and, though he transgressed the limits of indulgence, I cannot make this the cause of the farther and fatal course of the disease. I doubt whether all my hearers will be willing to agree in the diagnosis, even when I mention the fact, made known to me only upon persistent inquiry after the unfortunate death of the young man, that there existed a decided hereditary tendency to tubercular trouble on the mother's side, but if the paper shall have succeeded in calling attention to the close similarity of the two diseases, even to what have been considered as almost pathognomonic symptoms, a resemblance extending from the beginning to the close of the attack, it will have accomplished all that I had hoped for it. I append the post-mortem notes of three cases in which the autopsy was made by myself and in which the tubercular deposit was confined almost entirely to the abdomen.

No. 1, June 19, 1885.—A. N——, aged twenty-five, body that of a white woman slightly below average height, fairly developed, poorly nourished. Autopsy nineteen hours after death, rigor mortis slight. On puncturing the diaphragm, after the usual median incision had been made, air or gas escaped from the left pleura with a hissing sound. The left pleura found thickened, the result of chronic inflammations. The left lung was much compressed, so that it occupied about one-third of its normal volume. Its substance was solidified and covered with a thick layer of lymph. No point could be discovered by which air had entered the pleural cavity. The right lung was œdematous; small, indurated deposits were found in its lower lobe, but no signs of caseation.

The liver, spleen, stomach, intestines, uterus, and bladder were everywhere covered with tubercular deposits, which had led to the formation of many adhesions between neighboring viscera. The parietal peritoneum was covered with similar deposits. Uterus, slightly enlarged, contained at the fundus a small, hard, submucous fibroid. Fallopian tubes were filled with caseous material, probably the result of a chronic salpingitis. Retro-peritoneal glands and thoracic duct were enlarged and thickened from tubercular and caseous masses. Pancreas contained along its surface a number of small caseous deposits.

No ulcers were found in the intestines, nor were there marked changes in any of the viscera.

Cause of death.—Tubercular peritonitis, probably secondary to caseation from chronic salpingitis.

No. 2, July 28, 1885.—A. H——, body that of a colored boy about twenty years of age, well developed, poorly nourished, slightly below average size. Autopsy ten hours after death, rigor mortis absent. Extreme emaciation everywhere apparent. On opening the abdomen all the viscera were found firmly adherent to one another by bands of fibroid adhesions, which evidently had their point of departure in a chronic tubercular process associated with tubercular ulceration of the intestines. Fully one-half the abdominal cavity was occupied by a large packet of caseous glands, which projected from the median line over each side of the spinal column, and were intimately adherent to one another and to neighboring parts. All the abdominal viscera were covered with small caseous tumors adherent to the capsule. The intestines were in many places so firmly matted together that it was impossible to separate the adhesions without tearing the intestinal wall. Bands of adventitious tissue ran across the wall of the cavity, intimately blended with loops of intestines.

In two or three places ulcers of the intestine had extended down to the peritoneal layer. Spleen, amyloid; liver, cirrhotic; kidneys, fatty; lungs presented characteristic changes incident to general tuberculosis, with one or two cavities; brain, œdematous.

Cause of death.—General tuberculosis, mainly in peritoneum.

No. 3, June 21, 1885.—A. P——, aged sixty, body that of a white woman, well developed, fairly nourished, of average size. Autopsy fourteen hours after death, rigor mortis moderate. On making the usual median in-

cision it was found that the abdominal viscera were all matted together by tolerably firm, comparatively recent adhesions. Thorax slightly distended, bulging forward owing to the emphysematous condition of the lungs, which organs, aside from the emphysema, were normal. Heart soft and flabby. Liver fatty, slightly enlarged, its peritoneal surface (as, indeed, the entire peritoneal surface) was densely strewn with gray miliary tubercles. Kidneys enlarged, cortex gray and slightly fatty, capsule adherent, leaving a faintly roughened surface when detached, evidently the early stage of cirrhotic kidneys. Stomach normal, covered with tubercles. Intestines showed no ulcerations, contained small quantities of thick mucus and light-colored fecal matter. Fallopian tubes were both dilated with clear fluid, presenting a symmetrical condition of hydro-salpinx. Endometrium was congested and swollen. Retro-peritoneal glands slightly enlarged, but not caseous. Brain not examined. There was noted a slight ulceration of the right cornea.

Cause of death.—Tubercular peritonitis. No focus of caseation was discovered.

As a matter of very considerable interest, and one calling for farther careful study, I append the following short extracts from the original article of Brunniche, published in the *Gazette Hebdomadaire*, 1875, No. 3, to show the value of the peculiarities of temperature in deciding a doubtful case :

Of 52 patients dying of phthisis, in whose cases a careful record of the temperature was kept, the inverse type (morning exacerbation with evening remission) was noted in 33. The inverse type seemed to bear no relation to the degree of fever, to any hyperpyrexia, to colliquative or night sweats, nor to any phenomenon revealed by auscultation, but it was found on post-mortem examination to have occurred much more frequently in cases that became *tubercular*. In phthisical cases, without the presence of miliary tubercle, the inverse type was present in only twenty-five per cent ; in those in which tubercles had developed, the history showed this peculiarity of the temperature in eighty-six per cent. *Brunniche* regards miliary tubercle as a sort of inoculation through the agency of caseous matter contained in the lymphatic glands, and thinks himself justified in concluding from his experience that the inverse type is probably very often a sign of miliary tubercular infection.

In a series of 41 cases of phthisis, there were, first, 13 cases without tubercular infection, and in these the inverse type was noted in 38.4 per cent ; second, 28 cases with tubercular nodules in the lungs and other organs, and the inverse type was present in these in 70.87 per cent.

In 10 cases of primary acute miliary tuberculosis, without any accompanying phthisis, the inverse type of temperature was present in ninety per cent.

In another series of 17 cases of primary acute miliary tuberculosis 15 presented this peculiar range.

There was also a predominant tendency to the inverse type in female patients as compared with those of the male sex ; probably, Brunniche thinks, owing to a greater predisposition of females to tuberculosis.

THE DEATH OF A MEDICAL POET.—Our French exchanges announce the death of Dr. Camuset, of Paris, and some of them lament in him the loss of a talented medical poet. The *Cincinnati Lancet and Clinic* has taken the trouble to translate two of his sonnets, of which the following is a specimen :

"THE CORN.

"I'm a poor little corn, and protest
'Gainst the shoemaker raising a blister.
'Tis the fashionable boot I detest.
Heaven help dear phalanges ! my sister.

"The chiropodist doeth his best,
He wields a sharp knife, the professor.
Short is his triumph, from pain there's no rest,
I'm renewed, spite the iron aggressor."

FURTHER REPORT ON OXYGEN AS A THERAPEUTIC AGENT.[1]

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IN again reverting to a subject upon which I have already written several addresses and journal articles, no apology is necessary, since I am a confirmed believer in, and the prevailing temper of the profession generously tolerates, if it does not boldly encourage, special lines of medical inquiry. It is by confining our chief efforts to a single subject of investigation that each is enabled to contribute valuable results to the general stock of professional knowledge.

Since the publication of my first paper upon this subject, I have further pursued the study of the therapeutic possibilities of oxygen and its congeners, have received hundreds of letters of inquiry from practitioners in various parts of the country, and have corresponded extensively on the subject. I have also published several articles in THE MEDICAL RECORD and elsewhere, some of which have been reprinted in pamphlet form, and may be had on application.

Papers and reports bearing upon this subject, have also, from time to time, appeared in various foreign as well as American medical journals.

Loyssel, in the *Journal de Médecine de Bruxelles*, August, 1884, reports results of extensive experiments with the pure gas. During the year I have received a copy of a work published in 1870, at Calcutta, by J. E. Purdon, Staff Assistant Surgeon in the English Army operating in the Indies. It is a quaintly printed octavo of 120 pages, entitled : "Cholera ; and Efforts toward Framing an Equilibrium Theory of Disease."

Dr. Purdon labors with really ingenious plausibility to show that oxygen, and its actinic state, ozone, by their presence or absence are important, if not principal, factors in the origin, dissemination, and antagonism of cholera and other epidemic and zymotic diseases.

Loyssel, in the paper referred to, formulates the following conclusions :

1. In certain cases of poisoning, viz., by chloroform, ether, chloral, opium, sulphide of hydrogen, carbonic oxide and hydrocyanic acid, oxygen is the only means of preserving life after all other means have failed.

2. Its presence in the operating-room would be an infallible safeguard against fatal accidents from the use of anæsthetics. It promptly restores sensibility and eliminates narcosis in all such cases.

3. It offers the best prospects for success in asphyxia from strangulation, drowning, poisonous gases, etc., as also in cases of suspended vitality in the new-born.

4. It will almost surely sustain life in all cases in which respiration has not entirely ceased, even if the intervals between inspirations be very great, provided it be persistently exhibited.

5. If cardiac and respiratory action have been absent for but a short time, resuscitation is often possible through the use of oxygen ; and this agent should be perseveringly used in all such cases, even when appearances indicate that all efforts will prove useless. Cases have been frequently reported of drowned persons and apparently still-born children being fairly raised from the dead by persistent endeavors with oxygen.

6. There is no contraindication of the gas in any case of asphyxia.

7. The gas can be respired in notable quantities without the slightest injury.

Dr. Holstein, in the *Gazette Médicale de Paris*, asserts that oxygen has marked power in enfeebling or inhibiting exaggerated reflexes.

Professor Lashkevitch, of St. Petersburg, reiterates this assertion, and a this suggestion, Dr. Favr, of Kharkov

[1] Read before the Medical Association of Northern New York, at Malone, October 6, 1885.

(reported in *Vratch*, No. 13, 1885), resorted to oxygen inhalations in two cases of puerperal eclampsia, and his efforts were followed by prompt and brilliant results.

The first was that of a seamstress, aged nineteen, who was brought to the hospital in an unconscious state, cyanotic, with stertorous breathing, the convulsive paroxysms being very frequent, and each preceded by a uterine contraction. Warm baths, wet packings, and enemata had been thoroughly tried without affording any relief. Chloral hydrate failed to mitigate the paroxysms, and even chloroform inhalations gave but slight and transient relief. Oxygen was then resorted to as a forlorn hope. Within five minutes from the first inhalation of the gas the patient recovered consciousness sufficiently to call for a glass of water, the pulse fell from 120 to 90 per minute, and a tranquil sleep of two hours' duration intervened. At the end of this period uterine contractions recurred, without exciting an eclamptic seizure; but on suspending the oxygen inhalation the paroxysms soon returned. A fresh supply of the remedy brought each paroxysm to a speedy termination and quiet sleep followed each resumption of oxygen inhalation. At this juncture, the os being not yet dilated, Barnes' dilators were used, the membranes punctured, and the delivery completed without further accident. The patient was discharged on the nineteenth day after confinement, in a very comfortable condition.

The second patient, a primipara, aged eighteen, had two paroxysms of eclampsia, *post partum*, twenty minutes apart, and lasting twelve minutes each, the patient remaining unconscious in the interval. On the administration of oxygen consciousness at once returned. Four more paroxysms followed, but they were very much milder, and separated by intervals of entire consciousness and perfect comfort. This patient made a rapid and satisfactory recovery.

Dr. Favr concludes his paper by expressing his enthusiastic hope that further tests will so corroborate these results that, in the near future, oxygen-gasometers will become a common and indispensable feature of all lying-in hospitals.

Among the newer preparations brought forward, recently, as related to the oxygen family, Professor Beck stands godfather to one called by the rather questionable name *Ozonine*. It is a liquid, depending wholly upon ozone, or actinic oxygen, for its medicinal virtues, and was recently discussed at a meeting of the Biological Society of Paris (*Repertoire de Pharmacie et Journal de Chimie Médicale*, 1, 1885).

Of this preparation—the details of its manufacture not being given—Onimus, of Paris, declares that as a disinfectant it is scarcely less prompt or efficient than ozone in a gaseous state.

Brand, of Toulon, used this drug with marked success in small-pox and in cholera.

Griol and Long assert that for putrid and zymotic diseases and conditions, in hospital practice, this preparation, by constantly liberating ozone, affords to nurses, physicians, and attendants, certain and safe immunity from infection.

Its application to flesh in an advanced state of decomposition, and to putrid eggs, promptly corrected all odor and appearance of putrefaction.

It blackens metallic silver, changes arsenite of potash into arseniate, and gives the usual reactions of ozone with the test-papers of Schönbein and Houzeau, as also with thallium paper.

Thus as an antiseptic, antizymotic, antiputrefactive, and disinfectant, this preparation may, in time, supersede the entire list now in use.

Following in the wake of the above, a Boston firm has offered a preparation called *ozone water* (*Aqua Ozonata conc.*), which is claimed to be an efficient form in which to exhibit ozone, both as a disinfectant and for internal administration. Although I have used this article to some extent it has not met my expectations; but my experience with it does not warrant any intelligent or final decision as to its merits.

Of *hydrogen dioxide*, H_2O_2, commonly called peroxide of hydrogen, and by some inaptly called "oxygenated water," I have spoken in former papers. Among recent experimenters with this compound, Hensel, a German chemist of note, has given it careful study, and has published the results in a brochure which has been translated into English by Professor W. A. Dayton, assisted by Mr. Paul Trentler, of New York. The translation has not yet appeared in print, but it is to be hoped it will ere long be rendered available to the American profession.

According to the interesting table of Professor Miguel, peroxide of hydrogen stands third on the list, as to potency in preventing putrefaction, the binoxide of mercury and iodide of silver alone excelling it in this direction. Since it is entirely non-irritant, non-toxic, and almost as bland in use as simple water, it ought to supplant all the toxic and irritant agents now in use in surgery for the purposes named.

It is also an accurate and reliable test for pus in urine. By adding a solution of the peroxide to the suspected sample, brisk effervescence at once ensues, if pus be present.

Dujardin-Beaumetz has recently given the results of some experiments with this drug, internally exhibited, in cases of severe anorexia, in diabetes mellitus, and in polydipsia. In the first, return of appetite was readily accomplished without causing any gastralgia or other untoward symptoms. In the cases of diabetes the results were negative. In a case of polydipsia, in which twenty-eight litres of urine were voided daily, the improvement was very prompt.

In the *New York Medical Journal* of April 25, 1885, Dr. Dayton, whose joint translation of Hensel's work has been referred to, gives a summary of his experiences with peroxide of hydrogen. Having had his attention called to it by Hensel's enthusiastic description of its properties, he essayed its use both topically—chiefly in spray—and internally, in solution, in severe cases of throat, nose, and ear disease, "complicated with tubercular infiltration of the lungs." Dr. Dayton concludes his paper, which will well repay perusal by all who are interested in the subject, by asserting, "that the peroxide of hydrogen has a future among the most trusted resources in the materia medica, I have no doubt. It is a potent deodorizer, it is an eligible antiseptic (in [?] and out of the circulation), and it is an effective remedy in a large class of diseases in which mucous-membrane tissue is chiefly involved. For cleansing purposes it has no equal in any known agent. In operations on mucous membrane, where the secretions and hemorrhage often embarrass the surgeon, the use of a strong solution of the peroxide (twelve per cent.) facilitates progress by decolorizing the blood and by its cleansing, styptic properties."

Dr. F. Allport, of Minneapolis, in a recent number of the *American Journal of Ophthalmology*, gives a strikingly similar report of experiments with this drug, used in the same class of diseases. He, however, evidently writes, as do most recent observers, in utter unconsciousness of work done and reports published by confrères and predecessors; hence encumbering his brief paper with a reiteration of the now somewhat trite history of the original discovery, etc., of the compound.

Certain scientists are now asserting that the immunity from pulmonary and other degenerative diseases, and the general healthfulness enjoyed by those who dwell in the immediate vicinity of pine forests, is largely due to the constant presence of peroxide of hydrogen in the vapor of the atmosphere.

These pine districts have, on the same account, been noticed to have a remarkably beneficial effect on the voice.

Heretofore it has been the custom to ascribe these effects to ozone.

Nitrogen monoxide.—On the therapeutic use of this

gas I have received nothing new from foreign sources since the publication of the several papers already referred to. If anything of importance concerning it has appeared, at home or abroad, it has escaped my notice. While its importance as an additional member of the oxygen group cannot be called in question, no one of the foregoing authorities makes the slightest allusion to this compound, which must eventually be recognized as an essential adjunct to every comprehensive trial of the so-called "oxygen treatment."

This gas is the "nitrous oxide" of the old nomenclature, is more generally known by this name, and is represented by the formula N_2O. It is the basis of the "well-kept secret," for years so successfully vaunted by polished and oily-tongued quacks as "Compound Oxygen;" and, it must be admitted, that in connection with some wholesome hygienic rules persistently inculcated, these advertising professional outlaws have really performed some therapeutic, as well as *moral*, wonders by its aid. While no honorable member of the profession can respect their pusillanimous claims as "discoverers" of a "new compound of oxygen," or can do otherwise than feel contempt for their cheap and vapid "home-treatment" swindle, composed, as has been reliably shown, of inert solutions of the nitrates of lead and ammonium, my now somewhat extensive experience compels me to esteem nitrogen monoxide an essential adjunct in nearly all instances where oxygen is indicated. When I say that I scarcely ever treat a single chronic case without its aid, this admission is as strong evidence as I can adduce of my personal estimate of its value as a potent and essential modifier of pure oxygen.

Here, again, American enterprise has lagged, and foreign investigators have given us most of the accurate knowledge we possess concerning this gas. Its fame and excellence as a temporary anæsthetic have generally overshadowed any claims it has as a therapeutic agent. In fact, a fairly inexcusable degree of ignorance and misapprehension exists, on the part of the profession, concerning the chemical nature and physiological possibilities of nitrous oxide gas. Even by our foremost chemists it is assumed that anæsthesia produced by it is a true narcosis, a genuine asphyxia. Thus Dr. Squibb says ("Transactions New York State Medical Society, 1871," p. 201): "A patient may, doubtless, be as effectually drowned by nitrous oxide as by water, and the resuscitation from partial drowning by it involves the same principle of treatment."

This assertion is a concise statement of the average estimate of the physiological relations of this gas.

With all deference to the generally dispassionate and proverbially accurate opinion of the eminent scientist who utters it, this estimate is wide of the truth, and utterly misleading. All modern dentists can refute it by daily experience, thousands of their patrons inhaling it, to the extent of physiological saturation, as it were, without suffering from any of the usual sequelæ of asphyxia. On the contrary, the usually observed effects following its excessive exhibition, aside from the temporary anæsthesia produced, are those of pleasurable exhilaration and restfulness. There are no evidences that the blood of subjects caused to inhale even excessive quantities of this gas is poisoned, as by carbon dioxide or carbonic acid; therefore it remains to be shown that the nerve-centres are momentarily benumbed in some other way than by the toxic influence of this latter agent, or the non-aeration of the blood.

I have not hitherto found time, nor am I aware that any one has yet attempted to perform the necessary physiological test-experiments on the lower animals, which can evidently be made to set forever at rest this scientifically disputed but, empirically, already settled question.

Dr. Ziegler long ago insisted that this gas, being almost as good a supporter of combustion as pure oxygen, is capable, when inhaled into the lungs, of supplying oxygen to the animal system. My clinical experience with it certainly corroborates this estimate.

If it were, in fact, an asphyxiating agent, as so loosely taught, it is evident that its exhibition in unstinted quantities to literally hundreds of thousands of dental patients every year, would be far more frequently attended by disastrous sequelæ. As it is, the danger of a fatal result, even after the most careless and excessive exhibitions of it, in dental practice, to patients representing every possible degree of vital stamina, is immeasurably less than that represented by the buncombe lightning risk appended to some forms of fire insurance policies. It is practically nil, since an equal number of deaths would occur, in the same practice, from nervous shock, accidental anomalies—almost from old age!

To refute and correct this antiquated misapprehension, it is only necessary to quote an outline of its chemical nature and physiological properties from any authentic hand-book of chemistry, viz.:

N_2O is a colorless, almost inodorous gas, of distinctly sweet taste. Its specific gravity is 1.525, a litre of it weighing 1.97,172 gramme; 100 cubic inches weighing 47.29 grains. It supports the combustion of a taper or a piece of phosphorus with almost as much energy as pure oxygen; it is easily distinguished, however, from that gas by its solubility in cold water, which dissolves nearly its own volume. Mixed with an equal volume of hydrogen, and fired by the electric spark in the endosmometer, it explodes with violence, and liberates its own measure of nitrogen. Every two volumes of the gas must consequently contain two volumes of nitrogen and one volume of oxygen, the whole condensed or contracted one-third —a constitution resembling that of the vapor of water. *If quite pure* (the italics are mine), or merely mixed with atmospheric air, it may be respired for a short time without danger or inconvenience. The effect is very transient, and is not followed by depression (Fownes).

Those who have witnessed fatal cases of asphyxia from respiring "choke-damp," or any other asphyxiating gas, need not be reminded that the rapidly fatal toxæmia of the latter agents, with the accompanying cyanosis, œdema, and distortions, is quite unlike any of the foregoing phenomena attending the use of nitrous oxide.

Of the millions of instances of its inhalation, even to complete saturation of the system, for dental and surgical purposes, how many have proved fatal, or even temporarily injurious? Surely not so many as have dropped dead while passing along the street, or sitting at table, or as have been smitten by lightning, during the same time.

Can such a record attach to so potent an asphyxiator as Professor Squibb would have us think is found in gaseous nitrogen monoxide?

Reverting to the several authorities briefly cited, it will be seen that, little by little, the meagre literature bearing upon the therapeutic possibilities of the oxygen group is being added to, and, in time, we shall not be without cumulative, as well as conclusive evidence, of a clinical character, in connection with this interesting subject

The most serious drawback or hindrance to the rapid progress of this so-called oxygen treatment, which may be aptly styled the principal branch of natural therapeutics, based as it is on reason, physiology, and clinical success, lies in the fact that, with our present facilities, or lack of facilities, its extensive clinical exhibition involves more time, care, and cumbersome apparatus than a majority of practitioners can devote to it. It is for lack of the *required patience and painstaking that so many experiments have failed, and will continue to fail, of satisfactory results.*

But facilities are being constantly increased and improved. Oxygen can now be had, condensed in rather unwieldy but portable iron flasks, containing one hundred and two hundred gallons each. Nitrogen monoxide has for years been available, in liquid form, in flasks of

readily portable size; and several manufacturers are now giving us the peroxide of hydrogen in convenient form and of unexceptionable quality. The liquefaction of oxygen is also, at last, an accomplished fact; M. Cailletet having recently perfected a process and an apparatus of very simple character by which this result is easily attained. The process is thus sketched: Ethylene is brought to the boiling-point in open vessels, producing a degree of cold represented by -123° C., or -253.4° F. At this point oxygen assumes a liquid form, and may be stored in strong flasks. It ought not to be long ere we can procure this element at the counter of any well-stocked pharmacy in suitable vehicles for ready transportation and instant use.

A French mineral-water firm has begun to supply Paris dinner-tables with distilled water charged with oxygen. The beverage is mildly exhilarating and likely to become popular. The idea was suggested by the favorable report of Dujardin-Beaumetz to the Société Thérapeutique already referred to.

I shall be glad to assist in an advertising boom for the first American firm which shall have the enterprise to follow suit.

As an offset to the charge of enthusiasm and hobby-riding it may be pertinent to reiterate a few well-known physiological and vital aphorisms:

"Oxygen is the sustaining principle of animal life and of all the ordinary phenomena of combustion.

"The process of respiration in animals is an effect of the same nature as common combustion. The blood contains substances which slowly burn by the aid of the oxygen thus introduced into the system. When this action ceases, life becomes extinct" (Fownes).

The biblical account of creation says, God breathed into his nostrils the breath of life (oxygen) and man became a living soul. Nor can animal life be maintained for a single hour without it. The first gasp of the newborn is for oxygen, and this instinctive and involuntary struggle continues, without a moment's cessation, at every step of the journey, from the cradle of infancy to the ever-open portals of "that pale realm from whose bourne no traveller returns."

Nine-tenths of all the curable diseases with which the human race is afflicted are the direct results of deprivation; they are genuine *toxicoses*. Each individual nurses within his own breast the poisoned arrow which finally slays him. All the habits, fashions, and tendencies of our modern civilization lead to physiological robbery, physiological semi-asphyxia. The poor are "hovelled and hustled together, each sex like swine," while the rich vie with each other in devising costly mausoleums in which to immolate themselves.

The race, as a whole, ekes out but half its possible days on earth for want of better air—oxygen. All the processes of animal life go on by the aid of, and are incessantly presided over by, this omnipresent and well-nigh omnipotent element.

It may be urged that the natural atmosphere contains the true normal and sufficient proportion of oxygen for human consumption. Granted, but what proportion of the human race, living under civilized conditions, is fortunate enough to experience even an occasional breath of "natural atmosphere," untainted by floating germs, smoke, dust, or nauseating odors? Even on the frozen summits of the Alps, Tyndall detected floating motes and impalpable impurities; while the air of towns and cities is constantly loaded with noxious, though often invisible, organic and septic particles. The mansions of the wealthy residents afford no immunity. The heavy carpets and soft upholstery furnish lurking lodgement for clouds of dust-particles, which every movement of occupants or air-currents sets afloat, to permeate every available cubic inch of the "natural atmosphere," in every room in the house. Even if those whose waning energies show the subtle but sure deterioration going on be temporarily sent to the mountains or on sea-voyages, they must spend much of their time in cramped and unventilated hotels or dwellings, or in the crowded cabins of noisome steamships, where no breath of "natural atmosphere" is ever tolerated.

Thus pages might be filled with apt and applicable illustrations from everyday life, to prove the necessity for, and adequacy of, an increased proportion of oxygen, in our efforts to overcome the disastrous results of evil influences and untoward surroundings which cannot be wholly escaped in any thickly settled community. Oxygen burns up waste, effete, and deleterious organic matters retained in the system, or taken into the lungs during respiration. It supplies to the blood and tissues one of the chief elements of nutrition. It dissolves and eliminates morbid deposits and infiltrations. It is the one purifier of the blood, *par excellence*. Hence, it is available in nearly every form of chronic disease, and in many acute conditions.

True, there are yet difficulties in the way of its general use, but there is no reason why enterprising practitioners, who are not already too severely overworked, or who are not too shiftless or indolent to incur the necessary preparation and painstaking, should long be without facilities with which to avail themselves of this potent therapeutic agent. Its use has long enough been surrendered to advertising quacks. *It is time the regular profession rescued it from the smirch of charlatanry which has, to some extent, heretofore attached to it.*

Cases Treated.—Continuing my numbers from previously published reports, I proceed with

Case X.—Mrs. S. C——, aged forty-three; married; the mother of four children, the youngest nine. In October, 1883, severe and repeated floodings came on, attributed by her to protracted overstrain, as a laundress, and to the approach of the menopause. The symptoms, however, were quite similar to those of an induced abortion. Pelvic cellulitis supervened, and was followed by a large psoas abscess, which developed slowly, accompanied with intense suffering, including paroxysms of sciatica, hysteria, and an endless host of neurotic disturbances. Omitting details and non-essentials, the abscess was opened February 8, 1884, and discharged two quarts of very fetid pus. Evidently it should have been opened a few days earlier, in fact, during my temporary absence at the meeting of the State Medical Society of that year; but the neighboring practitioner, in whose hands I left the case, either doubted my diagnosis or hesitated to operate until my return.

Phlebitis of the larger veins of the right thigh supervened, probably of pyæmic origin, and the right knee-joint became the seat of severe inflammation. Contraction of the muscles and tendons ensued, with great deformity and total inability to use the limb. Anorexia and vomiting were persistent, the patient became much emaciated and greatly depressed, and altogether the case was discouraging.

As soon as it was feasible (April 27th) she was placed on oxygen treatment. ℞.: O, N_2O, and common air, āā 3 gallons, b.i.d.

May 10th.—General improvement is quite evident. The limb is less swollen and less painful, appetite returning. Treatment reduced to once daily.

May 20th.—Lameness very much better; she can get about the house without crutches and employs herself at housework.

June 10th.—Steadily gaining; does most of the housework for a family of eight. Appetite good. The limb is normal in size.

July 7th.—The improvement has steadily continued. Lameness nearly gone; appetite fairly voracious, and digestion excellent.

August 10th.—Lameness entirely gone. General health better than for some years, she having formerly suffered greatly from chronic dyspepsia. Treatment suspended. (Saw this patient September, 1885, rugged and well.)

Case XI.—D. F. A——, a railway engineer, aged

twenty-eight; single. Sent to me from a distant part of the State by his family physician. Father living, mother died of phthisis at thirty-eight. Says he has always been rugged with the exception of coughs and colds in winter. Admits that he formerly lived a little "fast," and that he had a touch of specific trouble several years ago. A homœopath "cured" two sores (chancres?) on the prepuce several times for him, the last one year ago. On the day following Easter, 1884, while at a circus, a profuse hæmoptysis occurred, suddenly and without warning. He was removed to the nearest physician's office, but bled so rapidly as to lose consciousness, and it was some hours before he rallied sufficiently to be carried home. Arrived here May 8, 1884.

May 9th.—Physical examination developed the following conditions: Figure slightly stooping; weight, 140; chest narrow and barrel-shaped; pulse, 110 and wanting in volume; temperature, 99.9°. On percussion find an area of dulness over the upper portion (not apex) of right lung, 5 × 5 inches. On forced expiration chest measures 30½ inches; on forced inspiration, 31¼ inches, showing an expansive capacity of only ¾ inch. Very loud tubular breathing over the right bronchus. Appetite capricious, the sight of an unsavory dish being sufficient to destroy it at any time.

Realizing the danger of recurring hemorrhages he is placed on a modified mixture of oxygen and nitrous oxide, well diluted with common air, and is cautioned against making any unusual effort when inspiring. Under this restriction he inhales four inspirations of 50 cubic inches each, b.i.d.

May 9th.—7.45 P.M.: pulse, 100. Four inspirations, as above, reduce the pulse to 92 *within two minutes.*

May 10th.—Pulse, 88, after treatment; respiration, 28.

May 11th.—5 P.M.: has just walked half a mile; pulse, before the inhalations, 117; after, 108.

Patient has heretofore been an inveterate smoker, consuming six or eight cigars of an evening. He is astonished to find his appetite for the weed entirely gone, and attributes it to three days' use of oxygen. As I have not before observed this result, further tests are necessary before announcing oxygen as a panacea for the tobacco habit! Dosage, 2 gallons, b.i.d.

May 14th.—Pulse, before treatment, 108; after, 102; and at the end of thirty minutes, 82.

May 16th.—Pulse, before inhaling, 81; after, 76.

May 18th.—Pulse, before treatment, 95; after, 85.

May 22d.—Chest measurements slightly increased, and he can now easily inspire 130 cubic inches at an effort. Can walk five or six miles at a stretch, without much fatigue, and feels very much encouraged. Eats and sleeps well. Pulse, before treatment, 82; after, 88; temperature, 99° F.

May 27th.—Pulse, before inhaling, 108; after, 94. To supply new material for the reparative processes evidently being inaugurated, I place him on Phillips' wheat phosphates, urging plenty of fresh beef, milk, mutton, eggs, and cream, with inunctions of cod-liver oil and glycerine three times a week, at night, to be followed in the morning by a hot bath, medicated with aqua ammonia and borax. He is also directed to imbibe half a pint of hot water before each meal, and at bedtime, daily.

May 31st.—Pulse, before treatment, 108; after three inspirations (five minutes), 96; temperature, 98.9°. There is a mild form of syphilide showing itself on the chest and back. Iodide of potash is added to his treatment, grs. x., t.i.d. Proportion of oxygen increased.

June 2d.—Pulse, before treatment, 84; after, 82; respiration, 24.

June 7th.—Before treatment, pulse 86; after four inspirations, 84. Chest now measures 30½ and 32 inches, a gain of ¾ inch in expanding capacity. Pulse-volume increasing. Dosage increased to three gallons, b.i.d.

June 20th.—Patient steadily gaining; can now inspire 150 cubic inches at an effort; chest measures on forced inspiration 32¼ inches. Dull area is smaller, and the vesicular murmur can be faintly heard over much of it. He can walk ten miles or more a day without fatigue. Treatment suspended, a pressure of summer travel requiring him to return to his post, promising to return in the fall. Weight, 145 pounds.

September 5th.—Returns, as per promise, weighing but 133 pounds. Has had no second hemorrhage. Pulse, 88; temperature, 98.8°. Chest measures 29¼ and 31 inches. Dry tubular breathing over right bronchus. The eruption is nearly gone.

October 1st.—Tubular breathing still distinct, but smoother. Area of dulness much smaller. Order Phillips' wheat phosphates with syr. pruni virg. and tr. nucis vom. Chest measures 29¾ and 31¾ inches. Temperature, 98.9°.

October 24th.—Dulness nearly gone. Eats and digests well. Pulse, 90, and quite full; temperature (8 P.M.), 99°.

November 27th.—Tubular breathing much less distinct. Pulse, 80; temperature, 99°; respiration, 20.

January 4, 1885.—Pulse, 93; temperature, 97.7°; respiration, 20.

February 19th.—Pulse, before inhaling, 98; after, 93.

March 10th.—Pulse, before inhaling, but after excitement, 104; thirty minutes later, after four inspirations, 96. Tubular breathing still audible, but vesicular murmur nearly as loud over the former dull area as elsewhere. Respiration still a little hurried—20 to 22—higher after exertion; but patient eats and sleeps well, weighs 144 pounds, and feels competent to return to his occupation. Treatment suspended. Have heard from this patient during the past summer, and always favorably.

Case XII.—S. A. C——, merchant, aged fifty-nine. Case of chronic rheumatism, severe dyspepsia, and slowly progressive locomotor ataxia. Oxygen treatment undertaken by means of a portable rubber bag, patient being confined to his bed, and completely helpless. Result of six weeks' treatment, gradual amelioration of all the symptoms. Locomotion became possible by the aid of a cane, and so remains at this writing.

Case XIII.—Mrs. S. A. M——, aged twenty-six. Disease, severe, chronic, gastric catarrh. Complete recovery, and a gain of fifteen pounds in body-weight, in six weeks.

Case XIV.—Mrs. H. A. E——, aged thirty. Case of unusually severe chronic constipation of ten years' standing. Family history shows phthisis, which has been both predicted and feared. Result of six weeks' treatment marked general benefit, which continues to date.

Case XV.—Mrs. W. M. A——, aged fifty-five. An extremely severe case of chronic eczema, complicated with hay-fever and an undoubted *specific* taint. The true nature of the case having been disguised in the beginning, treatment was undertaken and pressed for six weeks, when only moderate benefit being apparent, beyond the relief of the hay-fever and accompanying indigestion, further treatment was refused, the patient being advised to go to the Hot Springs of Arkansas.

Case XVI.—Dr. A. M——, aged fifty five, came to me suffering from aggravated dyspepsia, with persistent constipation and distressing insomnia. Weight, 130 pounds. Has had inflammatory rheumatism, and one sister died of phthisis. Was placed on active oxygen treatment with nourishing diet—no drugs whatever—and in three weeks gained five pounds in weight, and had an excellent appetite. Constipation relieved and digestion good. Sleeps soundly, and has climbed to the summit of a neighboring mountain, nearly five thousand feet above the sea-level. Is to continue the treatment at home.

Case XVII.—Mrs. H. W——, aged thirty-seven. Disease, chronic metro-peritonitis and subinvolution, with their usual train of feminine malconditions—dyspepsia, nervous prostration, hemicrania, cough, circumscribed "sore spot" under the left clavicle, etc. Percussion dulness over right apex, with exaggerated resonance over left.

Is placed upon O sixty per cent., N_2O thirty per cent., diluted ten per cent. Of this mixture, two gallons, b.i.d. The first inhalations produce marked sensations, viz., greatly accelerated respiration-rate, *without increasing the pulse-rate;* momentary partial anæsthesia; relief of prevailing migraine.

Mixture reduced to O twenty-five per cent., N_2O thirty-five per cent., diluted forty per cent., of which three gallons at a sitting, b.i.d.

At the end of one month's treatment she returns to her distant home, greatly relieved in every respect. Has gained a little in avoirdupois, more in vivacity; eats and sleeps well, climbs mountains, and has much less chest trouble. Has given up dying with "consumption," and has very little migraine.

Case XVIII.—Dr. K. J——, aged forty. Has been a chronic sufferer from indigestion and "neurasthenia." In one month the indigestion is a thing of the past. He eats the miscellaneous fare of a well-kept hotel with impunity. Has gained five pounds in weight, and says he feels "rested" and much stronger. Can hunt, fish, and climb mountains without great fatigue. Says he feels physically "renovated," and returns to his practice with zest.

Case XIX.—S. C. H——, aged thirty-seven; married; suffering from distressing dyspepsia, insomnia, and decline of virile power. After four weeks of active, but somewhat interrupted treatment, he declares himself a "new man." Was able to sleep soundly all night for the first time in two months after a single treatment—six inspirations. Now sleeps, eats, and digests well, and asserts that his virile powers are all that he could desire! In respect to this latter result, it was a surprise to me, but I have since noted the same revival in a very marked manner in a number of additional cases. The treatment has proved a prompt restorative to this function *in every case since observed*, in which loss of sexual appetite and power, *in either sex*, had been a marked feature.

Case XX.—Mrs. W. M. H——, aged forty-one; a good sample of the "lymph-albuminous" subject referred to by Bartholow. Very short of stature, but weighs one hundred and fifty pounds. Family history shows hereditary tendency to phthisis, rheumatism, and insanity! Suffers from frequent attacks of arthritis and daily recurring "stupid spells," in which it is impossible to keep her from indulging in a lethargic sleep, varying in duration from half an hour to three hours. Subject also to a "bilious" form of indigestion, with "sour stomach," periodic vomiting, and prostrating headaches.

In this case treatment was irregularly and spasmodically followed for several months, relieving the indigestion, and at the same time *reducing the body-weight ten pounds!*

She goes through the whole day without a "sleepy spell," the rheumatism yields with the aid of a little oil of wintergreen; no vomiting and no headaches. From being depressed and indifferent is now ambitious, active, and cheerful.

Two men were quarrelling. One of them threatened to shoot the other. The threatened man, in revival of an old piece of sarcasm, asked: "Where do you bury all your dead?" Just then an excited man drew the satirist aside, and said: "My gracious! you ought not to talk that way!" "Which way?" "Asking that man where he buries his dead." "Why?" "Because he is a physician."—*Ex.*

A New Treatment for Irreducible Hernia.—Dr. Burke reports a case in a man, sixty years of age, of a hernia, supposed to be irreducible, which was replaced during an attack of sneezing. He proposes the employment of snuff in similar cases in the hope that the violent sternutations will break up the adhesions and cause the bowel to slip back.

Clinical Department.

COCAINE IN CIRCUMCISION.

Dr. C. E. Bruce, of New York, communicates the following: The patient was a young man of twenty years, with an extreme phimosis, the prepuce extending about an inch beyond the glans penis and the orifice so small as scarcely to admit a probe. In urinating he had great difficulty, the foreskin would balloon up with the retained urine, which could only pass through the opening in the prepuce in a very small stream. He had prepared himself to be etherized, but consented to the use of cocaine when the probabilities where explained to him. Following the suggestion of Dr. J. L. Corning, "that the arrest of the circulation will prolong and intensify the anæsthesia"—and further, if possible, to secure a bloodless operation for its moral effect upon the patient, he being fully cognizant of his position and able to witness the surgical procedure—the penis was bandaged tightly with a narrow elastic tape, thoroughly compressing the member from the glans to the root. The bandage was then securely tied at the root of the penis, completely shutting off the circulation.

At once hypodermatic injections of about two minims each of a five per cent. solution of cocaine were made in the prepuce, both on its mucous and cutaneous surfaces. The entrance of the needle was scarcely perceptible to the patient—due no doubt, to the pressure of the elastic bandage—and not at all so after the first four or five injections had been made. A few minims were also placed in the meatus and underneath the prepuce, between it and the glans.

In about eight minutes the part was completely anæsthetized, the patient having experienced no pain or discomfort whatever. The foreskin was drawn forward evenly, so as to bring the mucous lining on an equal stretch with the skin, and clamped at the proper distance with long extension dressing forceps. The foreskin was then excised along the forceps, the patient *not having the slightest sensation*. The forceps were removed, when the edges were seen to be precisely and evenly matched in the entire circumference. There was no hemorrhage at all, the hands of the operators not even being soiled. The edges were then brought together by fifteen interrupted sutures, and the skin could then be easily slipped back of the glans.

The piercings of the needle were not felt in the least; at this point the elastic ligature was removed, when a slight hemorrhage followed (by oversight the frænal artery was not secured), but this at once ceased on the application of a firm bandage of iodoform and bichloride gauze with which the wound was dressed. The patient sat up immediately and dressed himself without assistance, went down stairs, and in fact resumed his ordinary avocation.

A few more points of interest:

The anæsthesia remained complete during the whole forty minutes of operation with no other injection of cocaine than the first. Pain did not recur on allowing the circulation to resume, nor for five hours afterward. There was no nervous shock, no disturbance of the stomach, no ill effects whatever. The amount of cocaine used was about two and one-half grains in fifty minims of water. Whether this prolongation of anæsthesia is due to the exsanguination of the tissues alone, thus allowing the contact of the anæsthetic with the sensory nerves to be prolonged and not have it washed out of the parts by the blood-current, and is a consequence of such prolonged contact, more or less profound; or whether it is due to a chemical change in nerve filaments, rendering the insensibility more protracted and hindering the rapid resumption of their sensitive functions, is a matter not yet settled.

Progress of Medical Science.

The Laws Regulating Continuous Extension as Applied to the Lower Limbs.—Dr. J. Hennequin has made an exhaustive study of the laws regulating the application of extension to the lower limbs. The following are the conclusions at which he has arrived (*American Journal of the Medical Sciences*): 1. Weights and heavy bodies of a determined value should be employed in extension, to the exclusion of elastic cords, in which the force of extension exerted is too variable and very frequently entirely inefficacious. 2. The apparatus of extension should have its point of resistance upon the skeleton of the mobile segment, in order that the force which it exerts may be of utility. 3. Extension, active force, counter-extension, passive force, are automatic, mechanical, or mixed. 4. Mechanical and mixed extension should be fixed upon that portion of the bone belonging to the less cumbrous, most mobile portion of the limb; counter-extension should be applied to that portion which is firmest and least mobile. 5. The method employed to produce fixation of both portions of the limb should be comfortable and such as will do no injury to the member, and should never extend beyond the limit of the segment upon which they have their points of resistance. 6. In solution of continuity, the point of fracture, and in arthritic disease, the interarticular line, is always the limit and centre of the forces applied for extension. 7. The force of traction must be proportionate to the resistance to be overcome and regulated, so as to render possible an estimate of its absolute power and of the effect produced. 8. The only traction of real value is that employed to overcome constant resistance; any force applied to overcome accidental resistance is entirely futile. 9. The inevitable resistance is represented by muscular tonicity and the elasticity of the teguments; accidental resistance has for its factors diverse elements, among which the principal ones are friction of the segments upon the bed and apparel, and the action of gravity upon the same segments resting upon an inclined plane. 10. The accidental resistance must be annulled or decreased to a minimum, and the mobile segment submitted to extension regulated in such a manner that the influence of gravity may be beneficial or its ill effect entirely obviated. 11. The application of extension and counter-extension to the segments of an injured limb is habitually mediate and rarely immediate; that is to say, that the forces applied generally take their points of resistance upon levers contiguous to those employed to produce motion or immobilization. 12. To direct and scientifically employ an apparatus for extension, it is necessary to know the value in force: 1, of the motor force; 2, of the force transmitted to the mobile segment; 3, of the resistance to be overcome; 4, of the loss experienced by the force of extension; for it is indispensable that this last factor retain, after all loss of power from all causes whatsoever, sufficient efficiency to overcome inevitable resistance. Upon this point the efficiency of the apparatus depends. 13. The value in weight of accidental resistance is impossible to be established, and it is therefore necessary to suppress it or to reduce it to such an extent that it may be disregarded. The inevitable resistance in an adult, whatever may be the development of the muscles or the location of the fracture, may be estimated at or between two and a half and nine pounds, and consequently the force applied to the bone of the movable segment, the efficient force should never exceed nine or be less than four and a half pounds. In the great majority of cases the weight required will be nearer the first extreme than the second. 14. Counter-extension, which should be rather mixed than purely automatic, and never exclusively mechanical, needs only to be employed with a force equal to the traction exerted upon the segment to be immobilized; if this is placed horizontally when the part rests upon a declined plane, the counter-extension bing of necessity exerted against both, the force of extension transmitted by the lax tissues which unite the segments, becomes absolutely imponderable. 15. In the majority of cases it is advisable not to permit the crural portion of the limb to remain completely free; a small trough will exercise direct pressure if it becomes necessary for any reason to adjust the fragments and retain them in position, and the conformation of the limb will be more regular, and the consolidation of the bone more perfect. 16. Apart from special indication, the limb submitted to extension should never be placed upon an ascending inclined plane, but upon a plane either horizontal or slightly declined.

The Infectiousness of Pneumonia.—Dr. R. Massalongo relates the history of a curious epidemic of pneumonia, occurring at Tregnago, a town of two thousand inhabitants in the province of Verona, Italy (*Lo Sperimentale*, August, 1885). The epidemic was not preceded by any special atmospheric changes to which its origin could be attributed, but began in a few houses situated near a pond which served as a place for washing clothes. In most of the houses there were from two to five cases, and the disease attacked the inhabitants of one house after the other in regular succession, never leaping over any. No special predisposition was shown as regards age, sex, or social condition. Of the inhabitants of the hamlet, one hundred were attacked with pneumonia during the epidemic, and thirty died. Numbers of micrococci, such as those described by Klebs, were found in the sputa, but no mention is made of the so-called pneumococci of Friedländer. The course of the epidemic would seem to point to the presence of a contagious influence, yet there are so many other possible explanations of the peculiar march of the disease, that it cannot be regarded as a very conclusive argument in support of the theory of infection.

Ophthalmia and Rheumatism of Joints.—Dr. Zatvornitski has published an account of two cases of rheumatic inflammation of joints following ophthalmia. The first was that of a young man who, while suffering from severe urethritis, conveyed the urethral secretion to his eyes. When the ophthalmia was at its height, the wrist became acutely inflamed. The eyes were cured by applications of nitrate of silver. The joint inflammation, after continuing in an acute form for ten days, gradually began to subside, so as to allow of the employment of active and passive movements. The second case was that of a newly-born infant, in whom ophthalmia appeared in one eye. Through carelessness and want of proper attention the affection extended to the other eye, and lasted for about six days. When the ophthalmia was most acute, it was noticed that the right elbow and wrist became swollen and inflamed, and shortly afterward the left ankle. The child's temperature was 104° F., and it was very much prostrated. The joint inflammation continued for some ten days, after which it gradually subsided. The remark is made in reference to these observations, that the first case may be merely an instance of gonorrhœal rheumatism. This would certainly seem the most obvious explanation. May not a similar suggestion account for the second case also?—*Lancet*, September 3, 1885.

The Cold Douche in Insomnia.—The following is recommended as a very efficacious means of producing sleep in insomnia associated with eruptive or continued fevers: The patient's shoulders are covered with a cloth and the ears plugged with cotton. Then the head being held face down over the edge of the bed, a fine stream of cold water is dropped upon the neck and occiput. The water should fall from a height of eighteen inches during a period of three or four minutes. The head is then dried, and the patient made comfortable in bed. As a general rule, sleep follows in a very short time.—*Concours Médical*.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, October 31, 1885.

THE PRESENT CONDITION OF NATIONAL HEALTH LEGISLATION.

THREATENED as we are with an invasion of small-pox from the north, and of cholera from the east, no occasion would seem to be more opportune than the present for calling the attention both of the medical profession and the public, sharply, to the anomalous condition of national health legislation. We do not need to discuss at this time the need of national sanitary legislation. Whatever diversity of opinion there may be as to the form of such legislation, it may be safely affirmed that, in view of our increasing commercial intercourse with foreign powers, and the facilities afforded for inter-State communication, the necessity for national legislation, through which the sanitary service of the several States may be efficiently co-ordinated is universally recognized. Passing over, then, the agitation of public health questions, which resulted in the establishment of the National Board of Health, which has rendered incalculable service to the country, let us come at once to the present condition of affairs.

Under the Act of Congress approved March 3, 1879, the National Board of Health was established. In accordance with that law the Board is required "to make investigations into, and collect information on, all matters affecting the public health, and to advise the several departments of the Government, the executives of the several States, and the Commissioners of the District of Columbia, on all questions submitted by them, or whenever in the opinion of the Board such advice may tend to the preservation and improvement of the public health." On June 2, 1879, Congress passed an Act enlarging the powers of the Board, and charging it with the duty of aiding State and local boards of health in their efforts to prevent the introduction of contagious or infectious diseases from abroad and their spread from one State to another. It was under the provisions of this Act that the Board co-operated with the health authorities of the Mississippi Valley in stamping out the epidemic of yellow fever of 1879, which made its appearance within a month after the passage of the Act; and again in 1881–82, with the authorities of the North and West, in putting an end to the progress of small-pox, which was rapidly overrunning the country from the Atlantic coast to the Mississippi Valley.

The record of those years is written, and the success which attended the efforts of the authorities, State and National, working hand in hand, established beyond a question both the necessity for national aid in such emergencies, and the wisdom of Congress in providing the legislation by which such co-operation could be secured. From that day to the present State boards of health, local boards, medical societies and associations, have been unanimous in their approval of the work of the National Board and urgent in their appeals to Congress and the President to support and strengthen it in its efforts to improve the health of the people.

The Act of June 2, 1879, took the place of an Act approved April 29, 1878, by which authority in sanitary matters was centered in the Surgeon-General of the Marine Hospital Service, and after defining the duties and powers of the Board, proceeds as follows:

"SEC. 9. So much of the Act entitled 'An Act to prevent the introduction of contagious or infectious diseases into the United States,' approved April 29, 1878, as requires consular officers or other representatives of the United States at foreign ports to report the sanitary condition of and the departure of vessels from such ports to the Supervising Surgeon-General of the Marine Hospital Service; and so much of said Act as requires the Surgeon-General of the Marine Hospital Service to frame rules and regulations, and to execute said Act, and to give notice to Federal and State officers of the approach of infected vessels, and furnish such officers with weekly abstracts of consular sanitary reports, and all other acts and parts of acts inconsistent with the provisions of this Act, are hereby repealed.

"SEC. 10. This Act shall not continue in force for a longer period than four years from the date of its approval."

In consequence of the provisions of this last section the duties of the National Board, so far as they were set forth in the Act of June 2, 1879, ceased on June 2, 1883, and since that date the Board has continued its operations under the Act of March 3, 1879.

In regard to the Act of June 2, 1879, the late Hon. Charles J. Folger, then Secretary of the Treasury, in his Report to Congress for the year 1883, used the following language:

"On June 2d last the Act of June 2, 1879, to prevent the introduction of contagious or infectious diseases, expired by limitation. There is now no legislation immediately to the same end. Whether there be need of reenacting any or all of the provisions of the Act of June 2, 1879, it is for Congress to determine." The decision of Judge Folger was in accordance with Section 12, Revised Statutes, edition of 1878, which reads as follows:

"*Whenever an act is repealed, which repealed a former act, such former act shall not thereby be revived, unless it shall be expressly so provided.*"

In the face of this provision of law, a circular has recently been issued from the Treasury Department, citing the law of April 29, 1878, and assuming it to be in force.

This circular emanates from the "Office of the Supervising Surgeon-General, U. S. Marine Hospital Service," is signed by that officer, and is approved by the Secretary of the Treasury and the President. A more flagrant instance of assumption of power and authority, under color of law, cannot well be conceived. Acting under

the provisions of this *repealed* law, the Surgeon-General proceeds "to frame rules and regulations, and to execute said law," and the Secretary and President approve his acts. Meantime the National Board of Health, the only national health authority now recognized in law, is entirely ignored by the department which it is required to advise on sanitary questions.

In view of the preceding facts it is apparent that national health legislation is sadly in need of revision, and we trust that, at the approaching session of Congress, such definite action will be taken as will determine positively the kind of central organization which we shall have, and the exact nature and scope of its duties. The danger of leaving the great and all-important question of the prevention of epidemics, such as cholera and yellow fever, to the discretion of the President, has been demonstrated by the ridiculous efforts which were made under his direction to control yellow fever in Texas, and the feeble measures now in operation to protect the country against small-pox. Fortunately, neither cholera nor yellow fever has reached us this year, and time is once more given to set our house in order. No proper effort should now be spared by the American Public Health Association, which is largely responsible for whatever national legislation we have, to secure its revision, and to remedy its manifest defects.

A PLEA FOR THE OLDER PHYSICIANS.

We print with pleasure the following note from an esteemed correspondent:

"Dear Mr. Editor: I have seen a great deal in medical journals about struggling young doctors, and the persecutions and hardships and injustice which they suffer. But can there not be a word said for the older men? Have we not also some hardships as well as some rights and privileges. I have been practising now, in a country town of fair size, for twenty-five years. When I began there were five physicians here, now there are twelve, several of whom belong to the class of the much-abused young doctors. I had to work hard for years to gain a standing and a lucrative practice here. I have got it, but I also have a family to support, and I still need all the money that I can honestly earn. But a new young doctor comes in here every now and then, and assumes at once that he 'knows it all,' and is just as much entitled to a living as I am. If I do not welcome him with all my heart, or try and thrust cases upon him, is it very strange?

"In my experience these poor, struggling young doctors are more eager to adopt new ways of gaining practice, more eager to advertise, and to worm their way into new families than we older ones ever were. Sometimes we are almost forced out of practice by these new bustling, business-like ways of the 'poor struggling youngsters.' There would not be much left for us, certainly, if we at once lent a hand to set them up in practice.

"Yours respectfully, ———."

Our correspondent has called attention to a veritable condition of affairs, and pleads his cause so well that we need add but little. We quite agree that a physician who has worked faithfully for a quarter of a century, acquires a certain amount of moral right to his ground, provided he has won his way by good work. Unfortunately, though much can be said, little can be done. Young doctors have studied medicine and received diplomas, with the impression that their education and their sheepskin entitle them at once to a living. They settle down for practice with this idea. When patients do not come to them, but go to the older man, they feel it as an injustice which justifies them in adopting energetic tactics.

A few remedial measures may be adopted now, however. For example, the older physicians need not be so ready to encourage any one who is likely to be their office-student, to study medicine. And again, more attention should be paid to ethical teaching in our medical colleges, and to informing young students of the proper mode of dealing with their fellow-practitioners.

ASPIRATION OF THE AORTA.

Mr. J. Dacre reports, in the Bristol *Medico-Chirurgical Journal*, "a case of sudden pulmonary congestion relieved by aspiration of the aorta," the aorta being aspirated by mistake instead of the right auricle. The patient was a man forty years of age, who had had some phthisical symptoms for a year. He was brought to the Bristol Infirmary suffering from a sudden and acute attack of pulmonary congestion and œdema. His symptoms were great lividity, cold extremities, a feeble, rapid pulse, and great dyspnœa. Loud gurgling râles were heard over the chest. His condition steadily grew worse until the patient became pulseless and apparently *in extremis*.

As there was apparently next to no systole of the heart, and no distention of superficial veins, it was determined to relieve the venous engorgement of the lungs and right side of the heart by tapping the right auricle itself.

Accordingly, a medium-sized needle and canula was inserted in the fourth intercostal space on the right side, close to the edge of the sternum, and passed straight through the intercostal tissue until it was felt to be in the chest; the point of the needle was then turned sharply inward under the sternum, and pushed in that direction for about an inch and a half, when it was felt to be in a cavity. On removing the needle, blood jetted from the canula and thirty ounces were withdrawn. For two hours the patient was more comfortable. He then began to sink again. Aspiration was repeated in four hours and sixteen ounces of blood drawn. This caused no relief, and the patient died about half an hour later. Post-mortem examination showed that the needle had passed immediately above the right auricular appendix and pierced the anterior surface of the aorta about a fourth of an inch above one of the semilunar valves. There were two ounces of blood in the pericardium.

We give considerable space to the foregoing because cardicentesis is a novel procedure, and one of which little is yet known. So far, the operation has not established itself in any wise as one which will help when all other resources are exhausted. It appears, in fact, probable that phlebotomy is better and as efficient. Still, on the other hand, experience so far shows that cardicentesis is not dangerous.

One practical point brought out, according to Mr. Dacre, is, that to reach the right auricle the needle should be inserted in the fourth intercostal space on the right side, near the sternum, and should be passed directly back.

THE ARSENIC HABIT.

We have, every now and then, to chronicle the existence of a new morbid habit. One of the newest and probably rarest, in this country at least, is the arsenic habit, a case of which is reported by Dr. T. D. Crothers, in the *Quarterly Journal of Inebriety* for October. The patient was an Englishman by birth, and a horse-jockey by occupation. He had led an irregular life and had probably drank considerably. He began to take arsenic about the year 1875, using it for the purpose of keeping off fevers. For five years he took from one to two drachms of Fowler's solution daily, and his general health continued good. From this time he gradually increased the dose until he was taking from twelve to twenty grains of arsenic daily (!), either in the form of the powdered acid or of Fowler's solution.

When seen in 1885, his appearance was that of good health, the face full, the skin clear and white, the eyes brilliant but unsteady, cutaneous sensibility was diminished, the appetite was poor, the action of the bowels irregular, and the heart was enlarged. There was no muscular weakness, but the gait was slow and hesitating. His sleep was broken, and he awoke mornings with a sense of exhaustion, which continued until he had taken his dose of arsenic. He complained of failure of memory, was very emotional, and showed evidences of eccentricity and mental weakness. There was a strong, offensive odor coming from the skin, apparently due to the elimination of arsenic.

Dr. Crothers' case is one of a unique character, and we regret that he did not use more care in substantiating his facts. It is generally admitted now that the practice of eating arsenic exists among the Styrians, and in certain parts of India, but even the most inveterate arsenic habitués of these regions do not take doses of more than two or five grains. The statement that a patient takes twenty grains daily certainly needs very strong corroboration.

Dr. Crothers states that, from correspondence with other physicians, he is led to believe that the secret use of arsenic is rapidly increasing. However this may be, it is pretty certain that the practice of taking twenty grains of arsenious acid daily will never become widely popular.

THE ETHICS OF CRANIOTOMY.

In cases of contracted pelvis, or in cases in which there is some other mechanical obstacle to the passage of the fœtus, four measures of relief are possible: the induction of premature labor, version and forceps, craniotomy, and Cæsarean section. There has been of late years considerable change in the feelings with which these various measures have been regarded. In the first place, a more careful study and examination of the patient has led to more frequent recognition of pelvic deformities, and hence the adoption of premature labor as a means of saving both mother and child. On the other hand, the increase of skill in obstetrical manipulation and in abdominal surgery has led to more frequent successes in the extraction of the unmutilated fœtus. Statistics show that craniotomy is a serious thing to the mother, perhaps almost as serious as Cæsarean section, when the latter operation is performed outside of hospitals. The country practitioner, if he understands the value of antisepsis in surgery, may often get better results by Cæsarean section than by attempting to drag the mutilated fœtus through a passage two and a half inches in the conjugate.

The tendency at present is, therefore, to limit the indications for the performance of craniotomy. This is certainly very gratifying, for the operation of craniotomy upon a living child is a thing from which every physician shrinks with feelings of profoundest dread.

The question has recently been raised, however, whether craniotomy upon the living child should ever be performed, or taught in the schools. The Roman Catholic Church has considered the matter, and one of its societies has pronounced against it. Some time ago the Archbishop of Lyons sent a letter of inquiry upon this subject to the Congregation of the Holy Office, at Rome, otherwise known as the Holy Roman Inquisition.

The following answer was received:

"Most Eminent and Reverend Lord: The most eminent, the Inquisitors General, in congregation assembled, on the 28th of the present month of May (1884), took under consideration the questions propounded by your eminence, to wit: 'Whether in Catholic schools of medicine the operation known as craniotomy may be taught, and under the following conditions, to wit: when this operation is omitted both mother and child may perish; but with the operation the mother's life may be saved, the infant alone perishing.' Having thought long and earnestly upon the subject, and having read those things which have been written thereon by learned Catholics (and which were forwarded to us by your eminence), we must answer that this thing cannot safely be taught (*tuto doceri non posset*); which response having been submitted to the Holy Father, and by him confirmed, I transmit to your eminence. Kissing your hands most humbly, I am your eminence's most humble and obedient servant.

"(Signed) Rev. Cardinal Monaco."

It would appear from the above that Catholic obstetricians are morally debarred from performing the operation of craniotomy upon the living child, even to save the mother's life.

This view is a logical and consistent one from the Catholic standpoint. It is not, however, that which physicians have always been taught, nor does it seem to us to be in harmony with the best and broadest ethical instincts.

THE REVIVAL OF THE USE OF MURIATE OF LIME.

Few substances, writes Dr. R. W. A. Crighton, in *The Practitioner*, really possessing marked therapeutic powers, have had more turns on the wheel of fortune, or, more correctly, of fashion, than the old muriate of lime —the modern chloride of calcium. First employed by the French physician Fourcroy, as also by several Dutch and German physicians during the last century, it does not appear to have been much used in Great Britain till

near its close, when strong testimony as to its efficacy in scrofulous affections was given by Dr. Beddoes; Dr. Wood, of Newcastle; Drs. Sanders and Hamilton, of Edinburgh; and Dr. Anthony Todd Thompson. Soon, however, disparaging statements as to its therapeutic powers were made by Professor John Thomson, of Edinburgh; Mr. Benjamin Phillips, and Mr. Samuel Cooper, of "Surgical Dictionary" celebrity.

These great names prevented many from giving the drug a fair trial, and it gradually fell into disuse, till, in 1848, Dr. Neligan, in his valuable work "On Medicines" almost refuses it any therapeutic recognition.

This neglect may also, in a great measure, be attributed to the introduction of the preparations of iodine by Coindet, of Geneva, in 1820, and to the powerful advocacy of cod-liver oil by John Hughes Bennett in 1841.

But during this time the remarkable powers of chloride of calcium were being patiently investigated by at least one individual, the elder Begbie, who bequeathed his large experience and rare therapeutic instincts to his son, the late Dr. Warburton Begbie. In 1872 the younger Begbie wrote an elaborate paper (*Edinburgh Medical Journal*, July) on its therapeutic action, in which he confirmed and extended its value in scrofulous and allied affections. Since that time the only contribution of similar value has been from the pen of Dr. Sinclair Coghill, of Ventnor, in the *Practitioner* for October, 1877.

Dr. Crighton himself now contributes the results of his experience with the drug. He has used it, he says, for years, and is confident that it has a distinct therapeutical value. Its use is indicated in scrofulous affections, and more particularly in glandular enlargements of the neck in children, where the glands are massed together, have an almost stony hardness, and do not yield to iodine and cod-liver oil. The lime salt is sometimes equally efficacious after suppuration has occurred. In scrofulous caries it has also produced remarkable results. In pthisis the remedy is not very efficacious.

Chloride of calcium is probably both a vascular tonic and a bone tonic. It is given in doses of gr. x. to xv. for adults, the crystallized salt being dissolved in syrup.

Medical Lectures to Ladies Only.—We have before commented upon an obvious and painful tendency to irregular and quackish practices on the part of medical women. It could only occur, we venture to say, to a lady homœopath to keep herself before the public by lecturing "to women only" on the sexual relations. The annual visitation of a scientific lady, who is in this particular line of business, occurs, we believe, at about this period. We have no desire to question the motives or doubt the eloquence and delicacy of the gifted medical lecturess. We are very decidedly of the opinion, however, that public lectures on the sexual relations do more harm than good, and that it is little less than an impertinence to have tickets and circulars bearing on the subject thrust into the hands of wives and daughters.

Distilled Water and Turpentine are said by Dr. Ralfe to be very efficient remedies for renal calculus.

News of the Week.

More Medical Colleges.—St. Paul and Minneapolis are each thriving cities, but evidently very unhealthy. We infer this from the fact that between them there are now three new medical colleges, with well-equipped faculties, consisting of a total of sixty-odd professors, while each college seems to be supplied with an enormous amount of clinical material. Minnesota is a great State, having nearly as many inhabitants as Philadelphia, and rather more than Brooklyn. There is no reason why it should not have a medical college, but is not three a little excessive for cities which five years ago, together, had only 80,000 inhabitants? In this connection we take the opportunity of chronicling, on the authority of the *Medical Annals*, the prospective organization of another new medical college at Wichita, Kan.

Dr. H. C. Fessenden, of Eastport, Me., a brother of William Pitt Fessenden, died October 22d, aged sixty-six years.

Bequest for the Erection of a Hospital.—The late Colonel Thomas M. Pierce, President of the Texas, Houston & San Antonio Railroad, made a bequest in his will of such a sum as his trustees may deem necessary, providing it does not exceed $20,000 to establish a charitable hospital on the line of the Sunset Route Railroad in Texas.

The Early Contagiousness of the Infective Exanthems.—M. Lancereaux, in a recent communication to the Académie des Sciences, stated that a series of facts, collected in his hospital wards, convinced him that small-pox, measles, and scarlet fever were transmissible from the onset. The period of incubation varied; it was from eight to ten days in inoculated small-pox; from ten to twelve in spontaneous small-pox. A mild form of small-pox might, by transmission, provoke a violent or a mild form.

Small-pox and the Gospel.—The Salvation Army at St. Catherine's, Ont., have spread small-pox more than they have the gospel, and it is proposed to burn their barracks.—*Sanitary News.*

Bequests for Hospitals.—We learn from the *Boston Medical and Surgical Journal* that the will of the late Mary G. Perkins contains bequests of $10,000 each to the New England Hospital for Women and Children and the Children's Hospital.

Another Resignation from the Congress.—Dr. George W. Major, of Montreal, has declined to serve on the Council of the Section of Laryngology.

St. Paul is to have a small-pox hospital. Minneapolis will, therefore, soon have two, if we understand aright the generous rivalry between these two great cities.

The Eleventh Congress of the Italian Medical Association, writes a correspondent of *The Lancet*, just held at Perugia, was in some respects more memorable than the most brilliant of its predecessors. Concurrently with its meeting the Royal Italian Society of Hygiene was to have been convened at Turin, but the promoters of these congresses, to obviate the inconvenience of two closely connected programmes being

carried out the same week in different parts of the peninsula, agreed to combine their forces and to have one assembly in common. The hygienists accordingly held their discussions in the Section of Public Sanitation, which the Medical Association always includes in its programme, the Umbrian capital being the rendezvous. The proceedings extended over so vast a field that we can only indicate a few of the subjects in which special interest was taken, subjects chiefly introduced by the representatives of the Florentine "Istituto di Studi Superiori." Professor Chiari read a very original paper on "Recent Advances in Operative Surgery," and Professor Tafani on "Some important Contributions of Microscopy to Medicine." Electricity, as became the fatherland of the science, especially in its bearings on therapeutics, came in for a large share of attention, chiefly at the hands of Dr. Turchini and Professor Dall'Eco, who exhibited electrical apparatus of a very ingenious and practical kind. The admirably appointed museum, which was a prominent adjunct to the Congress, was particularly rich in models of ambulance service and field hospitals; while invalid cookery had a department to itself, and the orthopædists and gynæcologists had their special wants supplied in several new and effective additions to their *armamentaria*. Nor must we omit mention of the startling specimens of animal petrification contributed by the veteran Dr. Comi, who, since 1834, has shown in a hundred different ways how human cadavera can be utilized for the manufacture of tables, desks, and such-like furniture, of exceptional solidity and elegance.

The First Circular of the Collective Investigation Committee of the International Medical Congress has been issued by the American members. It is neatly printed, bound in fashionable note-paper, and presents an attractive appearance. The names of the American members, N. S. Davis and A. Jacobi, are imprinted amicably side by side, and no one would believe that one had figuratively taken the other by the top of the head and incised his throat. The Committee begin their investigations with inquiries into the geographical distribution, prevalence, and etiology of rickets, acute rheumatism, chorea, cancer, and urinary calculus. Blank forms are sent which are to be filled out in a manner indicated by the context. As to the character of the questions and the selection of topics we shall have something to say later. Meanwhile we earnestly urge our readers to do all they can to further the work of the Committee. The papers are to be kept during the ensuing year, and the records handed in by January 1, 1887.

New Medical Faculties in Russia.—The Council of the Odessa University has commissioned the Physico-Mathematical Faculty to prepare plans for the establishment of a medical faculty. The rector has visited the St. Petersburg clinics, and has presented his report to the faculty. The university architect is to be sent to St. Petersburg and Kieff or Vienna in order to become acquainted with the arrangements of the university buildings in those cities. The original cost of the new medical faculty is estimated at £124,000, and the annual income necessary at £12,000. The present medical school in St. Petersburg, which is exclusively connected with the medical department of the army, is about to undergo several changes, so as to become somewhat similar to the medical faculties of the other universities.

A New and Jennerian Function for the Mosquito.—Dr. Carlos Finlay, of Havana, has published the results of several experiments he has made on the inoculability of yellow fever. He performed the operation, or rather got it performed for him by mosquitoes, which he caused first to sting a patient suffering from yellow fever, and shortly afterward a healthy person who was to be (with his own consent of course) the subject of the experiment. He found that the disease was only inoculable from the third to the sixth day. When two mosquitoes were employed, so that a double dose was given, the symptoms of the experimental disease were somewhat more severe than when only a single mosquito was used. Of eleven cases of inoculation, six were efficacious, one doubtful, and four negative. The period of incubation varied from five to fourteen days; the symptoms consisted of headache, pyrexia, injection, with sometimes an icteric tint of the conjunctiva, and in some cases albuminuria. The fever lasted, as in the ordinary form, from five to twenty-one days. The author believes that this method of producing artificial yellow fever will ultimately be found very valuable as a prophylactic against the natural and dangerous form of the disease.

The Reach of Quackery.—There is nothing, short, perhaps, of actual damnation, which some people will not believe quack medicines can prevent or cure. Just now in papers in Maine and other places exposed to the small-pox we find an advertisement alleging that "a sure preventive" of small-pox may be found in a certain quack doctor's pills.

A Montreal Physician on Vaccine.—My experience with vaccine has been large. I have used, I believe, samples of every kind that has yet been brought into Montreal, and some that I trust never will be sold here, and I think my successes and my failures have made it possible for me to say with positiveness that vaccinating in hot weather with vaccine brought from a distance is a delusion and a snare. I will never do it again, for I believe that it has done the cause (it is a "cause" in this city) a great deal of harm. It is difficult to persuade people of the utility of being vaccinated after the third or fourth failure, when they have been taught that two or three failures is sufficient to insure immunity from the disease. During the cold months I hope to vaccinate all but a small fraction of my patients that shall require it. We ought to have a properly conducted vaccine farm here, and I believe it would pay. During the next year or two (while King Variola holds sway) not less than 1,000,000 points will be required for Montreal and its surrounding country, and probably $75,000 will be paid for vaccine.—Dr. P. A. Laver, in *Can. Med. Record.*

Death of Professor Samuel G. Armor, M.D.—Professor Samuel G. Armor, Dean of the Faculty of the Long Island Hospital Medical College, died October 27th, at his home, in Brooklyn. He had been seriously ill only since Saturday. Dr. Armor joined the Faculty

of the Long Island College in 1866, as Professor of Therapeutics, Materia Medica, and General Pathology. The next year he succeeded Dr. Austin Flint, who had resigned, in the Professorship of Practice of Medicine and Clinical Medicine. From that time until the end of the last Spring term he attended steadily to college duties. He was a frequent contributor to medical literature, and built up a large practice in Brooklyn. Before moving to Brooklyn Dr. Armor had gained a reputation as an instructor in medicine, through connection with Western medical colleges for nearly twenty years. He was a practitioner at Rockford, Ill., for three years, beginning in 1844, and was then engaged for a course of lectures at the Rush Medical College of Chicago. In 1848 he became Professor of Natural Sciences at Cleveland University. In 1853 he became Professor of Physics and Pathology in the Ohio Medical College at Cincinnati. Three years afterward he was called to the Chair of Pathology and Clinical Medicine in the Missouri Medical College, his Alma Mater, at St. Louis. He remained there until 1861, when he went to Detroit as Professor of Institutes of Medicine and Materia Medica in the University of Michigan. It was from that post that he was invited to Brooklyn, in 1866.

The American Government and Quarantine.—Another illustration of the peculiar way in which our country has to deal with matters of quarantine is furnished by Texas. This State determined last summer to avoid the importation of yellow fever from Mexico, if possible. It, therefore, established a strict quarantine along its Mexican border. This quarantine was so disagreeable and vexatious to the Mexicans that that Government made a complaint to the National Government at Washington. As the result of this, Secretary Bayard sent a mild remonstrance to the Governor of Texas, which has been vigorously replied to. The Texan Governor concludes by saying that, "With all due respect to the Mexican Government I desire to say that Texas must be her own judge of the time and place for establishing quarantine for the protection of her people." The borders of our country are protected at some points by cities, at others by States, at others by the National Government, and at others not at all. "Here's a how-de-do," which our forefathers did not clearly foresee or wisely provide for.

Too Large Doses of Belladonna and Oxalate of Cerium.—In an item quoted from the *Therapeutic Gazette* (on page 460, Medical Record of October 24th) some errors occur in regard to the dosage of belladonna and oxalate of cerium. Every one who knows anything of either drug will see at once that fifteen grains of the extract of belladonna should never be given in one dose, even to an adult, much less a child. The usual dose of belladonna for an adult is from one fourth to one-half a grain. Again, oxalate of cerium is advised in doses of forty-five grains to a child one year old, and four drachms for a child seven years of age. The proper dose of oxalate of cerium is one to two grains.

The American Academy of Medicine.—The Ninth Annual Meeting of the American Academy of Medicine, was held during Wednesday and Thursday of this week, at the New York Academy of Medicine. Dr. Albert L. Gihon, Medical Director of the United States Navy, President of the Academy, called the meeting to order, and the opening prayer was offered by the Rev. Dr. Henry J. Van Dyke. Drs. S. M. Nelson, of Cambridge; J. H. W. Chestnut, of Philadelphia; Rufus W. Bishop, of Chicago; E. E. Mariot, of Springfield, Mass.; G. N. Acker, of Washington; H. V. Logan, of Scranton; H. W. Elmer, of Bridgeton; E. W. Cushing, of Boston; J. S. Wright, of Brooklyn; W. Osgood, of Yarmouth; C. A. Packard, of Bath, Me.; M. K. Oaks, of Auburn, Me.; A. Mitchell, of Brunswick, Me.; D. A. Robinson, of Bangor; C. A. Ring, of Portland; J. A. Spaulding, of Portland; G. W. Marshall, of Milford, Del.; W. A. Hugie, of Charleston; J. B. Shapley, M. H. Post, A. E. Briggs, and J. S. Alleymen, of St. Louis, and W. S. Davis, Jr., of Chicago, were elected Fellows of the Academy.

Dr. Robert Lowry Sibbet, of Carlisle, Pa., read a paper on "The Study of Medicine as a Means of Education;" Dr. Charles McIntire, Jr., of Easton, Pa., presented a paper on "Medical Supervision in Student Life;" Dr. Henry O. Marcy, of Boston, Mass., one on "Western North Carolina as a Health Resort;" and Dr. E. H. Sells, of this city, spoke of "The Importance of Climatology Considered as a Regular Branch of Study in Medical Colleges."

At the Wednesday evening session, Dr. Albert L. Gihon delivered a scholarly and eloquent address on "What is Medicine?" an abstract of which, together with the proceedings of the Academy in full, will appear in our next issue.

The following officers were elected for the ensuing year: Rhodes Stansbury Sutton, of Pennsylvania, President. Lewis P. Bush, of Delaware; S. J. Jones, of Illinois; R. Lowry Sibbet, Pennsylvania; Frederick H. Gerrish, Maine, Vice-Presidents. Richard J. Dunglison, Pennsylvania, Secretary and Treasurer. Charles McIntire, Jr., Pennsylvania, Assistant Secretary. The Committee recommended Pittsburg, Pa., as the next place of meeting.

Reviews and Notices.

Comparative Anatomy and Physiology. By F. Jeffrey Bell, M.A. Illustrated with 229 Engravings. Philadelphia: Lea Brothers & Co. 1885. Pp. 555. Manuals for Students of Medicine.

The conventional practice of teaching medical students *human* physiology instead of *physiology* is unquestionably a wrong one. It tends to narrow the student's view and make of him a memorizing mechanism, instead of giving him sound notions of what biological science really is. For this reason we welcome a work like the present, of which our text-book literature is much in need. For Professor Carpenter's work is now old and too bulky, while Bradley's is mainly a compend for cramming. Mr. Bell writes modestly in his preface as to the methods and character of his work. His method, however, which, is that of tracing the physiological history of the different organs or systems through successive animal forms is the correct one. He has, we think, erred in filling up his chapters with too many illustrative types, and consequently too many technical zoölogical names. We speak here in behalf of the medical student, who would, we feel sure, get a little dazed in going over the work. Mr. Bell has furnished a very large number of fine illustrations which contribute to the attractiveness of the book.

ACNE: ITS ETIOLOGY, PATHOLOGY, AND TREATMENT. A Practical Treatise Based on the Study of One Thousand Five Hundred Cases of Sebaceous Disease. By L. DUNCAN BULKLEY, A.M., M.D. Pp. 280. New York and London: G. P. Putnam's Sons. 1885.

DR. BULKLEY offers to the profession a book admirable in every particular. Its typography, its plates illustrative of microscopical studies, its tables, its arrangement and discussion of the subject under consideration, the complete bibliography, all give satisfaction to the reader, and make him feel that he has the book that he wishes on the subject, and not one which has been built upon the foundation of other works which he would rather consult for himself.

"Acne is one of those diseases which, while not causing physical suffering as a rule, can yet occasion an amount of real distress and annoyance which may often be much more unbearable than even a considerable amount of pain; and although it may never endanger life, it often can and does render existence so miserable that some individuals badly afflicted with it have even wished to die," writes the author; and many a physician can corroborate this statement. To relieve this condition, therefore, is worthy of high endeavors, and he who undertakes the task will feel grateful to Dr. Bulkley for having put the results of his vast observation and extended experience at his command.

PRACTICAL THERAPEUTICS: A COMPENDIUM OF SELECTED FORMULÆ AND PRACTICAL HINTS ON TREATMENT. By EDWARD J. BERMINGHAM, A.M., M.D. 4to, pp. 420. New York: J. R. Bermingham. 1885.

THIS volume is, as its name implies, a collection of prescriptions from all quarters for use in disease. It is interleaved and has well-arranged indices. It is handsomely printed and will doubtless suggest many devices to be followed where the usual plans fail.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Eightieth Annual Meeting, October 26, 1885.

DANIEL LEWIS, M.D., PRESIDENT, IN THE CHAIR.

OFFICERS FOR THE ENSUING YEAR.

President—Dr. Daniel Lewis.
Vice-President—Dr. Laurence Johnson.
Secretary—Dr. Wesley M Carpenter.
Assistant Secretary—Dr. Charles H. Avery.
Treasurer—Dr. Orlando B. Douglas.
Censors—Drs. F. R. S. Drake, H. T. Peirce, William O. Moore, F. M. Weld, and W. E. Bullard.

(Drs. W. T. Alexander and H. B. Conrad served as tellers.)

The Treasurer's Report showed a balance in the treasury of nearly four hundred and fifty dollars.

The Report of the Special Committee on Contagious Ophthalmia in Asylums and Residential Schools, was read by DR. R. H. DERBY, and contained evidence confirmatory of reports already made and published.

The Report of the Committee on Ethics stated that the six cases before the committee had been amicably settled.

The Report of the Committee on Prize Essays made known the fact that no essay had been offered during the past year.

The Report of the Board of Censors was read by DR. DRAKE, Secretary of the Board, and was accompanied by the report of Counsel William A. Purrington, Esq. These papers showed that the litigation for the suppression of quackery, in which the Society had engaged during the past year, had been reasonably successful. The proceedings instituted against the Eclectic Medical College of New York City had terminated by settlement, the College paying to the Society the sum of $1,500, and consenting to an abridgment of its powers, so that it can no longer confer *honorary* or *eundem* degrees; thus destroying a channel through which it might be possible to grant diplomas illegitimately.

AMENDMENTS TO THE BY-LAWS.

The following, proposed by DR. A. JACOBI, was unanimously adopted:

"That the *Comitia Minora* be directed to recommend no applicant for admission to membership unless he be a graduate from a Medical College in good standing, or a licentiate of a regular unsectarian State or County Medical Society of this or any other State; *or, if his diploma or license* be of a sectarian character, unless the applicant declare in writing his or her abnegation of sectarian principles and practice."

The following, recommended by the *Comitia Minora*, gave rise to a lengthy discussion, and finally were adopted:

"The annual dues shall be the sum voted at each annual meeting, but not exceeding five dollars.

"The annual dues shall be payable in advance after the annual meeting.

"They shall be remitted, for the year in which they join, to those who join the Society in the months of September and October.

"If any member shall fail to pay the yearly dues within thirty days after the fourth Monday in November, when the same shall become payable, it shall be the duty of the Treasurer to serve, in the manner in which notices in suits are required to be served on attorneys, upon each member so in default, a copy of this By-Law and a notice to the effect that, unless such dues are paid within fourteen days thereafter, his name and the amount due by him will be reported to the Society at its next succeeding stated meeting, and entered upon the minutes; and if they are not so paid, the Treasurer shall report the same accordingly. At the next stated meeting of the *Comitia Minora* after the date of such report, the *Comitia* may, by order, without further notice, strike from the roll the name of any member continuing in default, and he shall thereupon cease to be a member of the Society, provided that, upon his written application explaining such default, and the payment of all dues to the date thereof, or provided that the *Comitia* unanimously remits the arrears, the *Comitia* shall have power to remit the penalty of this By-Law."

The following, offered by DR. H. G. PIFFARD, was also discussed freely, and then referred to the *Comitia Minora* with power:

"It shall be the duty of the Secretary to prepare annually, and send to each member of the Society, a Register containing the names, addresses, and office hours of the active members of the Society—the Register to be prepared at such time, and in such manner, as the *Comitia Minora* shall direct."

The Society voted that the sum of *three* dollars shall be the dues from each member during the ensuing year.

The Annual Meeting then adjourned, to meet on the fourth Monday in November, at 8 P.M.

SALICYLATE OF METHYL.—Salicylate of methyl has been proposed as a therapeutic agent to supersede salicylate of soda. It colors salts of iron violet, is insoluble in water, of a light-yellow shade, and has an agreeable smell. It has been proved to have no effect on cold-blooded animals, except when it is applied in subcutaneous injections in large quantities, at the same time that the animal is breathing air charged with salicylate of methyl. The silver absorbed is partly distributed in the system, and partly discharged by respiration and the other forces of nature.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 14, 1885.

GEORGE F. SHRADY, M.D., PRESIDENT, *pro tem.*

MELANO-SARCOMA OF THE SKIN.

DR. JOHN A. WYETH presented a female patient from whom he had removed a tumor of the skin. She was seventy years of age. Fourteen years ago there appeared first, below the left eye, a small cutaneous growth which remained almost stationary for several years, and then enlarged gradually. Four years ago it was removed by some kind of caustic paste. She finally came to Dr. Fox's clinic at the College of Physicians and Surgeons, and by him was referred to Dr. Bronson, at the clinic in Thirty-fourth Street, where Dr. G. T. Jackson also saw the patient. Both confirmed the diagnosis of melano-sarcoma of the skin made by Dr. Fox, and Dr. Jackson referred her to Dr. Wyeth for an operation.

The surgical point of interest in the case was that it illustrated the remarkable vitality of the tissues of the neck and face when extensive portions of skin were raised for plastic purposes, and that this could be done with almost complete impunity. In this case the incision extended from the side of the nose to the outer canthus of the eye, was an inch and a half in length by one inch in width, and yet union by the earliest of all intentions was obtained. Fine carbolized silk was used for sutures.

Microscopical examination of the growth confirmed the diagnosis.

DR. H. J. BOLDT presented a specimen with the following history:

CYSTITIS SUPPURATIVA EXFOLIATA PUERPERALIS—CAST OF THE BLADDER.

Mrs. L. L——, aged eighteen years and eight months, primipara, confined September 18, 1885, of a healthy medium size, male child, in L. O. A. position. Pregnancy and labor were normal. On September 21st, the patient began to complain of colicky pains in the hypogastrium and pains in the lumbar region; both were tender on pressure, but nothing further unusual was noticed on examination. Micturition gave no pain and seemed to be at regular intervals for that period after delivery —four to five times in twenty-four hours; as to the quantity of urine voided during that time he was not positive. The bladder, however, was evacuated by catheter at that time, and about four ounces of urine were withdrawn, which had slightly acid reaction. Specific gravity 1.022, and contained albumen, blood, small quantity of pus, renal tube epithelium, bladder epithelium, and phosphates. Diagnosis: Nephritis catarrhalis acuta hemorrhagica. The temperature varied from 101° to 102.6° F.; these and all subsequent temperatures were taken in the axilla.

On September 26th, the patient began to complain of tenesmus and dysuria; only small quantities of urine could be passed at one time; the straining was severe and continuous. The catheter was again used, when eight ounces of thick, bloody, and muddy-looking urine were withdrawn, which had a putrid ammoniacal odor, alkaline reaction, sp. gr. 1.005, contained albumen, blood and pus in large quantities, shreds of connective tissue, renal tube epithelium, bladder epithelium—all three layers—the caudate-shaped epithelium of the deepest layer predominating. The bladder from this time on was regularly washed out with carbolated water 1 to 150 on account of the existing cystitis. The temperature was 99° F., and did not vary more than one degree either way until October 2d. On the morning of this date, information was given that the patient had spent a very restless night, had had more pain in the hypogastrium than previously, and that she thought something prevented her from micturating—it felt like a small lump near the urethral orifice. The temperature was 101.4° F. On inspection, a small sac-shaped mass, about the size of a bean, was seen protruding from the urethral orifice. A bimanual examination, which was rather unsatisfactory on account of extreme tenderness over the bladder and intra vaginam, revealed an œdematous, very painful swelling on the anterior vaginal wall, just above the symphysis pubis. The position of the uterus, on account of existing tenderness, could not be made out. Turning again to the small mass, which he took to be either a part of the urethra inverted, or the inverted bladder, it was found that it could be easily reduced, and then the viscus was washed as previously. Several hours later he found the sac protruding again, and then about the size of a small walnut, emitting an extremely fetid odor. Feeling almost certain that he was dealing with an inverted sloughing bladder, he became greatly alarmed as to prognosis; it was necessary to reduce the sac, however, before washing the bladder could be accomplished. The temperature was now 103.2° F., but went down to 101.6° F. about an hour after the viscus was cleansed. Early in the afternoon the sac-like mass protruded again, much pain, tenesmus, etc., being present; temperature 103.8° F. The bladder was washed out with short intervals almost continuously, until the temperature was reduced to 101.8° F. Dr. Boldt suggested a consultation, and Drs. W. T. Lusk and W. H. Van Wyck were sent for by the family. Both gentlemen agreed with his views of the case, and the treatment was continued with the addition of dusting iodoform upon the protruding mass.

On vaginal examination, Dr. Lusk thought that the swelling felt by Dr. Boldt, and apparently fluctuating, might be an abscess between the walls of the bladder, but the use of an aspirator did not show this to be the case. The following morning, soon after the bladder was washed, the specimen, which he would call "a cast of the bladder," was discharged, the thick portion of the sac which first protruded being first discharged. Immediate relief was experienced by the patient. The washings at first always contained blood, pus, shreds of connective tissue and muscular structure. The temperature previous to each washing being 101.2° to 101.8° F., always fell from 1° to 1.2°. Incontinence of urine was persistent to the end. To get an idea concerning the quantity of urine voided in twenty-four hours, a bed-pan was placed under the patient, and it was found that one hundred and twenty-eight ounces were passed; specific gravity, 1.002; the same microscopical appearances as previously, only more *muscular* structure could be seen by the naked eye, and verified by the microscope. Throughout the course of the case the urine always contained large quantities of phosphates.

From October 5th something seemed to obstruct the introduction of the catheter at a point, by measurement, 2¼ inches from the orifice of the urethra; the instrument could be introduced without causing pain 2¼ inches, and beyond that it gave considerable pain. The patient felt again as though a lump was lying in the urethra and caused much annoyance.

October 9th, 9 A.M.—Patient had spent a restless night, nothing otherwise unusual was noticed; temperature, 101.4° F. At 5 P.M. she was very restless; pulse, 140; temperature, 103.4° F. This apparently sudden change caused him much alarm, and Dr. Lusk was requested to see the patient again. At 8 P.M. the temperature was 104.8° F.; pulse, 150 and feeble. Dr. Boldt thought that probably some loose exfoliated muscular tissue might be in the bladder, giving rise to the obstruction to the introduction of the catheter, and causing the high fever. An examination per urethra disproved this. The remainder of the walls of the bladder were very much thickened, infiltrated, and œdematous, and the cavity much diminished in size. I do not think it could contain more than an ounce or an ounce and a half of fluid. With the exploring finger all sides of the bladder were readily felt, and all parts of the bladder seemed denuded of their mucosa, except just around the internal urethral orifice. A few rough spots on the sides and at the fundus

were also felt; probably from these the muscular tissue came, shreds of which were continuously found in the urine, upon the napkins, and in the washing. Stimulants and antipyretics were used per rectum, as nothing would remain on the stomach. About an hour later the patient began to develop cerebral symptoms.

At 1.30 A.M., October 10th, in spite of energetic treatment, the temperature was 106.4° F.; pulse imperceptible, and cerebral symptoms very marked.

Death took place at 1.10 P.M., October 10th. How high the temperature went just previous to death he did not know. Unfortunately an autopsy could not be obtained.

Dr. Boldt thought it probable that the necrotic process began at the fundus of the bladder. So far as he had been able to ascertain, cases of this kind had not been reported in this country, and but few in Europe. In none of the cases in which the destructive process had advanced as far as in this had the patients recovered.

The cerebral symptoms in this instance were probably due to septicæmia.

The disease had been met with in either the pregnant or puerperal state, and with the exception of one reported by Aveling, of London, and this one, the primary trouble had been, in all the cases reported, retention of urine, due to either displacement of the gravid uterus or neglect in the use of the catheter after delivery. The remarkable diminution in the size of the cavity of the bladder was also an interesting feature of the case.

DR. E. M. CUSHIER presented a specimen of

SARCOMA OF THE OVARY,

removed, post-mortem, from the body of a woman forty-nine years of age, who died in the New York Infirmary for Women. The tumor had been noticed only about one year, and its growth was very rapid. The entire upper part of the vagina seemed to be spread out, drawing up the cervix, and apparently diminishing its length considerably. The immense abdominal mass gave an indistinct fluctuation. The suffering of the patient was so great as to lead to the consideration of the propriety of an operation, and Dr. James B. Hunter saw the case in consultation, who thought it altogether probable that the growth was malignant, but at the same time believed it to be justifiable to give the patient the benefit of the doubt. The patient was exceedingly desirous to have the operation performed, and an exploratory incision was made October 24, 1885. It was very soon ascertained that, on account of extensive and firm adhesions, it would be impossible to remove the tumor, which presented the appearance of a malignant growth. The abdominal wound was therefore closed, and the patient rallied well from the ether; but as soon as she discovered that the tumor had not been removed, she lapsed into a state of despondency from which she did not arouse, and died on the fifth day after the operation.

From the time of the operation until death there was scarcely any elevation of temperature or acceleration of pulse. At the autopsy the tumor was found so adherent that it was impossible to remove it without dissecting away a portion of the muscular tissue of the abdominal wall. The cervix uteri was normal as far as the internal os, but beyond that the entire organ was thickly infiltrated with masses resembling the tumor itself. No left ovary was detected, it being obliterated by the growth. The right ovary was perfectly normal, as well as the corresponding Fallopian tube. There was some enlargement of the retro-peritoneal glands. The liver and spleen were normal. The lower lobe of one lung was in the stage of red hepatization; the other lung contained some nodules which presented the same appearance as did the tumor. There were no rational signs of pulmonary disease.

Microscopical examination showed that the tumor consisted entirely of spindle-shaped and round cells, making it a sarcomatous growth. The nodules in the uterus showed the same spindle-cell and round-cell growth undergoing mucoid degeneration in places, and the nodules in the lung showed round-cell infiltration.

The most interesting question was whether the tumor was originally a sarcoma of the ovary, or a fibroid of the uterus which underwent degeneration. Muscular fibres, such as belong to the uterus, were entirely absent from sections of the tumor; at the same time there was absence of anything suggestive of original ovarian tissue. Dr. Cushier, however, was not at all sure as to its being a real ovarian tumor.

Dr. Cushier also presented a

DERMOID CYST OF THE OVARY

which she removed October 8, 1885. It was interesting from the fact that the patient was confined about three months previous to the operation, and was not aware that she had a tumor until shortly previous to the last pregnancy, when she noticed a swelling about as large as a walnut just above the pubis. After confinement she observed that she did not get smaller, and had several attacks of pain which were referred to peritonitis.

The patient was seen at the infirmary first about the the middle of September, when she was examined by Dr. Daniel, who diagnosticated the enlargement to be due to some form of abdominal tumor. After admission the temperature rose to 101° F., accompanied by pain which required the use of anodynes. Within a week or ten days this attack subsided, pulse and temperature became normal, the general condition of the patient improved, and the diagnosis of cystic tumor of the ovary was made. At the operation, adhesions were found throughout the entire extent of the tumor, but these were broken up with some difficulty, not extreme, however, and the patient was doing very well. After removal it was found that the cyst contained a large mass of hair, a tooth, and a spicule of bone.

DR. T. MITCHELL PRUDDEN thought that in the first case the chances were very much in favor of the tumor having an ovarian origin, from the fact that sarcoma of the ovary is so much more likely to occur than sarcomatous change in a fibro-myoma. Furthermore, the fact that there were no other fibro-myomata favored the view that the growth originated in the ovary, because fibro-myomatous growths were usually multiple.

CONGENITAL CYANOSIS.

DR. L. E. HOLT presented the kidneys, heart, and lungs removed from a case of congenital cyanosis, the child dying forty-eight hours after birth. The history of the family was distinctly syphilitic, and the duration of pregnancy was eight and a half months. The child was a female and weighed from four to four and a half pounds. Respiration on the second day was markedly accelerated, 180, and the pulse was so rapid that it could not be counted. Examination of the heart was made, but nothing could be determined on account of the rapidity of its action. Examination of the lungs revealed over both sides a marked diminution of pulmonary resonance, and the presence of many fine râles. The child was found dead in bed.

The lung was solid, did not crepitate at all, and sank readily in water.

The foramen ovale was large enough to admit two fingers; the ventricles were slightly thickened.

The spleen was enlarged, firm, and showed congestion.

The kidney was slightly softened externally, but it was evident that there was some interstitial increase. The cortex was pale; the pyramids distinct, and contained uric acid infarctions.

With reference to the cyanosis, it was explained by the condition of the lungs, as it did not necessarily follow when the *foramen ovale* was patent, if there was no pulmonary obstruction.

Another interesting question pertained to the kidneys,

as it had been said by Orth that uric acid infarctions was positive evidence that the child had breathed.

The third interesting question was, what influence did the syphilitic history exert in the case?

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN PRACTICAL MEDICINE.

Stated Meeting, October 20, 1885.

ALFRED L. LOOMIS, M.D., LL.D., CHAIRMAN.

THE CHOICE OF REMEDIES.

DR. LAURENCE JOHNSON read a paper on the above subject. (See p. 478.)

The discussion was opened by DR. W. H. THOMSON, who believed that the author had done good service in calling attention to the necessity of altering our pharmacopœia in the near future in order to keep therapeutics from parting company altogether with physiology and pathology. How was this to be done? His own suggestion would be to see in the first place to what extent the terms now used corresponded to accepted physiology and pathology. For example, to begin with the word tonic, what does it correspond to among the physiological functions of the body? The word originally was taken from music, and accorded with the manner with which a string was put upon the stretch to give it tone. But we are told in applying it that iron is a tonic, vegetables are tonics, a sea-bath is a tonic, and also a sea-voyage is a tonic, and therefore the word really means anything which does good. When, however, we take up the action of remedies we find under this head that a cold shower-bath, which acts only by an external impression, is classed with cod-liver oil, which acts as a food. Of course there can be positively no two operations in these agents which they have in common except that they benefit the patient. So the word tonic comes to mean something which benefits the patient, and the question arises, How can we retain the word very much longer? With the exception perhaps of digitalis and one or two others, there are no cumulative effects in the vegetable remedies. Stramonium relieves an attack of asthma and does this as effectually for ten years as when first taken; but the patient is no nearer to a cure of his disease than when he began its use. With the administration of iron, however, the patient at the end of the twentieth dose is nearer a cure of his disease than after taking the first dose. Hence, he would like to see banished from the Pharmacopœia the word tonic, and with it nearly the whole list of tonics with which the work is now burdened.

So also with the word alterative, and the whole class of alteratives, some of which are contradictory in their action. In the name, and often in the agents themselves, there exist the final remains of old physiological opinions and extinct systems of pathology. He would say that our present Pharmacopœia was in very sad need of an elimination, and in making this we should be guided exclusively by the acknowledged physiology and pathology of the day, so as to bring the two into some kind of harmony.

The author of the paper had very properly suggested one desirable purpose to guide us, namely, that in the daily use of vegetable remedies we should have a suspicion of any which did not contain an active principle that could be isolated. At the same time, there were some remedies which Dr. Thomson would prefer to have remain as they are; for example, ergot, rhubarb, and some others which were most effective when administered in substance.

With reference to the effects produced by remedies, it was very unsatisfactory to go to clinical experience because it was such an uncertain course and entirely dependent upon the observer. Clinical experience when cited in favor of any therapeutical measure as well as therapeutical agent contained so many sources of error that he feared we should be far from being able to reform our Pharmacopœia upon such evidence.

Lastly, he would suggest, as an element of reform in our Pharmacopœia, the selection of some extensive principle which would in its application govern and determine the classification of remedies. For example, he would divide all remedies into those which produce cumulative effects and those which never act in this manner. If we could succeed in doing that we could quickly simplify our Pharmacopœia. Medicines which act cumulatively are those which must be given in repeated doses, as, for example, mercury given until the system is affected; on the other hand, there are remedies which produce their effects in a single dose, and never otherwise.

In conclusion, Dr. Thomson thought that we should set about the work of selection of remedies and of adopting a plan by means of which three-fourths of the Pharmacopœia of the United States might be eliminated.

DR. F. A. CASTLE said there were two points in the discussion of the subject to which attention should be directed: First, the remedies to be used in the treatment of any particular case, and second, the remedies which should enter into the Pharmacopœia. It was the habit of an old Scotch physician to select a few remedies belonging to the different classes, and rarely did he use anything else, unless it was something quite new and the value of which was thoroughly established; at the same time, he never left a stone unturned to find out something new with regard to the old remedies. This principle kept in view at the bedside might be of great service in prescribing in the cases which we were called upon to treat.

But, on the other hand, when we undertake to make a pharmacopœia which shall contain a description of the remedies which are recognized by the profession of a country, such as the United States, or Great Britain, or Germany, it was like undertaking to sweep back the Atlantic Ocean with a broom to say what should be left out and what should be retained. The Pharmacopœia does not attempt to tell what shall be used or what shall not be used, but simply attempts to describe remedies which have been used sufficiently to warrant their introduction. There was no doubt that in the formation of every pharmacopœia many remedies were introduced largely as a matter of prejudice, and not as a result of intelligence; but to undertake to wipe out three-fourths of the Pharmacopœia of the United States was a thing which could not be done. Dr. Castle would impress this fact, that while each one may make his pharmacopœia to satisfy himself with regard to the activity of remedies, he needs to be more liberal with regard to the remedies which he intends to offer to the medical profession of his country.

With reference to the choice in a number of articles belonging to the same class, this might be looked at from another standpoint. There was no doubt but what there were many remedial agents in the vegetable kingdom which possessed similar powers, but suppose it were agreed to ignore all but one, which by general consent was regarded as the best, the result would be that the cost of the article chosen would be very considerably enchanced because of the increased demand. It seemed to be a very wise provision of nature that the same principle was found in a number of remedies belonging to the vegetable kingdom.

IS TYPHOID FEVER EVER OF SPONTANEOUS ORIGIN?

DR. J. H. EMERSON opened the discussion and said:

It is my conception of the office of one appointed to open a discussion that he should present an introduction to the subject proposed; that the presentation of his own views is permissible, but should not be a prominent feature; that his endeavor should be to map out the

field, and that he should reckon it a success if the discussion ultimately follows the lines he lays down.

The subject of the evening is the following: "Is typhoid fever ever of spontaneous origin?" It is not a new topic, but has engaged the attention of the profession in many lands, and at the meetings of many learned societies for thirty-five or forty years, and has been the incentive to much painstaking and thorough research in following up the history of isolated outbreaks, and to ingenious and learned arguments. Leading authors have coined names for the disease, such as pythogenic and enteric fever, and ileo-typhus, which were expressive of their views of its etiology, and much time has been spent in rather unprofitable discussions turning on the significance attached to a word, such as *contagion*. One point after another has been gradually established, and the assent of both parties to the controversy won, and the investigations on micro-organisms published, within the last five years especially, have done much to simplify the question at issue; for if it can be proved that there is a bacillus which bears to typhoid fever the relation which the spirillum, for example, bears to relapsing fever, the position of the disease as to its etiology is fixed. If this proof is wanting, and it must be said that the profession at large is not yet satisfied of the existence of such a microbe holding such relations to typhoid fever, then the argument must follow other channels. Now Gaffky, as quoted by Green, says that observers believe that a certain bacillus is the cause of typhoid, that it is constantly present in typhoid, is recognizable from all known bacilli, and is not found in any other disease. The identity or non-identity of typhus and typhoid fevers was still a mooted question when I began to study medicine, a point I refer to simply to illustrate how gradually the problems presented by this disease are being solved. It is now no matter of dispute that typhoid fever is conveyed or communicated through the agency of the dejecta, notably when these have undergone certain changes to which they are liable on exposure, especially in drains or vaults, it may be a long time after emission. But is that the only way in which it is transmitted? The study bestowed upon various localized outbreaks of this disease has brought to light a series of most interesting and instructive facts as to the media of its dissemination, and the agencies by which a single case may infect a whole community. Most unexpected sources of contamination of water have been laboriously traced out, involving indirectly the milk-supply, and it is very evident that study must be directed in these and other new directions; *e.g.*, to the persistency of life in typhoid germs, also to the diseases of animals, in view, especially of the outbreak at Kloten, although good authorities still express doubts whether any animal suffers from the typhoid fever of man. So it seems that as knowledge has increased, and as methods and instruments of research have improved in efficiency many questions formerly in dispute have been cleared up; "obscurity" in causes has given place to clearness, and ways of communication previously unsuspected have been made known. Thus a point has been reached where the question now is, whether one's powers of belief would be most taxed in supposing that the seeds of the disease, originating in ways which all recognize, have been conveyed to the new victim through agencies which have hitherto eluded detection, but which subsequent investigations may yet disclose, or in imagining that the germs of the disease, which even those who maintain the theory of its spontaneous origin now concede to be a material substance, a *contagium vivum*, can originate from sources independent of previous cases of typhoid, and in substances never yet proved to have a causative relation to it.

I suppose it would be correct to make three groups, in one or other of which upholders of all the chief opinions on this question would find a place: 1. Those who believe with Murchison in the spontaneous origin of typhoid fever. 2. Those who believe with Liebermeister, as quoted by Homolle, that it never originates spontaneously, and that the condition necessary for its development is the presence of a germ derived from a typhoid patient. 3. Those who incline to the latter view, but who prefer to hold their judgment suspended in the absence of positive demonstrative proof, which has not yet been furnished.

Dr. S. Oakley Vander Poel referred to the general proposition of the transmissibility of typhoid fever by ingestion and respiration, and quoted some of the views formerly entertained concerning the disease. For example, Murchison claimed that typhoid fever might originate whenever the human excreta were allowed to undergo a certain amount of fermentation. To that view Dr. Vander Poel could not now fully subscribe, although for many years he entertained the view that the disease could originate *de novo*. The argument in favor of a specific cause of typhoid fever was of two kinds, the negative and the positive. First, with reference to the negative argument, if it could be shown that in many instances polluted water and food had been used without developing typhoid fever it was an argument in favor of a specific cause for typhoid fever. If, on the other hand, it could be proven that the direct introduction of excreta from typhoid-fever patients into the food and water partaken of was followed by the development of typhoid fever in persons or in communities, it furnished a positive argument in favor of a specific cause of typhoid fever.

It was a fact established beyond question, that in this country many cities were supplied with polluted water, and yet typhoid fever was no more prevalent in those cities than in others in which the water-supply was of the purest kind. For example, the city of Albany received its water-supply largely from the Hudson River, into which the sewage of Troy, situated five or six miles above, was emptied, and yet Albany had not suffered from typhoid fever more than other cities. In the southern portion of Albany there still remained several wells from which the inhabitants took water for drinking and cooking purposes. It was found on analysis that this water was intensely polluted, and the Board of Health ordered that the wells be closed. But the citizens objected and continued to use the water, and not a case of typhoid fever occurred in that part of the city. Such evidence was negative in character.

On the other hand, the late epidemic which occurred in Plymouth, Pa., furnished a very powerful positive argument in favor of a specific cause of typhoid fever in the fact that while the city was supplied with the polluted water from the Susquehanna, typhoid fever did not occur, but as soon as the water in the reservoir became polluted by the mountain stream, which received the dejecta of typhoid-fever patients, typhoid fever broke out within the ordinary incubative period.

Similar instances had occurred in England. Dr. Vander Poel believed that large towns were not the proper places in which to make investigations of this kind, and that the best evidence could be derived from the study of cases occurring in small communities, where each one could be traced to its cause.

Dr. W. H. Thomson said that he would as soon expect typhoid fever to be developed spontaneously as potatoes.

The Chairman was not in the position which Dr. Thomson was, because he did not think the question was by any means yet settled. In discussing this subject the first question which came to him was, Did typhoid fever possess any diagnostic facts, clinically or pathologically? The history of typhoid fever, especially as written by the Germans, would lead one to believe that there were three diagnostic symptoms; a peculiar range of temperature during the first week, a rose-colored eruption, and a characteristic diarrhœa; and that after death there is a characteristic ulceration of the intestines.

So far, however, as the typhoid fever of New York was

concerned, if it occurred, these symptoms were not necessarily present, neither the characteristic range of temperature, the characteristic spots, nor the characteristic diarrhœa, in a large proportion of cases. Yet what was called typhoid fever occurred abundantly.

Again, intestines were seen in which there were ulcerations, and yet during life there were no symptoms indicating the presence of typhoid fever, but at the same time these ulcerations could not be distinguished from the ulcerations belonging to typhoid fever. There was a septic fever produced by drinking polluted water, in which the intestinal lesions could not, by the naked eye, be distinguished from those said to be characteristic of typhoid fever. Therefore, he would say that there was nothing necessarily specific about typhoid fever. But the next question which arose was, Is it a contagious disease? If there was any specific poison which produced typhoid fever, it was a contagious disease. But clinical experience did not illustrate that typhoid fever sustained this theory; for, in the hospitals to-day typhoid-fever patients were found side by side with other patients, and it was not expected that by so placing them the poison would be conveyed from them to other patients. It was not contagious and it was not necessarily specific in its cause.

It had been established that certain conditions were necessary to the development of the poison of intermittent fever, and the question might arise, could not typhoid fever be developed in the same manner? but typhoid fever did not so behave.

Dr. Loomis would not commit himself to the spontaneous origin of typhoid fever, and yet he was not willing to commit himself to the existence of a specific germ as the cause of typhoid fever. There was undoubtedly a specific poison in all fevers; that is, a poison which produces malarial fevers, but which differed from the poison that produces a contagious fever. A contagious poison was never of spontaneous origin; there must be a case to get a case from, and typhoid fever was not contagious.

The more he saw of typhoid fever as it occurred in New York, the more he inclined to the name of continued fever, given by the elder Professor Wood, as the name best applied to all those fevers which were partly malarial and partly typhoid, or as they had been called typho-malarial; all apparently of one type but varying very greatly in their manifestations in different cases.

Dr. R. A. Caldwell asked, what was understood by a fever developing spontaneously?

The Chairman replied, a fever which developed without known specific cause.

Dr. Vander Poel desired to take some exceptions to the Chairman's remarks, who stated that because typhoid fever was not contagious, it was not necessarily due to a specific poison. He made a distinction between transmissible disease and contagious disease. Yellow fever was not contagious, and yet it was a specific disease and easily transmitted. Cholera also was not a contagious disease, but it was easily transmissible like yellow fever, and in either case it was only after the fermentative process had begun that the poisonous element was developed and became contagious. In typhoid fever the dejections are contagious, not in the sense of conveying the disease from one person to another, but through the medium of the dejecta, which have undergone certain fermentative changes, the disease becomes more or less contagious in its character. Yellow fever, cholera, typhoid fever, neither of which were strictly contagious, were transmissible from person to person.

The Chairman said that perhaps he did not make himself exactly clear in his former statement. He recognized contagious and infectious diseases. The contagious diseases were infectious, but the infectious diseases were not necessarily contagious. Typhoid fever was an infectious disease, but the poison of typhoid fever could not be carried directly from the human being in which it was produced to another human being and cause the disease; it must first go through certain changes before it became infectious.

Dr. W. H. Thomson said that it was sometimes profitable to discuss the meaning of medical terms. He had been accustomed, in his lectures on disinfection, to use two terms with three subdivisions; first, he spoke of communicable diseases; meaning thereby those which pass from a human or animal body to another human or animal body. He preferred the word communicable, because it did not define the mode in which the disease passed from one body to another; restricting the term to the fact that every case must have originated from an antecedent case of the disease and not from any other source.

The second class were the malarial diseases, an unfortunate word, because it implied transmission through air; but these diseases, instead of having their origin in the human or animal body, came from a thing or place.

To which class does typhoid fever belong? To the communicable from an antecedent case, or to those which come from a place or thing?

He believed that when the subject was studied in this way, we should admit that typhoid fever was a communicable and not a contagious disease. He was very far from believing that it had yet been demonstrated that typhoid fever was due to a micro-organism, and yet the laws of typhoid fever, as it appeared in this country, showed that it belonged in general character and results to the communicable diseases.

Dr. A. A. Smith said it seemed to him that the solution of the question lay in the answer to the other question, Has a typhoid bacillus been discovered? If it had, then the question almost answered itself. If he interpreted correctly the remarks which had been made that would be the position taken by all who had spoken, and until it was decided whether or not there was a specific bacillus which belonged to typhoid fever and to no other disease, the question of spontaneous origin could not be answered. The very latest reports from German sources were from Gaffky, who took the position that he had discovered the typhoid bacillus. He had made observations in sixty-five cases of typhoid fever, in which in nearly eighty-five per cent. he was able to demonstrate the presence of the bacillus in the liver, spleen, blood, and mesenteric glands. It seemed to Dr. Smith that we must still remain on the fence, as the Chairman had expressed himself as being willing to do, until this fact was proved. If it had been proved that a specific bacillus existed in other diseases, it seemed to him that we should not commit ourselves to a positive opinion until it was demonstrated whether or not typhoid fever had a specific bacillus, and he was unable to see how the question of spontaneity of origin could be decided until that question was settled. He confessed that he had seen cases where he had been at a very great loss to determine where the poison which produced unmistakable typhoid fever came from. He belonged to the third class referred to by Dr. Emerson. He would like to be convinced that there was a typhoid bacillus, and should hold his opinion open until microscopists had learned more with reference to micro-organisms.

Dr. A. Jacobi said that was exactly the point where he rested his doubt, as microscopists might discover very many bacilli, but that would not prove that the bacillus was the cause of the disease. It had already been learned from microscopists that there were bacilli in a number of different diseases, and it was quite natural to reason from that that we were in a position to assume that the etiology of all diseases in which bacilli could be found could be explained. Obermeyer found a bacillus in relapsing fever at a certain period in the disease, but it had not been proven that it was the cause of the disease. It had not been found in the beginning of the disease, but even if it had been found at that period it would be doubtful whether it was the cause, or whether the disease was due to causes which were aroused by the bacillus, or whether

the bacillus was the result of the disease. He did not believe that we were justified in saying that the bacillus of relapsing fever was the cause of the disease.

With regard to other diseases, microscopists had been anxious to find bacilli, and thus Gaffky had his bacillus, and Klebs had his bacillus, and so on. So with reference to diphtheria, Klebs had his bacillus, which he assured us was the cause of diphtheria; Eberth discovered his bacillus, which he also said was the cause of diphtheria; and even so cool-headed and sound a man as Gerhardt was led to make the statement, only a few years ago, that undoubtedly diphtheria was a bacillus disease; but as Klebs had discovered one bacillus, and Eberth had found his bacillus, he declared that it was probable that *two different* bacilli could be the cause of diphtheria.

With regard to the question raised by the Chairman as to the existence of typhoid fever, we have heretofore been accustomed to hear him express his opinion quite positively; but to-night the Chairman seemed to be inclined to feel that he was rather on the fence, and several of the gentlemen had said the same thing, and Dr. Jacobi was also willing to place himself among them. But while upon the fence they would probably have their eyes open, and not lose sight of criticism. Those who were guided by the skill of experts who lived under the shadows of Boards of Health, even of such as that over which Koch himself presided, were very apt to be prejudiced in favor of certain theories. Gaffky was committed to the finding of a bacillus, and it was kind of him to find one in only eighty-five per cent. of his cases; if he had been in Gaffky's place he would have found the bacillus in one hundred per cent. Dr. Jacobi had always been glad that bacilli were found, as he was always glad to receive pathological facts recently discovered.

With regard to the position of the Chairman, he would say that it was not necessary to reject typhoid fever as a morbid entity. If it was found that it presented a variety of phases, that was no more than had been seen in other diseases. Even as pronounced a disease as scarlet fever manifested itself in various ways, and so also did measles, sometimes so varied that these diseases were frequently difficult to recognize. Furthermore, in certain years, measles and scarlet fever did not exhibit any pronounced mortality, while in other years the percentage of mortality was immense; still, both set of cases were certainly measles and scarlet fever. Thus it was with typhoid fever. Dr. Jacobi was aware that we had never seen a single epidemic in this country in which typhoid fever had prevailed as the Germans had described it, and even the Germans were beginning to modify their opinions, yet it was only within the last few years that they admitted that typhoid fever might occur without diarrhœa, but that in those cases the characteristic changes in the intestines existed. He would say that here we have a large majority of cases of typhoid fever in which there was no diarrhœa, and that even perforation of the intestines might occur without diarrhœa. The one anatomical fact which he would regard as characteristic of typhoid fever was the ulceration of Peyer's patches. The Chairman appeared to believe that the same ulcerations were found in septic enteritis, but what Dr. Jacobi had seen presented a little different appearance. The ulcerations in septic enteritis were not only about Peyer's patches, but were all through the intestines, beginning in the *upper portion* of the small intestines and extending throughout their entire length. That was what we never saw in severe cases of typhoid fever, in which the ulcerations were confined in the *lower portion* of the ileum, might extend throughout the colon, but were not seen in the upper part of the small intestine.

Again, this peculiar anatomical fact was not seen in young persons, and why not? Although typhoid fever frequently occurs in young persons, the characteristic ulcerations are not found because the Peyer's patches are but little developed.

Typhoid fever is introduced by the respiratory or the digestive organs, mostly by the latter. Small children do not take water in the shape in which adults consume it, but take it either in the shape of milk or in such substances as necessitate boiling the water. It is in this manner that the organic poisons are destroyed, and thus it is that in the first place there are less changes in the intestinal tract and the symptoms are less developed in small children than in mild cases occurring in adults. This shows that typhoid fever may occur in a variety of forms, according to the accompanying circumstances.

Dr. Jacobi believed that there was such a thing as typho-malarial fever, and did not believe that it was the same disease as typhoid fever. It was a severe fever, typhoid in character, lasted longer than typhoid fever, and at the end of three weeks the fever remained, frequently relapsed; after awhile the fever became irregular; in the fifth or sixth week attacks occurred which looked very much like intermittent fever, one or even two chills occurring daily; then fever more of a remittent type manifested itself, and finally complete disappearance of the fever.

The Section then adjourned.

Correspondence.

THE MEDICAL TREATMENT OF UTERINE FIBROIDS.

To the Editor of The Medical Record.

Sir: Your abstract of the paper read by Dr. More Madden at the British Gynecological Society requires a little explanation as to the original paper to make its value really understood on your side of the water. The explanation is briefly this: that Dr. Keith, Mr. Thornton, and myself, who really may be taken to be the chief performers of hysterectomy in this country, stand, of course, on a different platform from Dr. More Madden. We do not deny, any more than he does, that a vast number, probably the greater number, of cases of uterine myoma require no kind of treatment at all, either medical or surgical; in fact, they probably are not discovered at all in very many instances. But we see a selected class of cases which Dr. More Madden is not called upon to deal with, and apparently, with the exception of three instances, he has not seen them at all. This arises, of course, from our different positions. Dr. More Madden is physician to the Mater Misericordia Hospital in Dublin, which is an institution of a purely sectarian character, in which there is no very active amount of work going on. Dr. More Madden himself has a distinguished position as a practitioner in Dublin, but a proof that he has no very special position is afforded in the fact that, after the most careful inquiry in Dublin, I can only discover that he has performed abdominal section once; that it was, very much to his credit, successful, but that he has not had an opportunity of repeating his success. Those of us already named, on the contrary, are engaged every week of our lives in operating upon the most serious class of cases—cases which are sent to us from, practically, all parts of the world. We therefore get numerous cases of a kind which, as I have said, are almost unknown, save in Dr. More Madden's experience.

Concerning the operation for the removal of the appendages for the treatment of uterine myoma, I immediately followed Dr. More Madden's paper by one which I read at the Cardiff meeting of the British Medical Association, and this, when you have seen it, I think, will be found to establish, beyond all doubt, the immense value of this particular proceeding.

I will conclude my letter by one small explanation, which is of a purely personal character. Quoting Dr. More Madden, you agree with him in what he says about my own practice, specially speaking of incompleted

operations. Thus you say, "Of these incompleted operations, Mr. Lawson Tait thinks that he may speak with a certain amount of satisfaction, though from what he derives this contentment we are, with Dr. Madden, at a loss to understand, as his mortality in them was fifty per cent." You, of course, are not responsible for this dishonest misquotation: you merely take the matter as Dr. More Madden puts it. If Dr. Madden had completed the sentence, of which he only takes a few words, he would have displayed to you and his others readers this: "Of one group I think I may speak with a certain amount of satisfaction; that is, the group which includes thirty cases of incomplete operations, even if all that I can say is that three per cent. of incomplete operations is not a large proportion, and I have the satisfaction of knowing that it is still on the decrease, as my experience grows." When this sentence of mine is completed, an altogether different aspect appears from that most improper appearance put upon it by Dr. More Madden, who tries to make it appear, as if I had some inward satisfaction in a mortality of fifty per cent., though, by the way, the mortality is not fifty per cent.

I am, Sir, yours, etc.,

LAWSON TAIT.

BIRMINGHAM, October, 1885.

New Instruments.

BINAURAL CONVERSATION-TUBE FOR THE AURAL INSTRUCTION OF THE DEAF.

DR. SEXTON stated at the recent meeting of the American Otological Society that in many instances the deaf seemed to get the best idea of the character of sound constituting the human voice when spoken to through a mouth trumpet as recommended by him many years ago; but there were a large number of deaf children who could obtain a pretty good idea of the natural sound of the voice by means of a binaural tube, whereby they may compare their own voice with the teacher's. The advantages of the binaural transmission of sound are manifest where some hearing power remains in both ears. The instrument is serviceable in teaching almost all very

deaf children or in conversing with deaf people. The sound of the voice is not so much increased by this instrument as not to be heard in a natural tone, as when spoken directly into the ear by close contact of the speaker. The painfulness of trumpets and conical tubes is thus avoided. The application and use of the instrument are well shown in the accompanying illustration. They are manufactured by Mr. W. F. Ford, of New York. [Since the instrument was shown to the Society Dr. Sexton has caused a self-retaining appliance to be attached, so that a spring holds the ear-pieces in place.]

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from October 18, 1885, to October 24, 1885.

MCPARLIN, T. A., Colonel and Surgeon. Directed to await further orders in New York City. Letter from A. G. O., October 19, 1885.

VOLLUM, E. P., Lieutenant-Colonel and Surgeon. Assigned to duty as Attending Surgeon, Headquarters Department of the Platte, Omaha, Neb., relieving Assistant Surgeon Wm. C. Shannon. S. O. 103, Department of the Platte, October 15, 1885.

HEGER, ANTHONY, Major and Surgeon. Directed, in addition to his present duties as Member of Army Medical Examining Board now in session in New York City, to perform the duties of Attending Surgeon in that city. S. O. 240, A. G. O., October 19, 1885.

BAILY, JOSEPH C., Major and Surgeon. Granted leave of absence for twenty days. S. O. 225, Department of the East, October 19, 1885.

Medical Items.

CONCERNING CLIQUES.—We recently encountered an old practitioner whose memory extended over a sufficient period of observation of the medical world of New York to give his words an authority worthy of recognition. He thus discoursed concerning cliques: "New York, in the early days, was under the all-powerful sway of the New York Hospital Clique, centring about the old Barclay Street Medical College. This clique was law and gospel to the profession. It held a mighty power. The ins had everything, the outs nothing. But, as is often the case, some of the profession grew restive under the somewhat arbitrary control then exercised, and questions as to rights and patronage arose. The result was the overthrow of the New York Hospital Clique, and the establishment of the clique which represented the College of Physicians and Surgeons. The Kappa Lambda Society was formed about this time. Its object was to restrict patronage in consultations and professional associations to its members. Most of the members belonged to the 'old college,' and for a time controlled the business of the then young city. It was easy for them to say that all others were wanting in respectability and standing, and there was no appeal. This sway in time gave way to the clique at the University, under the control of Dr. Valentine Mott, who stood at the head of the profession, and was the leading surgeon, not only of New York, but of the country. No one man has been able to occupy his place since. Time went on, and three powerful cliques represented the former power which was swayed by one. They were named respectively after the three colleges around which they centred, that of the Physicians and Surgeons, the University, and Bellevue. The reign of cliques is over—New York has become too large for them. Their empire, like that of the old Roman, has gone to pieces by its own weight. To-day there are feeble attempts at cliquism. Ambition is ever ready to grasp at the control and supremacy represented by them, but it cannot be said that the medical profession to-day is under the dominance of one man or set of men holding in their hands the power of life and death. *Le roi est mort;* but now no one shouts *vive le roi.* A republic has succeeded, based on the suffrage of the people. No one man in New York is accorded the title of *The Surgeon,* or the physician; the question is no longer asked in the singular; if it is, it is always answered in the plural. The leading medical societies give every member a chance to give his experience, the leading medical journals print his articles if they are worthy of it, and the field is quite

open to new-comers. It is not in the spirit of the age to tolerate cliques in professional circles, whatever may be the case in social, and it must be considered as a sign of a greater breadth of culture—a broadening of the phylacteries of knowledge. It is true, the colleges are still family stock concerns, but the next generation may change even this. Fairness and truth generally triumph in the long run. But I may tell you more about the colleges at another time."

Static Electricity.—Dr. A. L. Ranney writes: "In your issue of October 24th, two paragraphs appeared relative to my improvement of the Medical Holtz Static Machine, which demand a reply. I will answer each separately: 1. The *soft rubber packing* in the joints of my case is not claimed by Mr. Rosseau either in his letter or the advertisement which he simultaneously publishes; nor, to my knowledge, has it ever been before used in a static machine. This constitutes *my only claim to priority*. The other modifications enumerated by me are of minor importance; but they add to the general effectiveness of the instrument. An air-tight case cannot be made without some protection to the joints, against the entrance of dampness from without. 2. The criticism of the correspondent who quibbles over the chemical effects of burning alcohol in the case of a static machine, is answered *practically* by the fact that a machine will often be excited to action during damp weather by the heated air thus produced, when it will not work under other circumstances until the air is dried by fresh calcium. This is not always at hand. There is a distinction to be drawn between a temporary lift out of a difficulty and a recommendation of such a step as the best way of overcoming it. This criticism is evidently not made by a practical man. As far as I can ascertain, it is a difficult matter for Mr. Rosseau or any other manufacturer to establish *priority for any new principle* in his machine built on the Holtz model or the Toepler model. I think any fair-minded reader will acquit me of a desire to do any one injustice or to claim priority for any part of my model outside of the *soft rubber packing used to make its joints impervious to air*. Even this may have been done before, but, if so, I am not aware of it. I will gladly waive all claim even to this improvement when convinced that I am in error."

Physicians' Commissions from Druggists.—Dr. Richard B. Faulkner, of Allegheny, Pa., sends a letter commenting upon the subject of physicians' commissions from druggists. At the recent meeting of the American Pharmaceutical Association, at Pittsburg, Mr. J. W. Colcord, of Lynn, Mass., read an extract from a San Francisco letter, which asserted that pharmacists are compelled to pay sixty per cent. of the *gross* receipts as commission to the physicians who patronize them. Dr. Faulkner was assured by Professor John M. Maisch that Mr. Colcord's statement was openly made and corroborated by Professor Painter, who added that such cases were common, "not isolated; and that the leading druggists of San Francisco pay to the leading physicians, in money, sixty per cent. of gross receipts." Mr. Whelpley, of the *National Druggist*, said, "Percentages are given in St. Louis, and in different ways; for example, druggists would fit up physicians' offices." Our correspondent avers that this practice of giving percentages does not exist in Allegheny.

Gerhardt's Treatment for Lupus.—Gerhardt has lately employed a treatment for lupus that appears to be very valuable. He applies ice-bags to them during the greater part of the day. He recently showed four cases that very entirely healed over by a very fine elastic scar. He got the idea by arguing that, since lupus is produced by the tuberculosis bacilli, and since the activity of these is greatly diminished by cold, by the employment of this his patients might be more benefited than by any other measure. Of course the spores of the bacillus are not so easily affected; but such objections are always to be found in every kind of treatment. That cold, continuously applied, penetrates inwardly, he has demonstrated by taking the temperature in both sides of the mouth after the ice-bag had been applied to one of the cheeks for some hours. He found the difference to be as much as 3° C. in some cases. The attained results certainly speak well for the method.—*Medical Press of Western New York.*

In Severe Cases of Lumbago, Professor Da Costa advised acetate of potassium, ℈j., four times daily, to be dissolved in syrup. He gives also morphine and atropine.—*C. and C. Record.*

The Ancient View of the Value of Digitalis.—In "The English Physician," 1656, by Nich. Culpeper, a chapter is given on the uses of digitalis (*Lancet*). After giving a botanical description and the habitat of digitalis, Dr. Culpeper goes on to say: "The Plant is under the Dominion of Venus, being of a gentle clensing nature; and withal very friendly to Nature. The Herb is familiarly and frequently used by the Italians to heal any fresh or green Wound, the Leavs being but bruised and bound thereon; and the Juyce thereof is also used in old Sores, to clens, dry, and heal them. The Decoction hereof made up with some Suger or Honey is available to clens and purge the Body, both upward and downward, sometimes of tough flegm and clammy humors, and to open obstructions of the Liver and Spleen. It hath been found by experience to be available for the King's Evil. The Herb bruised and applied, or an Oyntment made with the Juyce thereof and so used, and a Decoction of two handfuls thereof with four ounces of Polipody in ale, hath been found by late experience to cure divers of the Falling-sickness that have been troubled with it above twenty years. Myself am confident that an Oyntment of it is one of the best Remidies for a scabby head that is."

Last year the number of medical and pharmaceutical students who completed their curriculum at the universities of Spain was 703, the total number of students graduating being 3,598.

It is reported in the Bombay Season Reports that on December 27th last seven shepherds lost their lives at Athni, in the Belgaum District, through being struck by hailstones of the size of a cocoanut.

The Odor of New Paint and Abortion.—Dr. Charles H. French, of Waterbury, writes that he has, on two occasions, recently been consulted by patients who were in the seventh month of pregnancy, and who desired to move into a newly painted house. They desired to know whether there would be any danger of abortion being caused by the odor of the new paint, as popular opinion asserts. Dr. French has been unable to find any medical authority for this belief, and is desirous of learning what is the experience of others in the matter.

One Can Quote as Well as Another.—"Measure for Measure," as the patient said when he poured out ℥ij. of turpentine for his tape-worm. "All's well if this end is well," said the tape-worm, as he buried his front end in a follicle of Lieberkühn while the turpentine swept by.

The new Idea in Nostrums is not to pretend that a particular medicine will cure all maladies, but will positively and completely cure the one disease for which it is designed. The clear-sighted student of human nature who discovered this slant is said to be on the road to a fortune.

Controversial.—

Said Koch: "I've some comma bacilli."
Said Klein: "I don't think they will kill." "I"
Said Finkler (and Prior),
"Believe he's a liar."
Said Ferrán: "I can knock you *all* sill i."

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 19 NEW YORK, NOVEMBER 7, 1885 Whole No. 783

Original Articles.

SUMMARY OF ONE HUNDRED AND SEVENTY-EIGHT CASES OF TYPHOID FEVER.

By EDWIN T. DOUBLEDAY, M.D.,

MEDICAL CLINICAL REGISTRAR TO THE NEW YORK HOSPITAL.

THIS summary comprises the cases of typhoid fever treated in the New York Hospital (new building) from April, 1877, to January, 1885. The following symptoms were taken as marks of the commencement of the disease: chilly sensations, diarrhœa, frontal headache, epistaxis, or pain in the bowels. In cases where all these were absent, or not stated with sufficient accuracy, the time at which the patient took to his bed is taken as a date on which to base calculations.

Number of cases, 178; males, 125; females, 53.

R. = recovered; D = died.

AGE.	R.	D.	Total.
5 to 10 years	2	....	2
10 to 15 years	3	....	3
15 to 20 years	24	5	29
20 to 25 years	57	10	67
25 to 30 years	41	9	50
30 to 35 years	8	3	11
35 to 40 years	3	1	4
40 to 45 years	9	1	10
45 to 55 years	1	1	2

OCCURRENCE.

	1877.		1878.		1879.		1880.		1881.		1882.		1883.		1884.		Total.	
	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.
January											1	1	1	..	2	..	7	1
February						1					1	..	1	1	3	1		
March					1	..	1	..	2						3	..	7	0
April		1				..	1				1	..	1				3	1
May									2	..	3	..	2				7	0
June				1	..	3	..	1	1						4	1	9	2
July	1	1		1	..	1	..	3			4	..	4	2	14	3		
August		1	1	..	1	1	..	3	2	7	2	5	..	3	6	20	12	
September	5	..	1	..	1	..	2	1	3	..	4	..	7	1	5	1	28	3
October		3	..	3			1	6	1	2	..	7	2	4	..	25	4	
November	1						2	..	2	..	2	..	5	..	4	2	16	2
December				1					2	1	2	..	4	..	9	1		

DURATION OF FEVER.

	Males. R.	Males. D.	Females. R.	Females. D.
In all cases	29.1 days.	28+ days.	28.6 days.	24½ days.
In uncomplicated cases	24⅘ "	23½ "	25½ "	25 "
In complicated cases	33⅔ "	32⅔ "	31⅕ "	23½ "

NATURE OF CASES.

	Males. R.	Males. D.	Females. R.	Females. D.
Uncomplicated	73	9	23	6
Complicated	34	9	18	6

Relapse occurred in 33 cases; males, 19, = 15.2 per cent.; females, 14 = 26.4 per cent. In five cases there was more than one relapse. Average duration of the relapse: males, 12.88 days; females, 12.95 days. In 9 of the 33 cases of relapse the cause is stated to have been sitting up too early in convalescence. Constipation is supposed to have caused a relapse in 4 cases, and in 1 case the relapse followed an attack of gastric dyspepsia. In 19 cases of relapse no assignable cause could be discovered. None of the cases complicated by a relapse were fatal.

Frequency of Symptoms.—Diarrhœa occurred in one hundred and fifteen cases. Average time of occurrence was the 5.5th day of the disease.

Eruption was observed in ninety-six cases. Average time of appearance was the twelfth day of the disease. The eruption appeared in sixteen cases on the seventh day; in fifteen cases on the fourteenth day; in seven cases on the eighth day, and in six cases each on the fifth, tenth, and twelfth days. Epistaxis occurred in fifty-seven cases. In fifteen cases it occurred more than once. In over a third of the fifty-seven cases epistaxis occurred on the second day of the disease.

Delirium occurred in forty-six cases. Of these forty-six cases twenty-six recovered and twenty died. Of those who recovered the average time at which delirium first appeared was the 13.5th day of the disease. Of those who died the average time of its appearance was the 15.5th day of the disease.

Complications.—Bronchitis occurred so often, and almost invariably at the end of the first or beginning of the second week, that one is tempted to regard it more as a symptom than a complication. It occurred in nineteen cases.

Six cases were complicated by phlebitis. The times of appearance and the situation were as follows: Right femoral vein, on the thirtieth and on the fifty-fifth day; left femoral vein, on the eighteenth and on the thirty-third day; left popliteal vein, on the thirty-third day; right brachial vein, on the sixty-second day.

Abscess complicated seven cases. The abscesses were situated as follows: Perineal, ischio-rectal, left hypochondriac, right arm, both inguinal, left submaxillary, and right parotid region, followed by multiple abscesses. In five of these cases the abscesses were sequelæ rather than complications. One patient (case seven) had thirteen abscesses. He had a chill at the end of the fourth week of the disease, and the temperature ran up from 99° to 103.5°. Examination showed some induration and swelling of the right parotid gland; this was opened on the following day. Subsequently twelve abscesses were opened. These were on the back, gluteal region, inguinal region, malar region, parotid (left), and both submaxillary regions. After the first chill there were only two rises of temperature, and only five of the abscesses gave noticeable pain. These five were situated where pressure was made on them. Some of the abscesses were only detected by daily careful examination of the whole body. Various dressings were tried on the abscesses, among them balsam Peru, zinc oxide (dry and in ointment), salicylic acid, bichloride gauze, boracic acid solution, carbolic dressing, and iodoform. The abscesses treated in the following manner healed quickest: free incision, washed with carbolic acid solution (1 to 40), small amount of iodoform dusted in the cavity, outside an iodoform compress and pressure, and approximation of the edges secured by means of strapping. Abscesses treated in this way healed almost entirely by first intention, notwithstanding the patient was very weak and had extensive bed-sores.

Otitis media suppurativa occurred in three cases.

General furunculosis followed the fever in eight cases, in seven of these cases it came on in the fifth week.

Hemorrhage (intestinal) occurred in twelve cases at the following time: Third, seventh, tenth, twelfth, fourteenth, eighteenth, nineteenth, twentieth, forty-seventh, and forty-ninth days, all cured; on the thirteenth, twenty-seventh, fourteenth, twenty-ninth, thirtieth, and thirty-ninth days, all died.

Three cases were complicated by cystitis. In these the patient had not been catheterized. In one case there was profuse hemorrhage from the uterus and from the vaginal mucous membrane.

Retention of urine was observed in twenty-two cases. In one case it came on in the first week, in eleven cases in the second week, and in ten cases in the third week.

In thirteen cases there was albumen, hyalin, and granular casts in the urine. Of these thirteen cases seven recovered and six died. In five cases the urine contained albumen with hyalin casts, of these four recovered and one died. In thirteen cases the urine contained albumen without casts. Of these eleven recovered and two died.

Lobar pneumonia complicated seven cases; five recovered and two died. Herpes occurred in the fourth week in two cases; both recovered. Bed-sores occurred in two cases only; both recovered. Periostitis (syphilitic?) occurred in two cases.

Mania, meningitis, tonsillitis, acute parenchymatous nephritis, acute rheumatism, persistent vomiting, persistent nausea, each complicated one case; all recovered. Catarrhal pneumonia, purulent bronchitis, abscess of the lung, and perforation of the intestine, each occurred in one case; all fatal. Tuberculosis complicated two cases; both fatal.

Infection.—In four cases there were other cases of typhoid fever in the house. In two cases the patients had been nursing persons sick with typhoid.

Temperature.—In four cases the temperature reached 107°; three recovered and one died. In eleven cases the thermometer registered 106°, or over. Of these three recovered and eight died. In forty-six cases the temperature reached 105°; thirty-five cases recovered and eleven died. These figures are exclusive of antemortem rises of temperature. In two cases death was preceded by a marked fall of temperature. The fall was 2° in one case and 5° in the other case. No hemorrhage in either case.

Treatment.—As few of the cases were similar in anything but their temperature curves, and the sets of cases belonging to different years varied much in their severity, it is a difficult matter to make any comparisons of the efficacy of the different plans of treatment employed. For feeding, milk, milk-punch, eggnog, peptonized milk, and beef-tea were used. Almost all the cases of 1883 and 1884 were fed on peptonized milk until the subsidence of the fever. For stimulants, brandy, whiskey, tr. digitalis, inf. digitalis, and occasionally ammonium carbonate were used. For reducing temperature, quinine, antipyrin, cinchona, kairin, alcohol sponge baths, cold baths, and the wet pack, singly and in combination, were used. Quinine and antipyrin were the drugs used most frequently alone. Quinine alone was used in forty-six cases; forty-three recovered and three died. Antipyrin alone was used in twelve cases; eleven recovered and one died. Kairin alone was only used in three cases; two recovered and one died.

Various remedies directed at the disease itself have been tried, such as bichloride of mercury, tr. iodine, carbolic acid, oil of eucalyptus, and calomel, but the cases are too few for any conclusions as to the best treatment to be reached.

A Large Ventral Hernia.—Dr. Samuel W. Francis, of Newport, R. I., reports a case of ventral hernia in which the measurements for a truss were as follows: circumference at the top, 41 inches; at the middle, 55 inches; at the bottom, 50 inches; length from above downward, 24 inches.

A SKETCH OF THE LIFE OF JAMES LAWRENCE LITTLE, M.D., AND OF THE TWENTY-FIVE YEARS IN WHICH HE PRACTISED SURGERY IN NEW YORK.[1]

By D. B. ST. JOHN ROOSA, M.D.,

NEW YORK.

James Lawrence Little was born of Scotch-Irish and English ancestry, in the city of Brooklyn, February 19, 1836. He attended private schools in his native city until he was about twenty years of age, when he attempted to become a bookseller, and for this purpose became a clerk in a Fulton Street establishment kept by Mr. Riker. The firm that engaged him had a stock of medical books as well as of general literature. The young clerk was soon so deeply engaged in the study of these books that he proved a very inefficient salesman, and he gave up his attempt in business.

This inclination to the study of medicine had already been seen in young Little when he was a mere boy. After much cogitation as to the ways and means of getting a skull for the purpose of study, he finally approached a venerable African grave-digger, who consented to furnish him with the desired relic, if he would bring twenty-five cents and a paper to wrap it in. Little secured the treasure on these terms, and returning home, took a peep at it, and, to his youthful horror, found that it was an unprepared skull looking upon him in the ghastly covering of facial integument and scalp. Fear got the better of his anatomical enthusiasm, and seeking a plan to get rid of what was now a source of dread at its horrible aspect, as well as of fear lest he might be found with such an unexplainable object upon him, he threw it into the waters of Wallabout Bay, and postponed his medical studies for a season.

After leaving the bookstore Little entered the office of Dr. Willard Parker as a private student, and at the same time he matriculated in the College of Physicians and Surgeons. After Dr. Little had become a distinguished surgeon, Dr. Parker gave the writer an account of how he nearly rejected him when he applied for entrance to his already crowded rooms. He was at first disposed to decline to receive another student, but he was impressed by the great earnestness of the tall and handsome young man, and he consented to take him. "But," continued Dr. Parker, "I never had occasion to regret my decision. Punctually as the clock struck nine, the click of the young man's boots was heard upon the doorstep, and I got to recognize his step and to count upon him whoever failed." The word *click* aptly describes the short and quick step that many of Dr. Little's contemporaries will recall as one of his personal characteristics.

After being in Dr. Parker's office more than two years, he successfully passed a competitive examination, and was appointed a junior assistant in Bellevue Hospital. This appointment did not take effect until the following spring. Meanwhile, in March, 1860, he was graduated at the College of Physicians and Surgeons. He then resigned his position at Bellevue, and after examination he was appointed junior assistant in one of the surgical divisions of the New York Hospital. A resignation of a place in one hospital to take a similar one in another was something unusual, and it was said at the time that it caused a little unpleasant feeling among the staff at Bellevue, for Dr. Little was well known to some of them, and to James R. Wood in particular, as a promising man whom it was not well to lose.

Bellevue Hospital was just coming into some importance as a school of surgery, and chiefly through Dr. Wood's clinics and his prizes for anatomical preparations offered for competition among the medical schools. Yet at that time it could in no manner compare with the New York Hospital in furnishing opportunities to a surgical student. It was an institution belonging to the city,

[1] Read before the New York Academy of Medicine, November 5, 1885.

receiving only paupers to its wards, and it was governed by politicians. It had much more importance as a school of medicine than as one of surgery. Dr. John W. Francis was one of its consulting physicians, and occasionally gave a mellifluous and learned address in its amphitheatre, and Alonzo Clark, John T. Metcalfe, and Benjamin W. McCready held clinics in the wards, while on Saturdays there was a great crowd of students to witness the rapid and skilful surgical operations of the renowned pupil of Valentine Mott, James R. Wood. Certainly any young doctor in medicine might have been honored by entrance into such a hospital. But the New York Hospital was a wealthy and private corporation, governed by some of the best laymen in the city, and, more than all, it was one of the most renowned schools of surgery in the world. In its amphitheatre Wright, Post, and Kearney Rodgers had won their fame, and here Valentine Mott, who was still living and lecturing upon surgery, had tied the *arteria innominata*. He was consulting surgeon with Alexander H. Stevens, John C. Cheesman, and Alfred C. Post. Of these but one now remains, an honored link to connect us to the medical New York of fifty years ago. The active members of the surgical staff were Gurdon Buck, John Watson, Thaddeus M. Halsted, Willard Parker, William H. Van Buren, and Thomas M. Markoe. Of this number but one now survives, and he happily in full vigor of mind and body. The old hospital was beautifully situated on Broadway, facing Pearl Street, on ample grounds, with grand old elms. Its beautiful lawn, upon which tame deer might often be seen, was a surprise and delight to the strangers in New York, who came suddenly upon this break in the whirl of a great city.

The house staff was in a traditional state of excellent discipline. Its members vied with one another in their care of their cases, and their dressings of fractures and ulcers were at once the delight and dismay of medical students, who followed the attending surgeons about the wards. It was not strange, then, that young Little, especially when urged by his preceptor, resigned his place in a hospital which had no past, for one whose annals, twenty-five years ago, were more full than perhaps any surgical hospital in the land.

In April, 1860, Dr. Little began his duties at the New York Hospital as a junior walker. In April, 1885, he died. Hence, it may be truly said that a quarter of a century bounded his professional career. What a twenty-five years it has been for medical and surgical science in New York and in the world! There were then three colleges, and perhaps eight hundred students and practitioners attending lectures in the College of Physicians and Surgeons in Twenty-third Street, the University in Fourteenth Street, and the New York Medical College in Thirteenth Street. Bellevue Hospital Medical College existed only in the embryo of its medical clinics and James R. Wood's exploits on Saturday afternoons. Clinical instruction was in its infancy, and there were but two hospitals, at long distances from the colleges, where it may be said to have existed in a meagre way, and then to be attended by not more than a score or so of the students, except when a great operation was to be performed. Now there are added to the New York and Bellevue the great Charity Hospital on the Island, St. Luke's, the Roosevelt, the Presbyterian, Mount Sinai, and St. Vincent's; these are all more or less used for clinical teaching, and eighteen hundred or more students and physicians attend the lectures of the three colleges of our faith, the College for Women, the Post-graduate School, and the Polyclinic.

Among the most widely known of the teachers at the Colleges were Parker, Gilman, Watts, St. John, and Joseph M. Smith, in Twenty-third Street; John William Draper, Bedford, Paine, Van Buren, Post, and Metcalfe, at the University; Horace Green, Fordyce Barker, Ogden Doremus, and Carnochan, in the New York College; while George T. Elliot, Charles A. Budd, Loomis, Jacobi, Thomas, Sands were, as would be said in Edinburgh, *extra-mural* teachers, who were nearly within the walls. So great have been the losses by death in these names, that, as we recall them, the words of the Latin poet come at once to the mind:

> "Eheu fugaces Postume Postume,
> Labuntur anni."

When Dr. Little entered the New York Hospital the civil war had not broken out, although exciting meetings of students had been held on account of the John Brown raid, and Southern students were being pledged not to return to Northern cities for instruction. Terrible strife was soon to cause the erection of immense hospitals by the medical staff of the United States army, from whose records surgical literature was to be enriched to an extent not dreamed of by the surgeons of this country. The battle-fields of Manassas, Shiloh, Gettysburg, and around Richmond, were, from their awful experiences, to train a race of men which has caused American surgery and medicine to take a higher place in the world than would have been attained by half a century of work in small civil hospitals, while the Sanitary Commission was to open up a field for the cultivation of sanitary science and of active benevolence hitherto unknown.

When Dr. Little entered the wards of the New York Hospital, the thermometer was not used to show the temperature of the body. The laryngoscope and ophthalmoscope had just been placed in the hands of a very few specialists, but they were not at all employed in the New York general hospitals.

There was but one hospital of any considerable importance for diseases of the eye and ear, and that had not one-half the number of patients it now has, although three similar institutions have been added to the charitable and educational resources of the city. There were no training schools for nurses, and scarcely any trained nurses worthy the name. Those whom we had were chiefly males, with a strong preference for alcohol as a stimulant, who had been promoted from being patients to be nurses, while the women, in many instances, had been scrubbers in the wards over which they now presided. Not but that there were some excellent nurses in those days, however. Pyæmia, erysipelas, and hospital gangrene were then dreaded foes, and antiseptic surgery, if practised in attempts at absolute cleanliness, was not understood as now, when patients, after operations, are saved, not as by fire, but as a matter of course. Marion Sims had just read his famous paper before this Academy upon silver sutures in surgery, and was about to found the Woman's Hospital and become the intellectual progenitor of men who with him created modern gynecology. All this Dr. Little saw, and in much of it he was an active participant.

New York, in 1860, had two or three medical journals, not of extended circulation, while an Ishmaelitish scribbler or two issued monthly bulletins in a style of medical journalism now happily extinct. There were two medical bookstores, called publishing houses rather by courtesy than as a matter of fact, for scarcely a New Yorker but Bedford and Dalton and Draper had written a medical book, and very few had even edited or translated one. New York scarcely claimed equal rank with Philadelphia as a medical centre.

Now, New York boasts three publishing houses where American medical books are issued, and that in considerable number. Her medical journals are more widely circulated than those of any other city in this country, and they are to be found by the side of the works of American medical men upon the library tables of the physicians of every nation.

In the hospital Little gave promise of his future career. He was assiduous and faithful as an assistant, and suggestive and enthusiastic as a house surgeon. His humorous contemporary, Dr. Samuel W. Francis, remarked of him that even then there was *multum in parvo*. He reported many of the cases occurring in the wards in the

American Medical Times. It was while in the hospital that he devised his method of making and applying plaster-of-Paris splints. It is not too much to say that chiefly, if not entirely, through Little's efforts plaster-of-Paris splints became a practical application. Until then, although much recommended, experience had shown that it was not well adapted for a surgical dressing. Little saw in plaster-of-Paris a material which, if properly used, would form that so much to be desired, an immovable and yet porous splint. Those of us who were associated with him remember his painstaking trials in preparing the plaster, in securing the proper consistency, and the material best adapted to take up the solution, the disappointments and failures until a splint was produced which convinced his colleague, the house surgeon of the other division, and the attending surgeons, that the days of the starch apparatus—a favorite bandage of the hospital—were past. In using plaster-of-Paris as a splint instead of a bandage, he utilized the material as never was before done, and although it is possible that it will never have a widespread use, just as Dr. Little employed it, he gave an impetus to the subject which was perhaps the origin of the famous plaster-of-Paris jacket. His paper upon the subject may be said to be classical.[1]

During the civil war, on several occasions, Little's services were furnished to the Government. He was for a time surgeon-in-chief to the hospital erected on the edge of the City Hall Park, and twice, at least, after great battles, he volunteered with those other New York surgeons who went to the front at the call of Surgeon-General Hammond. Now, as then, the avenues to professional success as a teacher and consultant began at service in dispensaries and clinics. Dr. Little was engaged in such work from the days when he was a medical student and a *substitute* for the junior walker in the hospital, until his death. One year after leaving the hospital he was appointed clinical assistant to Dr. Parker, who was then Professor of Surgery in the College of Physicians and Surgeons. In 1863 he was appointed a Lecturer in the College. His first course of lectures was upon "Fractures and their Treatment." These lectures were continued until 1868, when his chair was enlarged to that of "Operative Surgery and Surgical Dressings."

Dr. Little was very popular as a lecturer. His manner was exceedingly simple, in fact, at first distressingly so; but it was earnest, and devoid of mannerisms and self-consciousness. One of our most successful teachers lately said to me, "Little did not merely tell the men to apply a flaxseed poultice, but he brought the flaxseed and the cloth to the lecture-room and made the poultice before the class. Then they knew how it was done, for they had seen it." Indeed, his teaching was realistic to a degree. The man was thoroughly in love with his work. He was alive to every progressive tendency; he travelled in no rut, but was always on the alert to assist in making surgery the exact science it is so fast becoming. He took great pains with the illustration of his subject by diagrams and drawings, which were prepared by competent men under his directions with great care. An examination of his library after his death showed that he had ransacked the surgical pictures of Great Britain and the Continent to secure the best illustrations for his lectures. Certain it is, that not a little of the fame of his alma mater for thorough teaching was due to Dr. Little's lectures, although they were given in the summer term, and attendance upon them was not obligatory. They were continued for sixteen years, when he resigned from the position he held in the college as a lecturer on surgery, and one of the staff of Professor Markoe—who has succeeded Parker—and accepted the appointment of Professor of Clinical Surgery in the University of New York.

But Little's best qualities as a surgeon, a teacher, and an executive officer were seen after his appointment to the chair of surgery in the University of Vermont. This was in 1875. He had previously declined an offer of a similar chair in the Long Island College Hospital. He entered upon the work in Burlington with great zeal. There he found a medical college that still survived the vicissitudes of forty years, although those at Woodstock and Castleton, in the same State, had been abandoned. It had about sixty students. Little's keen perception of the possibilities of this field showed him that they were great. The lately elected President of the University, Dr. Buckham; the venerable Carpenter, professor of practice; with Thayer of anatomy, King of obstetrics, and Darling of anatomy, were fully alive to what lay in store for the Burlington Medical College. There was a reason for the existence of a medical college there. It was needed to supply the demand for medical education for a large number of young men from Vermont and Northern New York, who could not conveniently go to Boston, Philadelphia, or New York.

The academical department, at the laying of whose corner-stone Lafayette had assisted, embraced in its faculty many soundly educated and cultured men, whose sympathies were readily enlisted for any good scheme for the cultivation and dissemination of human knowledge. They seconded the efforts of the president to give character to the various departments. The medical school acquired a certain dignity by its name, and it had that not unimportant advantage over the schools that formerly existed in the same State. Many young men, exceptionally well prepared by previous training, found it more convenient to study in Burlington, on account of the greater expense attending a long stay in a large city; and many practitioners of Vermont and Northern New York found the clinics and lectures of the medical department of the University an accessible post-graduate school, which lighted up many a dark subject, and gave them a little recreation from their lonely and responsible duties as country physicians. The professor who went to Burlington from a metropolitan medical college soon saw that he had as intelligent and as earnest listeners as at home, and that he must relax nothing in his efforts to teach his science and art. With the hearty co-operation of the President of the University, who presided at all the faculty meetings, and his own colleagues, Professor Little immediately began to devise plans for increasing the fame and usefulness of the school. By personal solicitations in many instances, he was largely instrumental in securing courses of lectures and clinics upon subjects not fully, if at all, embraced in the general curriculum, by specialists from colleges in our city. Then, Miss Mary Fletcher, acting largely upon the advice of President Buckham and Professor Carpenter, founded a hospital, and with a broad-mindedness not always seen in those who found hospitals, gave up its wards unreservedly to the teachers of the college. This was naturally of the greatest importance to the success of the school, for the day had passed when didactic lectures, unillustrated by subjects, were considered fit means of teaching medicine and surgery. Little's facilities for the performance of great operations were largely increased by the foundation of the hospital. His clinics were sought by crowds of patients from far and near. During the weeks that he lectured in Burlington the streets of the city gave evidence, by the passing through them of numerous people with surgical dressings on some part of the body, and by the great accumulation of the mud-stained buggies of the practitioners of the adjacent towns, as well as by the overfilled wards of the hospital, that a great deal of surgical work was going on. Stimulated largely by Little's surgical feats, and by an executive capacity heretofore, from the want of an arena, not known to belong to him, the college grew apace in character, importance, and in the number of students. A new building was given to the faculty in 1884, by the late Mr. Howard, and when Dr. Little died, more than two hundred and twenty students

[1] Transactions American Medical Association, 1867, MEDICAL RECORD, 1874.

in the class-rooms of the college mourned the loss of their professor of surgery.

In an address commemorative of Darling and Little, Professor A. F. A. King sketches the introduction of the latter to the class in a manner so graphic and descriptive of the man that it is here reproduced. Dr. King says: "I introduced him to the class, and I well remember his modest embarrassment, which would, however, have passed unnoticed by the students, had he not said in the course of his first disjointed remarks, 'I'm a little nervous, as you see.' But a patient was introduced, a diagnosis made, an operation decided upon, and a knife handed to Professor Little, and I can tell you (as you know) he was not nervous *then*."

To those of us who knew Little well, it was interesting to see this preliminary nervousness when a great operation was imminent. The quick, short steps, the restless tapping of the foot when he was preparing for his work, gave little promise of the bold, self-reliant man as he stood over the patient, perhaps reeking with the perspiration of surgical ardor, but yet with steady, skilful hand working in a manner that convinced any one competent to judge, that a life given into his care would be preserved and returned, were it among human possibilities.

In Burlington as in New York, "Little's luck" became proverbial, for his operations, from causes that I am not able to analyze or define, were pre-eminently successful. A well-known surgeon in New York told me, in substance, that it was a prevalent opinion in St. Luke's Hospital, that it would be safe for Little to cut off a foot of an intestine, when another man could hardly touch it with a knife; and yet he was deferential to a fault to the surgical opinions of his peers, ready to adopt their suggestions, and to give proper credit for them. He was a man who exhibited great common-sense as a surgeon. He was not overtrained, but he knew how to get at the upshot of a case without being unduly anxious as to how Esmarch or Lister were doing that thing now.

Dr. Little's chair in the University of New York was never fully satisfactory to him. His clinics there were held but for a part of the session, and he taught but once a week, although his classes were large, and the students, at least on one occasion, petitioned the faculty that his instructions might be continued throughout the session. The request could not be granted, on account of the pressure for time in which to give the whole curriculum. Three years after his acceptance of the position, together with six members of the former post-graduate faculty of the University, he resigned, in order, in conjunction with them, to establish the *New York Post-graduate Medical School*. To this institution he gave the same hearty effort that he displayed in Burlington. His lectures to graduates were, if possible, better appreciated than by the under-graduates whom he had instructed since his early manhood. A doctor was to him a brother. Without quite knowing it himself, he acted as if he supposed that every man who sought or had acquired the degree of M.D. was as eager and honest in the pursuit of knowledge with which to save life and mitigate disease as he was himself.

It is said that he always leaned toward the student, and possibly too much, when required to vote upon an examination in the faculty at Burlington. This was not from any idea of lowering the standard of proficiency, but because he could not be made to understand that there were men who regarded medicine as a business, in which they were willing to embark with as little capital as could make a fair show. During these last three years he exhibited his best qualities of faithful work, and if, as Dr. Lloyd, one of his former office students and valued assistants, says, "he was inclined to throw off his work on other shoulders, and less inclined to undertake long and serious operations," on account of some grave symptoms in his general health, it was not apparent to those of his friends who saw him only at intervals. The last public work he was engaged in was a meeting of the Post-graduate Faculty, on the evening of March 31st, when he appeared in his usual health and spirits. At that meeting an incident occurred which was characteristic of the man. He felt impelled by his judgment to vote, on a question which then came up, contrary to his feelings. It was a question that might affect the interests of some to whom he was attached, and after he had voted and he was found to be in the majority, he expressed his regrets that he should be obliged to vote for a policy which might prove detrimental to the interests of a friend, and he vainly sought for a compromise upon the subject.

Dr. Little's services to St. Luke's Hospital were very great, and they were warmly appreciated by his patients, his colleagues, and the management. He served one term of ten years, from 1868 to 1878, when he was retired under the rules to be made a consulting surgeon. In 1882 he was reappointed an attending surgeon, and held the position until his death.

Little used to tell a story of an experience of his at St. Luke's, which well illustrates the maxim that "all men think all men mortal but themselves." He was to operate, on one afternoon, upon two cases for resection of the upper jaw. The first patient died upon the table from getting blood in the trachea, and Little sent word to the survivor that he wished to postpone the operation for him. He was very much disappointed at the delay, and urgently insisted that Dr. Little should personally visit him in the ward and tell him why he did not wish to operate upon him as appointed. The surgeon accordingly went up, and with some hesitation, on account of the probable effect upon the hopes of the candidate for an exsection, frankly told him that the first man was dead, and he did not feel like going on with a case of the same kind just at the moment. But instead of being daunted the patient exclaimed, "Oh, that's nothing! I'm not afraid. The other man was a sickly fellow. I never thought he would get through. You operate on me, I won't die." As a matter of fact Little did soon operate upon him, he got no blood in his trachea, and he did not die.

In 1876 Dr. Little was appointed an attending surgeon to St. Vincent's Hospital, a position which he held when he died. Little always believed that the kind offices of the Rev. Vicar General Quinn, one of the managers of that hospital, were largely instrumental in securing him this position. The Vicar-General was a priest in the wards when Dr. Little was house surgeon in the New York Hospital, and in his visitations to the sick and dying in the wards, had been struck by the commanding presence, the assiduous and faithful labors of the young surgeon.

Of Dr. Little's surgical achievements in detail, I am not competent to speak, nor is it necessary that I should do so. They are indelibly recorded in surgical literature—at least in part, for of late years Dr. Little was somewhat regardless, from lack of time perhaps, from his large and exacting public and private practice, to write as much as his friends might have wished. But I may say that he was the first American surgeon to puncture the bladder with the aspirator for the relief of retention of urine. He simultaneously ligated the subclavian and carotid arteries of the right side, for aneurism of the first part of the subclavian. The operation for stone by various methods he had performed seventy-seven times, with a fatal result in but two cases. In hare-lip and strangulated hernia he also had a large and successful experience.

He entered into the advances claimed to be made by antiseptic surgery with great enthusiasm, and on his last visit to Europe, at the meeting of the International Congress in London, he investigated Lister's methods very carefully, and came back to carry out all the details of Listerism in capital operations.

He was a surgeon who looked round upon a far

horizon. Very few operations were foreign to his knife. Yet he was extremely appreciative of specialists, and while not needing their advice as much as some of those who have looked askance at them, he frequently sought their aid, and often publicly recognized their value in enlarging the field of exact knowledge. He himself used the ophthalmoscope, the laryngoscope, and other means of examination not always used by general surgeons, so that he was singularly competent to make an examination in any surgical case. In the practice of medicine also—for he by no means confined his work to surgery—he was suggestive in the matter of treatment, and had many celebrated prescriptions upon which he drew with great readiness and accuracy.

Little was a great admirer of his instructor, Willard Parker. He gave his first-born the name of his preceptor. Dr. George Shrady styles him one of his worshippers. So great was this admiration when he left the hospital, that some of his friends feared he would be content to be an imitator and never strike out for himself. He seemed to have acquired Dr. Parker's art of making surgery fascinating to students; he drew them about him in great numbers. Even if the clinical material for his hour, on any particular day, was scanty, the lecture would not betray the want, for what was there was made the subject of homely but important lessons. The capacity for dignifying the everyday work of surgical practice, for making apparently minor things and details assume their true importance, belonged to him in a great degree. He could make a good clinic from material which some surgeons would not deign to spend a moment upon. Like Willard Parker also, he attracted to himself numerous office students, who almost invariably became much attached to him.

Dr. Little was, in the good sense, a simple-minded man. He loved to sit down in such places as the office at the hotel in Burlington, and, as he became warmed in his discourse, talk to plain laymen, who understood but half of what he said, of tumors and ligations, of resections and ovariotomies, and all without any idea of boasting of his own deeds, for he had not the faintest resemblance to a braggart, but he was so interested in surgery that, like Agassiz, who talked about his study of the skeletons of fishes to stage-drivers, he fairly bubbled over upon the subject. He was fond of the meetings of the profession. Since its foundation, the New York Surgical Society was his favorite place for recounting his experience, and listening to the discourse of the distinguished men who organized and maintained this body.

He was one of the signers of the address to the profession of the State against the re-enactment of the Old Code, and the movement to sustain the Medical Society of the State had his full sympathy and co-operation.

Social to a degree, he could be found late in the afternoon, in the conversation-room or at the monthly meetings of his club, with a cigar for himself and for his neighbor, ready to discourse upon any subject that was uppermost in men's minds.

He gave great thought and spared nothing in the education of his two sons and a nephew. He had almost exaggerated ideas of the importance to a young man of an exact and thorough course of study in a college. He did not practise his profession with an idea of amassing a fortune, but he conceived that it was better to thoroughly educate his sons than to leave them the few dollars which a niggardly economy might have allowed a physician dying in middle life to put aside from his professional income. Before his death he had the great satisfaction of seeing his eldest son fully equipped and prosperously entered upon the practice of a lucrative profession. In his latter years he interested himself very much in the study of china and bric-a-brac. It became a recreation to him to visit auction rooms, and he often came away with a rare bit of some kind.

Galton describes a certain class of men as being incapable of advancing beyond a certain point in mental attainment, just as another class can only be developed physically to a certain inferior standard. Little was not one of these. As long as he lived he grew in mental capacity.

He was never satisfied with his own preparation for the study of medicine; but while he did not enjoy the advantages of a college training that he appreciated so highly in others, he had that which no conventional curriculum can of itself furnish—a receptive, inquiring, and unbiased mind in science; and as to merely scholastic attainments he might have well said as did John Hunter, when he heard that he was reproached by a rival with being ignorant of the dead languages, "I would endeavor to teach him on the dead body that which he never knew in any language living or dead." It has been said by one biographer of Dr. Little that he was a typical American. It is certainly true that his career is a striking example of how eminence in our profession may be attained by the resources of our own country. His education was wholly obtained within his own city. He had none of the advantages so useful to the best of men, so without use to many, which are to be obtained in British or Continental schools. But no man more than he appreciated the labors of foreign surgeons and pathologists, no one followed more eagerly the medical literature of his time; but he was fortunate enough never to acquire such a slavish esteem for the opinions of books that he ceased to think for himself.

The sense of humor was fully developed in Dr. Little. From the busy, and sometimes weary life of a general practitioner, and from the society of his friends, he extracted much to give zest to his work. A joke at his own expense was almost as welcome as if for another. He used to tell with great glee, and awaking much laughter as he did so, how a little trick of his to stop too prolix patients once got him into great trouble. He said that he had found a good device for interrupting a needlessly long story on the part of a patient was to ask, in the midst of the long narrative, "Please let me see your tongue." He found that patients bore this interruption very well, and that in their eagerness to get the doctor's opinion of this index of the digestion, its wagging ceased. But on one evening a friend, who was in no sense a patient, was making a call upon him, and talked long, when Little was very tired. After a time, the doctor's mind wandered afar off from the discourse to the discussion of medical cases and questions, and, turning to his friend, who was in the full tide of talk, he asked with great gravity, "Please let me see your tongue." Little was never able to explain what happened when his friend had fairly taken in the meaning of this interruption.

But you will demand an end to this desultory contemplation of the varied sides of our late associate's life and character. A quarter of a century was to be the limit of his professional life. In the apparent ripeness not of old age, but of middle life, it was ordered that his work should end. As has already been intimated, he was actively engaged at a professional meeting up to a late hour on Tuesday, March 31st, and on Saturday, April 4, 1885, he was in the life beyond. In August, 1884, it was discovered that he was suffering from diabetes. I believe it is thought, by some authorities at least, that the debility induced by this disease, the existence of which was shown by the examination after death, made him less able to resist the acute affection from which he died. At any rate it had a sensible effect upon his apparent feelings and actions as observed by his intimates. His thirst was marked, and he became much fatigued upon slight exertion. But he continued his daily work, without creating a suspicion of the existence of any serious disease, in those who saw him only at intervals, until Wednesday morning, April 1st, when he called his friend Dr. Lloyd to his office, at about ten o'clock, and he found him with his head resting upon his hand, and complaining of a severe pain in the right iliac fossa.

He asked Dr. Lloyd to attend to his clinic for that day, while he proposed to make one or two calls in the after-

noon. He then went up-stairs and took a dose of cathartic medicine prescribed by himself. At noon he said he felt better, and he went out to try and finish some work, but he soon returned, complaining of severe pain. His family physician, Dr. John S. Campbell, was sent for in the evening; when Dr. Campbell arrived he ordered a dose of castor-oil, which he had seen relieve similar attacks in Dr. Little. The night passed without a movement of the bowels, and with a steady increase in the pain. Early in the morning he sent for Dr. Lloyd and gave him the necessary instructions in regard to his practice. When Dr. Campbell came for his morning visit he advised that Dr. Loomis be sent for in consultation, and when he came, although he thought there was beginning typhlitis, he advised a dose of calomel. He also had seen Dr. Little in similar attacks, which had been relieved by cathartics.

No alleviation of the pain was obtained, nor did the bowels respond to the frequent calls made upon them; and Friday, owing to the increase of the pain, it was found necessary to resort to the hypodermic injection of morphine. It was also noticed that there was a localized peritonitis, and when Dr. Campbell arrived, Dr. Sands was also called in consultation. By the time he arrived, in the afternoon, the inflammation of the peritoneum had become general, and it was a question whether it would be wise to operate. This was advised against, however, when the existence of the constitutional disease was fully considered. Although the hypodermic was used freely all Friday night, it was found on the morning of Saturday that the peritonitis was much aggravated. On this morning he sent for Dr. Lloyd, and when he got to the room he found him, in spite of the peritoneal inflammation, sitting in a chair by the side of the bed. As Dr. Lloyd entered the room he asked if he thought he looked much worse than the day before, and then immediately began to give instructions with regard to some business for the University of Vermont, which he thought ought to be attended to without delay. It was suggested to relieve the distention of the bowels by an aspiration, but he objected, and the matter was not urged. Dr. Lloyd, from whom I received these particulars, then continues: "After remaining with him for some time, I left to attend to the calls, and was probably absent about an hour. Upon my return I was met at the door by one of the servants, who asked me to hurry to the room, as the doctor was worse. Hurrying up-stairs, I found Drs. Campbell and Powell already there, and that collapse had set in a few minutes before. Just before my arrival the doctor had asked Dr. Campbell, 'Doctor, don't you think a little digitalis would be good for this failing heart of mine?' Dr. Sands was also sent for and arrived in a very few minutes; but there was nothing to be done, and we now knew that the end was nearing fast. As I entered the room the doctor held out his hand with the expression, 'Lloyd, I am going now;' and then, a minute later, again calling me by name, he said, 'I now realize the truth of what poor Beard said.'[1] During all this time he was suffering intensely, but his mind was entirely clear, and his spirit undaunted by the fast approach of death. He summoned the household servants and family about his bedside, and casting anxious glances at a clock that was in his chamber, he plainly showed that he was counting the moments that he still had to live. Having bid farewell to each one by name, and with the words, 'I die in the Christian faith' upon his lips, there was a final instant of distress, when this brave man yielded up his spirit to the God who gave it."[2]

ANTIPYRINE AND SWEET SPIRITS OF NITRE are incompatible, according to Dr. Eccles.—*N. Y. Medical Journal.*

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[1] This refers to the words of the late George M. Beard, in which he expressed his regrets that he could not express the thoughts of a dying man.

[2] At the autopsy a perforation of the vermiform appendix was found, and also a hardened mass of fæces, which was the probable cause of the ulceration, and there were proofs in the condition of the liver and kidneys of the existence of diabetes.

URETHRAL IRRITATION IN THE MALE THE CAUSE OF CERTAIN NEUROSES, AND ALSO OF ACNE.[1]

BY LEGRAND N. DENSLOW, M.D.,

ST. PAUL, MINN.

ALTHOUGH of late years much has been written about urethral irritation and its relation to nervous disturbances, I am inclined to think that its importance is far from being appreciated as yet. This conviction is the only apology I have to offer for trespassing upon your time, by recounting a few cases that have come under my observation recently. Dr. Otis, at a meeting of the New York Dermatological Society a little over a year ago, read a very interesting paper on contractions of the meatus urinarius as a source of reflex irritation in the brain and spinal cord; his cases, together with mine, make such an interesting series that I shall briefly refer to them. The first was a case of contracted meatus in a physician, associated with mental depression so great as to render all his mental processes unreliable, and to make him feel as if he did not care to live. These symptoms were entirely relieved by simply stretching the meatus three or four millimetres. The patient would not accept division, and he was obliged to dilate at intervals, each dilatation being followed by prompt relief. Again, case of a physician who had been subject to attacks of profound mental depression, coming on without apparent cause. This trouble he bore until he was past forty years of age, when to it were added various reflex nervous difficulties—among these a feeling of wetness in the urethra, and a bearing down in the perineum. A sound was passed and gave immediate relief, which continued for several weeks. A year afterward the meatus was divided, with the effect of permanently removing his nervous trouble. The same writer speaks of two cases who were subject to daily epileptic attacks, in both of which there was entire relief after division of the meatus. In one case it was found necessary to cut several times before the tendency to recontraction was entirely overcome, and the symptoms permanently relieved. The most interesting case described in his paper, and illustrative of another class of cases in which the reflex irritation falls more particularly upon the spinal cord, occurred in a child, aged three. As an infant it was restless and fretful, had frequent erections and enuresis; at two and a half years it was still in bad general condition and suffered from bilious attacks. About this time it was circumcised, with relief, though the attacks continued at night. Although there was no evidence of spinal disease, there was marked difficulty in locomotion, the child stumbling in his walk, with the right foot turned in, and falling every few steps. The meatus was found to be contracted and was cut, the operation giving great relief; but the meatus having again contracted, it was found necessary to cut again. To avoid hypospadias this operation was very carefully performed and repeated ten times, until no further recontraction took place. These numerous operations were found necessary, as the symptoms would return with the slightest recontraction. The child was seen two years after the date of the last operation, and found to be fat and well. My first case is similar in some respects to this last one.

CASE I.—April 3, 1885. C—— had gonorrhœa twenty-two years ago, discharge lasting several months. During treatment a piece of nitrate of silver was accidentally dropped in the urethra and allowed to dissolve. Patient complains of sensation of weight in the perineum, and pain in the same region during emission. There are darting pains through thighs and down the legs, the feet feel heavy and numb, and occasionally it is only with great effort that he can walk steadily. There is almost constant occipital pain, and the patient has about made up his mind to give up a good position. Upon exam-

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[1] Read at the Ninth Annual Meeting of the American Dermatological Association.

ination the normal urethra was found to be 34. There were strictures at 1 inch, No. 24, from 1⅜ to 2¼ inches from 22 to 24, this one being particularly dense and showing the result of the nitrate, and one at 4½ inches, No. 19. All were incised to 36, and during the course of the next six weeks all the disagreeable symptoms disappeared.

Case II.—May, 1883. O——, aged forty-two, married, of good habits, uses no liquor or tobacco, is in perfect health. Complains that he has been impotent for eight years, and that the condition came on gradually. Upon examination meatus measured 16 (normal 34), otherwise urethra normal and not sensitive; the meatus was incised to 35 and a cure effected within a week. This occurred two years ago, and I have heard recently from the gentleman, that at present there is very little probability that any further treatment will be necessary.

Case III.—June 15, 1885. G——. Gonorrhœa seven years ago, which lasted about one month. Before he was entirely well he had connection with dissolute women, several times every night, for two weeks; at the end of that time he fell down in a fit, bit his tongue, etc. These attacks have occurred every few days, sometimes every day, until the present time. He is a printer, and has frequently fallen from his stool while at work. Had last attack yesterday. Stream of urine very small. Upon examination, normal urethra 34, meatus 29; stricture at 2 and 3½ in., admitting 29,; 4½ in., 26; 5½ in., 7. Following the examination he had a severe epileptiform attack. For the next week the lower stricture was stretched every other day until 22 was reached. The patient then had a pleurisy, from which he has not sufficiently recovered to proceed with urethral treatment. He has not had an epileptic attack since the day mentioned.

Case IV.—February 12, 1885. S——, aged thirty, single; no venereal disease. Complains that during the last year his hair, both on head and body, has been falling rapidly. He has a very extensive hirsute growth over the entire body, and upon removing the underclothes they are found to be lined with hairs. The scalp and a small spot on chest are found to be the seat of a seborrhœa, for which appropriate remedies were applied. The skin over the entire body is, to all appearances, in a perfectly healthy state. Thinking that the trouble must be reflex, I examined the urethra and found the prostatic portion highly sensitive. From this time patient was seen every other day, and sound passed. March 1st, less hair falling. March 11th, continued improvement. March 15th, scarcely any hair falling. March 31st, hairs on body firm, none falling. Within a few days the patient has been heard from, and there has not been any return of the body trouble, although hairs still fall from head and chest. I am not aware that general alopecia was ever before treated through the urethra. The result followed the treatment so rapidly, and proved so radical, that there is no doubt in my mind that the cause in this case was discovered.

Case V.—S——, aged twenty-six. Has had a constant neuralgia of the right testicle for past eighteen months. Had gonorrhœa two years ago, which lasted three months. There are numerous acne pustules scattered over the face. The patient told me subsequently that he has never been free from them since he was twelve or fourteen years of age. Has been impotent for past six months. Upon examination (normal urethra 34) meatus 26. This was enlarged to full size, and the deep urethra treated with sound. Within a month the acne had disappeared and the neuralgia was very decidedly improved, and after three months' treatment the neuralgia was cured by the systematic use of the sound together with galvanism. This case is an interesting one from the fact of the acne disappearing so rapidly. No mention was made of the acne either by the patient or myself until about one month after treatment commenced, when the patient informed me that he had "always had pimples" until the present time, and asked if I thought the operation and treatment had anything to do with their disappearance. This patient has been seen by me within a few days, and there is no return of the acne, and but occasional slight pain in the testicle. Upon further examination of his urethra with bulbs, a stricture of large calibre was found, three and a half inches from the meatus, measuring 32. I have every reason to believe that the remnant of the neuralgia is due to this contraction.

Case VI.—June 20, 1885. W——, aged twenty-nine. Prominent member of the bar and hard student. Has been morbid more or less as long as he can remember. Within two or three years has become abnormally sensitive, and finds that his mental processes are becoming obscured, has great difficulty in fixing his attention, and it is only with effort that he can grasp the subject of his reading. Upon examination of the penis find that he has been circumcised; the meatus 24 (normal 30) and lips protruding; the entire urethra exquisitely sensitive. The meatus was incised and a full-sized sound passed regularly. At this date, August 20th, the urethra is not sensitive, and the patient declares that mentally he is another man, that he is no longer despondent, and that within a week he has passed through a trial that prior to the operation would have "about killed him." I can notice a great change in his nervous condition. This patient applied to me for an aggravated case of acne, situated over the entire back from shoulders to buttocks, of fourteen years' duration, which has entirely disappeared without other treatment.

Case VII.—October 11, 1884. A——, aged fifteen. Had comedo when six weeks old, which disappeared in a few weeks. Normal skin thick and greasy. At present the whole face, ears, neck, and shoulders are covered with acne to an extent worse than I ever saw before, several abscesses being two inches in diameter, and a greater part of the skin of the face being infiltrated with pus, serum, and sebaceous matter. Disease commenced two years ago. Locally I treated him by opening abscesses and applying hot water, and gave gr. vj. ergotine t.i.d. By December 13th the acne had all cleaned up, except a few pustules on the back of the neck. At this time the urethra was examined. Meatus contracted to 27 (normal 34) and prostatic urethra very sensitive. As operation was declined, sound No. 27 was passed frequently for about six weeks, when urethra was no longer sensitive. During this time ergot was discontinued, but improvement continued until but very few pustules appeared on the neck.

April 18th.—No treatment but hot water for past two months, and slight relapse on neck. Ergot given again, and in a month the eruption had all disappeared. A few days ago he presented himself, having neglected treatment for the past two months. There was a decided relapse, principally about the neck and angle of jaws. There are many points of interest about this case: first, the fact of the skin being predisposed to acne, as shown by comedo appearing at the age of six weeks; second, the rapidity with which the disease disappeared under the use of ergot; third, the fact of improvement continuing when sounds were substituted for ergot; fourth, relapse occurring upon discontinuing either sounds or ergot. As the deep urethra is no longer sensitive it would be fair to presume that the acne is kept up by the contracted meatus, as it improves always after passing a sound. I regret my inability as yet to prove this.

Case VIII.—June 22, 1885. W——, aged thirty-one. Has suffered from acne for years. At present back is pretty well covered from shoulders to lumbar region. Urethra 30; meatus normal. Strictures Nos. 26 and 28 at one and two inches, the entire urethra very sensitive, and particularly so in the deeper portion. Treatment: Sounds passed every other day.

July 7th.—Acne has disappeared. At this time patient was ill and obliged to stay at home for two weeks,

and at the end of that time a few more pustules had appeared. At the present time there is no acne.

I simply present these as an interesting group of cases. I have no theory to offer, but would call particular attention to the case of general alopecia cured, and also the result in the cases of acne, adding, as they do, evidence as to the efficacy of Dr. Sherwell's treatment by sounds, suggested by him at the last meeting of this Association.

A CASE OF GUMMA OF THE CONJUNCTIVA.

By LE ROY POPE WALKER, M.D.,

LATE HOUSE SURGEON NEW YORK EYE AND EAR INFIRMARY, MEMBER AMERICAN OPHTHALMOLOGICAL SOCIETY, FELLOW NEW YORK ACADEMY OF MEDICINE, ETC.

E. L——, sailor, aged twenty-five, was admitted to the New York Eye and Ear Infirmary (service Dr. W. F. Mittendorf), September 17, 1885, with a well-developed gumma of conjunctiva and a circumscribed scleritis of three weeks' duration, left eye.

He gave a clear history of infection, one year ago, which had been treated in a desultory manner at Constantinople, Turkey, and again, in London, England.

The gumma was located at the sclero-corneal margin, upper and outer quadrant, with a base 3½ mm. in diameter, and an elevation of 1½ mm. There was mild ciliary injection. Cornea and aqueous humor perfectly clear; no signs of iritis. Iris dilating and maximum readily. He also had a mild form of scleritis, limited to inferior segment; no swelling or bulging. His general health was excellent, presenting no other evidence of syphilis.

Began immediately with inunctions of mercury, together with pot. iodide, grs. x., and instillations of atropia, grs. ij. to ʒ j., three times a day. He was also given a collyrium of boric acid morning and evening.

Third day, slight ptyalism. Inunctions discontinued. Pot. iodide, atropia, and boric acid as before, and, in addition, a gargle of pot. chlorate ordered every hour. Gumma much diminished, and circumcorneal injection fast disappearing, as also scleral congestion. He experiences now no inconvenience from movements of lids over gumma, of which he previously complained.

Seventh day, salivation entirely relieved, ciliary injection rapidly fading, and gumma reduced two-thirds. Pot. iod., atropia, and boric acid continued.

Fourteenth day, gumma has entirely disappeared, with only a *very faint* injection of scleral vessels in region of recent scleritis. Same treatment continued.

Discharged on the twentieth day, cured, only one or two small scleral veins showing, as evidence of former trouble. This case is reported mainly to demonstrate the efficacy of rapid mercurialization in syphilitic affections of the eye, and also to show their tractability when energetically treated.

NITRITE OF SODIUM IN GOUT EPILEPSY.—Dr. J. Mortimer Granville writes to the *British Medical Journal*: "I am obtaining highly satisfactory results in epilepsy associated with gout with the following formula: ℞. Sodii nitritis, gr. xxxvi.; sodii hippuratis, ʒ iij.; infusi serpentariæ, ad ℥ xii. Misce. Two tablespoonfuls are to be taken three times a day before meals. The dose of the nitrite of sodium may be increased by one grain after each fit which occurs subsequently to the commencement of the treatment. The mixture should be used regularly for about three or four months; the dose of the sodium nitrite being increased, as I have suggested, until it reaches fifteen grains. In a number of cases recently treated in this way, the fits have ceased before the progressive augmentation of the nitrite raised the dose to ten grains. I am very confident that the profession will find the combination worthy of a trial. If there be constipation or a jaundiced appearance at any time during the treatment, I give the following pill several successive nights until the condition is improved: ℞. Iridin., gr. ij.; extracti cascaræ sagradæ, gr. iij. Misce. Ft. pil."

Clinical Department.

A REMARKABLE CASE OF ASCITES.

DR. WILLIAM A. MCDONALD, of Lynn, Mass., reports the case of a woman, about fifty years of age, who came under his care in December, 1880, suffering from an accumulation of fluid in the peritoneal cavity. She stated that the abdomen had been tapped six weeks before, while she was living in the West. Dr. McDonald introduced the aspirator needle and drew off twenty-two quarts of fluid, and from that time until the present the operation has been repeated at intervals of about two weeks, from sixteen to twenty quarts being removed each time. Examination of the urine failed to reveal any cause for the ascites, and neither the liver nor the heart presented any symptoms of disease. Medicinal treatment was ineffectual in preventing the exudation or in promoting its absorption. The patient has now furnished about five hundred gallons of fluid, but seems to have suffered in no way from this abnormal excretion, her general condition presenting no change save that incidental to increasing years.

THE CHLOROFORM TREATMENT OF TAPE-WORM.

DR. L. E. BORCHEIM, of Atlanta, Ga., writes: "Having been one of the opponents of the method of treating tape-worms to a dose of chloroform, I think it my duty to record the result of a more extensive experience with this remedy. I have employed it in six cases since the publication of my last letter, and in all with success, and without any unpleasant effects worth mentioning. The promptness of the action of the drug is such that I think it should receive the preference over others, at least for the first attempt. Should it fail (and what remedy is there that will not sometimes fail?) the inconvenience suffered by the patient is so slight that he will not hesitate to repeat the dose should it be deemed advisable. My plan is to order an early and light supper, and then instruct the patient to take before breakfast, the following morning, one drachm of chloroform, with from one-half to two minims of croton-oil. A prompt action is insured by the croton-oil, and to it, I believe, is due in great measure the success of this mode of treatment." [The writer is, we fear, a little too positive in his assertion of the harmlessness of chloroform. Cases have been reported in these columns, and elsewhere, in which alarming symptoms have followed the exhibition internally of this drug, and we should not be surprised to learn that its use in this manner had even been attended by fatal consequences.—ED.]

POISONING BY CHLORATE OF POTASSIUM.

DR. SIMMONS B. JONES, of Charlotte, N. C., reports the following interesting case: A little girl, nine years of age, had been under his care for a slight fever, with weak pulse, nausea, and continual vomiting, but, having apparently recovered, was dismissed as cured. On the day following, July 26th, the child had a sore mouth, and her mother gave her a paper containing something over an ounce of chlorate of potassium, allowing her to take it *ad libitum*. The girl liked the taste, and ate the crystals all day, consuming in this way between two and three hundred grains. At about two o'clock on the morning of the 27th the patient awoke vomiting. When seen some five hours later she was deathly pale, with blue lips, and a very rapid and feeble pulse, and presented exactly the appearance of one who had had a sudden and copious hemorrhage. "I had no idea at this time of the cause of the trouble, the parents having said nothing about the chlorate of potassium, believing it to be a harmless drug; but I suspected poisoning. The patient

remained in this condition the three following days, vomiting and being unable to retain any food, and passing no urine. On the fourth day I introduced a catheter and drew off about five ounces of smoky urine, which, on examination, was found to contain albumen, casts, and altered blood. Dr. H. Formad, of the University of Pennsylvania, who examined a specimen, reported: 'I fully coincide with you about the urine; it contains a very large quantity of granular blood, epithelial casts, and free blood, showing a profound renal affection.' The urine was drawn for several days, and then began to be passed naturally in sufficient quantity, the blood disappeared, and the water resumed its normal color. An analysis, by Dr. Hannah, of eight ounces drawn the second day, showed six grains of potassium chlorate. The vomiting continued until August 14th, the matter vomited consisting of dark green mucus of an offensive odor. On August 16th there was seen an eruption of small maculæ of a purple color, upon the forearms. The temperature rose to 100° on the 20th, the submaxillary glands became swollen, the throat was red and œdematous; the patient sank gradually, and died on August 26th. She never complained of much pain, and there was no tenderness over the stomach. The bowels were at first constipated, but when action was solicited the matter passed was dark and resembled the urine in appearance. There was complete anorexia throughout the entire period. Life was sustained by enemata of beef, peptonoids, and milk until the rectum became too irritable to retain the injections. After the vomiting had ceased, the patient was able to retain a little buttermilk. During the first few days much relief was obtained by warm baths, which were always followed by profuse perspiration and quiet sleep." No autopsy could be obtained.

TREATMENT OF A REBELLIOUS CORN.

Dr. R. C. Newton, Assistant Surgeon, U.S.A., writes from Fort Elliott, Texas, concerning a soldier, thirty-three years of age, who was suffering from a large callosity, caused by a splinter which he had run into the sole of his foot two years ago. The callosity resembled an ordinary corn, but was as large around as a quarter of a dollar, and gave but little pain except when the man walked about. The corn was vigorously treated by excision, poulticing, scraping, salicylic acid, cannabis indica, collodium, etc., but without avail, for each time that it was removed it grew again with most commendable persistency. Anti-syphilitic treatment was also tried without success. Finally Dr. Newton had resort to liquor potassæ, as recommended by Erichsen for callosities, and, after making applications twice a day with this substance for a period of four months, was rewarded by seeing his patient cured and returned to duty.

THE BAROMETER AS A GUIDE TO HEALTH.

Dr. M. A. Veeder, of Lyons, N. Y., has been led by his observations to believe that the barometer may become an instrument of as great value in saving life as it is now in saving crops or ships. It is a familiar fact, he says, that many persons who are afflicted with rheumatism are able to foretell changes of the weather by means of the aches and pains that they experience. Persons who are subject to headache, also, are apt to suffer most when the mercury in the barometer is changing its level rapidly, as, for instance, before a thunder-storm. The cause of these symptoms appears to be a difficulty in the adjustment of the volume and rate of the circulation of the blood to the varying atmospheric pressure upon the surface of the body. Ordinarily the results are not serious, and but little attention is given to the subject. The question arises, however, as to whether there may not be a class of cases in which the movements of the mercury in the tube may become of great prognostic import. Dr. Veeder says that he has noted the occurrence of several deaths from apoplexy at times when rapid fluctuations of atmospheric pressure were indicated by the barometer; and he believes that at such times over-excitement, over-eating, improper clothing, and the like, may induce consequences most disastrous to those who are predisposed to apoplexy, the weakened blood-vessels being already subjected to unusual strain by reason of the unfavorable atmospheric conditions. Although the cases observed by the writer thus far are not numerous, yet he maintains that the probabilities with regard to the matter are such that it is the part of wisdom that those who are advanced in years, or subject to symptoms that indicate an apoplectic tendency, should be warned to exercise great moderation in all things, whenever the mercury is seen to be unusually active in its movements.

A CASE OF INTRA-UTERINE SUPPURATION.

Dr. Hamilton Vreeland, House Physician and Surgeon in the Jersey City Hospital, reports the following interesting case: Mrs. J——, primipara, twenty-four years old, was admitted to the lying-in ward, with a history of being fully nine months pregnant and of having enjoyed good health during that entire period. Examination of the urine at three different times showed a specific gravity of 1.024, no albumen and no casts. The patient remained in the hospital ten days, doing light work about the ward, and being apparently in excellent health. On the eleventh day she kept her bed, complaining of pains in the back, and during the day vomited a small quantity of greenish material, but ate the usual quantity of food. In the evening labor began, the membranes ruptured, discharging a small quantity of liquor amnii, and the head descended into the pelvis. At about midnight the patient began to complain of thirst, the skin was dry, pulse 110, and the pains grew weaker until nine o'clock the following morning, when they ceased. At this time the occiput was under the pubis, but the woman was cyanotic, and the pulse was 120 and feeble. The head was now delivered with the forceps, and this was followed by a gush of sanguineous pus and mucus of a most disgusting odor. Ergot and stimulants were administered, but no uterine contractions followed, and the delivery was completed by traction upon the chin and occiput. The fœtus was large and fully developed, and had apparently been dead about two weeks. Its extraction was followed by another discharge of pus. The placenta was firmly adherent and was removed by the hand introduced into the uterus. There was no hemorrhage, but the patient remained cyanosed, with feeble and rapid pulse and cold extremities, and sank rapidly until death supervened. At the autopsy, made twenty hours after death, the right heart was found to contain a white clot filling both auricle and ventricle. The abdominal cavity contained a pint of dark brown fluid, but no pus and no fibrinous exudation. The stomach and intestines were congested, and markedly distended with gas. The uterus was the size of a large cocoanut and was the seat of three small fibroids. The walls were thin and succulent on the inner surface, exuding pus when squeezed, and the cavity contained purulent matter and blood-clots. There was no pelvic abscess nor sign of inflammation around the uterus or vagina. The woman had denied receiving any injury, but the husband stated that, two weeks before entering the hospital, she had, in a fit of frenzy, pounded her abdomen, exclaiming that she would kill the child. There were, however, no signs of any bruises, and the woman presented no untoward symptoms prior to the day on which labor began

‖ Dundakine.—This is a bitter resinoid substance, soluble in water and alcohol, obtained from the bark of the *sarcocephalus esculenta*, growing in Senegal. According to Haeckel, it possesses astringent and antipyretic properties, and has been proposed as a substitute for quinine.

Progress of Medical Science.

THE ETIOLOGY OF CHRONIC NEPHRITIS.—At the last meeting of the French Association for the Advancement of Science, M. Lépine delivered the following opinions on the etiology of Bright's disease. The cases may be arranged into two classes, the first of which is dependent on a habitual dyscrasia, using this word in its widest sense—*i.e.*, any modification in the constitution of the blood. The second class consists of "ascending nephritis," among which may be reckoned microbic pyelonephritis, arising independently of any previous alteration in the urinary passages, and the real occurrence of which is said to have been proved by the experiments of Lépine and Roux. The relatively tardy elimination of iodine by the urine after its subcutaneous injection is given as a sign of chronic nephritis.

ELEVATION OF THE ARMS AS AN INDICATION OF PERITONITIS.—Dr. Lediard, in *The Lancet* of September 19, 1885, refers to this subject. He calls to mind that there are various circumstances rendering the attitudes assumed by the sick of great diagnostic value. It may be that extreme restlessness, delirium, or fear, may prevent accurate noting of the pulse, temperature, respiration, or even physical examination of diseased organs. Again, deaf-mutism, malingering, a foreign language, etc., may further entail difficulties in diagnosis which might be in some measure overcome by the observance of a well-established position pathognomonic of a disease. He then alludes to one disease and one posture, which seem to be rarely dissociated, at least in the adult. Many years have passed since he was first struck with a posture which he has generally found to be a truthful indication. On November 19, 1871, a waiter, aged twenty-two, was brought into the Edinburgh Infirmary, under the care of the late Professor Spence, whose house-surgeon he then was. The patient had been stabbed in the abdomen, and a foot of small intestine was protruding. On the day following admission the patient was noticed to keep his hands above his head with the elbows out—*i.e.*, in a position often assumed when one is lying on the grass in summer enjoying the sounds of nature. Subsequently, but within twenty-four hours, he was observed to raise the left thigh; finally, the hands were constantly behind the head and the knees completely drawn up. Death occurred on the fourth day from general peritonitis. In peritonitis following the operations for hernia, gastrotomy, ovariotomy, ruptures of the bowels following violence without external mark, and in puerperal peritonitis, the author has constantly observed the position taken by the patient to be similar to that described. The raising of the arms is, in his belief, coincident with the commencement of peritonitis, and when the inflammation is at its height the hands will be clasped behind the occiput. The explanation is simple enough; the object being to lift all pressure from the distended bowels, the respiration becomes thoracic and the diaphragm fixed; by raising the arms the pectoral muscles elevate the ribs, and more room is thereby allowed for lung expansion; the raising of the arms moves the scapula upward and forward, and the serratus magnus being drawn upon still further tends to relieve the thorax from pressure, while the dorsal position of the trunk with an extended spine favors respiratory movement.

GENERAL CARCINOSIS—APPARENT RECOVERY.—Dr. Brunon relates in the *Gazette des Hôpitaux*, No. 61, 1885, the case of a woman, thirty-two years of age, who had suffered for eighteen months from a rapidly growing tumor of the left breast. After having existed for ten months the tumor ulcerated and then cicatrized, being somewhat smaller than before. Two months later the right breast became similarly affected, and the patient entered the Hôtel Dieu. She was then markedly cachectic and seemed to be rapidly nearing death. In the left mamma was a hard tumor, the size of an egg, firmly adherent to the surrounding tissues, with hard cords radiating in all directions beneath the integument. In the right mamma was a tumor of similar appearance but not so far advanced. The supraclavicular and axillary glands of the left side were enlarged and indurated, and the left arm was œdematous. The liver was enlarged, and there were numerous hard, movable nodules, the size of a hazelnut, in the skin of the abdomen, chest, and neck. There was also an effusion into the pleural and peritoneal cavities. The author regarded the case as one of general carcinosis, originating in a scirrhus of the breast, and looked upon it as hopeless. But on general principles he ordered nutritious food and syrup of the iodide of iron with arseniate of sodium. Under this treatment the patient began to improve in general health, the swollen glands grew smaller, the œdema of the arm disappeared, the tumor of the left breast decreased steadily in size, and the nodules of skin disappeared entirely. The author maintains the correctness of his diagnosis, and says that syphilis was certainly to be excluded. In referring to this case a writer in the *Centralblatt für Chirurgie*, No. 37, 1885, relates a very similar one reported by Dr. Gluck at a meeting of the Berlin Medical Society. In this case a typical carcinoma had been removed from the breast by von Langenbeck four years previously. Two years later there was a return of the disease in the cicatrix, in the form of "cancer en cuirasse," which increased, despite arsenic injections, and finally converted the entire breast into a suppurating mass. There were also some seventy or eighty tumors, from the size of a pea to that of a hazelnut, in the surrounding skin. There was œdema over the thorax and on the arm, the knee was the seat of an exudation, and the chest contained a bloody fluid. Under injections of arsenic and morphine, and treatment of the suppurating breast with iodoform and sublimate, the abscess healed, the articular exudation was reabsorbed, and the cutaneous nodules disappeared. And at the time the report was made it was stated that the disease had been so far recovered from that "no surgeon would now advise the removal of the breast."

RESORCINE IN GONORRHŒA.—Dr. A. J. Munnich has treated a number of cases of gonorrhœa in the following manner: The patients are instructed to drink as much water or milk as possible, so as to be able to pass water and wash the pus from the urethra before each injection. Then, every two hours during the day, and at least twice during the night, an injection is made of a syringeful of a three per cent. solution of resorcine, the fluid being allowed to flow away immediately. On the fourth or fifth day the secretion will be much reduced, and it will be necessary to practise the injections but three or four times during the day and once at night. Treatment should be continued for about a fortnight. Dr. Letzel has also used resorcine with success in upward of fifty cases. In some the treatment had to be discontinued by reason of the irritation to the urethra caused by the drug, but in about eighty-five per cent. the result was most satisfactory. It is necessary, however, to take great care as to the quality of the drug used. Chemically pure resorcine is snow-white, and forms a perfectly clear solution in distilled water.—*Deutsche Medicinal-Zeitung*, September 10, 1885.

URETHAN, A NEW HYPNOTIC.—This substance ($NH_2CO_2C_2H_5$), which was first employed by Schmiedelberg in experiments on animals, occurs in the form of white, odorless crystals, readily soluble in water, and has a not unpleasant taste suggestive of saltpetre. Von Jaksch (*Deutsche Medicinal-Zeitung*, September 14, 1885) has given the drug to man in upward of one hundred cases, in doses of about fifteen grains. He found that its action was exerted chiefly upon the brain, having no appreciable influence over the peripheral nerves. It seems, therefore, to be a pure hypnotic, having no influence in arresting cough or in quieting neuralgia, or the lancinat-

ing pains of locomotor ataxia. The writer states that it is very well borne, has no unpleasant secondary effects, and causes a quiet and seemingly normal sleep. He recommends its use, especially for children and in delirium tremens and mania. It may be given in simple aqueous solution.

Cherry-laurel Water as a Local Anæsthetic.—Dr. Fodor has successfully employed urethral injections of cherry-laurel water for the production of local anæsthesia prior to catheterization. It is injected ten minutes before the introduction of the catheter, and allowed to remain up to the moment of the operation. The author recalls the fact that oculists formerly used cherry-laurel water, or dilute hydrocyanic acid, as an eye-wash in painful affections.—*Deutsche Medicinal-Zeitung*, No. 73, 1885.

Fatal Sublimate Poisoning.—Dr. H. Keller relates the case of a woman, fifty-two years of age, from whom the uterus was removed through the vagina on account of carcinoma. During the operation the wound was thoroughly irrigated with a 1 to 4,000 sublimate solution. The next day two vaginal injections, of about a quart each of the same solution, were made. The following morning there was diarrhœa with tenesmus, and in the evening the patient had bloody stools, with a small pulse of 156 to the minute, great thirst and restlessness. She passed about ten ounces of bloody urine containing hyaline, granular and epithelial casts, and renal epithelium. The day following this the patient died. The writer thinks that corrosive sublimate should not be used as a disinfectant in cachectic and anæmic individuals, or in those suffering from renal disease.—*Centralblatt für Gynäkologie*, No. 32, 1885.

Conception after Scraping of the Uterine Cavity.—B. Schultze warns against the use of the curette in women not past the child-bearing period, believing that thereby conception is rendered difficult, if not impossible. But Düvelius has collected sixty cases in which conception followed the scraping of the uterine mucous membrane, and Benicke has reported ten of the same nature. In three of the latter group the curette was employed twice. In these ten cases there were thirteen conceptions within sixteen months—five abortions, and eight pregnancies going to full term. In two cases conception followed within five weeks after the operation.—*Wiener Medizinische Wochenschrift*, September 5, 1885.

Sugar in the Blood of Carcinomatous Patients.—After the publication of Freund's statement that he had found sugar in the blood of seventy patients with carcinoma, and none in the blood of thirty individuals who were also ill, but had not cancer, Mátrai undertook some investigations in the same direction. He found sugar in the blood of eight patients with cancer, out of eleven examined, and also in four out of an equal number of non-cancerous invalids. These four were all markedly cachectic, and it is to this condition that Mátrai refers the presence of sugar. Claude Bernard's experiments showed that, if a dog were bled, the last part of the blood which flowed away contained sugar. But in cachexia the blood is reduced in quantity, and it is to this cause that the presence of sugar is to be attributed.—*Deutsche Medicinal-Zeitung*, September 14, 1885.

Nerve-stretching.—In a thesis with this title, published in the *Gazzetta Medica di Roma*, Nos. 18 and 19, 1885, Dr. Vincenzo Morini concludes that the procedure may be employed in all forms of neuralgia, especially of rheumatic or traumatic origin, when the usual remedies have proved ineffectual, and when the pain is known not to proceed from the irritation of a tumor, cicatrix, or the like. In case of the sciatic nerve it is practicable to first attempt stretching by flexing the thigh, with knee extended before resorting to an operation. Nerve-stretching is also indicated in ascending neuritis, reflex epilepsy, and muscular contracture or spasm of peripheral origin, especially when traumatic. It is generally contra-indicated in secondary facial neuralgia, and in such cases, instead of promoting a cure, may even cause a more or less prolonged paralysis. In traumatic tetanus this procedure is not specially contra-indicated, and may indeed be tried with advantage if the source of irritation be well determined, and if all the principal nerve-trunks supplying the part be stretched. It is of no avail in any form of central disease, though, when the sciatic is the seat of pain, some amelioration of this symptom may possibly be obtained by resorting to stretching without operation. In other neuroses it is better to abstain from any attempts at nerve-stretching, at least until it has been more clearly determined what conditions are benefited by this procedure and what are not.

Subdiaphragmatic Abscess with the Physical Signs of Pleurisy.—Dr. E. Waahlen relates in the *Upsala Läkareförenings Förhandlingar*, vol. xix., 1885, the case of a woman, thirty-eight years of age, who suffered from acute general peritonitis. On the first examination the lungs were normal, but two weeks later dulness on percussion and absence of respiratory sounds were noted from the third intercostal space anteriorly, and from the spine of the scapula posteriorly, to the base of the lung. At the border of this area of flatness there was bronchial breathing, and, higher up, vesicular respiration. The patient was so weak that nothing could be learned from the vocal fremitus, and a few days later she died. At the autopsy there was found diffuse suppurative peritonitis, but in addition there was an encapsulated abscess between the upper surface of the liver and the diaphragm. The latter was pushed up anteriorly as high as the third rib, and the lower lobe of the right lung was consolidated. The abscess contained nearly two pints of pus. The author remarks that, even had the purulent collection been tapped, it would still have been supposed to be an interpleural exudation, and in any event the correct diagnosis could be made only at the autopsy.

Simulated Hæmoptysis and Hæmatemesis.—Dr. S. Wallgren relates the case of a young girl, who was anæmic and complained of a cough and various pains, who pretended to have hemorrhages from the lungs and stomach. The alleged attacks always occurred at night, and it was found that the girl obtained the blood necessary for her deception by means of leeches.—*Upsala Läkareförenings Förhandlingar*.

Treatment of Gouty Joints.—To shorten an attack of acute gout, Dr. Rothe recommends repeated cold douches followed by an application of the following solution: Liquor plumbi acetat., 15 parts; spiritus vini, 25 parts; tr. opii ammoniat., 5 parts; aquæ font., 300 parts. Compresses wet with the solution are to be applied to the affected joint and covered with rubber tissue. The writer has seen great relief of pain follow this treatment in other patients as well as in his own person.—*Memorabilien*, No. 4, 1885.

Reproduction of the Testicle.—Professor Luigi Griffini has been conducting a long series of experiments upon frogs to determine the question of the reproduction of the testicles after wounds and injuries to these organs. The following are his conclusions: 1. A partial reproduction of the testicle occurs in the frog. 2. The newly formed parenchyma is derived from that pre-existing. 3. The cells of the stroma do not take any part in the formation of new glandular tissue.—*Gazzetta degli Ospitali*, No. 68, 1885.

Ulcerations of the Digestive Tract Caused by Morphine.—Dr. Amadeo Sourrouille relates the case of a woman, suffering from cancer of the uterus, who could find no relief from her pain except by the use of morphine. She shrank from hypodermic injections and therefore took

the drug in pill form. The dose was gradually increased from three-fourths grain up to four grains. The pain was quieted, but the patient suffered from the usual effects of morphine upon the digestive and urinary tracts. Soon after, numerous ulcers, some superficial and others deep, were seen upon the mucous membrane of the mouth and pharynx. Suspecting that the morphine might be the cause of this trouble the author advised its discontinuance, and in a short time the ulcerations disappeared. A few weeks later the pain became so severe that it was necessary to resort again to the morphine, and almost immediately the ulcers reappeared in the mouth.—*El Sentido Católico en las Ciencias Médicas*, No. 32, 1885.

Therapeutic Uses of Capsicum.—In an article on this subject in *La Crónica Médica de Lima*, No. 19, 1885, Dr. M. Ceballos Torses relates a number of cases of different affections in which the employment of red pepper was followed by excellent results. He found benefit from its use in chronic dysentery and hemorrhoids and in vomiting, especially in the vomiting of pregnancy. It was also given with happy effect in several cases of bilious fever peculiar to warm climates, the symptoms of which bear so close a resemblance to those of yellow fever.

Joint Affection Complicating Conjunctivitis Neonatorum.—Dr. Johan Widmark relates in *Hygiea*, No. 8, 1885, the case of an infant suffering from conjunctivitis, acquired probably from another baby lying in the same apartment. The disease was not very severe, but was rather obstinate in its persistence, and the secretion contained gonococci. On the sixteenth day of the disease the mother noticed that the infant did not move the right leg, and that the ankle on this side was swollen, red, and tender on pressure. The joint affection yielded readily to treatment and had entirely disappeared at the end of two weeks. Cases similar to this are very rarely reported, but if conjunctivitis neonatorum is a gonorrhœal affection, the occurrence of joint implication should not be very rare.

Case of Gastrotomy with Canule à Demeure.—Professor Sklifasowsky (*Revue de Médecine*, No. 2, 1885) performed gastrotomy on a woman, fifty-nine years of age, who had a stricture of the œsophagus, due to cancer. The patient died six months after the operation from generalization of the cancer. The case is described especially to show the employment of a permanent canula, which the operator adopted for the case. It was quite similar to the double canula commonly used in tracheotomy. The advantage of such a canula is that it can be left constantly in place. If desirable, it may be sealed hermetically. In the observation reported it was very well borne, and remained in place two or three weeks at a time without its removal being necessary. To feed the patient, the end of a stomach-pump tube was inserted into the canula and the nourishment introduced, after being subjected to the mastication and insalivation of the patient herself, who thus was permitted to enjoy the sense of taste.

Parthenine as a Febrifuge.—Dr. Tovar, a Cuban, has experimented with the parthenium hysterophorus, a plant which is much used by the country people of Cuba in the form of an infusion as a febrifuge. Physicians, as well, in the central districts of the island have employed it to advantage as an antiperiodic. Among the substances which the plant contains is parthenine. This appears in dark-colored scales, which color water yellow and give to it an aromatic taste. This substance the writer administered to eighty patients, in whom quinine was indicated. It produced a rapid diminution of the fever. The maximum dose was thirty grains.—*Cronica medico-quirurjica de la Habana.*

Osteitis of the Coracoid Process.—Professor Poncet, of Lyons, read a paper on this subject before the French Association for the Advancement of Science at its last session in Grenoble. The disease, he says, occurs with greatest frequency in the period of adolescence, before the consolidation of the epiphyses, and is liable to be confounded with scapulalgia, osteitis of the head of the humerus, or even conical Pott's disease. The diagnosis may be made by the location of pain on pressure, and by the presence of tumefaction or of an abscess. The latter is found usually in the subclavicular region rather than in the scapuli-humeral, or on the internal aspect of the arm, the pus following the sheath of the coraco-brachial muscle, or of the short head of the biceps. The treatment consists in resection of the process by means of a T-shaped incision. In the case of tubercular osteitis, union by first intention cannot be hoped for, and it will be necessary to provide for free drainage.—*Bulletin Général de Thérapeutique*, September 15, 1885.

Pernicious Lymphodermia.—By this name Kaposi designates a new form of skin disease of which he has seen but one case. The patient, a woman, thirty-nine years old, had suffered for over a year from an affection of the skin, accompanied by itching and degeneration, which presented all the appearances of a chronic eczema. The skin was very pale, suggesting leucæmia, and there was a diffuse, doughy œdema of the subcutaneous connective-tissue, with thickening of the corium and epidermis of the face, neck, and superior thoracic region. Within a few weeks after the patient's admission to hospital several large nodules made their appearance in the subcutaneous tissue and corium. In the former region they were presented as localized infiltrations without well-defined outlines, but in the cutis they resembled ordinary eczematous furuncles. They were seen on the arms, face, breast, and clavicular region. Some of them opened spontaneously, discharging a creamy substance, and then cicatrized or became converted into flat ulcers. Fresh nodules appeared, the old ones increased in size, the spleen became greatly enlarged, the œdema spread gradually over the entire body, although the examination of the urine gave negative results, and the blood presented evidences of steadily progressive leucæmia, until finally, five months after admission to hospital, the woman died suddenly. At the autopsy lymphatic nodules were found in the lungs, as well as in the skin and subcutaneous tissues. The lymphatic glands were converted into fatty tumors, the spleen was four times the natural size, and its pulp was of a homogeneous pale-red color. The marrow of the small bones and of the extremities of the long bones was of a grayish color, but in the shafts of the bones it was very dark red.—*Centralblatt für Chirurgie*, September 12, 1885.

Properties of the Quillaya Bark.—The two glucosides which exist in Senega root and give to it its medicinal properties, are found, it appears, five times more abundant in the quillaya bark. This fact induced Dr. Kobert, of Strassburg, to substitute the latter bark for Senega in the treatment of diseases of the respiratory organs. Its action as an expectorant appears well established, and its administration provokes neither diarrhœa nor vomiting, and is much preferred by the patient. Children take it readily, on account of the sweetish taste of the decoction, which differs materially from that of Senega. Dr. Kobert advises its administration in decoction, made with five grammes of the bark to two hundred grammes of water. The dose for an adult is a dessert-spoonful every hour, and for a child a teaspoonful.—*Centralblatt für klin. Medicine.*

Treatment of Pulmonary Gangrene by Inhalations of Carbolic Acid.—M. Paul has employed this method in seven cases, in all of which a rapid and permanent cure was obtained without the appearance of any toxic symptoms. The solution employed was of the strength of one part in seven of water, and was enclosed in a flask, the patient inhaling the vapor. In addition to this, eucalyptus was employed internally in doses of one-half drachm of the alcoholate per diem.—*Bulletin Général de Thérapeutique*, September 15, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, November 7, 1885.

THE PAY-PATIENT ABUSE.

PRACTICE always falls below theory in the working out of social problems. The pay-patient system existing in our hospitals is an illustration of this fact. We hear a great deal at the present time about the physician's duty to the community. Is it not time that we heard less about this and more about the community's duty toward the physician. It is a poor system of every-day ethics in which all the obligations are on one side and all the rewards on the other. If the physician and the community could be weighed against each other in the scale of ethical relations, which party, think you, would be found wanting. The physician is in every respect ready to sacrifice his time and talents for the public good. Is the public disposed to make on its part an equal sacrifice. Notoriously it is not. The entries under the head of "bills payable" in the ledger of any medical man speak more forcibly than can any words of ours. The men who minister to mere creature comforts—the grocer and the butcher—must be paid. Those who care for bodily ills, and by their skill replace disease with health can wait for their pay. A contemporary truly says, "The patient's gratitude to his doctor is part of his disease. It is most declared when the fever is highest, cools off during convalescence, and entirely disappears with the complete return of health." During the past few years the public here in New York seem to have been looking about for some new burden to lay upon the shoulders of the medical profession. They have found one in the pay-patient systems of our hospital wards, and more particularly private rooms.

This system is faulty not so much in itself as in the method of its application. A person of means who is living at a hotel or boarding-house is stricken with some serious illness. Careful attention is necessary. Supposing he is away from home, there is no one who cares particularly about him or for whom he particularly cares. The expense for attendance, nurses, medicines, etc., will amount to a considerable sum. Or again, his case may be of such a nature that he cannot well be cared for in a hotel or private house. Under these circumstances he bethinks himself of some reputable hospital whither he may go and be well looked after. This is right, we think, in every respect. He is acting in self-defence. He is honorably following the old rule of looking out for number one. Against such cases we do not inveigh. The hospital is the proper place for them.

But there are many who go to the hospital from no such motive. They may be taken sick in their own homes, but they choose to go to a hospital private room—not so much, perhaps, from motives of economy, as because they can be cared for with less trouble than at home. Even this would be no violation of social ethics, were the physicians at the hospital, attending and resident, allowed to receive any compensation for services rendered. They are debarred from any such compensation. The hospitals purport to be and glory in being places where the best of treatment is given free of charge; and then they go through the somewhat ostrich-like proceeding of making out bills to private patients for "board," as they are "not allowed to make any charge for medical attendance." Again, persons are received at the hospitals afflicted with chronic diseases, who are peevish and fretful, whose wails about indefinite aches and pains would exhaust the patience of a Job, who make life a burden to all with whom they are brought in contact. Their own families have finally become tired out with them. Instead of sending them to some sanatorium, where they would be vastly benefitted, they take them to a hospital. They know that the latter's regard for its own reputation will insure good care. The burden is shifted from their own shoulders to those of the hospital physicians. Is this an exaggerated picture? Let any one who has served in our large endowed institutions answer. Such patients often consider the necessary discipline of institutions irksome and overbearing. They forget that such discipline is at the bottom of the successful management of an aggregation of sick people.

These people are allowed to come into our hospital private rooms. For all the additional work imposed upon resident and attendant physicians the latter do not receive one cent. Nay, more, they are not allowed to. The fees which the patient would otherwise pay, are directed into the hospital treasury for "board," and the family physician is the loser. In a high moral sense such conduct is clearly an evasion of social obligations. Thus far we have spoken only of medical cases. Similar flagrancies are observed in the cases of surgical patients. A man able to pay for surgical attendance desires to be operated upon by a certain surgeon. Under present conditions he can go to the hospital, pay a moderate sum for a few weeks' board, and have the operation performed free by this same surgeon, who is not allowed to receive any compensation. Should the latter venture to remonstrate with the trustees of the institution because of this unfairness, he learns that others are ready to assume his duties should he find them irksome. The only remedy in the hands of the surgeon is to establish his own private hospital. Then from each one desiring his services can he receive a proper compensation. To reform this abuse we must go back to the trustees, who are not always able to discriminate between what are and what are not proper cases for admission. The charitable medical institutions were not devised for making money out of the profession. Such a procedure is a prostitution of their office and contrary to the spirit in which they were founded.

THE INOCULATION TREATMENT OF HYDROPHOBIA.

The daily papers have devoted much space recently to exploiting M. Pasteur's alleged discovery of a cure for hydrophobia. After experimenting for a year longer Pasteur has finally come before the Academie des Sciences again, and announced that he has succeeded in perfecting a method of inoculation by which human beings can be safely rendered insusceptible to the virus of rabies, even after it has entered the system. We have referred to Pasteur's first discovery, made over a year ago, viz., that one attack of hydrophobia in dogs protected against a second, and that such a protective inoculation could be made safely on dogs with a modified virus. So much seemed definitely established.

Pasteur's present claim has a wider range. He believes that his inoculation system is now so perfected as to be rendered practicable for application to human beings, both for protection and cure.

Pasteur's process, by which he prepares his virus and his subjects, is a very complicated one, and reads more like the performance of a conjurer than the methods of a scientist. A bit of the spinal cord of a rabid dog is inoculated in a rabbit. After about fifteen days this rabbit dies of hydrophobia. A portion of its cord is then taken and inoculated in a second rabbit, which animal also dies of rabies, after a somewhat shorter period of incubation. The cord of the second rabbit is used for the inoculation of a third animal, and so on until sixty rabbits have been destroyed by the inoculated disease. With each successive inoculation the virus gets stronger, and the period of incubation shorter until the sixtieth rabbit dies on the seventh day. Bits of the cord from the whole series of sixty are preserved in bottles of dried air, which has the property of weakening the virus. Thus M. Pasteur obtains a series of specimens of spinal cord having a gradual steady variation in specific virulence, from the very weak to the very strong. He now takes a bitten dog or man and inoculates it or him, first with the weak virus, then with virus successively of stronger and stronger potency, until finally the strongest and freshest specimen is used. Protection is then believed to be conferred.

That this process succeeds with dogs has been admitted, but the claim that it will succeed with man still rests on a very flimsy foundation, as will be seen from the reports given of the only two cases in which it has been tried.

A boy, twelve years of age, named Meister, who had been bitten fourteen times, came from Alsace with his mother to see Dr. Pasteur. The autopsy of the dog which had bitten the boy left no doubt as to its having suffered from hydrophobia. In thirteen days inoculations were made upon Meister with pieces of spinal marrow containing virus of constantly increasing strength, the last being from the spine of a rabbit that had died only the day before. At the time of the report one hundred days had passed since Meister underwent the last inoculation, and the boy was in perfect health. He had been bitten sixty hours, and had travelled from Alsace to Paris before the first inoculation was performed.

A shepherd boy, named Judith, aged fifteen, was bitten by a mad dog and had been a week under treatment when Pasteur reported his case.

It is well known that all persons bitten by mad dogs do not get rabies, and the evidence for Pasteur's hydrophobia cure is as yet mainly one of analogy.

As we stated a year ago, Pasteur's view is that all dogs should receive preventive inoculations or be Pasteurized, and thereby the disease of hydrophobia be entirely eliminated from the race.

CAREFUL VACCINATING.

There is a manifest tendency for small-pox to disseminate itself from its present epidemic centre, Montreal, and we may expect to find it cropping out here and there in the United States during the coming season. Epidemics of this disease are liable to begin in the autumn, and increase in violence during the cold months, owing probably to the crowding together of people at this season.

There should therefore be no delay on the part of all unprotected persons in getting vaccinated.

And since so much is now being said about the dangers and accidents of vaccination it behooves physicians to use extra precautions in employing this protective measure.

The virus generally used by American physicians is the bovine. This should be fresh, and obtained from a responsible source. The arm, before its vaccination, should be carefully cleansed, and the instrument invariably and thoroughly disinfected. The operation of vaccinating should, in other words, be done antiseptically, and the arm should afterward be kept from all septic influences. Such precautions will lessen the per cent. of unpleasant accidents, and will give to the physician the satisfaction of feeling that he has done his whole duty in the matter.

A SERIOUS MISREPRESENTATION.

We would call the attention of all fair-minded medical men to a persistent and graceless misrepresentation which is being made by the apologists of the present organizers of the Washington Medical Congress. It is announced by these gentlemen that the rules have been changed so as to allow all members of the regular medical profession to become members of the Congress. And it is repeatedly and with great show of liberality asserted that now all cause of complaint has been removed.

Gentlemen who write thus know very well that they tell a half truth. They know that not a physician in affiliation alone with the New York State Medical Society or county societies can hold an office in the Congress. They know very well that they have thus arbitrarily excluded some of our best and most honored physicians from all official part in the Congress, and yet we are informed, forsooth, that "now all possible cause of complaint is removed."

VACCINATION FOR WHOOPING-COUGH.

As long ago as 1828, Professor Chapman, of Philadelphia, recommended vaccination as a remedy for whooping-cough. The practice was purely empirical and on

its face a little absurd, nevertheless it has been kept up by physicians here and there, and now receives renewed advocacy in the *Cincinnati Lancet and Clinic.*

Dr. F. W. Entrikin, of Finlay, O., writes:

"I have vaccinated for this purpose several hundred children, and almost always with happy results, usually a speedy cure. During the many years I have been familiar with the practice I have seen no reason to discard it. I have frequently seen it recommended in medical journals."

He adds:

"I think it best to give the usual treatment until the febrile stage has passed, then vaccinate, the new disease set up by the virus will then usually arrest the nervous and other distressing symptoms."

Other contributors report favorable results from this apparently absurd method of treatment. No positive clinical evidence, however, is furnished.

CARBOLIC ACID IN INDIGESTION.

Nearly all writers upon the subject of dyspepsia recommend the use of creasote or carbolic acid as a remedy for gastric fermentation and eructations. Several physicians have recently called attention to the almost specific value of this carbolic acid in conditions where the stomach appears to be hyperæsthetic as well as filled with the gases of decomposition.

Dr. Fenwick, some years ago, recommended glycerine and carbolic acid in these conditions. Mr. J. F. Dixon, in a letter to the *British Medical Journal*, says that a few years later he was tempted to follow Fenwick's method, and try carbolic acid in indigestion associated with tenderness of the stomach, acidity, and flatulence. "In most instances," he says, "the result was very striking; cases which had proved very intractable yielding immediately to its influence. I used it of the same strength which I have always used for the eye; that is, two minims to the ounce of water, usually with the addition of five grains of carbonate of sodium and twenty-five minims of aromatic spirit of ammonia."

Mr. Edward Berdoe adds, in the same journal, that he has found carbolic acid most useful in fermentative dyspepsia, accompanied by sour risings and eructations of gas, with pain after meals.

"The dose," he writes, "is from five to ten minims, in mint-water or other convenient vehicle. As it mixes well, I think it a more elegant and safe form than a solution of the acid in water only. When there is much pain in the stomach after food, I have found it useful to add five or six minims of the liquor opii sedativus to each dose; and, when there is want of tone in the seat of digestion, and bad appetite, five to ten minims of the tincture of nux vomica will often be found serviceable. I have found these remedies also very valuable, in the above combination, in cases of pyrosis, where, I think, the sedative influence of the carbolic acid on the mucous membrane is far more useful than the bismuth one usually given in such cases."

Dr. Yandell says editorially in the *American Practitioner*: "Carbolic acid has for many years been much used by the physicians of Louisville in indigestions of one kind and another, and may be fairly said to have secured a permanent place among the remedies for this class of troubles. The late Professor Lewis Rogers, of this city, first gave it in a painful condition of the stomach, accompanied by eructations, in a woman convalescing from typhoid fever. The result was so satisfactory that he directed it in other cases, spoke of it in our medical societies, and led to its being very generally adopted by the profession here. In hyperæsthetic pyrosis it is particularly valuable; and in the fermentative diarrhœas, especially those accompanied by excessively offensive dejections, either in adults or children, it is efficacious beyond most drugs."

Altogether there is evidence that carbolic acid, by virtue of its two-fold powers of disinfectant and sedative, should play an important part in the therapeutics of dyspepsia.

AN OMINOUS SILENCE.

It appears very pertinent to ask whether the American medical profession has any rights at all in connection with the proposed Medical Congress. Is it not time that the proceedings of the secret meeting in this city be published? Is it not time to inform the profession who is to officer the Congress, that is, or perhaps is not, to be. Who is to supply the places of Professor Dalton in Physiology, of Dr. Shakespeare in Pathology, of Dr. Battey in Gynecology. What gentlemen have stepped into the places vacated by Professor Bowditch, and Dr. Campbell? It is not unreasonable, we think, to ask who is the unknown assistant to the Assistant Secretary-General, or who are the other officers of sections nominated to fill the one hundred and sixty odd vacancies.

It is now two months since the secret conference was held in New York. The profession still knows almost nothing of what it has done or proposes to do, except that its action has caused some of the best of the few representative men then appointed to resign. It is time to hear something besides long-drawn-out explanations and reiterated assurances that matters are progressing satisfactorily. The silence is ominous. It indicates surely that the reputable men of the profession are continually refusing to work with a clique that is selfishly determined to carry out its own views.

A REVIEW OF RECENT CONTRIBUTIONS TO THE THERAPEUTICS OF OBESITY.

The Americans, as a race, are not inclined to obesity. All the more, perhaps, do they dislike it when it comes. Anti-fat remedies, therefore, generally take very well with the laity, when properly advertised, while physicians are naturally always interested in scientific contributions to the therapeutics of obesity. Of late years there have been several of these, and recently Dr. Munk has presented a critical review of them. In addition we observe that, at a late meeting of the Académie de Médicine, Professor G. Sée presented his views upon the subject.

Dr. Munk, quoted in the London *Medical Record*, says Chambers, in 1850, excluded fat from the food, together with the greater part of the carbohydrates, and he was also the first to limit the supply of liquids. Dancel, in 1863, recommended plenty of albumen, a fair quantity of carbohydrates. and an allowance of between five hundred and twelve hundred and fifty grammes of liquid

Banting's diet (the name of his medical adviser, Mr. Harvey, should not be forgotten, and in Germany this method of reducing obesity is called the "Harvey-Banting" method) was almost purely albuminous. The proximate elements taken daily amounted to 170 grammes of dry albumen, 10 grammes of fat, and 80 grammes of carbohydrates. Banting reduced his weight by thirty-five pounds in nine months by this diet, and his girth by twelve and one-fourth English inches. The Banting diet deserves a closer examination. Fat exerts a protective influence over albumen; the greater the fat-supply, and also the fatter the body, the less is the destruction of albumen. In this diet no fat, and very little carbohydrates, is supplied, but plenty of albumen, which therefore partly undergoes destruction, and is partly deposited in the body, while the fat of the body is absorbed and reduced. The patient's condition improves in every way.

But the case alters as the body-fat lessens. With a higher albumen-condition and a lower fat-condition of the body, the conversion of albumen is greater, and more and more albumen is required in the food. Otherwise there is both fat-loss and albumen-loss, and when the latter occurs the patients feel very weak. Hence, the Banting *régime* is only suitable for the first few weeks, and both fat and carbohydrates should then be given, so as to restrict the albumen-changes in the body. As regards the protection of albumen, fat and carbohydrates are of about equal value; but, as regards the production of heat and the evolution of force, 1 part of fat = 2.4 parts of carbohydrates. The above diet, then, too rigidly carried out, soon makes the patients (or, at least, most of them) weak and wretched and sleepless; and very often dyspepsia arises, or gastro-intestinal catarrh, from failure to digest the albumen supplied.

Ebstein, therefore, arranged a different diet, in which there was more fat and less meat, and still less carbohydrates than in the Banting diet. This diet represents 100 grammes of dry albumen, 85 grammes of fat, and 50 grammes of carbohydrates, with about 1,750 grammes of liquid, and is far more non-nitrogenous than Banting's, and consequently there is less destruction of albumen in the body. Fat allays hunger sooner than other foods, and also the addition of fat to the food gives more variety.

The advantages of Ebstein's diet have been much vaunted, and his treatise, put in a popular form, has been widely disseminated. We have already pointed out that his views, as to the relation of fat-deposition to fatty food, had not a sound physiological basis, an opinion which has been corroborated by Voit. Moreover, Professor Oertel declares that Ebstein's diet is quite as likely to cause disgust as Banting's. It contains too much fat for the palate, and too little albumen for the tissues. This will be seen by the following table:

	Albumen.	Carbohydrates.	Fat.
Normal diet for a healthy adult..	130 grms.	360 grms.	90 grms.
Dr. Ebstein's diet.....	100 "	50 "	85 "
In the Harvey-Banting diet.....	170 "	80 "	10 "

It can be said in favor of Ebstein's diet, however, that it acts more slowly than Banting's, and, further, that its adoption is not recommended as being a specific and sudden cure, but as being a *régime* that must be followed for a long period of time.

Oertel's method of reducing obesity appears to be one that is gaining in popularity. If we mistake not, it was a *régime* stolen from Oertel that Schweininger applied successfully in the treatment of Bismarck. This author gives a fair amount of fats and carbohydrates, advises mountain-climbing as a cardiac gymnastic exercise, employs vapor-baths, prescribes pilocarpin, and enjoins a strict restriction of liquids.

Professor Sée reduces the hydrocarbons in the food to a minimum. He does not limit the amount of liquids drank (a fatal error in his *régime*). He imposes muscular exercise, warm baths, and small doses of potassium iodide. To tell the truth, his contribution to the therapeutics of obesity is not of great value, and in his special attention to the heart he appears to be only following the lines in which Oertel and others have worked.

News of the Week.

New York Physicians' Mutual Aid Association.—The annual meeting of the New York Physicians' Mutual Aid Association will be held in the hall of the New York Academy of Medicine, No. 12 West Thirty-first Street, on Thursday, November 12, 1885, at 4 P.M. A revision of the by-laws will be proposed by the board of trustees. A full attendance is requested.

Dr. C. E. Nelson has resigned as associate editor of the *Eastern Medical Journal*.

Report of the Surgeon-General.—General Murray, the Surgeon-General, in his annual report, submits estimates for the year ending June 30, 1887, amounting to $250,000. He says that provision should be made for emergencies, in view of the probability of an invasion of this country by cholera before the close of the ensuing fiscal year. Congress should make provision to enable this department to adopt every means to prevent the spread of this disease in the army. The general health of the army has been good.

Small-Pox in Montreal.—The small-pox shows no marked signs of abatement in Montreal, while it is slowly but surely disseminating itself throughout the Province. The local sanitary organization in the small towns is very imperfect and inefficient. In Montreal the disease has already caused the death, it is estimated, of over three thousand persons. The health authorities there have now become thoroughly aroused. They have obtained legal authority to isolate cases, and are trying their best to enforce vaccination. Still further, according to the daily press, the Health Board has unanimously declared that the public welfare demands the closing of the churches. This, if true, is a measure of very doubtful wisdom, considering the already strained relations between the health authorities and the people. A recent telegram from Montreal states that "The Vigilance Committee report that there are ten hundred and eighty-seven infected houses in the city which have not even been visited by the Health Officers. There are on an average two cases in each house. The contractors for the construction of the new Protestant hospital have struck work and nothing is being done. The Civic Board have been asked to erect a new hospital with fifteen hundred beds.

Trading in Clinical Material.—Complaints are made that some of the gentlemen connected with the out-door department of the New York Hospital send their clinical material to other institutions.

Small-Pox in the United States.—Small-pox is reported in Lowell, Mass., and St. Paul, Minn.

The County Insane Asylum at Chicago, Ill., has long been a disgrace to its managers, to the people who support it, and to the doctors who have been connected with it. If the medical profession in Chicago is not a completely impotent body, it should demand and insist upon radical reforms. Periodically we read some fresh stories in the daily press about this notorious asylum. The latest is as follows: Dr. Harriet Alexander tells a committee investigating the County Insane Asylum a horrible story of the treatment and surroundings of inmates of the asylum, when she was there last Spring. Three hundred patients are crowded into a space only large enough for half that number, two persons often being compelled to sleep on one cot. The bed-clothing in February last consisted of one sheet and one blanket. There were not dresses enough to go around, and some of the women patients could not go out, etc. As a result of these disclosures a memorial to the Governor is being prepared, asking him to direct the State Board of Charities to investigate the asylum.

The Production of Abortions.—In one week the dredge-nets of the Associated Press have circulated the news that three doctors, living respectively in Springfield, Mass., Chicago, Ill., and Madison, Wis., have gotten in trouble by producing abortions to conceal the results of adultery. We wish that our professional newsgatherers had less fondness for carrion, and more conscientiousness in describing the untoothsome morsels when found. It makes the story a better one to say that the doctor was previously "in high standing and large practice." The truth generally is that the doctor had neither standing nor reputable practice, and perhaps had no right to a medical title whatever. All the same, it does the profession injury to have such stories constantly reported and such deeds credited to regular physicians.

The New Building of the McGill University Medical College.—It is a pleasure to learn that medical colleges like that of McGill University, which have consistently devoted themselves to higher education, are prospering. The recent accession of a new building, finely equipped with laboratories, lecture-halls, museum, anatomical rooms, etc., marks an era in the history of the College.

Utilization of Criminals for Cholera Experiments.—Surgeon-General Cornish, in the *Indian Medical Gazette*, urges the propriety of using condemned criminals for the purpose of testing certain mooted points in the pathology of cholera. Why not use Ward?

Resignation from the Congress.—Professor John G. Curtis, of this city, states that on August 31st he addressed a letter declining to have anything to do with the Congress under its present organization.

German Opinion of the Washington Congress.—The *Centralblatt für Augenheilkunde* says that the success of the International Congress is unfortunately in doubt. "The American Medical Association has deposed the executive committee and sought to substitute another. We hope that this difficulty among the American doctors will soon be settled peaceably. The ophthalmologists of Europe would hardly feel inclined to attend a Congress with Agnew, Knapp, and others left out."

Economizing in the City Health Department.—The Board of Estimate and Apportionment cut down the estimates of the Health Department from $487,516 to $345,500. A great part of the reduction was in the matter of salaries, for which $221,000 was asked and $150,000 allowed.

A New Disease, which has been termed electric cholera, has made its appearance in Spain. A few weeks ago a violent thunderstorm passed over the town of Ecija, in the province of Seville, and two hours after it had ceased upward of three thousand persons were attacked by diarrhœa and vomiting, and all the symptoms of cholera. Two thousand more were attacked the day after. All these persons were completely prostrated for twenty-four hours, but recovered without any deaths occurring among them.

The Time of Day when Babies are Born.—A distinguished obstetrical professor seems destined to be shorn of one of his best annual lecture jokes, viz.: "Babies," he used to say, "are generally born at night, because their time is up!" The rude hand of the statistical investigator dispels this bit of facetiousness. Dr. Leaman, of Philadelphia, in an analysis of six hundred cases published in the *Medical Times*, finds that three hundred and nineteen were born between the hours of 6 A.M. and 6 P.M. The greatest number occurring during one hour, forty, was between 7 and 8 A.M. The least number, twelve, occurred between 12 M. and 1 P.M. Dr. A. W. Hamilton also combats, in the *Indiana Medical Journal*, the general belief that the majority of births occur during the night. He has kept a record on this matter, and finds that quite as many children are born during daylight as during the night.

Another Medical College in Detroit.—Evidently the *cacoëthes docendi* is upon the profession this fall. The *Medical Age* says: "There are rumors of another Medical College in Detroit, in the near future, and this in spite of the arguments which were employed to effect the amalgamation of the two schools which existed last year into the one which holds the boards this season."

New York State Medical Association.—The second annual meeting of this Association will be held in the Murray Hill Hotel, New York City, on November 17th, 18th, and 19th, and at the Carnegie Laboratory on the 20th, 1885.

Notification of Infectious Diseases.—If one may credit the City Board of Health Reports, there were hardly any fatal cases of the acute infectious fevers in this city, except typhoid, during the month of September last. We fear, however, that there is a very great laxity on the part of physicians in the matter of reporting these cases. And there always will be imperfect reports so long as the doctor is compelled by the State to do a service for which he receives no return.

New York Polyclinic.—Dr. B. Sachs has been appointed Instructor in Diseases of the Mind and Nervous System.

Washington Obstetrical and Gynecological Society.—At the annual meeting of the Washington Obstetrical and Gynecological Society, held on October 16, 1885, the following officers were elected for the ensuing year: Dr. A. F. A. King, President; Drs. W. W. Johnston and J. Taber Johnson, Vice-Presidents; Dr. C. H. A. Kleinschmidt, Recording Secretary; Dr. S. S. Adams, Corresponding Secretary; Dr. G. B. Harrison, Treasurer.

An Account, by a Member, of the Methods of the Secret Committee on the Washington Congress.—Dr. R. A. Kinloch, a member (now resigned) of the committee in question, in a letter to the *Medical News*, gives a striking picture of the doubtful and disingenuous methods employed by the committee at its secret meeting, held in New York September 3d. From an extract which we give below it will be seen that there is and has been no resolution of the American Medical Association forbidding the appointment of New Code or no Code men to office, and that the present position of the committee was the result of the personal prejudices of certain members of the committee. Dr. Kinloch writes: "The next matter which duty to myself compels me to notice has reference to the alteration of the rule, as adopted at Chicago, determining the American membership of the Congress. This rule had been fixed, as was claimed, *in obedience to the voice of the American Medical Association*, so as to restrict the membership on ethical grounds. The determination of a few adroit members of the committee was now to undo what had been done, and in their own peculiar way. By management more suitable for a political than a professional or scientific body, and which I will not now comment upon, the rule, as prepared for presentation to the committee, which it was claimed opened the Congress to all members of the regular profession, was finally brought before the body. I asked the gentleman who had introduced the subject whether, under the proposed rule, all members of the Congress would be alike eligible to office, and whether he would favor the election of any member of the profession simply upon his merits, or whether there was not a mental reservation upon the part of those suggesting the change by which, upon ethical grounds, certain members would be members merely, and debarred from holding office. The answer came, that, in accordance with the 'resolution' of the American Medical Association, certain parties must be refused high position. I asked for the reading of the 'resolution' referred to. I wanted to know whether the Association had ever drawn any such fine distinction, opening the membership to all, but restricting the distribution of honors. It turned out that there was no such resolution ever adopted by the Association. I then maintained that if the Association and its implied sentiment were to guide the committee upon this occasion, it was more consistent to hold on to the Chicago rule than to accept the amendment as now proposed. I offered to support the amendment with all my heart if this was honestly offered, and if the mover would amend it further by stating that all members were equally eligible to office, or if he would agree to show that, practically, all were eligible by voting for men on their merit and regardless of ethical standing. If this were declined, I insisted I could not vote for the amendment, for I would not pretend to offer bread and give a stone. My proposition was not accepted, but the new rule was adopted without my vote, and *all in the name of the Association*." No more damning evidence against the policy of the present organizing committee could be possibly furnished than the foregoing, coming, as it does, from a courteous and conservative gentleman, a leader in the medical profession of the South.

Reviews and Notices.

A System of Practical Medicine by American Authors. Edited by William Pepper, M.D., LL.D., assisted by Louis Starr, M.D. Volume I.: Pathology and General Diseases. Philadelphia: Lea Brothers & Co.

The editor tells us in his preface that he feels that the time has come for the presentation of the whole field of medicine as it is actually taught and practised by American physicians. We quite agree that an extensive and systematic treatise by American physicians is a good thing, both for publishers and physicians. Race, temperament, and climatic conditions give, undoubtedly, a peculiar physiognomy to many diseases, and develop special modes of dietetic and medicinal treatment. We welcome the appearance of an "American System of Medicine" therefore. But in the first volume there is very little distinctly American. European authors are much the most frequently quoted, and in articles such as that on "Epidemic Cerebro-spinal Meningitis," in which some deficiencies in pathological description may be noted, it is because foreign authors have not been thoroughly studied. In fact, there is not enough material in American medical literature or experience with which to build a system or even to stamp a system with any striking peculiarity. This is not saying that the present work is not a most thorough, satisfactory, and creditable one. Only it is largely and necessarily the same old subjects gone over again, the same clinical descriptions, the pathology a little more advanced, the treatment perhaps more rational and definite.

The first volume starts out with certain general discussions. Nearly a hundred pages are devoted to "General Morbid Processes," written by Dr. Reginald H. Fitz. Dr. Fitz is a sound pathologist, and well acquainted with the present status of this department of medical science. He gives a useful and correct *résumé*, although it is pretty dry reading, as most general discussions are.

Dr. Hartshorne has the difficult task of saying things in general regarding etiology, medical diagnosis, and prognosis. He has done as well as could be done with these subjects in fifty pages; but we think that they add little to the value of the treatise and are largely a sacrifice of the reader and publisher to the fetich of "The Systematic."

Dr. Billings' article on "Hygiene" is one of the most useful in the book. If we were adopting the arts of the auctioneer, we should say that it alone was worth the price of the treatise, as a chapter for reference and instruction to the general practitioner.

The remainder and larger part of the volume is devoted, under the term "General Diseases," to the acute infectious fevers.

The contributors here embrace a number of distinguished names, with some not so distinguished, a rather large proportion (of the former) being Philadelphia physicians. In general the articles show the marks of care and

industry. In many cases, as in the accounts of typhoid fever and cerebro-spinal meningitis, new facts or statistics are presented. We shall not venture to criticise the different articles separately. The only fault which can be detected is that the authors have in many cases ambitiously crammed in too much. Such endless numbers of references to what this or that German thinks of a disease's pathology or treatment tend to confuse, and many of these quoted opinions are quite worthless. We would not be thought hypercritical, however, and would state again that the discussions are, on the whole, thorough, systematic, and quite up to the latest advances in medical pathology.

THE PRINCIPLES AND PRACTICE OF SURGERY. By JOHN ASHHURST, JR., M.D., Professor of Clinical Surgery in the University of Pennsylvania, Senior Surgeon to the Children's Hospital, Consulting Surgeon to the Woman's Hospital, etc. Fourth Edition, Enlarged and thoroughly Revised. 8vo, pp. 1118. Philadelphia: Lea Brothers & Co. 1885.

THIS thoroughly practical work has now advanced to the fourth edition. A large amount of valuable matter has been added, necessitating an increase of fifty pages. It has now fairly earned for itself the reputation of a standard work on surgery, and is abundantly able to stand on its own merits. The author is a surgeon of large experience and a scholar of rare attainments, and as such he has infused a personality into his work which cannot fail to be appreciated by the student in quest of broad principles, or the surgeon who wishes to be guided by a master.

A PRACTICAL TREATMENT ON THE DISEASES OF CHILDREN. By ALFRED VOGEL, M.D., Professor of Clinical Medicine in the University of Dorpat, Russia. Translated and edited by H. RAPHAEL, M.D., formerly House Surgeon to Bellevue Hospital, etc. Third American from the eighth German edition, revised and enlarged. 8vo, pp. 640. New York: D. Appleton & Co. 1885.

THIS work has already made for itself a well-deserved reputation. It is concise, scientific, and practical in character. The author has had a large experience, and he makes logical and positive statements. The treatise has advanced to its eighth German and its third American edition. This fact, of course, speaks for itself. All that perhaps remains to be said is that the book still keeps abreast of the times in pathology and therapeutics. This would go without the saying, but the proof in the affirmative is apparent in every chapter. In the present edition much has been added to the chapters on artificial nutrition, dentition, and nervous diseases. The important subject of possible transmission of tuberculosis from the cow to the child has been very succinctly and critically discussed.

The various new remedies have been very fully detailed, and their employment in infantile diseases fully discussed. Dr. Raphael has added a very interesting and instructive article on cerebro-spinal meningitis. The volume has not been perceptibly enlarged.

FOWNES' MANUAL OF CHEMISTRY, THEORETICAL AND PRACTICAL. A new American from the twelfth English edition, embodying Watt's Physical and Inorganic Chemistry, with one hundred and sixty-eight illustrations. 12mo, pp. 1056. Philadelphia.

THIS chemistry has maintained its reputation as a leading text-book for students for over thirty years. In the meantime its author and editor have passed away. The former has been dead for many years; the latter, while contemplating a new work founded on Fownes' plan, died recently, with only a portion of his task completed. Prof. Watt's work was rendered necessary by the constantly increasing number of additions and corrections in successive editions under his supervision. It became in time more representative of the editor's than of the author's views. Hence it has been deemed best to comprise the work of both author and editor in a consistent form in one volume. As such it bids fair to continue its former popularity with students of chemistry.

A TREATISE ON NERVOUS DISEASES, THEIR SYMPTOMS AND TREATMENT. A Text-book for Students and Practitioners. By SAMUEL G. WEBBER, M.D. Pp. 415. New York: D. Appleton & Co. 1885.

IN such a work as Dr. Webber's, which lays no claim to originality, the reviewer can only commend the arrangement, the conciseness of statement, the perspicuity of style, and the judgment displayed. At the first glance one is led to question the desirability of adding another to the long list of books on nervous diseases which have already been published, but each year so much increases the knowledge of this department of medicine that the latest comer has the advantage and commends itself to the student as being up to date.

THE ESSENTIALS OF HISTOLOGY. For the Use of Students. By E. A. SCHÄFER, F.R.S., Jodrell Professor of Physiology in University College, London; Editor of the Histological portion of Quain's Anatomy. Philadelphia: Lea Brothers & Co. 1885.

THIS book is divided into forty-two lessons, as well arranged for use by students as any with which the reviewer is acquainted. The text is both well written and well illustrated. It is very evident, however, that the author did not intend to interfere with the sale of his "Course of Practical Histology" by writing this volume; but he has materially interfered with the success of the student in studying "The Essentials of Histology" by rendering it necessary to refer to another book for many of the practical details of his work. It will serve a good purpose as an elementary text-book of histology.

DE L'APHASIE ET SES DIVERSES FORMES. Par LE DR. BERNARD. Paris: Aux Bureaux du Progrès Médical. 1884. 8vo, pp. 271. Paper. Publications du Progrès Médical.

IN a recent editorial on the "New Divisions of Aphasia," in THE MEDICAL RECORD, much of that discussed by Dr. Bernard in the present volume was given. Our author has written an exhaustive memoir on the subject of aphasia, which will be of standing value for perusal and reference.

A TEXT-BOOK OF NURSING, FOR THE USE OF TRAINING SCHOOLS, FAMILIES, AND PRIVATE STUDENTS. Compiled by CLARA S. WEEKS, Graduate of the New York Hospital Training School; Superintendent of the Training School for Nurses, Paterson, N. J. 12mo, pp. 396. New York: D. Appleton & Co. 1885.

THIS is an admirably written book, and is full of those important practical details necessary for the medical and surgical nurse. In fact it could be read with profit by every medical student and young practitioner.

THE SANITARY CONDITION OF THE PROVINCE OF MILAN.—A commission, recently appointed by the prefect of Milan, to investigate the subject of pellagra, has made a long report upon the sanitary condition of the province, from which it would appear that there is considerable room for improvement in this direction. The report is presented in fifteen chapters, dealing with dwellings, water-supply, bread, schools, prevalent diseases, etc., and it has hardly a single word to say in praise, but many in condemnation. There is but little abuse of alcohol, and syphilis is prevalent only among young men who have returned from military service; but the people live in dirt and squalor, without the slightest regard for the most elementary rules of hygiene.

THE NUMBER OF MEDICAL STUDENTS IN THIS CITY is larger than ever before.

Reports of Societies.

THE AMERICAN ACADEMY OF MEDICINE.

Ninth Annual Session, held in New York City, October 28 and 29, 1885.

FIRST DAY, WEDNESDAY, OCTOBER 28TH—MORNING SESSION.

THE meeting was called to order by the President, ALBERT H. GIHON, A.M., M.D., of Washington.

Prayer was offered by REV. HENRY J. VANDYKE, JR., of New York.

The following gentlemen were elected Fellows of the Academy: Drs. S. M. Nelson, of Cambridge, Mass.; J. H. W. Chestnut, of Philadelphia, Pa.; Rufus W. Bishop, of Chicago, Ill.; E. E. Mariott, of Springfield, Mass.; George N. Acker, of Washington, D. C.; H. V. Logan, of Scranton, Pa.; H. W. Elmer, of Bridgeton, N. J.; H. F. Hansell, of Philadelphia, Pa.; E. W. Cushing, of Boston, Mass.; J. S. Wight, of Brooklyn, N. Y.; William Osgood, of North Yarmouth, Me.; C. A. Packard, of Bath, Me.; W. K. Oake, of Auburn, Me.; A. Mitchel, of Brunswick, Me.; D. A. Robinson, of Bangor, Me.; C. A. King, of Portland, Me.; J. A. Spaulding, of Portland, Me.; G. W. Marshall, of Milford, Del.; William A. Hugie, of Charleston, S. C.; J. B. Shapley, of St. Louis, Mo.; M. H. Post, of St. Louis, Mo.; C. E. Briggs, of St. Louis, Mo.; J. S. Alleymen, of St. Louis, Mo.; N. S. Davis, Jr., of Chicago, Ill.; and Charles Edgar Cook, of Illinois. Dr. Henry H. Smith, and Dr. S. Weir Mitchell, of Philadelphia, were elected to honorary membership.

The first paper was read by DR. ROBERT L. SIBBETT, of Carlisle, Pa., and was entitled "The Study of Medicine as a Means of Education."

DR. CHARLES MCINTYRE, of Easton, Pa., then read a paper on

MEDICAL SUPERVISION IN STUDENT LIFE.

This paper assumed that the times had changed; that modern life made a greater demand upon the time and energies of the individual to the detriment of his health and development. It was considered impossible to diminish tasks and give more time to rest and recreation. There is no way known to shorten the period of rest, so something should be done for recreation. The plan suggested was the usual one given by students on these subjects. A careful physical examination at the beginning of school life, and a series of graded bodily exercises under medical supervision throughout school life was recommended. The end aimed at is to give such tasks as will tend to strengthen the weaker parts.

DR. HENRY O. MARCY, of Boston, Mass., read a paper on

THE CLIMATIC TREATMENT OF DISEASE, WITH AN ILLUSTRATION OF WESTERN NORTH CAROLINA AS A HEALTH-RESORT.

The fundamental factors of the zymotic diseases were first reviewed from our present knowledge of the rôle of the bacteria, and the question of the wise adaptability of the individual to his surroundings was considered as the best definition of climate. A *résumé* of the latest investigations of climatologists was given with reference to, and the results obtained by, the mountain health-resorts of Europe and America. The deductions of the writer were that good must be looked for in the benefit to be obtained to the individual in the improvement of his resisting vital powers, and invigoration of his cellular tissue regeneration, rather than in the escape from his bacterial enemies. The larger portion of the paper was devoted to the consideration of this new and important phase of the question of climate.

The higher Alleghanies in Western North Carolina were described at considerable length, as offering mountain health-resorts of a character well suited to a variety of diseases. The deductions were based on a long tour of personal investigation made during the last summer as a sanitary study.

The meeting then adjourned.

EVENING SESSION.

The meeting was called to order at eight o'clock. The President, DR. ALBERT L. GIHON, A.M., M.D., read his annual address entitled

WHAT IS MEDICINE?

He said that the place of the Academy was not to be sought among the pathological, clinical, sanitary, and other national associations. It antagonizes none of these, but seeks to cement all into a compact unity.

Referring to the slow growth of the Academy, it was stated that one of the reasons was to be found in the fundamental condition of membership, restricting fellowships to graduates in medicine who have received degrees in letters by course. As the co-operation of every educated man interested in the objects of the Academy is desirable, he was of the opinion that the time had come when every limitation to fellowship should be removed, except the solitary requirement that the candidate shall be in fact, as in title, "learned in medicine," and in all else that this term implies, but he would make it impossible for any one unfit or unworthy to enter though he come with an armful of diplomas, has subscribed to the most inflexible of codes, and no matter what faculty, society, or institution he may be delegated to represent. The nominations should be accompanied with the fullest record evidence, and be made long enough to advance, from six to twelve months, to enable the council to determine each man's fitness.

Let us ask ourselves the question, "What is medicine?" If we look to this Academy for the answer, we shall find that it is the most profound and ennobling study that can engage the intellect of man. This is not the popular idea. Like other professions whose offices are called for by the disagreeable incidents of humanity, it is only tolerated as a necessity. Sham aristocrats look down upon it, others hire its members as they do their cook and cabman. In military and naval services they are sought to be degraded. The ministering to the suffering and afflicted is nowhere regarded as an outcome of the study of the stupendous and sublime mysteries of existence. In the national councils, in military and naval organizations, in civil administration, who thinks of giving a first place to the physician, although his are the mental attainments which fit him best for counsel in all that concerns the welfare and progress of the human race?

The science of medicine involves the knowledge of everything that relates, however remotely, to the existence of man, his place in nature, his origin, growth, and development, preservation and continuance. The prevention and cure of those abnormal conditions which tend to his destruction are but one chapter in the volume, which, coming near the end, cannot be read understandingly without the thorough comprehension and diligent study of all that precedes. Medicine is so far-reaching in its sources, and so connected with every other branch of knowledge, that he who would begin its study must first have drunk deep of the well-spring of human knowledge. Medicine is a science of such proportions that only a well-educated man can master it. This is not the view entertained by the profession at large.

Why should medicine be cheapened to every purchaser, and the college debase its teachings to their limited understanding?

What can medicine only be to the ignorant numbers who are annually mustered into the ranks of the profession? To these men it can have no other aspect than that of a trade. Many enter upon it as a money-making vocation. It was taught them as a source of pecuniary profit, and they practise it for the fees they

get. Manifestly, then, medicine is not the same to all men, even medical men. If improper men can be excluded from national service, why not from State, county, and city medical societies? This should be done for the protection of the community. Where a drug-clerk kills one victim by his carelessness, he saves a hundred by recognizing errors in physicians' prescriptions. [Examples from apothecaries' files were given.]

Preventive medicine has at last attained recognition as the highest aim of the physician's art. It establishes new relations of the physician to the social system. Preventive medicine has more to do than warding off epidemic visitations of great scourges. Its most important duty is to consider the impairment of health of growing children through the sanitary defects of our school system, the prevention of insanity, the repression of crime. It is too much to expect antidotes for every microscopic germ. The tiny swarms around us are at once friends and foes. If we do not antagonize them, they purify the air we breathe, the water we drink, the dirt we tread, and prey upon our natural waste; it is only our own folly that causes them to turn and rend us.

Reform in medical education has been hampered by adherence to existing methods. It will not do merely to establish adjunct chairs. The starting-point must be the requirements of a thorough preliminary education. Four annual terms are necessary. Descriptive anatomy and materia medica are enough for the first year; histology and practical microscopy, physiology in all its relations, and the mechanical processes of pharmacy should occupy the second year; hygiene, general pathology, and general therapeutics for the third year; special pathology, special therapeutics, the philosophy of medicine, medical history jurisprudence, and ethics for the fourth year. A fifth year may, with advantage, be devoted to clinical experience under supervision.

Is our estimate of medicine visionary, and have we sought the impracticable? Must we silence our voices because few care to hear, and cease our efforts because the task is difficult? Must we tread the beaten track, lest we offend prejudices, antagonize pecuniary interests, and upset established orders? Not on this account shall we hesitate, if the truth be with us. The ethics of medicine rightly denounce fraternity with charlatans and quacks. Is the dishonor less if we degrade a noble profession by admitting to its rights and honors those who are ignorant, illiterate, and incompetent?

SECOND DAY—THURSDAY, OCTOBER 29TH—MORNING SESSION.

The meeting was called to order at ten o'clock.

A resolution expressing the sympathy of the Academy with Dr. H. P. Farnham in his painful illness, was offered by Dr. H. O. Marcy and adopted.

The following resolution was adopted:

Resolved, That a committee of three be appointed by the President to report at the next annual meeting, instructed to prepare a statement of the best preliminary education for medical students, and also a statement of the minimum attainments which medical schools should require of students before admitting them to the study of medicine.

It was also resolved to appoint a committee of two, whose duty it shall be to report the requirements for a preliminary education of the various medical colleges in the United States and in Canada.

The following officers were elected for the ensuing year: *President*, Dr. R. Stansbury Sutton, Pittsburg, Pa.; *Vice-Presidents*, Drs. Lewis P. Bush, Del., S. J. Jones, Ill., R. L. Sibbet, Pa., and F. H. Gerish, Me.; *Secretary and Treasurer*, Dr. R. J. Dunglison, Philadelphia, Pa.; *Assistant Secretary*, Dr. Charles McIntire, Jr., Easton, Pa.

Pittsburg was selected as the next place of meeting, on the third Tuesday in September, 1886.

A paper on "Medical Evidence," by T. J. Turner, M.D., in the absence of the author, was read by the Assistant Secretary.

REPORT ON LAWS REGULATING THE PRACTICE OF MEDICINE IN THE UNITED STATES AND CANADA,

by Richard J. Dunglison, M.D., of Philadelphia, Pa., and Henry C. Marcy, M.D., of Boston, Mass., was read by DR. R. J. DUNGLISON.

The doctor said that so little change has taken place within the last twelve months, with reference to legislative restriction of the practice of medicine, that your committee might in a few brief sentences dismiss the subject with the statement of the actual work accomplished in this direction. The honest efforts of medical men and of others during the past year, to accomplish creditable results in the States for the suppression of quackery, have been unabating, but in several cases disappointment has been the only issue of their labor. Indiana and North Carolina are the only States in which any alteration in existing laws has been made.

The committee had entered into correspondence with medical gentlemen in the different States with regard to the working of laws for the regulation of the practice o medicine, and their replies were submitted.

DR. BENJAMIN LEE, of Philadelphia, Pa., read a paper on

HEALTH OFFICERS, ANCIENT AND MODERN.

The important position assigned to hygiene and State medicine during the past decade, is an evidence at once of the advanced stage of civilization, and of the dense and rapidly increasing population. It also indicates that long occupancy of the land by successive generations has, at length, overtaxed the regenerative and self-purifying energies of the earth, and that extraordinary methods have now become necessary.

Reference was then made to the honors bestowed on the officers of public health in ancient Rome, and the high esteem in which they were held. To this was largely attributed the excellent sanitary condition of that city.

The second portion of the paper was occupied with a consideration of the organization of Boards of Health. The first point made was that in selecting the material for Boards of Health, politics, in the bad American sense of the term, should be rigidly excluded. Where it is possible to avoid it, the members should not be elected by the people; especially is this the case in large cities.

Secondly, boards of Health should be composed chiefly of physicians; but at least one member should be a man eminent among his fellows for prudence and judgment in trade and commerce; for doctors are, proverbially, bad business men.

Thirdly, as it is desirable that there should be harmony of action and of sentiment between the municipal government and the Board of Health, there should be a representative of one on the other.

Fourthly, it is essential for the practical working of the Board that it should employ a paid agent, who shall devote as much time as is necessary to inspection and investigation of the sanitary conditions of the locality, and carry into execution the orders of the Board.

Finally, every member of the Board should receive a fair and even generous compensation for his labors.

AFTERNOON SESSION.

The meeting was called to order at two o'clock.

DR. SAMUEL N. NELSON read a paper, entitled

MICRO-ORGANISMS AND THEIR RELATION TO DISEASE,

describing the micrococci found in various diseases, the results of their culture, and giving a careful *résumé* of the literature of the subject.

The next paper was on

OBSERVATIONS OF THE RELATION OF BACTERIA TO CERTAIN PUERPERAL INFLAMMATIONS,

by Dr. Ernest W. Cushing, of Boston, Mass.

These observations were based on the results of examinations of the bodies of such women as died from these maladies in the general hospital at Vienna last spring. He called attention to the great difference between the customs and rules governing the obstetric assistants and students in Berlin and in Vienna. In the former city every precaution is taken to avoid not only direct infection, but also any possible carrying of germs in the hair or clothing, as if bacteria were freely present in the air. In Vienna, although the possibility of so finding them is admitted in theory, yet in practice the assistants and students are allowed to be present at autopsies. Obstetric operations and laparotomies are performed before the whole class without spray, and the chief assistants give operative courses on the cadaver every afternoon, relying for safety on washing, bathing, and change of clothing. Practically, sepsis arising in the hospital is very rare, and the results obtained by avoiding direct infection through the fingers and instruments were regarded by the speaker as an argument in favor of the view that puerperal fever is not an entity, the poison of which is carried about in the air and enters the system through the lungs, etc., but that such fevers are the result of invasion and multiplication of bacteria, arising from infection of the uterus or abraded vagina, as a rule, directly from hands, instruments, or applications.

Discussing the results obtained by the examinations above mentioned, the reader stated that the most frequent cause of infection was the strepto-coccus; the next the staphylo-coccus, with which is frequently associated the bacillus pyogenes fœtidus. The first occurs in chains not distinguishable from those of erysipelas, the cocci usually lying in pairs, each pair representing a link. The staphylo-cocci occur in bunches, like those of grapes. One or the other of the above were found in all acute cases examined, and were present in the uterine or iliac veins. In pelvic abscesses they were found in the lungs and joints, and, in fact, wherever metastatic abscesses occurred. Microscopic preparations of the above were exhibited, and three specimen cases described. Finally puerperal inflammations were compared to infected wounds. The powers of the system to resist, fence out, and kill the invading bacteria when the latter are not continually reenforced were emphasized, and an active hopefulness was advised in regard to treatment, which, to be successful, should be analogous to that of surgical wounds, *i.e.*, prompt removal of decomposing matter, evacuation of pus, cleansing and disinfective douches and drainage.

In discussing this paper, Dr. R. Stansbury Sutton said that while there was no question as to the success achieved by the use of antiseptics in general surgery, yet in abdominal surgery the best results so far had been obtained by strict attention to cleanliness, without the use of any antiseptic agencies. He agreed with Dr. Cushing that when the poison enters the abdominal cavity in laparotomy, or into the vagina or uterus in puerperal cases, the germs are not carried by the atmosphere, but by the hands, the forceps, ligature, or instruments. As far as abdominal surgery was concerned, he thought that all chemical agents could be discarded, but cleanliness could not be lost sight of. He then referred to the injurious effects which had at times resulted from the absorption of such agents through the peritoneal.

Dr. Henry O. Marcy related a case bearing on the introduction of antiseptics into the peritoneal cavity. It was that of a child four years of age, whose abdomen was filled with pus, in which the straptococcus was found. The pus was evacuated and the peritoneal cavity thoroughly washed out with bichloride of mercury solution. The patient recovered without a bad symptom.

"Medical Licenses and Medical Honors" was the title of a paper read by Dr. Edward Jackson, of Philadelphia.

A paper entitled "The Physician and his Patient," by Dr. J. D. Kelly, of Utica, N. Y., and one by Dr. Lewis P. Bush, of Wilmington, Del., "On the Physicians of Delaware in the Eighteenth Century," were read by title.

The President-elect was then introduced, and made a brief address.

The Academy then adjourned.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Stated Meeting, October 22, 1885.

Alexander S. Hunter, M.D., Chairman.

Dr. Howard Pinckney presented a

HYDROCEPHALIC HEAD OF A COLT,

the mother and the foal dying during the process of parturition. There were only three cervical vertebræ present, but in other respects the body was normal. The face presented a striking resemblance to that of a bulldog, by which the mother was frightened during pregnancy. Dr. Pinckney, and also Dr. Garrish, thought that if craniotomy had been performed the life of the mother would have been saved.

Dr. Post remarked that deviation from the number seven cervical vertebræ was exceedingly rare in mammals.

Dr. John C. Peters donated eight bound volumes on obstetrics and kindred subjects to the Section, and accepted its thanks with the remark that all kinds of medical books, pamphlets, and journals would be received thankfully by the Academy, as they could be utilized in many ways for the benefit of the library.

Dr. Malcolm McLean then read a paper entitled,

THE MANAGEMENT OF UNFAVORABLE CEPHALIC PRESENTATIONS AT THE SUPERIOR STRAIT, ESPECIALLY THE OCCIPITO-POSTERIOR POSITIONS,

in which he advanced the view that these positions were essentially mal-positions, and that none were more important. He believed that more difficulty and delay arose from this cause than from all other causes of difficult labor, and the difficulty existed in the fact that the head of the child did not properly adjust itself to the pelvic canal. These positions should be recognized as early as possible, and be corrected at the earliest possible moment.

Short, abortive pains, recurring for hours in the first stage of labor, with the head high in the pelvis, excited his suspicion at once that the head was not properly engaging at the brim.

With reference to diagnosis by digital examination, he maintained that one suture could not be distinguished from another with satisfaction; nor, by means ordinarily practised, could the fontanelles be differentiated. The sense of touch by the finger could not be depended upon in recognizing the sutures and fontanelles; something more defined must be searched for, and that was *the ear*, and to do that the hand must, to a greater or less extent, be introduced. In order to have a perfectly sure appreciation of the exact position of the head, it was not enough to examine by digital touch only, but the hand must be introduced sufficiently to enable the operator to recognize the ears of the child, and at the same time the hand is made to appreciate the condition of the pelvic canal as well as the condition of the funis, which might be so situated as to prevent proper rotation.

A blade of the forceps should never be introduced before the hand has been introduced, and a complete exploration made.

What shall be done when these unfavorable positions

of the child's head are recognized? Flex the head properly with the hand, which, as a rule, could be done easily; rotate the occiput in such direction as will secure its descent over one of the anterior planes. But in certain cases the head of the child will not remain in the position in which it has been placed, and in those cases it remains to resort to either the forceps or to perform version. The forceps were most commonly resorted to, and, as a rule also, they slipped as often as they were used. Slipping of the forceps, Dr. McLean regarded as evidence of their misapplication in the case. Tarnier's forceps, as modified by Lusk, answered a most excellent purpose, but even that was an exceedingly powerful instrument and liable to do harm.

The treatment which he especially recommended was *podalic version* accomplished by the combined method. Version, properly performed, was the operation to be selected if the position could not be easily rectified, and, as an operation, it was less dangerous to both mother and child than the long forceps when applied at the superior strait.

Dr. Isaac E. Taylor opened the discussion and said that he had been surprised at the views advanced by the author of the paper. Conservatism was a great point in the practice of obstetrics, and never more so than while dealing with occipito-posterior positions. The statements of Naegele could not be set aside when he reported that he encountered only seventeen cases out of over seventeen hundred in which the occipito-posterior position terminated posteriorly. His views coincided nearly with those of Naegele, and his experience, during forty-five or fifty years, had shown that rotation anteriorly takes place in most cases, and that the rotation was favored by the planes of the pelvis, by the rigid action from the spine of the child, and by spiral uterine contraction which flexed the head. If rotation did not take place, certainly forceps should be applied. When the head of the child was in the pelvic cavity, and rotation has not occurred, certainly version should not be resorted to. It might, however, be made a face presentation, and he believed that many of the occipito-posterior cases became cases of face presentation without interference. Suppose the head is brought down into the pelvic cavity and it does not rotate, then push the occiput up with two fingers and make a face case.

With regard to diagnosis, he never was guided by either the fontanelles, sutures, or the ear, but by the general contour of the child's head occupying a certain portion of the pelvis; whatever segment was occupied by the occiput was filled so that the finger could not be swept around it, whereas the opposite segment gave sufficient room to sweep the finger around in all directions.

Dr. Taylor did not think it was necessary to introduce the hand to perform version, as it could be easily performed with two fingers aided by external manipulation.

Dr. W. M. Polk had been interested in the paper because the author took a position so strongly in favor of a view that was not generally accepted. As he understood from the paper, the writer rather held to the view that all cases of occipito-posterior position should be treated by version. If that was so, Dr. Polk thought it would be simply enlarging the domain of operative obstetrics, and rather recklessly, too. Of course, if the operation was performed, it must be when the child was high up in the pelvis, and before nature had done anything toward bringing about rotation.

Dr. Polk was also led to suspect that many of Dr. McLean's cases were really those of slight contraction at the brim, and in the absence of any statement on that point, was disposed to regard the difficulty encountered as due to slight narrowing at the superior strait, which was much more common in this country than writings on obstetrics would lead us to suppose. Wherever this slight deformity existed, labor was interfered with necessarily, and assistance would be required particularly by version, which he regarded as preferable to the use of the forceps.

With regard to diagnosis, Dr. Polk supposed that every man who used the forceps at the superior strait, never did so without the administration of an anæsthetic, and the introduction of the entire hand into the vagina and the fingers through the internal os, for the purpose of mapping out in his mind the position of the child's head. As for attempting to diagnosticate the position without the hand in the vagina, he would not think of it, as it was utterly impossible, as Dr. McLean had already stated.

So far as the general proposition laid down by the author of the paper was concerned, that cases of occipito-posterior position should be treated by version at the superior strait rather than by the use of the forceps, he was unwilling to accept it. If it could be shown that there was the slightest narrowing at the brim, or disproportion between the child's head and the pelvic cavity, he stood ready to resort to operative interference. But the paper meant to state, as he understood it, that version or forceps should be used for correcting a position of the child's head at the superior strait, which was regarded as a natural position, and which nature had shown herself capable of taking care of until the head was near the floor of the pelvis, where it could be reached by means of the forceps with little danger to the tissues of the mother.

When the head was low down in the pelvis it would not rotate, and then by all means interference by means of the forceps was demanded, because it was too late to resort to version.

Dr. Polk preferred to let his cases of occipito-posterior position alone at the superior strait, unless he found that there was difficulty in the engagement of the head, and then he put his hand into the cavity of the vagina, and endeavored to ascertain whether or not there was any disproportion between the child's head and the pelvis.

Dr. Taylor referred to the necessity of seeing that the shoulders rotated properly.

Dr. F. V. White spoke of the unreliability of the sutures and the fontanelles as aids in making a diagnosis.

Dr. H. Griswold reported a case of occipito-posterior position with narrowing at the brim of the pelvis, and in which he introduced his hand, rotated the head forward, and subsequently delivered with Tarnier's forceps.

Dr. McLean in closing the discussion said, that if his words had conveyed the idea that he desired to be a meddlesome operator, his language had done him great injustice. His intention was to inveigh against mischievous interference in these cases, and to advocate conservatism in the fullest sense. What he had said was, that in many of these cases rotation forward does take place and the children are delivered naturally. He also had said that forceps had been applied in many cases where no such operation had been needed at all. He simply turned to version instead of the use of the *long* forceps, and the cases in which he would interfere were those which were delayed on account of perversion of the first stage of labor. Inasmuch as these cases are tedious, practitioners are called upon to do something for the relief of the woman, because nature does not always rotate the occiput anteriorly. Certainly, such are sufficiently frequent to make the obstetrician seek for some means of relieving the patient. Where nature shows not the slightest inclination to bring the head down, if neither flexion nor extreme extension, changing it to a face presentation, occurs, something must be done.

The change into a face presentation, mentioned by Dr. Taylor, was an important point, and one which was inadvertently omitted from the paper.

If these cases do require assistance, the question arises, what shall be done? The general practice is to use some form of forceps, but Dr. McLean believed that this was not the best means for completing delivery, and that version was better adapted to such cases than the use of

the forceps; version to bring the head down where it can rotate.

His paper did not teach that *all* cases of occipito-posterior position should be treated by version; simply version in delayed cases, and not in all cases, by a very large majority.

With regard to contraction at the brim, that was not the condition in the cases referred to, and one good point in the evidence that there existed no narrowing was the fact that previous labors, with large children, had been completed naturally, and within the average length of time.

Dr. McLean was unprepared to believe that the average practitioner introduced his hand before applying the forceps.

The Section then adjourned to meet on the fourth Wednesday in November.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

OPENING OF THE SOCIETIES—THE OBSTETRICAL SOCIETY—DR. DUNCAN'S LUPUS OF THE VULVA SHOWN TO BE SYPHILIS—MR. HUTCHINSON'S OPINION—DR. DUNCAN'S REPLY—HIS REPUTE AS AN EXAMINER—OTHER EXAMINERS AT THE LONDON UNIVERSITY—THE CLINICAL SOCIETY—HÆMATAMESIS NEONATORUM—REMOVAL OF SAC IN HERNIA—TREPHINING—ABERNETHIAN SOCIETY—THE TEMPERANCE HOSPITAL.

LONDON, October 17, 1885.

CLOSELY following on the introductories at the schools comes the opening of the session of the medical societies. The Obstetrical leads the way, and on the 7th inst. we had a rather lively meeting. Dr. Mathews Duncan brought forward what he persists in calling "lupus of the vulva." At a former meeting he had read a paper on the subject, and now gave the sequel. On that occasion he was reproved as gently as his brother obstetricians knew how for calling the disease he described by a name which was otherwise employed, and with which they alleged it had no connection. Dr. Duncan did not take the rebuff at all kindly—he is not the sort of man to tolerate opposition to, or even questioning of, his opinions. He went on repeating his statements and teaching that "lupus of the vulva" was a distinct disease. At the opening of the society, then, this year, he was afforded the opportunity of re-stating his opinion, which he did in his usual dogmatic style. But his friends had prepared for him a surprise. They had no notion of settling the matter by assertion only. Many of them felt sure Dr. Duncan had mistaken syphilis for lupus, and secured the presence of that eminent and indefatigable syphilographer, Jonathan Hutchinson, who, with his natural courtesy and kindliness of manner, began his remarks by commending the clinical description of the cases, and then proceeded calmly, apparently unconscious of the bitter dose he was administering, to state that the cases had no relation whatever to lupus, but were simply manifestations of syphilis. Then he pointed out, as naturally as if teaching his class, that one of the cases was termed by Dr. Duncan "syphilitic," and in every one of the others, points in the history might have suggested if they did not prove that there had been infection of the constitution with syphilis. The effect of Mr. Hutchinson's speech was remarkable; there was a chuckle of delight among the majority, who felt that this settled the matter, and that Dr. Duncan had been deservedly "sat upon."

Dr. Thin ventured a few words in support of Dr. Duncan on histological grounds, and Dr. West tried to offer him some support, but it was very feeble. All the other speakers disagreed, and when Dr. Duncan got up to reply he was at white heat. Lupus, he declared, was a convenient term; it was well understood; the disease had a large literature. He did not assert that it was quite identical with lupus vulgaris; but, as for syphilis, to accept such evidence as Mr. Hutchinson had mentioned, was unreasonable—the "most unreasonable thing he had ever heard of." Rather strong language this, but what remained to be said by a man who disdains to learn. Any one could see that the whole audience regarded Mr. Hutchinson's verdict as final, and the only interest that continued to attach to the meeting was curiosity as to how Dr. Duncan would comport himself under his mortification.

Obstetricians are not remarkable for their mutual love and self respect, but in this instance the delighted chuckle goes far beyond the circle of the society, for though a very able and learned man, Dr. Duncan does not find grace in the eyes of many practitioners, and still more, students. He may be genial and jocose among his intimates, but his bearing and manners are self-assertive and uncouth, and at the examination-table he is dreaded—just as his brother Scotch professor, Rutherford, was—and the contemptuous expression "Scotch manners" is applied to both by men who have had to face them. Last year at the University of London, a question was set in obstetrics, which excited the condemnation of most of the teachers of the subject as manifestly unfair; it was entirely as to hæmatokolpos, a condition (which might well puzzle any one who forgot the meaning of the Greek word kolpos) which is not described in any of the ordinary text-books under that name, although it is in Dr. Duncan's own lectures, and which is so rare that very few cases have been described in obstetrical literature. Of course, Dr. Duncan got the credit of setting the question, but his co-examiner on the occasion, Dr. John Williams, might perhaps have proposed it; at any rate he must have sanctioned it, and therefore should share the blame. It is perhaps as well for Dr. Duncan that his term of office as examiner has expired, and he may perhaps never again seek a position for which he is ill adapted. It may not be much better for students, for Dr. John Williams is reported, even in his own school, to be, with all his ability, anything but a pleasant acquaintance across an examination-table.

It is one great fault of the London University that its examinations may be conducted by persons whose only qualification is that they are appointed by the Senate—being mostly persons who have attained a certain reputation in the subject either as teachers or authors—and so students are subjected to the crotchets of a series of experts on numerous subjects, and some of these experts have shown themselves destitute of all sympathy with students, and otherwise ill qualified for their tasks. I could give you illustrations in the several faculties, but must return more strictly to medical subjects, and especially our societies.

The Clinical Society resumed work on the 9th under the presidency of Mr. Bryant. Here Dr. Sawtell related a case of hæmatemesis and melæna in a new-born child, fatal in the course of twenty-four hours. The first time blood was vomited was about twenty-one and a half hours after birth, up to which time milk had been taken, and the vitality was not very low. The hemorrhage continued, mixed with meconium and mucus, and the child soon sank. At the autopsy there were small, deep, round, and oval ulcers at the cardiac end of the stomach near the lesser curve. Dr. Sawtell had not found the record of a precisely similar case after extensive search. I find that Dr. Goodhart's book recognizes that gastric ulcers may occur in the new-born, and attributes the cause to disturbance of the circulation incident to the closure of placental supply and the commencement of aerial respiration. Dr. Crocker compared this case to purpura neonatorum. This, when confined to the skin, usually does well, but when it affects mucous membrane is naturally more formidable.

Mr. Lucas next related two cases of strangulated hernia treated by excision of the sac and skin covering, with

suture of the ring after reduction. He was not induced to adopt this procedure by the desire to effect a radical cure, though this was an incidental advantage, but with the hope of reducing the mortality. He looked on the sac as a danger, and wished to rid the patient of the ill-nourished, over-strained abnormal tissue with its liability to slough, suppurate, and collect discharges, or guide them into the peritoneal cavity.

Both the cases were umbilical, and it was suggested by the president that the discussion should be confined to that form. There was a considerable difference of opinion evinced—and that was among Guy's surgeons, where the operation has been most done—thus proving that there is room for careful study of the subject. Mr. Barker had practised the method successfully. Mr. Howse thought each case should be treated on its merits, and where the sac was healthy its removal would increase the risks of the operation. In strangulated hernia delay constituted the chief risk, so only a few hours should elapse before an operation was undertaken. Mr. G. Bird endorsed the practice, but not the explanation. The practice had for some years been adopted. Mr. Walstrom had cut away the sac in twelve cases—three umbilical, seven femoral, and two inguinal. Unless seen long afterward, and no truss had been worn, he should not say they were radical cures. Mr. Makins had recently operated in a similar way on one case. Mr. Ballance removed the sac and many square inches of skin, and as much omentum as possible. Mr. Symonds said when the sac was small it was not necessary to remove it; in femoral hernia he always removed it. Mr. Godlee did not think complete separation of the sac easy to do, as it was so closely united to the skin over a large area. Mr. Hopkins operated on a man of seventy, who had softening of the brain, but the operation was recovered from.

The next subject was trephining for compression of the middle meningeal artery by a clot. Mr. Charters Symonds related a case in which he had trephined, and after much difficulty arrested the hemorrhage. The man recovered consciousness, and on conclusion of the operation he gave his name and address, but the next afternoon pulse and temperature rose, he became delirious and sank. It was suggested that compression of the carotid might be useful in such cases, and Mr. Bryant had noticed in an American journal an article on ligaturing the carotid for such cases. Altogether the Clinical had a good opening meeting.

The Abernethian Society is the St. Bartholomew's Students' Society, and is sometimes frequented by older "Bart's men." This year it was opened on the 8th with an address by Morrant Baker, who traced the early history of old Bart's to its foundation of centuries ago by Rayer or Raherus, and gave a number of curious gleanings from the early chapters of this long story.

The other London Societies will open next week. The provincial societies do not all observe the same period as those in the metropolis.

The Bishop of London on the 9th inst. opened the new wing, containing seventy beds, of the Temperance Hospital. He gave an address in which he recognized the value of medical services. The bishop (Dr. Temple) is a strong supporter of the temperance cause, and the President of the National Temperance League. In the hospital the mortality has been low, and alcohol only prescribed about once in a thousand cases.

There may be various reasons why alcohol is less called for than in former days. But whatever be the explanation, there is no doubt that it is much less prescribed, and no one can say that practice is less successful.

The hospital has done good service in emphasizing the fact, and proving how little alcohol is necessary; but even without this, no doubt the thoughtful investigations of therapeutists would have done something to check the indiscriminate prescription of alcohol which proved so injurious.

From the time when the late Professor Parkes spoke out, the Temperance party has been making steady progress in the medical profession.

The references to the matter in the introductories has opened the floodgates of the controversy on the right of London students to the degree of M.D.; the obstinate policy of the London University, which is driving men from the metropolitan schools, and the relative value of various diplomas—all knotty subjects, and to some degree unprofitable, but with which we are again to be overwhelmed, for no statesman seems inclined to take up the grievances of the profession and settle our differences.

TYPHO-MALARIAL FEVER.

To the Editor of The Medical Record.

Sir: In your last issue, among the proceedings of the Section in Practical Medicine of the New York Academy of Medicine, I am credited with the following remark (p. 502): "I believed that there was such a thing as typho-malarial fever, and did not believe that it was the same disease as typhoid fever." What I meant and hoped to say was this: That there are *complications* of typhoid and malaria. The sickness, as I have observed it repeatedly, runs, in most cases, a long course. For weeks no other diagnosis can be made but that of typhoid, for there is high fever (though not necessarily with the regular curves to which we are treated in the books), swelled spleen, also roseola, and the intestinal symptoms with or without diarrhœa. The fever will not, or but little, diminish toward the end of the third week and continues into the fourth or fifth week. About that time chills will (may) make their appearance. In well-pronounced cases I have observed two distinct chills, at more or less regular hours, with more or less perspiration following, through a period of from six to ten days. Quinia has not such a prompt effect as in the common uncomplicated form of malarial fever. There is no complete apyrexia, but a moderate remission only; then, instead of two daily chills there will be but one, and this will disappear after awhile, to be followed for some time by a fever with the remittent type.

Yours very respectfully,

A. Jacobi, M.D.

110 West Thirty-fourth Street.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from October 25, 1885, to October 31, 1885.

Huntington, D. L., Major and Surgeon. Detailed on Board to inspect Army and Navy Hospital Buildings, at Hot Springs, Ark. S. O. 245, A. G. O., October 24, 1885.

McElderry, Henry, Major and Surgeon. Granted leave of absence for four months, from November 1, 1885. S. O. 246, A. G. O., October 26, 1885.

Patzki, J. H., Captain and Assistant Surgeon. Appointed member of Board to meet at Forts Jackson and St. Philip, La., on November 5, 1885, to select a site for the new quarters for the Ordnance Sergeants at those posts. S. O. 230, Department of the East, October 28, 1885.

Tousey, G. H., Captain and Assistant Surgeon. Granted leave of absence for two months, to take effect after the return from leave of absence of Surgeon J. C. Baily (Major). S. O. 87, Division of the Atlantic, October 24, 1885.

Barrows, C. C., First Lieutenant and Assistant Surgeon. In addition to his other duties, to take temporary charge of office of the Medical Department of the Division of Arizona. S. O. 102, Department of Arizona, October 17, 1885.

Ewing, C. B., First Lieutenant and Assistant Surgeon (Fort Leavenworth, Kans.). To accompany Congressional Committee, of which Hon. W. S. Holman is chairman, in its visit and inspection through Indian Territory. S. O. 160, Department of Missouri, October 23, 1885.

Ives, F. J., First Lieutenant and Assistant Surgeon. Relieved from temporary duty at Fort Laramie, Wyo. Ter., and ordered to Fort D. A. Russell, Wyoming. S. O. 106, Department of the Platte, October 22, 1885.

Morris, E. R., First Lieutenant and Assistant Surgeon (recently appointed). Assigned to duty at Fort Bayard, N. M. He will continue on detached service under orders of District Commander. S. O. 160, Department of the Missouri, October 23, 1885.

Medical Items.

Animals as Medical Practitioners.—M. G. Delaunay, in a recent communication to the London Biological Society, observed that medicine as practised by animals is thoroughly empirical; but the same may be said of that practised by inferior human races, or, in other words, by the majority of the human species. Animals instinctively choose such food as is best suited to them. A large number wash themselves and bathe, as elephants, stags, birds, ants. In fact, man may take a lesson in hygiene from the lower animals. Animals get rid of their parasites by using dust, mud, clay, etc. Those suffering from fever restrict their diet, keep quiet, seek dark and airy places, drink water, and sometimes plunge into it. When a dog has lost its appetite, it eats that species of grass known as dog's grass (*chien dent*), which acts as an emetic and a purgative. Cats also eat grass. Sheep and cows, when ill, seek out certain herbs. An animal suffering from chronic rheumatism always keeps, as far as possible, in the sun. The warrior ants have regularly organized ambulances. Latreille cut the antennæ of the ant, and other ants came and covered the wounded part with a transparent fluid secreted from their mouths. If a chimpanzee be wounded, it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth. A dog, on being stung in the muzzle by a viper, was observed to plunge its head repeatedly for several days into running water. This animal eventually recovered. A sporting dog was run over by a carriage. During three weeks in winter it remained lying in a brook, where its food was taken to it. This animal recovered. A terrier hurt its right eye. It remained under a counter, avoiding light and heat, although it habitually kept close to the fire. It adopted a general treatment, rest and abstinence from food. The local treatment consisted in licking the upper surface of the paw, which it applied to the wounded eye; again licking the paw when it became dry. Animals suffering from traumatic fever treat themselves by the continued application of cold, which M. Delaunay considers to be more certain than any of the other methods. In view of these interesting facts, we are, he thinks, forced to admit that hygiene and therapeutics, as practised by animals, may, in the interest of psychology, be studied with advantage. He could go even farther, and say that veterinary medicine, and perhaps human medicine, could gather from them useful indications, precisely because they are prompted by instinct, which are efficacious in the preservation or restoration of health.

A Proposed Remedy for the Abuse of Medical Charity.—Dr. Charles E. Young, of 334 West Fifty-ninth Street, suggests that the Charity Organization Society be asked to investigate every applicant for dispensary relief, and he suggests that the following or some similar plan be adopted by the various institutions: "Let all dispensaries issue similar cards to applicants for gratuitous treatment. On the back of these cards shall be printed the following rules: I. Upon receiving this ticket from the dispensary, the patient, in person or through a representative, must take it to the office of the Charity Organization Society, No. 79 Fourth Avenue, to receive the signature of the Society, before a second treatment at the dispensary can be expected. II. All applicants for free treatment must expect investigation from the Society at their homes. III. In return for services rendered patients will be expected to exhibit themselves for scientific purposes, if requested to do so, at any time and place named by the physician in charge of the case, and to return again for treatment if desired by him. IV. Failure to comply with these rules, or loss of this card, will forfeit the right to further treatment. The other side of the card may contain the usual lettering of the dispensary by which it is issued, space being left for the signatures of the Charity Organization Society and of the physician in charge of the case. The following rules are to be made known to each dispensary physician, so that all may understand and act together in the work: I. Whenever a patient appears for the first time, treat him if the case be doubtful, but call attention to the rules on his card. All cases known to be unworthy may be turned away without investigation, and if any money has been received by the dispensary from him it must be refunded. II. No money beyond the regular dispensary charge must be accepted from patients at the dispensary. III. Any patient appearing a second time without the signature of the Charity Organization Society upon his card must be turned away without further treatment. IV. Any physician not complying with these rules thereby severs his connection with this institution."

Franklinism in Medical Practice.—Mr. C. W. Meyer writes concerning the machines now generally in use for the production of statical electricity, and believes that were they simplified, and thereby reduced in cost, the general adoption of this useful therapeutic agent in medical practice would be greatly facilitated. He thinks that the air-tight glass case, which is one considerable item in the cost of the machine, might very well be dispensed with. It is true there would then be some days in which the machine would not work, but these days are relatively few, and the inconvenience experienced at such times would be counterbalanced by the greatly reduced price of the instrument. Mr. Meyer believes that a good fourteen-inch plate original Holtz machine will answer every purpose for the general practitioner, and by reason of its great cheapness, as compared with a self-charging air-tight machine, is within the reach of everyone.

The Danish Name for It.—In several notices which have appeared of late in the *Hospitals-Tidende*, concerning the next meeting of the International Medical Congress, and the causes which seem destined to prevent its being held in this country, mention is constantly made of the American med. ass., Am. med. ass., or A. m. ass. Why does the organ not protest against such levity?

An Extemporaneous Test for Human Milk.—Dr. Helot says that it is possible to judge with sufficient accuracy of the quality of human milk by comparing the number of drops in a given quantity of milk with those in a like amount of distilled water. Of course, the absolute number of drops will vary according to the diameter of the delivery tube, but the relative proportion will remain the same. This proportion should be about six drops of milk to five of water. The best instrument for measuring is the ordinary hypodermic syringe, made to contain one-half drachm of fluid. If now at a temperature of 58° F. it requires thirty drops falling from the end of the needle to empty the syringe, we should get at least thirty-five drops of milk, and if there are thirty-six or thirty-eight drops it is so much the better. Milk which gives no more than thirty-three drops to thirty of distilled water is not good, Dr. Helot says, and it will be necessary to secure another nurse in such a case.

Restoration to Sanity Following Erysipelas.—A case is reported by Dr. Landerer, of a young girl suffering from melancholia, who was attacked with erysipelas of the face and scalp. There was abundant suppuration, and it was necessary to incise the scalp in several places. Upon recovery from the erysipelas it was found that the mental disturbance was completely and permanently cured.

A Rush for Priority.—An amusing circumstance was related in a report presented recently to the Academy of Medicine of Paris. It appears that M. Brondel had announced that by means of electricity he could cause medicinal substances to penetrate into any of the tissues or even to pass entirely through the body. He endeavored to prove this in the presence of some members of the Academy by means of the starch test with iodide of potassium. The experiment did not succeed until, the starch compress becoming disarranged, the manipulator readjusted it. The characteristic iodine coloration at once became visible, but it was shown that there was iodide of potassium on the experimenter's fingers, not having been washed off carefully, and M. Blondel very frankly acknowledged his mistake. But the joke was that between the time that he had announced his discovery and had found out his error, numbers of communications had come from all sides from different electricians claiming priority in this grand discovery, which was to revolutionize therapeutical science.

Hyperembryohydrometrotrophy.—This is merely another name for pregnancy.

Sea-Voyaging as a Cure for Barrenness.—Surgeon-General Charles R. Francis writes to the *Indian Medical Gazette* an instructive and suggestive letter upon the subject of the influence of sea-voyages upon the genital function. As will be seen, sea-voyaging is at times a therapeutic measure of prodigious, not to say dangerous, potency. Dr. Francis says: "A young lady in India, of leuco-phlegmatic temperament, and remarkable for want of energy, which was conspicuous even in her languid mode of speech, had been married for seven years without any prospect of having a family, there not having been the slightest indication of pregnancy during the whole of this period. The husband was also young, and in good health. Being, however, of a kindly disposition, and never expecting to be as ladies wish to be, etc., Mrs. A—— surrounded herself with pets—small dogs, birds, and a monkey. At the end of the seven years she accompanied her husband (a civilian) to England on furlough. They went by the long sea-route round the Cape (of Good Hope). In those days—I speak of thirty years ago—a voyage home in a sailing-vessel (one of the large passenger ships of the time) was very invigorating. A comfortable cabin—one's own private residence for three months at least, so different to the comfortless system of berths in a general cabin in a so-called overland steamer—the soothing influences of the sea, the tonic air, etc., all combined, provided one was abstemious in the matter of food and intoxicating drinks somewhat freely provided in most of these vessels, to produce (in good sailors) a vigorous state of health, which, coming after a lengthened sojourn in a hot climate, was especially enjoyable. The lady became pregnant on board; and the activity of the reproductive function (thus roused) being maintained for several years, even after the return to India, this pregnancy was followed by others; and, as a matter of fact, a child was born annually for ten successive years, the deficiency of the first septennial period being rather too prolifically made up afterward. I have been six times round the Cape in passenger vessels and four times overland, and I quite believe in the stimulating effect—not always for good—of a sea-voyage (long or short) upon the ovario-uterine organization. In prescribing this remedy, however, in cases of sterility, the medical practitioner might, with the experience of that just related, be inclined to pause, feeling that possibly his patient might hereafter tax him with having prescribed rather too much of a good thing!"

Da Costa on the Treatment of Pulmonary Consumption—*Hygienic Treatment.*—Out-door exercise, good food, warm clothing; climate of paramount importance. The best climate, by far, is that found in Egypt; Algeria is a good place. In this country, New Mexico, Southern California, South Carolina, Thomasville in Georgia, Florida. Colorado, for some cases, is an excellent climate. Cases having a co-existing bronchitis do better in a damp and mild climate, as Florida, etc. The element of change is very useful. The Adirondacks is a fine place for those early cases in which there is no tendency to hemorrhage. Prof. Da Costa does not care much for the "milk diet," but allows it in conjunction with other things. Give plenty of meats, and alcohol in moderation, especially in those cases free from fever. Mix it with ol. morrhuæ, to lessen the tendency to its abuse. Whiskey and brandy are the best stimulants here. You need not interdict smoking.

Medicines.—Ol. morrhuæ is of great utility by improving nutrition and also by affecting the tubercle. Do not use its substitutes, as glycerine, etc. Give f ℥ ss. ter die, one hour after meals. To disguise it, and to promote its ready absorption, give ♏x.–xv. ether, but this sometimes causes belching. Mix it with equal amount of malt or whiskey. When the appetite fails stop its use for a while. Do not permit the oil to be taken in hot weather. Next in importance is arsenic in small doses in the early stages; arsenious acid, gr. $\frac{1}{60}$, or gtt. iij. Fowler's solution, ter die. In the late stages it will be of no avail. A third remedy is iodine; it should be more generally used; liq. iodi comp., gtt. i.–iij. ter die, with potassium iodide to alternate with it. When anæmia is present, *and not much fever*, use iodide of iron. It is very valuable. Push it up to the point of tolerance. Begin with gtt. xv. of the official syrup, and push up to f ℥ j. ter die. Prof. Da Costa does not like the hypophosphites. They have no special effect, as ol. morrhuæ and arsenic. Inhalations of sodium benzoate are of no use. Carbolic acid and tar by inhalation are of some avail.

Treatment of special symptoms.—Entirely too much is done for the symptoms. For cough we should give no expectorant, unless bronchitis exists. Since the cough is generally an irritative one, morphia must, in time, be given. Codeia, gr. $\frac{1}{2}$–$\frac{1}{4}$, in simple elixir, often has a wonderful effect and does not constipate. Prussic acid or fluid extract of wild cherry is very useful at times. We may combine the acid with morphia. Inhalations of oil of eucalyptus give relief.

Night sweats.—Give atropia, gr. $\frac{1}{60}$, at bed-time. Sponge off the body with hot water to constringe the vessels. Infusion of sage at night. Mineral acids, especially sulphuric acid. Zinc oxide, gr. ij. ter die. Ergotin or fluid extract of ergot is better than morphia in some respects. It is more permanent and does not cause dryness. Give ergotin, gr. ij. ter die, the last dose at bedtime.

Digestive system.—The patient often has vomiting. Two excellent remedies may be given, as carbolic acid or creasote, gr. $\frac{1}{2}$, four times per diem. Strychnia, gr. $\frac{1}{30}$, ter die, is also of great value.

Diarrhœa.—Opium, bismuth, ʒj.; copper sulphate, gr. $\frac{1}{12}$; silver nitrate, gr. $\frac{1}{4}$, etc.

The throat in phthisis.—It may be swollen, and the larynx the seat of ulcers, which may become tubercular. Drink demulcents, as Irish moss (ʒ j. to the O j.).

Prof. Da Costa has confidence in local applications of iodoform and cocaine. Let the patient eat his meals while the parts are under the effect of cocaine.

For *irritative fever*—

℞. Quininæ sulph..... gr. jss.
Digitalis..... gr. ss.
Opii..... gr. $\frac{1}{4}$.
M. Sig.—Ter die. —*Col. Clin. Record.*

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 20 NEW YORK, NOVEMBER 14, 1885 Whole No. 784

Original Lectures.

THE PROGNOSIS AND TREATMENT OF SYPHILIS.[1]

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GENTLEMEN: Before taking up the subject of the treatment of syphilis, it may be well to direct attention briefly to the prognostic significance of the early manifestations of this disease.

The prognosis of the chancre, viewed in the aspect of a local lesion, is almost always favorable. In studying the clinical history of the initial lesion we have seen that it rarely gives rise to pain or other subjective symptoms, that it is limited in extent and duration, with a tendency to spontaneous resorption, and that it heals ordinarily without a cicatrix.

When complicated with phagedena, gangrene, or other inflammatory conditions, the local consequences may be more serious, resulting in more or less extensive destruction of the tissues, sometimes mutilation of the glans, urethral fistulæ, etc.; but, as a rule, the local process is a very simple affair.

But when viewed as the starting-point of a disease permeating the entire organism, capable of causing the most profound lesions, and practically indefinite induration, the prognosis is of much graver import.

No other infectious disease exhibits such a vast difference in its impress upon the organism, in the multiplicity, intensity, and duration of its symptoms, as syphilis. In some cases syphilis shows itself as essentially a mild disease, with slight and occasional manifestations, which, after a few months, cease altogether, and the patient remains to all appearances perfectly well. In other cases it is a most formidable disease; it determines a vast array of morbid manifestations, and may continue to reveal itself by destructive processes during the lifetime of the individual. Clinically, then, we must distinguish between mild and severe cases of syphilis.

Now it comes to be a question of great practical interest, whether we can trace a definite correspondence between the initial expression of syphilis and its subsequent manifestations. What are the relations between the source of the virus, the period of incubation, the anatomical characters of the chancre, etc., and the ulterior evolution of the disease? Can we, from a study of these initial characters, gain valuable indications which will enable us to forecast the future of the patient?

As regards the *source of the virus*, it may be very confidently asserted that it exerts no appreciable influence upon the character either of the chancre or of the constitutional accidents. Whether the contagion be derived from a primary or secondary lesion, whether from a simple erosion or a deep ulceration, is immaterial. It does not affect either the activity of the poison or its effects upon the system. It was formerly thought that the virus of a phagedenic chancre carried with it a more intense infective capacity, a greater potentiality for mischief; but we now recognize that phagedena is not a characteristic of the chancre; it is a property of the individual, and is, therefore, not transmissible.

In reference to *the period of incubation*, certain authorities have formulated the rule that the longer the incubation the milder the syphilis, and the shorter the incubation the severer the syphilis. This theory would seem to rest upon a rational basis, since the more prompt invasion of the system would seem to be an evidence of a feebler capacity of resistance. Unfortunately, however, clinical experience furnishes so many exceptions to this rule that its prognostic significance is of little value.

The next element of prognosis is to be sought for in the chancre itself—its induration, ulceration, and other specific characters. Does the *local action* of the virus upon the tissues, as revealed in the primary lesion, constitute a criterion by which we can estimate its *general action* upon the system? In other words, is the first visible manifestation of syphilis to be accepted as a correct index of its subsequent manifestations? Chancre has been termed the touchstone of the constitution, and we may assert very positively that a phagedenic chancre always portends a bad type of syphilis, for the reason that the phagedena is an expression of a bad state of the patient's constitution, which will probably be reflected in the character of the general accidents. In general it may be said that the more benign the chancre the greater the probability that the secondary accidents will be of mild type; but this correspondence does not always extend to the tertiary stage, since, as pointed out by Fournier, the severest forms of visceral syphilis often follow a chancre so insignificant as to pass unperceived by the patient. On the other hand, clinical experience furnishes many examples of a severe chancre, with voluminous induration, followed by a syphilis of mild or of medium severity.

We perceive, then, that the anatomical characters of the chancre do not always bear a definite relation to the character of the constitutional accidents.

Advancing a step further, to the advent of constitutional symptoms. After the disease has blossomed forth upon the skin and mucous membrane, does the first crop of eruptive accidents foreshadow the character of succeeding crops? Undoubtedly the early development of a pustular syphilide indicates a severe type of syphilis, and the same may be affirmed of the precocious development of ulcerative lesions; but, as a rule, it must be confessed that the benignity of early secondary symptoms does not furnish an absolute guarantee against the malignancy of tertiary manifestations. We must conclude, then, that the initial characters of syphilis do not furnish infallible signs which enable us to prognosticate the severity and duration of its processes. Our prognosis must be based upon conditions relating to the individual rather than to the disease.

We come now to the consideration of the treatment of syphilis. A patient presents himself to you with a recent chancre; you recognize this lesion as the starting-point of a long train of constitutional disorders, which may continue to recur during his entire lifetime. A most important question now arises; is it possible, by destruction of this lesion, to nip the disease in the bud, to prevent infection of the general system?

Now, many authorities very positively assert that excision of the chancre will abort syphilis, and that even when total destruction of the syphilitic virus is not effected, that by removing the mass of infective material contained in the chancre, the severity of its constitutional effects is modified. They assume that the virus remains for a time localized at its point of entrance, and that the

[1] Abstract of a lecture delivered at Charity Hospital, New York, October 31, 1885.

chancre constitutes the infecting source from which contamination of the system gradually takes place.

In discussing the pathology of syphilitic infection, I have already given you my reasons for believing that the chancre is the expression of a generalized blood-poisoning, the evidence of an already accomplished infection; and if this be the case, obviously enough destruction of this lesion, by excision or cauterization, will not arrest or modify the effects of the virus upon the general system.

Without attempting to determine at what precise time generalization of the virus takes place, but leaving all theoretical considerations aside, it may be safely asserted that the value of the abortive method has been settled by the test of clinical experience; the practice of excision of the chancre is condemned by its results. Numerous cases are on record in which the operation has been done under the most favorable conditions, within a few hours after the first appearance of the chancre, and yet constitutional symptoms followed in regular order.

The treatment of the chancre should be mainly expectant. The indications of treatment may be summed up as follows: cleanliness, the removal of local causes of irritation, and a simple protective dressing. When there is a tendency to suppurative action, mild astringents, dusting with iodoform or calomel, or the use of the black wash, may be employed. When the chancre is painful, the use of sedative lotions, as the lead and opium wash, will be found beneficial. Mercurial or other ointments should never be employed, especially when the chancre is situated upon a mucous surface. The voluminous indurations which sometimes remain, even after cicatrization, are removed by the unaided efforts of nature alone; their involution may, however, be hastened by the internal employment of mercury.

The next question which arises in connection with treatment is, whether the internal use of mercury in the primary stage prevents secondary accidents, or materially modifies the subsequent severity of the disease? This may be answered very decidedly in the negative. Mercury does not prevent the development of general symptoms; it may possibly delay secondary manifestations, it may derange the regular order of their appearance, but it does not prevent them.

This leads to a consideration of the proper time for beginning the general treatment of syphilis. Upon this point there is a difference of opinion among authorities. Many recommend the administration of mercury upon the first evidence of induration of the sore; others counsel its delay until after the appearance of secondary accidents. The latter plan is the most judicious. It is not always possible to pronounce with absolute certainty upon the syphilitic character of a venereal sore before secondary symptoms appear. There are so many possible sources of error in forming a diagnosis, that even the most practised physician may be deceived. Unless you have the elements of a positive diagnosis unmistakably present, you may accept it as a safe rule that it is better to defer specific treatment until secondary symptoms have declared themselves.

In the general treatment of syphilis an immense number of drugs, drawn from both the mineral and vegetable kingdoms, have been employed, but of this number only two are regarded as possessing *specific* properties. These two drugs, mercury and iodide of potassium, constitute the basis of all special therapeutical treatment at the present day. It is well, gentlemen, that you should have a definite understanding of what may be accomplished by the specific treatment of syphilis, and while appreciating the full measure of its therapeutic value you should also recognize its limitations.

It can be justly claimed for mercury that it exercises a positive curative action upon the secondary manifestations of syphilis, it abates their intensity, and hastens their involution. In the treatment of the erythematous papular and papulo-pustular eruptions, its action is often prompt and decided, causing a much more speedy disappearance than would have taken place in the natural course of the disease. Mercury also exercises an undoubted influence upon some of the later lesions of syphilis. Iodide of potassium is, however, the remedy *par excellence* for lesions of the tertiary stage, especially those of the gummous type. The rapidity of its action in melting away gummatous deposits, and in arresting ulcerative processes, is often marvellous. Affections of the bones, visceral lesions, etc., also come within the range of its curative action. A combination of these two drugs, constituting the so-called "mixed treatment," is often more efficacious than either alone, especially for the lesions of the intermediary stage.

But while clearly appreciating the *curative* action of these drugs upon specific lesions, we must recognize the fact that their *preventive* action is much less pronounced. Mercury does not prevent the evolution of syphilis; successive crops of secondary accidents continue to recur in patients under the full influence of an active mercurial treatment. We cannot affirm positively that mercury given continuously during the entire secondary stage will prevent the development of tertiary lesions. It is a matter of common observation that many syphilitics who have never taken a grain of mercury or iodide of potassium, never have tertiary lesions. Tertiary manifestations are not a constant or essential feature of syphilis, they occur in only a small proportion of cases whether the syphilis is healed or not healed, so that it becomes difficult to discriminate between the effects of treatment and the self-limitation of the disease. It would hardly seem reasonable, however, to suppose that a drug which is powerless to prevent successive outbreaks of the disease during its active employment, should be able to dominate the diathesis years later, and long after its discontinuance. We may conclude, then, that while mercury is the most efficient agent that medical science has yet discovered in the treatment of syphilis, it does not infallibly cure the diathesis or furnish an absolute safeguard for the future.

There are certain principles pertaining to the use of mercury in the treatment of syphilis, which clinical experience has established as fixed and definite, which I will now endeavor to formulate for your guidance.

Mercury should be given in small doses, and never pushed beyond the production of its primary physiological effects. It is an error to suppose that large doses are necessary to secure the full therapeutic efficacy of the drug. Mercury, judiciously administered in small doses, exercises a decidedly curative action on the secondary manifestations of syphilis, and its continuous and prolonged use may prove inoffensive to the patient. But, when given in doses sufficiently large to produce salivation and other toxic effects, it is positively pernicious. Unfortunately, we are not able to give the exact dosage in all cases, for the reason that susceptibility to the action of mercury varies in different individuals. Its influence upon the eruption and the toleration of the patient's system should be the measure of the dose.

Another point of importance is that mercury should not be given indiscriminately in all cases, irrespective of the condition of the patient's general health. In weak and debilitated patients, in certain cachectic conditions, mercury often does positive harm, and it should be employed with extreme caution. In malignant, precocious syphilis, for example, when the system seems to be saturated with the poison of syphilis, when the disease exhibits itself in its most intense and destructive form, mercurial treatment would only aggravate the condition. In these cases tonics, good food, stimulants, and all measures calculated to promote nutrition should first be employed. After the general health has been built up by reconstituent remedies, and not until then, will the syphilitic manifestations promptly respond to the action of specific treatment.

As regards the activity and duration of specific treatment, we cannot lay down arbitrary rules which shall apply in every case. The two principal plans of admin-

istering mercury in the treatment of syphilis are known as the "tonic treatment," by the continuous use of small doses, and the "intermittent treatment." By the continuous method the dose of mercury is gradually increased until it produces slight salivation, which constitutes the "full" dose. One-half or one-third of this quantity represents the "tonic" dose, which is continued for two or three years, with an occasional resort to the full dose when more active symptoms appear.

By the intermittent plan the effect of the mercury is carried to the point of toleration, and maintained there for two or three months; its use is now intermitted for two months and then recommenced, intermissions alternating with periods of active treatment from two to four years. Both these methods are open to objections. The principal objection to the first is that the continuous, prolonged use of the drug exhausts the patient's susceptibility to its influence; to the second, that the intermission of treatment may coincide with an active outbreak of the disease, when the remedy is most needed.

A broader, and, in my opinion, a much more rational rule, is to regulate the activity and duration of the treatment by the manifestations of the disease; in other words, the treatment should be essentially symptomatic. When manifestations appear, they should be suppressed by specific treatment; when they cease, the treatment should be remitted in activity or substituted by tonics, with a view of counteracting the emaciating and debilitating influence of the diathesis.

Various preparations of mercury are employed in the treatment of syphilis. The drug may be given in the form of metallic mercury or one of its salts. The choice of the preparation and the mode of its introduction into the system are often a matter of choice on the part of the physician. The administration of the drug by the mouth, either in pill form or in solution, is the most convenient and the most generally employed. My own preference is for the protoiodide in the form of pills, each containing one-sixth grain. The quantity of the drug ingested can thus be regulated with precision, and increased or diminished according to its effect upon the disease and the tolerance of the patient's system. If it should produce symptoms of gastro-intestinal irritation which cannot be controlled by combining it with opium, another preparation may be substituted, or the drug may be introduced through the skin. This is the oldest method of employing mercury in the treatment of syphilis, and still retains its popularity with many physicians. When mercury cannot be given by the mouth, the inunction method is no doubt the best substitute. It is also indicated in conjunction with internal treatment when the disease is active, threatening the integrity of important structures, and it becomes necessary to secure the speediest possible effect of mercurial action. For the purposes of inunction blue ointment, the oleate of mercury, or mercurial soap may be employed—the former is undoubtedly the most efficient in its action, although the oleate is the more cleanly and elegant preparation.

Mercury may also be employed by fumigations or mercurial baths, but they are rarely relied upon in the systematic treatment of syphilis. They serve rather as an adjunct to other methods, when it is desirable to obtain prompt and decided effects.

The hypodermatic introduction of mercury is a comparatively recent innovation upon older and established methods. It possesses the advantages of great convenience, combined with scientific accuracy. It is also claimed that the maximum effect of mercury is obtained with the minimum dose, while it produces neither stomachal nor intestinal irritation. It has the counter-balancing disadvantages of causing intense pain, with the occasional production of tumors and abscesses at the seat of puncture. Various preparations of mercury have been employed for subcutaneous injections, as calomel, the bichloride, the bicyanide, sublimate serum, the formamide, the albuminate, the peptonate, the urate of mercury, etc. The proper place of hypodermic medication among our therapeutical resources against syphilis has not been definitely determined. Its disadvantages are such that it will probably never supersede the older and more classic methods.

Toward the close of the secondary stage, and in the intermediary stage, mercury may be advantageously associated with iodide of potassium, the quantity of the iodide varying according to the ulcerative tendency of the lesions. Iodide of potassium finds its special application in the tertiary stage of syphilis. In tuberculo ulcerous lesions, serpiginous ulcerations, gummatous lesions of the subcutaneous tissues, bones, and internal organs, its curative action is remarkably rapid and efficacious, but it should be understood that, while it causes tertiary lesions rapidly to disappear, it does not prevent reoccurrence.

The local treatment of syphilis has always been regarded as merely accessory to general treatment, but recent experience with the dermic and hypodermic method has shown that mercury directly applied to the seat of syphilitic eruptions exerts a much more rapidly curative action than can be gained from its internal use. The topical use of mercury finds its special application in a late stage, when the eruptive elements are massed or aggregated in limited areas instead of being diffused over the entire surface. The lack of time forbids my considering in detail the local treatment of syphilitic lesions.

It is, of course, gentlemen, not possible within the limits of a single lecture to give more than a mere outline of the treatment of syphilis. We cannot lay down fixed and absolute rules of treatment which shall be adapted to every case. The activity and duration of treatment should be gauged by the intensity, the succession, and the duration of the syphilitic manifestations. Each case should be treated upon its individual merits. Benignity or malignancy of the type of syphilis is the product of peculiarities of individual constitution, and the indications are to treat the patient rather than the disease.

Common observation shows that syphilis is most severe in persons of broken-down constitutions, in persons suffering from privation, want and misery, of intemperate habits, the scorbutic and cachectic, persons in the extremes of life, where vital resistance is feeblest. In view of this fact, I am fully persuaded that the tonic and hygienic treatment of syphilis, embracing all measures calculated to build up and maintain the general health at the highest possible standard, are scarcely subordinate in importance to specific treatment itself. The patient's food should be of the most nutritious character, his surroundings good, his habits regular, overwork and exposure should be avoided, while alcoholic and venereal excesses should be prohibited. In conjunction with specific treatment, or in its intermissions, you should give bitter tonics to improve the appetite, ferruginous and nutritive tonics to invigorate the patient's constitution and increase his powers of resistance.

A Definition of Gout.—At the meeting of the Medical Society of London, on October 26th, Dr. Milner Fothergill read a paper on "The Presumptive Diagnosis of Gout." He described a gouty individual and exhibited casts of gouty teeth and photographs of gouty nails. He said: "When kidneys first appear in the animal kingdom the form of urinary excretion is uric acid. Uric acid belongs to animals with a three-chambered heart and a solid urine (reptiles and birds). The mammalia possess a four-chambered heart and a fluid urine; the form of urinary excretion being the soluble urea. When the human liver becomes depraved or degraded, it has a tendency to form primitive urinary products. To the question, What is gout? the answer is: Gout is hepatic reversion, when primitive urine is formed by a mammalian liver!"

Original Articles.

A CASE OF COCAINE-POISONING SIMULATING OPIUM-POISONING.[1]

By J. S. SPEAR, M.D.,
MEDICAL INSPECTOR, UNITED STATES NAVY.

H. A. G——, private, U. S. Marine Corps, aged twenty-nine, weight, one hundred and forty pounds, general health good, on duty at the United States Marine Barracks in the city of Brooklyn, returned from liberty at 8.30 A.M., October 16th. He was one hour and a half over time, and being slightly under the influence of liquor was confined in a cell with three other prisoners. About 10.45, the same morning, he administered to himself with a hypodermic syringe "a dose to sober up," as he told his fellow-prisoners. He prepared the medicine and syringe himself. One of the men in the cell pinched up the skin of patient's arm for the insertion of the needle. After conversing very sensibly for half an hour without showing any signs of excitement or exhilaration he sat down on the floor with his back against the wall, and soon fell asleep.

At 12.40 P.M. the men in the cell noticed that his face was ashy pale, hands and lips quite blue, and large drops of perspiration covered his forehead and ran down his cheeks. They now became alarmed at his condition, and signalled to the sentry on post for help.

At 12.50 P.M., Mr. Louis, the apothecary of the barracks, reached the cell. He reports that he found the patient sitting on the floor with his back against the wall, and the body inclined to one side at an angle of forty-five degrees, resting on his elbow, head down on his breast, eyelids tightly closed, mouth half open, pupils contracted to a point not larger than the head of a small pin, breathing very slowly; pulse feeble and fluttering and not countable, face congested and of a whitish-gray color, lips and hands quite blue, body bathed in cold perspiration; unable to rouse patient by violent shaking and pinching. Mr. Louis thought the man was dying.

At 1.10 P.M. Dr. Derr, U. S. Navy, arrived. He says the patient was in a comatose condition; face cyanosed and puffy; pupils very much contracted; skin cool and bathed in perspiration; respiration very slow and almost imperceptible, and not at all stertorous; pulse slow and of fair volume. A diagnosis of opium-poisoning was at once made by the doctor. He used the stomach-pump directly, but found the stomach empty. A solution of the sulphate of atropia, one-eightieth of a grain in eight minims of water, was next injected hypodermatically, and strong coffee was forced down the throat and into the stomach by manipulation, patient at this time being quite unable to swallow. Two strong men lifted him on his feet and dragged him along the floor, while another man spanked him on the legs and buttocks. Under this treatment, in the course of an hour and a half, he showed signs of returning consciousness.

After taking coffee several times he finally vomited it. At 3.15 the writer saw the patient. Pupils were still much contracted and not responsive to light; pulse 80, and of fair volume; respirations 9 per minute and not stertorous; could be roused without difficulty, but inclination to go to sleep very marked, and would fall into a profound slumber if let alone for a few seconds; able to stand erect for a short time, but could not walk. Diagnosis concurred in.

At 5 P.M., respirations, 15; pulse, 92; walked alone, but staggered badly; pupils contracted; so much improved that all treatment was discontinued, except the guard was ordered to see he was not permitted to sleep longer than five minutes at a time.

At 8.30 P.M., the writer being present, patient was allowed to sleep one hour undisturbed, At the expiration of that time he was roused without difficulty. His temperature in mouth was 96.7°, and in axilla, 96°; pulse, 84, full and strong; respirations, 14; pupils normal and responsive to the light of a candle. No headache; said he is much fatigued and very sleepy. The following morning this man told me that his occupation is a hospital nurse; that he is addicted to the use of cocaine to allay a craving for alcoholic stimulants; that on the afternoon of October 15th he left the barracks about two o'clock, went directly to the manufacturing laboratory of Dr. Edward R. Squibb, in Brooklyn, purchased two small vials, each containing five grains of muriate of cocaine in powder, dissolved the same by filling the vials with water which he obtained in a bar-room; he then crossed over to New York, had his hypodermic syringe repaired at an instrument-maker's shop, and at about 3.30 P.M. gave himself the first hypodermic of cocaine, probably about one grain.

He had already taken several drinks, and continued to drink from time to time all night, going from one saloon to another. Every few hours he took a hypodermic of cocaine. He thinks he was not intoxicated at any time, is quite sure he did not spill any of his cocaine, but took it all before he returned to the barracks at 8.30 A.M., except the last portion, which he took in the cell as before related.

He declared most positively that he did not purchase nor take any morphia on this occasion, and indeed never took a dose of morphia in his life, and offered to make an affidavit to that effect. There was no evidence of suicidal intent. The purchase of the cocaine was confirmed by inquiry made at Dr. Squibb's laboratory. We were told that the same man had frequently purchased cocaine there before. The two vials with Squibb's cocaine labels on them, both empty, one corked, were found in the cell. Both showed unmistakable signs of having recently contained cocaine and not morphia. His own hypodermic syringe had been used to administer the atropia, so that an examination of its contents for cocaine or morphia was considered unreliable. Lastly, here on the spot I am really at a loss for any motive this man could have had for making a false statement as to the drug he administered to himself in the cell.

Very fortunately the routine of the prison is such that by taking a little trouble we have been able to fix the time of the occurrence of the events above related with a good deal of accuracy.

[1] Published by permission of the Surgeon-General of the Navy.

THEORIES OF CHOLERA AMONG THE CHINESE.—In a paper read at one time before the Society of Japanese Studies in Paris, the eminent sinologue, M. Léon de Rosny, related some of the views of cholera as held by the Chinese. The disease is called by the name hoh lwan, meaning the diarrhœa trouble or the quick trouble. Two varieties are recognized, kan hoh lwan, or the dry, and shi hoh lwan, or the moist, cholera. The latter is considered the more grave form. Chinese physicians believe that cholera may be communicated in one of three ways: 1. By proximity or contact with clothing worn by a patient. 2. By breathing air which has passed over cholera dejections. 3. By moist atmosphere during a storm. They say that the stools are never contagious as long as they are exposed to the direct rays of the sun, but that, when preserved in the shade or during the night, they become a source of great danger.

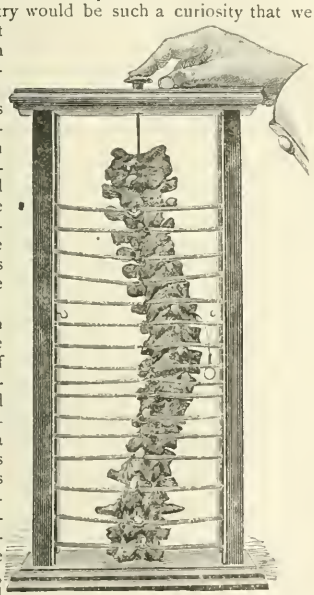
THE MECHANISM OF A LEECH-BITE.—M. Carlet states that the bite of a leech is effected by the three jaws, which bury themselves in the skin by a movement of separation, at the same time opening the œsophagus in the form of a funnel. When the top of this funnel is filled with blood, the jaws close and force the fluid along by a sort of piston movement. He asserts that there are no peristaltic movements of the œsophagus, but that the blood is driven along by the opening and closing of the jaws.

THE TREATMENT OF LATERAL CURVATURE OF THE SPINE.

By A. B. JUDSON, M.D.,

NEW YORK.

If this disease were simply lateral curvature the reduction of the deformity by mechanical means would be easy. Except in extreme cases there is no alteration of the bony tissue, which in Pott's disease prevents restoration of form. If the trunk simply curved laterally it would be comparatively easy to support it laterally in such a manner as to abolish the curvature. But there is an element in this disease which refuses to yield to this simple treatment. I refer to rotation, which is present whenever the spine curves laterally, in health as well as in this disease. But, although constantly present, this element easily escapes detection. It failed entirely of being described till the year 1824. I doubt whether previous to that year there is a single unequivocal reference to it in medical literature. And it is this obscure element that has insidiously thwarted the practitioner of orthopædic surgery in the treatment of the disease. For I suppose it will not be denied that a case of confirmed and well-marked lateral curvature in which the patient has been restored to perfect symmetry would be such a curiosity that we may frankly admit a doubt that such a case has ever existed.



That rotation is the intractable element is clear when we consider attentively the dried specimen or the mounted preparation[1] shown in the cut, which exhibits lateral curvature and rotation.

It is evident from inspection that the anterior portion of the vertebral column has curved more than the posterior portion, a condition of things which constitutes rotation. The anterior part, composed of the vertebræ being within the cavity of the chest, is entirely beyond the reach of direct mechanical impressions. Whatever lateral force is to be used must be applied by way of the ribs to the posterior portion of the column, composed mainly of the vertebral processes. Force thus applied largely tends to increase the rotation without straightening the curvature.

The force here spoken of is directed from the surface of the trunk toward its centre. If we could use a gyratory force, or one which would untwist the vetebral column, our mechanics would indeed take an important step in advance. But this force would have to untwist the column from right to left in one portion, and from left to right in another, for the rotation of the compensating is in a direction opposite that of the primary curve.

I therefore decline, as a rule, to treat lateral curvature with braces. There are exceptions to this, as to every rule. For instance, in some cases, by the use of a brace making antero-posterior pressure, as in Taylor's brace for Pott's disease, it has seemed possible not only to give to the patient the comfortable sensation of being supported, but also to push in the ribs from behind, or the transverse processes in the lumbar region, and thus to oppose rotation. But in general I have obtained good results by the persistent use of special exercises, in which suspension and the production of extreme lordosis when the patient is suspended, and also when lying supine, are the principal features.

[1] Described in the Transactions of the New York Academy of Medicine, 1876, pp. 315–330.

HISTORY OF A CASE OF FOREIGN BODY IN THE THROAT, WITH OPERATION FOR ITS REMOVAL.[1]

By R. F. CHAPMAN, M.D.,

NEW YORK.

At four o'clock on Sunday afternoon, September 27th, a little baby of six months and twenty-seven days was seated on the floor of its home in a large tenement-house, when its mother noticed it put a piece of veal-bone which it had picked up from the floor into its mouth. This provoked a fit of coughing, and the child seemed to be choked, whereupon the mother forced her finger into the child's throat and dislodged the obstacle, and relieved, as she thought, the bad symptoms, for the child remained quite comfortable till nine o'clock that night, when another attack of difficulty from the piece of bone occurring, I was hastily summoned.

On reaching the patient I could not feel satisfied that the piece of bone had lodged in the trachea or œsophagus, for there was no cough, and the breathing only at times seemed to be affected by any obstruction.

Hoping it had entered the stomach-pipe and thereupon be the easier dislodged, I improvised a probang of a whale-bone and a pledget of cotton tied firmly to the end, which I passed into the stomach. For awhile the child seemed much relieved, and I thought there was reason for the hope that the obstruction had been removed. The breathing, however, was of a croupy character, but the child slept some and was generally more quiet. Hoping the difficulty was removed I left the child to the care of its parents, with instructions that if its breathing became labored during the night to call me.

I did not hear from it till next morning at nine, by which time I was quite possessed of the impression that my little patient had gotten over its trouble, when the father came to tell me that the child was worse and refused to nurse. I saw something decided had to be done, and at once determined to see my neighbor, Dr. D. C. Cocks, whom I knew, by oft-repeated experience, would cheerfully give me his skilful assistance, and whose success in tracheotomy made it most fortunate that I had him to call upon.

Dr. Cocks readily consented to see the case with me at once. Upon a most careful examination the foreign body was located in the trachea. An immediate operation was determined upon, and as soon as we could get ready —procure the anæsthetic and suitable instruments—Dr. Cocks proceeded to operate. Dr. G. H. Cocks, who has also had much experience in this operation, kindly assisted. An opening was made into the trachea, midway between the thyroid cartilage and the upper border of the sternum, through which Dr. D. C. Cocks, without the loss of a teaspoonful of blood in making the opening into the trachea, passed a probe, and therewith located the piece of bone just beyond the glottis. After most patient, painstaking, and persistent effort he dislodged the bone and brought it through the glottis into the mouth, greatly to the delight and satisfaction of us all, thus securing the object we were in search of. Dr. Cocks then introduced a single silver tube, the inner one of the ordinary instruments for that purpose, with instructions to clean it out every few minutes with a feather, and to keep a steam atomizer constantly going.

The child breathed quite easily through the artificial

[1] Read before the Harlem Medical Association, October 22, 1885.

opening for about two hours, when shortly after I had left I was hastily called, the father, who came for me, assuring me I would find the patient dead, and begging me not to blame him to his wife and the bystanders who had collected in the room from other apartments in the same house, because he had removed the tube, though he did so by my directions, for they clamorously asserted that by so doing he had killed the child. It was not dead, however, and on my reapplying the tube and clearing out the collected mucus it breathed easily again.

It was very difficult at first to get attendants at all capable of doing what was necessary for the child. Many times it would be almost choked from accumulated mucus. The father and a friend were soon broken in and made very excellent nurses for that service. It was indeed remarkable how many changes were necessary to enable the child to breathe easy, and yet how some little thing would enable it to do so. When it breathed hard with the tube in, taking it out would make it breathe easy, or when the tube was out, putting it in again would have that effect. Keeping the atomizer at work one time would help it, then to stop it would do so.

The morning after the operation Dr. Cocks removed the tube and stopped the tracheal opening with rubber plaster, through the several layers of which the child breathed some, but also through the larynx. It made a cry quite audible and distinct. In a few hours it became necessary to reinsert the tube, and the instructions were to do so every night. This course was pursued each day for one week after the operation, Dr. Cocks closing every morning the opening in the throat with his fingers for a few moments, and then the adhesive plaster, which he instructed should be left on as long as the patient could bear them, to be removed and reapplied till distress of breathing ensued.

All this time the patient did well, having its hard breathing spells, which would be relieved by such attention as experience had taught was required, but it nursed well and slept for hours very peacefully.

One week after the operation the tube was removed and never reinserted. The child would have difficult breathing at times, but then would breathe easily again; but when the atomizer was kept at work, so as to soften the mucus, and the latter constantly removed, and the already trained nurses (for this case at least) took care of it, the child did well. Unfortunately, the father, who had become most efficient, had to go to his work. As his wife expressed it, "he hadn't a bank account," though some days previously he had gone to the bank to draw money to pay his rent, with the assurance, when he left his wife and sick infant, that he would be gone but one hour and a half, and had returned, after an absence of ten hours, with his sorrows completely drowned in libations with a friend he had met down-town; so that a few moments after his return he was oblivious, in the control of alcohol, of his child's condition, and unable to give his assistance, which was so much needed, to saving his little one's life. For four days after the tube was last removed the patient struggled along, having its ups and downs of breathing, but about ninety hours thereafter died from exhaustion.

There is good reason for the opinion that with sufficient relays of competent nurses the result might have been different, for the father, who had become so capable, was worn out by his all-day work, to which he had returned, and was unable to give attention to his child. The other nurse had to attend to her own children, who were suffering from her absence, and whose own household cares had their imperative demands upon her. We sought to obtain the post-mortem trachea for examination, to see how much closed up it was, but were unable to, owing to the opposition of the mother. I learned from this case the difficulties attending the operation of tracheotomy. The doctor who has charge of it is liable to be summoned at any and all times with the startling assertion that his patient will be dead if he is not there in a few moments, and to be detained altogether many hours of the day in order to give his patient breath to live.

I cannot think, then, for any reason as concerns patient or doctor it should be done, unless, as in this case, it is the only chance for life.

167 East 116th Street.

AS TO CARDIAC ASPIRATION.

By W. S. CHEESMAN, M.D.,

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The publication of Dr. Westbrook's case of abstraction of blood from the right heart (Medical Record, December 23, 1882) started a discussion to which, so far as I am aware, the most recent contributions in the American journals are an article entitled "Note on a Peculiar Form of Pulmonary Congestion, together with a Plea for Cardiac Aspiration," by A. H. P. Leuf, M.D. (*American Journal of the Medical Sciences*, January, 1885), and the editorial notice in The Medical Record of October 31, 1885, of a case of aortic aspiration by Mr. Dacre. By the former the safety of the procedure is vehemently urged; in the latter it is stated that "experience, so far, shows that cardicentesis is not dangerous."

In a brief communication concerning Dr. Westbrook's case (Medical Record, January 20, 1883), I objected to the procedure on the ground of its peril. Dr. Westbrook found a slight hæmopericardium as the result of his needling, and it seemed to me not hypercritical to ask: "Is there no risk in an operation involving such a contingency? Bearing in mind the tensity of the auricular wall, and the danger that it may tear itself by motion against the needle (not a fanciful danger, by any means), can we consider its puncture as other than a most hazardous expedient?" The same objection was urged by the *Medical News*, February 3, 1883. To both of these protests Dr. Leuf replies (*American Journal of the Medical Sciences*) by denying that the auricle can thus tear itself, because *a priori* the auricular walls are elastic, and *de facto*, because, in the single case reported by Dr. Westbrook, no such tear occurred.

Even had this reasoning been more lucid and convincing, my own apprehensions would not have been quieted, founded as they were upon a case observed while I was an *interne* in Bellevue Hospital in 1880. To justify my position in regard to the danger of cardicentesis, I transcribe the history from my old case-book:

Patient, a woman, aged fifty years. Admitted June 8, 1880, suffering intensely from dyspnœa, which being found to depend on double pleural effusion, was relieved by the aspirator. Further examination revealed the existence of Bright's disease.

The patient was aspirated several times, was finally put on dry diet, and the effusion not returning, was discharged on July 9th.

On July 13th she was re-admitted, suffering horribly from dyspnœa, which was, as usual, relieved by aspiration. Repeated pumpings kept the chest empty. Finally, though both pleuræ were free, she passed into collapse, breathing with great exertion, and almost pulseless. Previous experience with double pleurisies had taught the need of watchfulness for the occurrence of pericarditis, and now for the first time evidences of this complication were found. The area of præcordial dulness was much increased, the apex-beat imperceptible. With the concurrence of another member of the house staff, a hypodermic needle was introduced into the space uncovered by lung, it being hoped that if thereby the diagnosis were confirmed, relief might be obtained by pericardial aspiration. The syringe filled with blood, and was at once withdrawn. While being withdrawn, the needle was distinctly felt to be moved with or against the heart in its contraction.

The patient seemed no worse for this exploration, lived six hours, and died very gradually.

Autopsy.—Head: Brain and membranes œdematous; atheroma of the vessels. Chest: Double pleurisy; considerable exudation of lymph; scanty serous effusion; parenchyma of lungs normal. On slitting open the pericardium its cavity was found filled with clotted blood, which enveloped the heart like a bag. Clearing this away the heart was found hypertrophied, weight sixteen and a half ounces. Left ventricular wall one and a half inch thick. The right ventricular wall was also thickened; but in one spot, between the columnæ carneæ, it happened to be excessively thin, seeming little thicker than the visceral pericardium itself. And just here a rent one-fourth of an inch long was found, allowing of communication between the right ventricle and the pericardial cavity. Heart-walls fatty in places; atheroma of aorta. Abdomen: Liver, spleen, and intestines normal; kidneys very fibrous and small, together weighing only four ounces.

In this case dilatation of the heart had beyond doubt been mistaken for pericardial effusion, and the right ventricle lacerated by the hypodermic needle; and, while before exploration the case was certain to end fatally, it is equally certain that had there been any chance of recovery that chance would have been destroyed.

Subsequent discussion of the case by the house staff elicited the interesting though unpublished fact that precisely the same error, with the same lamentable result, had been made not long before by a distinguished member of the visiting staff, except that in his case the needle had torn the right auricular instead of the right ventricular wall.

With these cases in mind I must beseech the indulgent forbearance of the advocates of cardicentesis, when I confess to being frightened by the three or four ounces of "thin serous fluid of a dark claret color" and clots found in the pericardium in Dr. Westbrook's case, or the two ounces of blood found in Mr. Dacre's. In themselves these are little or nothing. But they mean leakage, hæmopericardium, which in some other case may be sufficiently abundant to kill.

I have before (in the communication above referred to) expressed my conviction that ordinary phlebotomy is far safer and equally efficient. Drs. Westbrook and Leuf deny that bleeding from a vein is an equivalent for cardicentesis. Dr. Leuf actually asserts that this latter is simpler, and requires paraphernalia less disheartening to the patient. But it will probably be difficult to prove these propositions to the satisfaction of a cautious medical public.

One other point has been made much of by Dr. Leuf (in his article above referred to), viz., that the conception of this operation was original with Dr. Westbrook. In this he was probably misled by Dr. Westbrook's own statement (MEDICAL RECORD, December 23, 1882): "About a year ago (*i.e.*, sometime in 1881) *it occurred to me* that in a case of very acute and intense pulmonary congestion, with over-distention of the right side of the heart, it would be practicable" to aspirate the auricle. It is a familiar fact that an ingenious mind may work out for itself by independent research inventions by no means new. Every now and then operations are advocated and credited as novel, till some bibliomaniac arises to show that Hippocrates or Avicenna practised them. I do not question Dr. Westbrook's honesty when he claims to have originated cardiac aspiration, but I cannot see how Dr. Leuf can continue to deceive himself in regard thereto. He himself quotes Roger's cardicentesis, which was performed, I believe, in 1872—ten years before Westbrook's and Hulke's, which also preceded Westbrook's. He examines critically Dr. C. L. Dana's cases[1] (MEDICAL RECORD, February 3, 1883), of which one occurred in 1877, and the other in 1878. In November, 1881, Dr. Corwin (MEDICAL RECORD, March 10, 1883) punctured the right ventricle of a dilated heart, mistaken for a case of hydropericardium, and drew off blood. He farther states that during his house service he "saw and performed cardiac aspiration a number of times."

I hesitate to incur the opprobrium of "opposing original thought by iconoclastic criticism" (Dr. Leuf), but in view of these few facts, which, for aught I know, might be multiplied by farther search, I must ask Dr. Leuf why he terms cardicentesis "Westbrook's operation?" It might also be not improper for Dr. Westbrook to explain why he continues to permit this operation to be so named.

[1] It will interest Dr. Leuf, but probably nobody else, to know that these were the cases of cardiac aspiration alluded to in my communication of January 20, 1883.

ABNORMAL MOBILITY OF THE TONGUE, WITH ABILITY TO PROJECT INTO THE NASO-PHARYNX.

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THOS. P——, aged twenty-one, syphilitic, was referred to the Throat Department from the Surgical Dispensary of the Jefferson Medical College Hospital for examination. He had suffered for thirteen years with chronic rhino-pharyngitis, and had been much annoyed by the accumulation and desiccation of mucus in the naso-pharyngeal cavity and on the posterior wall of the pharynx. He often examined his throat with the aid of a hand-glass, and two years ago succeeded, after two months' practice, in reaching his pharynx with the tip of his tongue and removing the masses of secretion. This procedure now became a source of much comfort, and was indulged in daily. On one occasion his tongue slipped into the pharyngeal vault, and gave him still better facilities for cleansing. Upon examination, the evidence of an ordinary inflammation of the turbinated tissues, with hypertrophy and subsequent pharyngitis, was well marked. He could with the greatest ease, and many times in succession, project the tip of his tongue into the vault, and described fairly well the posterior extremities of the inferior turbinated bones, the posterior septum, etc. A probe passed through the inferior meatus was readily and freely moved.

The frænum linguæ was ruptured in three or four places, and he stated that the under surface frequently felt sore, and that he often heard "cracking" while practising. His tongue, rather pointed, was not of unusual length. Nothing abnormal in the conformation of the naso- or oropharynx could be detected. As far as I have been able to discover, but three similar cases are on record. In Dr. G. F. Whitney's case (MEDICAL RECORD, April 28, 1883) the frænum "was merely represented by a lax fold of mucous membrane;" in Dr. Webster's own person (MEDICAL RECORD, May 26, 1883) the frænum had never been cut, but the power acquired with difficulty; in Dr. J. O. Roe's patient (MEDICAL RECORD, June 9, 1883) "the frænum linguæ was well marked, though a little more lax than usual." Dr. E. Fletcher Ingals, of Chicago, informed me by letter that he had seen one case, but furnished no details.

Curiously enough, the faculty has so far been observed only in males!

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VICARIOUS MENSTRUATION.—Puech, in his collection of over two hundred cases of vicarious menstruation, gathered from different authors, sums up his statistics as follows: Menstruation at roots of hair, 6 cases; by auditory canal, 6; by lachrymal ducts, 10; by nose, 18; by gums, 10; by cheeks, 3; by mouth, 4; by bronchial tubes, 24; from stomach, 32; by the breast, 25; by the axilla, 10; by the umbilicus, 5; by the bladder, 8; by the bowels, 10; by the hands, 7; by the lower limbs, 13; by various regions, 8. In young girls subject to vicarious menstruation the genitals are always moist with a muco-sanguinolent matter at the time of their courses. —*Cincinnati Lancet*, October 3, 1885.

Clinical Department.

PLACENTA TWO MONTHS IN ADVANCE OF FŒTUS.

Dr. Wm. H. Lathrop, of Lowell, Mass., relates a case of miscarriage in which the delivery of the placenta preceded that of the fœtus by two months. The young woman, married, primipara, had been pregnant four months when the placenta was delivered. Two weeks afterward she went to her work in a mill, and so continued till within two days of the delivery of the fœtus. She was conscious of the presence of something in the womb, but it occasioned no inconvenience, and had no odor. She menstruated regularly, and at the second menstruation the fœtus came away. This was March 7, 1885. This occurred in the practice of another physician, and the facts are well authenticated. It was a four-months fœtus, and remained two months in the womb after its death.

INTESTINAL OBSTRUCTION; ACUTE PERITONITIS; OVARIOTOMY; RECOVERY.

Dr. J. W. Lilly, of Pomeroy, O., writes: "On August 12, 1885. was called to see Mrs. B——. married, thirty-four years of age, and the mother of five children. She was suffering from pain in the abdomen, which was enlarged and tympanitic above umbilicus, and dull below and slightly tender on pressure. The bowels were constipated, and symptoms seemed to indicate simply some slight inflammatory bowel trouble; the usual remedies were prescribed, and the patient was apparently better and able to attend to her household duties by August 20th. She said the pain began suddenly while she was lifting her two babies, twins, from the floor.

"On August 22d I was sent for in great haste, and found patient in bed and vomiting. Examination showed the abdomen enlarged considerably, tender on pressure, dull at lower part, and tympanitic above. I diagnosed peritonitis, with some form of tumor in the lower part of the abdominal cavity, and gave minute doses of calomel, ordering an enema of warm soapsuds; these remedies relieved the nausea somewhat.

"The following day the patient was vomiting again, the bowels had not moved, and there was increased pain and tenderness over the whole abdomen. Dr. Relnu was now called in consultation. We decided the trouble was peritonitis, from some form of obstruction of bowel, and ordered an enema of tobacco infusion with milk and absolute rest, and gave one-half grain of morphia hypodermically. This treatment seemed to give relief, as quite a quantity of scybala came away, and the patient then slept for some time.

"However, at night she commenced to vomit again. and toward morning it became stercoraceous. The case was becoming desperate, but I determined to make one more effort to relieve the obstruction, and with this object injected one quart of milk with an ounce of castor-oil and five grains of podophyllum, and gave two drachms of calomel by the mouth. The enema passed away without effect, and the calomel was rejected in a short time.

"On August 25th a consultation was held with Dr. C. R. Reed, and it was decided to operate. The patient, who had by this time gone into a state of collapse with a thready pulse, 160 to the minute, was anæsthetized with the mixture of alcohol, chloroform, and ether.

"The abdomen was washed with carbolized water; then an exploratory incision was made about half-way between pubis and umbilicus in median line. We discovered the intestines intensely congested and much distended with gas; there was general peritonitis, and we found also a new growth extending from the pelvis to within an inch of the umbilicus. The incision was enlarged to six inches, when this body was seen to be an ovarian tumor. Farther examination showed it to be bound down by firm adhesions, one of which caused the intestinal obstruction. The tumor, which was between six and seven inches in diameter, was, after considerable difficulty, torn loose from its attachments.

"Antiseptic precautions were used as far as possible. Before the tumor was opened at all, the abdominal cavity was thoroughly sponged with carbolized water, and I think if this were always done in this operation there would be less danger from the escape of the fluid into the abdominal cavity (as happened in this case), for it would be neutralized by the antiseptic. Not being prepared to operate for the ovarian tumor, we were obliged to do the best we could with the instruments which we had on hand.

"After the attachments were torn loose, it was found that the pedicle was too short to allow the tumor to be lifted out of the abdomen; but, raising it up as far as possible, and holding the abdominal walls against it, we made an incision and inserted an English catheter into the tumor. The fluid was, however, too thick to flow through the catheter, so it was squeezed out into a vessel placed between the patient's legs. When the tumor was thoroughly emptied of its contents, the pedicle was transfixed and tied with aseptic silk, the tumor cut off, and the ligatures left long enough to extend through wound.

"The abdominal toilet was carefully made, intestines returned to place, and the edges of wound brought together with seven deep sutures. An antiseptic dressing was applied and left undisturbed for three days. The patient rallied well and continued to improve steadily until September 2d when a sudden change occurred in the weather and she was taken with capillary bronchitis. There was great depression followed by rise in temperature and pulse. The symptoms were treated as they arose, and in a few days the patient began to improve again, and from this time went on, with only occasional periods of depression, to complete recovery."

GONORRHŒA IN THE YOUNG.

Dr. M. E. Poynter, of Midway, Ky., writes: "The Record for August 15th contains the report of a case, by Dr. Ward, of Greensboro, Ala., concerning a negro boy, seven years of age, having gonorrhœa. The doctor asks if any one had ever seen that disease in one so young. In 1878 or 1879 I had two cases younger, one a boy of three, and a girl five years of age, white, brother and sister. They had a colored nurse, a girl sixteen or seventeen years of age, who was found to have given the disease to the children. It was detected in both the children at about the same time, and I was called to see them, and at once detected the nature of the disease and so announced to the shocked and overwhelmed parents. The girl acknowledged that she had produced erection in the little three-years-old boy by manual manipulation, and then had him *res in re* with herself. Of course she communicated the disease to him, and, by making the little sister submit to the same process of attempted copulation with the boy baby, she was in turn inoculated. Two years afterward the little boy suffered most intensely from stricture, and had to be treated with dilators, etc."

Dr. J. H. Arton, of Winnipeg, sends us the following: "I have much pleasure in beating the record of your correspondent *re* on 'Early Gonorrhœa.' While in Philadelphia, in 1876, during the last weeks of the Centennial Exhibition, I attended a clinic held by the late Professor Gross. One of the cases was that of a boy, four years of age, with a specific urethritis derived from a girl of sixteen or seventeen, who had charge of him. Professor Gross made the diagnosis, and naturally remarked at the time on its uniqueness."

TROUSERS ON THE SPLEEN.

Dr. W. H. Mather, of Suffield, Conn., reports the following remarkable case: On September 29th, W. C——, a farmer thirty years of age, was trying to jump from a scaffold eight feet high, using his pitchfork to aid him in the descent. The fork slipped, however, and the handle struck him squarely between the legs, tearing the scrotum almost completely away and exposing the testicles. In addition to this, the patient complained of excruciating pain in the left side between the crest of the ilium and the ribs, and the tenderness was so exquisite that it was impossible to palpate this spot without an anæsthetic. The scrotal wound was washed with a sublimate solution and the edges approximated by six sutures, and hot compresses were applied to the side. On the fourth day after the injury one pint of pus was discharged from the scrotum. The pain in the side continued in all its original severity, and on the tenth day an opening was made which gave exit to another pint of pus. Ten days later another incision was made and a little more pus evacuated. There was no diminution in the pain, however. On the twenty-fifth day after the receipt of the injury the patient was chloroformed, and a thorough exploration of the side made through the last-formed opening. This resulted in the extraction of a piece of cloth four inches long, one and one-half inches wide at the base, and one-half inch at the apex. It was a triangular piece which had been inserted in the crotch of the patient's trousers, and which would seem to have been pushed up by the fork. There was no appearance of a foreign substance in the scrotum when it was stitched up, nor was there any blood to be seen on the handle of the pitchfork. After the removal of this cloth the pain disappeared, and the patient made a rapid recovery.

UNREDUCED DISLOCATION OF THE FINGER AND OTHER INJURIES.

Dr. James O. Whitney, of Pawtucket, R. I., reports the case of a man who, when in the army near Charleston, in March, 1864, was struck in the abdomen by a falling log and thrown backward, striking his pronated left hand. He sustained a Colles fracture of the wrist and a dislocation of the ring finger at the metacarpo-phalangeal joint, the head of the phalanx being thrown into the palm, where it now remains partly absorbed. The finger is three-eighths of an inch short, and the deformity and disability resulting from the fracture of the wrist are very great. Soon after this accident he discovered that he had a hernia, and this is now very large and practically irreducible. He said also that he was always lame in the right side, and some seven years ago a tumefaction appeared a little outside of the right nipple, pus was discharged, and the cicatrix even now breaks at times and exudes a little watery fluid. Some time later a second abscess formed four inches lower down and was opened. The man had always been strong and robust previous to entering the army, and never received any injury except the one above mentioned, to which it would appear that all his subsequent ills should be referred.

COCAINE AS AN ANÆSTHETIC IN FRACTURE.

Dr. J. R. Conway, Jr., of No. 14 Lexington Avenue, writes: "Having read with great interest Dr. M. Josiah Roberts' recent article on the use of cocaine in bone surgery, it occurred to me that it would be equally applicable for the painless examination and reduction of fractures. The first case in which I had an opportunity to use it was that of a painter, who had fallen a distance of thirty feet to the ground, striking upon his right buttock and the palmar surface of the right hand. The right radius was fractured about three-fourths of an inch from the lower extremity of the bone, and the lower fragment was displaced backward upon the upper one and firmly held in that position. All attempts at examination of the fracture caused him great agony, and I resolved to try if deep injections of cocaine at the point of fracture would sufficiently anæsthetize the parts to allow of thorough examination and reduction of the deformity without causing him pain. I proceeded to inject five minims of the four per cent. solution into the inner, outer, and posterior surfaces of the forearm directly over the seat of fracture and as deep as the bone. In five minutes the fracture could be thoroughly examined and even roughly handled without the patient experiencing the slightest pain. After the examination I reduced the deformity by extreme extension of the wrist-joint together with traction, using considerable force, but without causing the patient any uncomfortable sensations."

Progress of Medical Science.

Resorcine in the Treatment of Diarrhœa.—In septic diarrhœa, either acute or chronic, characterized by dejections of a fetid odor, and by the presence in the fœcal matters of a large number of micro-organisms, M. Bogouche has obtained excellent results with resorcine dissolved in castor-oil (*Journal de Médecine de Bruxelles*, September, 1885). When thus prepared, the resorcine never causes ringing in the ears, profuse sweats, or other unpleasant symptoms sometimes noted when the drug is given alone, a difference in action which the author explains by the more gradual absorption of the oily solution. For an adult the author gives fifteen grains of resorcine dissolved in about five ounces of warmed castor-oil. To children of about four years of age he gives from three-fourths to one grain in a corresponding quantity of oil. M. Bogouche has met with so great a measure of success in the treatment of fetid diarrhœa by this method that he is encouraged to hope much from it in cholera. In this disease he recommends a mixture of salicylic acid and resorcine dissolved in castor-oil. The dose given by the author, one gramme of resorcine to one hundred and fifty grammes of castor-oil, seems rather excessive, and is probably intended, though it is not so stated, to be given in divided doses during the day.

Thomsen's Disease.—The two following cases of Thomsen's disease are reported by Professor Bernhardt, in the *Centralblatt für Nervenheilkunde*, No. 6, 1885. The patients, brother and sister, aged respectively sixteen and a half and eighteen years, say that the disease began in the lower extremities at the age of four or five years. In the case of the boy it has spread to other muscles, but the sister has retained fairly normal power of movement of the upper extremities. After a good night's rest she does not feel stiff, can leave her bed without difficulty, but on moving about much she experiences the characteristic symptoms of the disease. After sitting quietly for some time she becomes stiff the moment she again stands, and would fall if touched even lightly. The first few steps taken are stiff and awkward. Close attention paid by her to her movements and the exercise of an effort of will result in a partial control of the stiffness and render locomotion less difficult. Her other muscles are all well developed. The brother, a strong man, with athletic development of muscles of arms and legs, shows the typical symptoms of the disease. The parents of these patients were cousins, as were also the grandparents. One of the father's sisters was similarly affected; another sister married a cousin, and both of the children resulting from this marriage have the disease. Farther, the son has married a cousin, and their child, a boy of four or five years, now shows the first symptoms of the disease. Professor Erb, of Heidelberg (*Neur. Centralblatt*, No. 13, 1885), says: "Clinical observation of the motor nervous systems and muscles of three brothers, aged about four-

teen or fifteen years, who were affected with this disease, have shown that we have in reality to do with an abnormality in the form of the contraction of the muscles, and the prolonged latent period and the continuance of the contraction are characteristic. This 'myotonic contraction' can be overcome by *direct* action on the muscles (mechanical, faradic, or galvanic irritation), or through the nervous system, only when a series of rapidly accumulating irritants, such as voluntary action, secondary faradic currents, or liable galvanic current, act on the nerves." He designates under the name "myotonic electric reaction" the changes in electric excitability, which, in a characteristic way, differentiate this condition from that of degeneration, of tetany, of muscular hypertrophy, etc. The examination of a piece of muscle excised from the biceps showed considerable hypertrophy. The diameter of the muscular fibre varied from 24 to 180 μ (normal 25 to 65 μ). More than 50 per cent. of the fibres were from 80 to 140 μ in breadth, while only 2 per cent. were under 40 μ, and 8 per cent. were over 140 μ. On measuring, for purposes of comparison, the biceps of a patient in good condition, who had died of an acute disease, the extreme limits of breadth were 12 and 80 μ, 62 per cent. between 20 and 60 μ, 7.5 per cent. under 20 μ, and no fibres above 80 μ. The fibres are of more rounded form, the angles being rounded off, and they are not pressed together in polygonal forms, as in the case of normal muscle. Erb also found that the nuclei of the sarcolemma were much increased in number, viz., 65, as compared with 18. The transverse striæ were very fine, often somewhat indistinct. The author expressly warns against attaching too much value, at any rate prematurely, to the above abnormalities as supporting a theory of a myopathic origin of the disease.

Dentist's Leg.—A peculiar sensation of numbness, or "pins and needles," in the extremities is frequently experienced by dentists. This condition Dr. George Johnson considers to be due to the combined influence of perverted nerve-function, directly due to a mechanical impediment to the circulation through the rigidly contracted muscles and their associated nerves, and to direct compression of the nerves by the firmly contracted muscles. This combination is found in dentists who stand fixed and firm in one position for long periods of time. The obvious means of prevention and of cure consist in rest for the overstrained limb, or such a frequent change of position as is equivalent to a certain amount of rest. Standing in one position is notoriously more fatiguing than walking, and for the obvious reason that while in standing one set of muscles is in a constant state of active contraction, the circulation through them being thereby retarded and enfeebled, walking involves alternate contraction and relaxation of the muscles, with an invigorated and quickened circulation.—*The Lancet.*

Local Asphyxia and Symmetrical Gangrene of the Extremities.—It will be remembered that Verneuil and Petit have recently given considerable attention to the peculiar condition of local asphyxia of the extremities and symmetrical gangrene. Their belief that paludal poisoning and consequent cachexia play an important rôle in the etiology of the affection appears to be borne out by other cases recently reported. Dr. Giovani (*Giorn. Ital. delle Malatt. Ven. e Cut.*) has had under his observation a patient who, after having lost five brothers and sisters from some unknown disease, remained well himself until the age of twenty-five. At that time he appears to have acquired syphilis. Pains in the bones persisting after the other symptoms had disappeared, he applied for treatment at the venereal clinic, and was given vapor baths and mercurial frictions. Somewhat later the patient had an attack of paludal fever, and was only cured after six months' treatment with sulphate of quinine. Following this came circulatory troubles; he began to experience, among other things, an unaccustomed sensation of coldness over the phalanges of some of the fingers. The sensibility of the hand became blunted. The same conditions were noted by the patient in regard to the toes. Violent pains, increased by pressure, now made their appearance. The color of the integuments affected was modified. The parts which were at first pale became of a dark red color. Flexion and extension were impeded; the epidermis was thickened and wrinkled over the index of the left hand, and gradually became detached in large flakes, whereupon the pain ceased in this finger. Suppuration began about the nail of the right index finger; the pus burrowed to the exterior through the epidermis of the pulp of the finger. Professor Gamberini made the diagnosis of symmetrical gangrene of reflex origin. After several months of symptomatic treatment cicatrization was complete, but some torpor remained in the extremity of the fingers. Bouveret published, in the *Lyon Médical*, June 8, 1884, the following case: "The patient, a woman aged sixty-eight, resides in a country where ague is endemic, and has suffered repeatedly from it. She has also had atheroma of the arteries. In January, 1883, the middle finger of the right hand became cold and of a dark color. Some time later the other fingers of the same hand were similarly affected. The disease gradually progressed until all the fingers and toes, as well as the palms and backs of the hands, became at times cold and blue. Purple patches appear now and then on the forearms. There is diminished sensibility of the affected parts, and at times sensation appears quite abolished. Dipping the extremities into warm water causes a temporary disappearance of the symptoms." It appears probable that in this case, as well as in that of Dr. Giovani, the malarial fever which preceded the local manifestations was an etiological factor. The subject is an interesting one, and undoubtedly many cases similar to those here given could be made clear by the discovery of this malarial origin.

Effects of Zymotic Diseases on the Teeth.—In the *Independent Practitioner* for September, 1885, Dr. F. S. Whitslar thus concludes a paper on this subject: "Now, what are the effects of zymotic diseases upon teeth which bear none of the marks of partial development? We answer, that all febrile conditions or diseases predispose teeth to decay, first, by diminishing vitality, second, by changing the secretions of the mouth so that they act injuriously upon the teeth. In dyspepsia we have not only the predisposing but also the exciting causes of decay, as it not only impairs vitality but prepares in the stomach an acid that is continually being thrown upon the teeth, which acts upon them with great energy. I need scarcely say that residence for any great length of time in miasmatic regions, inducing unfavorable conditions, institutes a predisposing cause, and, in brief, all epidemic, endemic, dietetic, and enthetic diseases derange the functions of the body, vitiate the secretions, impair the vitality, and may be classed as predisposing causes of decay."

Scalded Oatmeal in the After-treatment of Scarlet Fever.—Dr. George Smith, in the *Bristol Medico-Chirurgical Journal*, treats of the subject of the desquamation which follows every case of scarlet fever, however slight, both in regard to its bearings on the patient himself, and also those with whom many cast-off particles may come into contact. The process of desquamation varies very much in different individuals, and sometimes it is done by particles so fine as to be hardly perceptible. And these are, he thinks, a very frequent and most certain source of contagion, by means of clothes and otherwise; much more so, indeed, than the scales as ordinarily thrown off. It is within his own knowledge that the contagion has been thus carried from one house to another, more than a hundred miles apart, at the end of at least a year from the attack. Now, to obviate this danger, he has for several years been in the habit of

having his patients sponged over the whole surface of their bodies twice a day—commencing, as a rule, about a week from the appearance of the eruption, and continuing the process until the desquamation is complete—with a mixture of one ounce of oatmeal to one pint of boiling water; the solution is to be made fresh every day, and used tepid, or at such a temperature as may be comfortably borne by the back of a finger. His reason for using this particular combination is, that the gluten in it sticks the scales to each other and to the surface of the body, thus allowing of their being removed from one sponging to another, without the ordinary risk of infecting either atmosphere or clothes, and greatly lessening the risk of spreading the disease. Secondly, this same gluten fills up the cracks of the new skin and protects it from cold, as, patch after patch, it becomes bare, and thus, to say the least, greatly lessens the risk of the dropsy which so often follows upon this disease.

A New Physical Sign of Tricuspid Regurgitation.—Dr. W. Pasteur, of the Middlesex Hospital, London, writes as follows: "In several cases in which there was reason to suspect functional incompetence of the tricuspid valve which have recently come under my observation, a physical sign has been present to which I believe attention has not been drawn, and of which I have been unable to find any mention either in the standard text-books or in the best known monographs on the subject of cardiac disease. This sign consists in a distention—with or without pulsation—of the superficial veins of the neck, occurring when firm pressure is exerted over the liver in the direction of the spinal column, and independent of the movements of respiration. A little consideration of the anatomical relations of the parts concerned will suggest the facility with which an impediment may be created to the flow of blood, in either direction, through the vena cava inferior by such a manœuvre, especially when the liver is obviously enlarged. It seems to me that the state thus produced is virtually that which obtains as a chronic condition in long-standing and severe cases of tricuspid incompetence as far as regards the tension in the systemic venous system in the immediate vicinity of the heart. Assuming the existence of tricuspid regurgitation and of a source of compression of the vena cava inferior, it is obvious that with each systole an excessive reflux of blood must take place into the vena cava superior and its tributary veins. It may be noted that the question of pulsation, as compared with distention or undulation, is merely one of degree of morbid venous tension. Although the number of cases in which I have observed this phenomenon is certainly limited, I have never failed to elicit it when there was indubitable evidence of tricuspid incompetence; on the other hand, I have hitherto invariably failed to obtain it in other forms of cardiac valvular disease, and in various cases of hepatic enlargement from causes other than passive congestion. I cannot but think that this sign may furnish an important aid to diagnosis in cases where the usual signs of tricuspid regurgitation are ill-developed or in abeyance, and that it may prove a valuable factor in the difficult general problem of prognosis in cases of cardiac disease."—*The Lancet.*

Foreign Bodies in the Urethra.—A great variety of objects have been found at different times in the male urethra requiring surgical procedure for their removal. Among the more common articles intentionally or accidentally lodged in the canal may be mentioned pieces of wood, bits of straw, pipe-stems, pencils, pins, needles, and hair-pins. Pearls, medals, and other curious objects have occasionally been met with. The surgeon is at times called upon to extract the broken end of a catheter, or to remove fragments of calculi. In July last a patient entered the Charité Hospital, in Paris, who had introduced a birch-stem into his urethra three days before, which had broken, leaving a piece nearly two inches in length in the canal. To recover the missing portion he had improvised an instrument from a similar stick, in the end of which he had fastened a bent pin. With this primitive instrument he made diligent search along the canal, but, to his amazement and disgust, he found upon its withdrawal that not only had he failed to catch the stem, but that his hook was gone. Examination with the sound showed the pin to be lodged in the bulbous portion of the urethra. Farther exploration was not attempted. To calm the patient's excitement and overcome the sympathetic vomiting which existed, he was put at rest and given a daily hot bath for three days. He was then placed in the lithotomy position, chloroform was given, and Dr. Després performed external urethrotomy at the point opposite the implanted pin. The index finger was introduced, the pin found, and extracted with forceps. The lithotrity forceps were now introduced through the perineal opening into the bladder, as the wood had not been found in the urethra. All attempts to find the object of the search were in vain. It was presumed that it had been softened, and gave the same sensation, when grasped between the blades of the instrument, as the mucous lining of the bladder. The wound had healed at the date of writing, leaving a fistulous opening through which urine had ceased to flow. It was expected that the wood would soften, and be passed in small pieces with the urine, or would become the nucleus of a calculus. In the latter event Dr. Després proposes to perform a lithotrity, such as he describes (*Gazette des Hôpitaux*, 1879, p. 41) in a case where a piece of a sound had broken off in the bladder and become incrusted.—*Gazette des Hôpitaux*, October 1, 1885.

Iodide of Potassium in Habitual Abortion.—M. Goshkevich says that, though it is usually believed that iodide of potassium tends to produce abortion, and its use is, therefore, generally avoided in pregnancy, he advises that it should be given in cases of habitual abortion. The causes of this are obscure, but the best known of them is undoubtedly syphilis. With this in view, he prescribes the iodide even when no syphilitic symptoms have been recognized, and gives two cases to prove the advantage of this. The heart-sounds and movements of the fœtus, both of which had become almost imperceptible, improved under five grains three times a day, and diminished whenever the medicine was stopped. In each case the normal period was completed, though previously both the patients had been accustomed to miscarry during the second half of pregnancy.—*The Lancet.*

Cocaine in Litholapaxy.—Professor Bruns reports a case in which he obtained local anæsthesia of the bladder and urethra by injecting a cocaine solution, with the most gratifying result. The patient, a young man, had suffered for four years from stone in the bladder. Chronic cystitis was present, and evening feverishness. The injection of one gramme (mostly into the bladder itself, in a two per cent. solution, but also a little into the urethra) produced complete local anæsthesia for half an hour, during which time a very hard oxalate of lime calculus was thoroughly crushed, and removed without pain. After the injection, the patient assumed a different position, to bring the fluid into contact with the whole inside of the bladder; and after the operation, a little of a ten per cent. of iodoform-glycerine emulsion was injected. The recovery was uninterrupted.—*British Medical Journal.*

A New Styptic.—The Berlin correspondent of *The Lancet* writes that some time ago a French physician, Dr. Mennier, reported that a priest, who frequently suffered from bleeding at the nose, having been attacked by a fit of such hemorrhage lasting for nine hours, had, after trying unavailingly all possible remedies, at last stopped it by drinking an infusion of the common nettle, urtica dioica. Thereupon Dr. Rothe made some experiments with the external application of the juice of the said plant. Young plants gathered in spring were cut up (stalks, leaves, and blossoms), macerated for a week in

alcohol of sixty per cent., pressed out, and filtered. It was then a dark greenish-brown fluid of aromatic smell and taste. Applied by means of cotton-wool to bleeding wounds, it promptly arrested hemorrhage, unless large vessels were affected, especially parenchymatous bleedings and those from smaller blood-vessels. The blood was converted into a soft, consistent, but not crumbling clot, which seemingly protruded into the opening of the wounded vessels, thus arresting hemorrhage. In cases of bleeding from the nose, a small cotton plug steeped in the liquid is pushed up the nostril high enough to come into close contact with the bleeding surface, and then, if necessary, fixed by means of a dry plug. Should the hemorrhage cease immediately, the plug may be cautiously moved after the lapse of about ten minutes. If some blood oozes out through the plug, it will have to be replaced by a fresh one. In several hundred cases thus treated the bleeding was always arrested within half an hour at the very latest. Quite striking was the effect in the case of a young man bleeding from the lower jaw, after extraction of a molar; for the hemorrhage had lasted for three days incessantly, in spite of compression and the application of external and internal styptics. For years Dr. Rothe has used this "liquor hæmostaticus" in all operations with predominantly parenchymatous hemorrhage, as in herniotomy, tracheotomy, smaller amputations, splitting of the cervix uteri, etc., in the same way as the solution of sesquichloride of iron was formerly employed, but with the great advantage that the blood-clots did not so easily crumble and decompose. The nettle solution has, on the contrary, on account of its alcoholic component, antiseptic qualities; and it is especially indicated in simple cuts of the skin not requiring suture; for not only will the bleeding promptly cease, but by the application of cotton-wool steeped in this solution the wound will speedily heal. The superiority of this new styptic is, above all, evident in non-puerperal hemorrhage from the mucous membrane of the uterus. If, as is generally the rule in cases of mucous polypus and endometritis hemorrhagica, the orifice of the uterus is sufficiently wide open, an injection of from five to ten grammes of the liquor, after previous cleansing with a cold or warm solution of carbolic acid, will produce a permanent stopping of the hemorrhage, except where the mucous membrane is too much degenerated. Should the removal of an excrescence by operation or scraping (with the blunt curette) become necessary, the wound can be cleansed with a warm solution of carbolic acid, whereupon a plug of cotton-wool steeped in the nettle infusion, with subsequent injection of the same, will, in nearly every case, produce the speedy cessation of the hemorrhage.

The Treatment of Patients Affected with Disease of the Prostate.—In a communication to the *Annales des Maladies des Organes Genito-urinaires*, Dr. Guyon formulates the following rules of treatment for the affection: 1. The avoidance of all causes of general or local chill. 2. The proscription of over-eating and alcoholic excess, and in general avoidance of abuse, rather than the simple use of salads, meats, fish, shell-fish, white wines, and champagne. Not only should excess of irritating or alcoholic drinks be avoided, but also that of beverages in themselves inoffensive. For this reason the treatment of the affection by mineral waters should be advised with extreme caution. 3. Voluntary and prolonged retention of the urine should be avoided, as being conducive, in those affected with prostatic disease, to the production of retention, cystitis, etc. 4. Moderate indulgence in sexual intercourse. 5. Consideration of the unfavorable influence exerted by prolonged horizontal decubitus and immobilization. Prolonged rest in bed should be avoided, and before retiring, the patient, if possible, should, if unable to walk in the open air, promenade in his room for fifteen or twenty minutes, and in the morning such exercise should be repeated. During the day sedentary habits should not be contracted, but at the same time fatigue should be avoided. Constipation should be obviated, if existing, without the use of drastic cathartics. A large enema, warm or cold, in the morning exercises at the same time an evacuating and a soothing effect. Emollient enemata, before retiring, frequently also yield good results. 6. The function of the skin should be excited by dry friction and massage. Baths should not be continued beyond fifteen minutes. Regarding the medicinal treatment of the affection, Dr. Guyon suggests: 1. As a remedy for the sclerosis of the urinary apparatus, the use of potassium iodide in quantity varying from eight to fifteen grains daily, during fifteen days or three weeks of every month, and continued for months or years. 2. For the congestive lesion, the careful administration of ergot, nux vomica, and all preparations containing strychnia as a base, is advised. 3. As remedies for vesical irritation, belladonna, hyocyamus, and the preparations of valerian will be found more offensive than opium and its derivatives, but nevertheless sufficiently active. The bromides are considered to have in vesical disease only an insignificant effect, but in some cases this should be utilized. The foregoing hygienic and medicinal treatment, Dr. Guyon considers, will, in most instances, suffice to overcome the functional disturbances experienced by prostatics, and only when it fails should the use of the catheter be resorted to.

Progressive Locomotor Hemiataxia.—Neurologists are acquainted with cases of locomotor ataxy that have symptoms only on one side of the body. Apparently such cases are not of frequent occurrence, but we certainly require more definite information on the earlier stages of tabes dorsalis before a positive opinion can be pronounced on this question. M. Bertoye has placed on record a case of the kind. The patient was a man, aged forty-eight, a weaver by occupation. The previous history gave no evidence of venereal excesses, syphilis, alcoholism, saturnism, or rheumatism. When twenty-eight years of age, "lightning" pains were first experienced. Five years ago, almost suddenly, he was attacked with plantar anæsthesia and inco-ordination of movements of the right leg, which had alone been the seat of pain. A little later the right arm was affected. There was no loss of power and no muscular atrophy. The inco-ordination was evidently due to the want of proper guiding sensations; for with the eyes shut the patient was unaware of the position of the right hand and foot. From a consideration of the literature of tabes dorsalis, and from his own experience, M. Bertoye draws the following conclusions: 1. Progressive locomotor ataxy is often produced as the result of muscular, genital, and other forms of *fatigue*. 2. When this is the mode of production, the disease has a special tendency to affect the overworked part or parts. A corollary is drawn to the effect that certain occupations entailing exaggerated employment of certain functions may determine tabes dorsalis with localization of symptoms in the overworked organ. Lastly, it is argued that if the occupation demands simultaneous over-action of an arm and leg on the same side of the body, the tabes will assume the hemiataxic type. The condition of the knee-jerk is of great importance in cases of genuine hemiataxia, for it disappears on the diseased side and is retained on the sound side.—*The Lancet*, October 3, 1885.

The Opium Habit.—Dr. J. B. Mattison, of Brooklyn, writes: "One error in your review of my monograph on the treatment of opium addiction should be corrected. In treating the diarrhœa, thirty-minim doses of fld. ext. coto (not coca) are commended. This need, however, seldom arises, not having had a case this year in which an astringent was demanded. Your reviewer asserts: 'The author makes the cure of this "toxic neurosis" appear not very feasible.' Such an impression was quite apart from my purpose."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, November 14, 1885.

MODERN THERAPEUTICS.

THE subject of materia medica, considered as one of the seven principal branches of medical instruction, is not an attractive one to the average student. After he has gone over the introduction, learned how to write prescriptions, and plunged into the study of the remedies themselves, he finds himself in a desert where the oases are few and far between. The multiplicity of detail bewilders him. The conflicting opinions of various authorities concerning the physiological action of drugs, leave his mind in doubt. The large number of remedies which he is told in advance are useless, and yet whose preparations and doses he is compelled to learn, complete his disgust. He learns them for examination and then they are forever buried. In short, much valuable time is wasted on what has no practical value.

It is a common remark that the older a man grows the fewer remedies he uses. This does not necessarily arise from a growing distrust in the power of remedies, nor from a cessation of progress in the line of professional acquirement. It is rather because the limitations of the therapeutic effects of drugs become better understood, and the physician learns how to cover more, so to speak, with combinations of the old orthodox remedies. His whole system of therapeutics has grown simpler. There was much sense in the somewhat homely remark of an old practitioner who declared his need of only four remedies, "a heater, a cooler, an opener, and a shutter." This practice has undoubtedly led to the abuse of certain remedies, and made even their names a terror to some people, who have come to regard them as rank poisons. Mercury is a notable illustration. The system was often uselessly saturated with it. The bones were veritable quicksilver mines; yet who to-day denies the wide range of the power of calomel when properly used? The abuse, and not the use, threw medicines into discredit.

There are at the present time two extreme schools of therapeutists. One pins its faith almost entirely upon medicines, though by no means ignoring the good effects of nursing, food, and general hygienic environment; the other has very little faith in drugs outside the specifics, like quinine, mercury, and opium. It relies mostly on food, nursing, and proper surroundings. Its general plan of treatment is to keep the patient comfortable and to trust to the *vis medicatrix naturæ*. This latter plan is not so fatalistic as it may seem. We should, whenever possible, relieve the distressing symptoms of any malady, but until we understand its pathology, we are not in a position to resort with any success to specific medication; hence, the general tendency, as one becomes better acquainted with disease processes, to a diminution of faith in much of the current methods of prescription and to an increasing belief in the reparative or destructive powers of nature, on which we can exert very little influence. This plan, however, does not always yield satisfactory results. An enlargement of our knowledge of pathology has not been followed by a corresponding increase in our ability to cure disease. We are obliged to hold our ideas of treatment in solution, so to speak, and their crystallization must be determined by our increase of positive knowledge. The plan of treating symptoms will be apt to make chemical laboratories of our patients' stomachs, *unless* we bear in mind the actual condition and make our remedies all work toward one end.

The indications for treatment are comparatively few in any one given case. The less we understand it, the more numerous are the vaunted "specifics" for its cure. In a list of thirty remedies at the outside, we can find in ninety-nine cases out of every hundred means wherewith to give our therapeutic skill its fullest scope. The manufacturing druggist, however, gives us new remedies and new preparations of old remedies *ad infinitum*, and we might add *ad nauseam*. Testimonials follow in quick succession, and it requires some firmness to escape being turned aside from orthodox paths. The action of remedies can be taught, it is true, in didactic lectures, but bedside experience alone can galvanize this inert mass of mental acquirement into life. Then only can a man feel any confidence in the action of remedies, whatever may be his "persuasion" concerning their ultimate good.

THE GUARDIANSHIP OF OUR BORDERS.

Now that small-pox has prevailed at Montreal for some six months, very active measures are being taken to prevent its being brought over the border. The National Quarantine Act of 1878, by which Congress conferred authority upon the Executive to prevent the introduction of contagious diseases, has been revived, and its enforcement placed in the hands of the Marine Hospital Service. This Service has established an inspection system along the Canadian border in those States in which local boards are not doing the work. We learn that the States of Michigan and New Hampshire are the only ones that attend to these inspections independently. The others co-operate more or less with the Marine Hospital Service. Meanwhile the National Board of Health has to sit still and look on.

The matter of the protection of our borders against the introduction of infectious diseases appears to be in a decidedly anomalous condition.

AN ENGLISHMAN'S VIEWS OF AMERICAN MEDICINE.

AN English physician, practising in Sacramento, Cal., writes a letter to the *British Medical Journal*, in which he defends the American Medical Association and its action in connection with the Washington Congress, by baptizing the whole American medical profession in mud.

The method is somewhat as follows: After delineating in glowing colors the perfect loveliness of British medicine, he says:

"Turning from this aspect of the question, it is with feelings of sadness and disgust that I view our own. A vast area of country, in parts but sparsely settled; outlying districts, with uncertain and difficult communication. No National law; a State law, in four or five instances; a host of irregulars, impostors, and charlatans, in every depth of ignorance and iniquity. These laws regulating the practice of medicine are often harmful, and always difficult to enforce. Convictions are hard to obtain, and when trials are had before a jury, the law is a dead letter.

"There are numerous 'schools' and 'colleges,' the majority of which have the power of granting diplomas. The requirements of some of these bodies are very low, and, as a consequence, results obtained are inferior. The social standing of the profession is *nil*, that of any 'other kind of doctor' is just as good. It has no distinctive position. The people understand that there are three 'schools' of medicine—the Allopathic, the Homœopathic, and the Eclectic.

"Such is the standing they have acquired that, in some States, mixed boards of health have been appointed, comprised of 'representatives' from the 'different schools of medicine.' There is no civilized country in the world where empiricism has such latitude and scope, none where intelligent people will allow themselves to be so easily duped."

It is not a pleasant thing to find American medicine pictured in this *ex parte* manner to the whole British medical public; nor was it, we venture to add, either necessary or in very good taste to make such disadvantageous comparisons simply for the purpose of helping an Association of which the writer confessedly knows but little.

Much as we dislike to bring up such issues, or to appear in the rôle of an apologist, justice compels us to utter some protest against the Anglo-Sacramentese view of the state of medicine in this country.

We would suggest, first of all, that our country is not quite such a lonesome and sparsely settled tract as is intimated. The centre of population is not a day's trip from New York. Out of our sixty thousand physicians one-half practise in our Atlantic seaboard States, while all live in accessible localities and are in regular communication with the outside world. When we add that the majority read THE MEDICAL RECORD, and often visit the metropolis, enough on this point has been said.

Our medical laws are not uniform, it is true, and, like the British laws, are not perfect. But, so far from their being "a State law in only four or five instances," twenty-nine or more of our States have laws regulating medical practice. According to Dr. R. J. Dunglison, these laws are working satisfactorily in a large number of States, while everywhere they are progressing toward unity and efficiency. We have numerous cheap colleges, we must admit, but we also have some of the best didactic institutions in the world, and it is from these that the great majority of students graduate.

No spectacle can be more curious than that of an English physician deploring the social standing of American practitioners. Socially, the position of the American physician is a good one; it is indeed whatever the individual desires to make it. Medicine does not handicap, but rather helps him. The American physician is better paid and lives far better, probably, than the average European practitioner. Best of all, perhaps, he is unhampered by traditions and usages that limit his progress or obstruct his ambitions. No inflexible rules assign his social position, limit his future, and dampen his energies. This freedom for endeavor and largeness of opportunity is a thing which gives to American medicine, despite all its failings, a character that has lifted it to equality with any in the world. The daring, ingenuity, therapeutical aptitude, and progressiveness of American physicians and surgeons are recognized, despite some non-uniformity in our medical laws; and, by virtue of these qualities, we have contributed as much as our well-regulated cousins across the water to gynecology, otology, orthopedics, dermatology, and perhaps some other departments of medicine. We are not, in fact, quite such a lawless and quack-ridden body of men as is intimated at Sacramento.

The English correspondent referred to has given, we fear, a somewhat rose-colored view of the state of English medicine, in his desire to have a good background for setting off our American deficiencies. Will he pardon us for intimating a doubt whether quackery is entirely eliminated from Great Britain, the home of anti-vaccination, anti-vivisection, the Salvation Army, the *Pall Mall Gazette*, and Holloway's pills. Is education in such an admirable state when it has nineteen licensing boards of variable standards, and when it allows the largest city in the world to become the poorest educational centre in Europe. We admit that the social position of the English physician is rigidly and perhaps suitably fixed, a little above the head-butler and a little below the curate; but we can hardly see why this is claimed as an advantage; nor, in the light of the social success of such men as Sir Oscar Clayton and Dr. Kidd, do we see how the English correspondent can deny any social standing to English "irregulars."

As for the American Medical Association, the whole profession has at one time wished it well, and hoped much from it. But what actual good is it doing? Has it helped a single educational reform, lessened quackery, amended, unified, or helped the enactment of medical laws? Decidedly not. That it has done good in the past, in stimulating medical organization and promoting the solidarity of regular medicine, we gladly admit. It is because it has ceased this work and has broken and divided the profession that it meets opposition and criticism now.

We should like to see a national medical body, wisely regulated and animated by broad and unselfish purposes; but the American Medical Association does not now furnish the picture.

THE ECLECTICS.

WE believe that most physicians have very vague ideas as to what the so-called "Eclectic" really is. Perhaps the eclectic himself has been at times a little mixed as to his intellectual and medical status.

"Eclecticism" in medicine, whatever it once was, seems now to be losing its distinctive character as a

school having a peculiar therapeutic practice, and to be becoming simply a watchword for those who desire the greatest possible freedom from restrictions, legal and social, on the practice of medicine. The Eclectic Medical Society of this State has declared formally against all attempts at placing legal restrictions on the practice of medicine, and the President of the Eclectic Medical Association of Pennsylvania declared, in his annual address, that the principles of eclecticism are based mainly on "the American principle of freedom." Eclectic medical journals raise the same cry against all legal or social restrictions to the free practice of medicine by everybody on everybody.

All this might be very well if the principles were carried out with an honest regard for the welfare of the profession and the State. But in practice "eclecticism" is in the main an attempt to justify medical diploma-mills and cheap colleges, and to organize and give respectability to quackery and quackish practices. The creed is: "Let anyone practise who wishes to do so; let him get his diploma as he wishes, and let him help his practice with as much advertising as he desires."

Such a "school" may do some mischief for a time; and it is shameful that it can attract even as much attention as it does, but it never will succeed in establishing a position or winning the respect of society.

The practice of medical advertising is bound to increase, in a measure, in this country, but the nature of medical services is such that it never can or will be indulged in by the vast majority of competent practitioners.

As for diploma-mills, in every succeeding decade a thorough and sound medical education will tell more with the people, and the ignorant charlatan will have to skulk more and more in the by-ways. The annual vaporings of "eclecticism" are like the disagreeable miasms that arise from broken and half-cultivated ground—as the country settles they disappear.

THE MAMMARY GLAND IN ART.

In a large number of treatises on physiology, even of the most advanced character, the statement is made that the function of the human mammary gland is the secretion of milk. We are obliged to take the opportunity of announcing that this is a mistake, and only goes to show how blind the scientific mind often becomes to the evidences of serious progress in the world about it. We admit, to be sure, that the mammary glands of women can and do sometimes secrete milk for limited periods of time, and in a gentle and apologetic manner; but all this has become quite a secondary matter, as wide-awake observers of human progress well know.

There can be no doubt whatever that the true and essential function of these glands at the present day is ornamental and æsthetic. Their noblest opportunities are not in the "milky way," but in the line of high art and realistic delineation. They are functionally at their best when they are being painted in strong lights and shadows, photographed by a patent process and exhibited in our shop windows for the education of the masses. The mamma belong to art, not infancy, and the modern painter needs only a bust of recent post-partum proportions in order to be caught up at once by the whirlwind of success.

This is, in fact, the glandular era in art; a time when a walk through our picture-galleries is one long "bust.' This era began somewhat sharply in Paris, eighteen months ago, when a picture was exhibited of two women naked to the waist, fighting a duel. There were some indistinct suggestions of a background, a foreground, and certain other conventional accessories, but the main features were two sets of mammary glands, and to all appearances, it was these interesting lacteal organs that were having the protuberant controversy. From that time there has been a steady influx of contributions to mammary art, and it has now got a fixed and inflexible hold upon the public.

We wish to treat what is plainly a delicate subject in a scientific and purely inoffensive manner. We have ventured upon it with some diffidence, and only because we feel it to be a matter of real importance to the physician to learn that the human mamma has been merely undergoing a certain change of function and rise in æsthetic importance. And we have not presented all the evidence of these facts. It is well known that a very large industry has been established for the manufacture of infant foods. These foods are doing, with the help of the cow, what the mammary gland once did. The manufacture of infant foods supports a large number of people, adds diversity to our industries, and provides an additional means for the accumulation of wealth. It has been a fundamental principle in our political economy that the State should support and protect its infant industries, of which the manufacture of these foods is surely the purest type.

No wonder, therefore, that they have thrived, and opportunely supplemented the needs of the artist world.

Both the demands of art and the dictates of sound political economy, therefore, require that the lacteal glands, as such, should go. We have every reason to believe that in the higher and municipal types of civilization they have already gone.

Withdrawn from the soulless gaze and sharp erosive grasp of the infant these glands are now appearing in unimpoverished splendor on the canvas of the artist, the sensitive plates of the photographer, from which points they furnish, doubtless, a subtle delectation to appreciative adults.

Here is, apparently, the illustration of a splendid evolutionary and physiological triumph: that what was once, in some pre-*ornithorhynchus* state, a dull, sebaceous bud, has blossomed into the rounded bust that forms the *pièce de resistance* of a modern atelier.

We will confess now that, speaking for the physician, we do not feel entirely satisfied with this extreme process of evolution. It certainly would be better for babies if they could make some arrangements with high art and the manufacturers of artificial milk. They might argue, with reason, that there is no actual need for painters to represent the female form as composed mainly of two busts and a mass of tangled hair; and that it is not essential that artificial food-makers force their wares with such an aggressive pertinacity, painting the town and country with their advertisements, until a mother who nurses her child feels in a vague way perhaps that she owes a general apology to the industries of the country.

THE "PLEA FOR THE OLDER PHYSICIAN."

We have received a letter from a young physician, practising in a Western State, commenting on our editorial, "A Plea for the Older Physicians." The truth of the complaint which we published is admitted, but our correspondent seems inclined to doubt the statement that the older physicians are less pushing and noisy in their methods than are the younger of to-day. He also asserts, with rather too large an emphasis, that "young physicians as well as old are an absolute necessity." This is true; but so many young physicians as we now have are not a necessity; and it is the attempts of the aggressive and ignorant youngsters trying to crowd out the experienced and more modest elders that our first correspondent protests against.

Finally, our young correspondent writes:

"I am a young man, but, I think, honest, at least in thought. My rule is this: Never to treat my fellow-practitioner unkindly *first;* after being used badly to cut their throats whenever and wherever I can; and I find in that way, and by paying strict attention to *my own* business, I have little trouble in doing a good business for A YOUNG MAN."

We trust that we may be allowed to place a very gentle interpretation on the expression "cut their throats." But, even at its best, it represents an unchristian conduct, and one unworthy of a generous nature. The teachings of the highest ethics and the best intelligence are against the use of aggressive and spiteful modes of resentment.

We more than ever feel that our first correspondent was right in pleading for the older physicians, if the younger ones are adopting a cut-throat policy against every one whom they believe is the first to treat them unkindly.

"UNA FIDES ALTARE COMMUNE."

An ornamental scroll bearing this inscription suspended above the presidential chair of the Academy of Medicine has been a familiar sight to those who have attended the deliberations of that learned body. "One Faith at a Common Altar." It sounds effective and inspiring, whether in English or in Latin; but what is its purport with reference to the Academy? What is the interpretation? "The Common Altar" is plain enough: all are disciples of Æsculapius at the Common Altar of Medicine. But supposing that the members of the Academy were called upon to state what was intended to be conveyed by the "*Una fides,*" it is doubtful if there would be a unanimity of opinion. As this motto was adopted some time ago, it may at once be set aside that it has anything to do with the "faith cure." Possibly it means the universal faith that each physician has in his ability to cope with disease; or, again, has it reference to the "pathies," and is it, then, a battle-cry for the triumphant progress of Allopathy?

Probably the little scroll with its Latin inscription was placed by someone whose prophetic soul foresaw the danger of warring codes, and therefore gave this exordium. When viewed in this light it becomes pathetic. It is doubtful if in these days, when the spectacle of the attempted organization of the International Congress is a sight for gods and men, that the motto would have its present reading. The selection of the adjective would not have been so reckless. After consideration of *Multæ fides*, or *Nulla fides commune altare*, the whole would have been abandoned as not sounding well, and something else more general in application and less difficult of interpretation would have been selected.

VACCINATING BY CONTRACT.

The physicians of New Haven have been much disturbed over a proposition made by the city authorities to let out the public vaccinating to the lowest bidder. It appears that $3,000 being voted for this purpose, the Selectmen decided to expend the money as economically as possible, hence the adoption of strictly business methods in the matter. The New Haven Medical Association held a meeting on November 6th, in which this subject was warmly discussed, and the action of the authorities condemned. A set of resolutions was passed, in which it was announced "that it is the sense of this Association that no member should put in a bid to do the vaccinating under the proposed plan to obtain the service at the lowest cost."

The Selectmen have not, however, changed their plans.

We fully sympathize with the feelings of the New Haven medical men. Apart from any question of disrespect to the profession, it is certainly unwise and uneconomical to allow public vaccinating to be done by any but careful and competent men. Such certainly would not be likely to put in a bid for a cheap job.

Vaccinating is not a difficult or mysterious operation, but it does require intelligence and experience; moreover, by careful vaccinating many bad arms and much actual sickness can be averted. Some considerable degree of experience is also required to determine whether an inoculation has actually "taken." Altogether, we can safely assert that it is not merely professional feeling, but the dictates of common-sense, which lead physicians to condemn the putting out of vaccinating to contract. At the same time, it will be a mistake if medical men adopt any trades-union tactics, and deliberately vote to "boycott" those, if there be such, who have so much poverty of purse and of spirit that they will do cheap vaccinating by contract. An earnest protest, with a cogent presentation of arguments against cheap and irresponsible methods of getting public vaccination done, is all that the dignity of the profession requires. If there are not sound reasons against it, indignation meetings and "boycotting" will not be sufficient. There are too many poor doctors, unhappily, in our cities for such measures to avail.

If published reports do not belie it, the New Haven Medical Association went a little too far in this matter.

THE PROPOSED ENLARGEMENT OF THE AMERICAN ACADEMY OF MEDICINE.

At the last meeting of the American Academy of Medicine, held in this city recently, an amendment to its constitution was offered by the President, Dr. Gihon, which will, if adopted, quite change the character of the body in question. This amendment provides for the

admission to membership of "graduates in medicine, without literary degrees, who have distinguished themselves in medicine or the collateral sciences." By enlarging the Society in this way, the belief is expressed that a new and greater future may be opened for it, and that it may, in fact, become a genuinely national medical body, membership in which would be a coveted honor. It has for some time been observed that the American Academy of Medicine was working along too narrow lines, and was neither in full sympathy with the spirit of the times nor the most progressive instincts of the profession. It has clung too rigidly to the cultivation of an excellent but not over-fertile idea—that all doctors should be Masters of Arts. This idea is a good one, but a great national society cannot be based upon it, or upon any constitution of which that is the central piece. The American Academy, under its present constitution, must be content, therefore, to do a little good in stimulating a wider desire for preliminary education. To become anything more, its organization must be changed in some such way as has been proposed. We feel sure that its field for usefulness would be greatly enlarged by this new amendment, or one of a similar character.

News of the Week.

German Views of the International Medical Congress.—Professor Ewald, editor of the *Berliner Klinische Wochenschrift*, has an editorial in his issue of October 26th on the International Medical Congress. After giving an account of the present troubles, he laments the deposition of the old committee, and says that the German physicians will not be likely to visit a Congress that is supported by the new committee, and one that has by its peculiar policy so divided the profession. He expresses the hope, however, that it is not yet too late to amend matters, and thinks that at the next meeting of the American Medical Association, the old committee may be reinstated and that everything will yet be harmonious. We wish that such hopes were not so utterly futile. Since the extraordinary action of the Executive Committee, in declaring its independence, an action so inconsistently defended by those who claimed that the first Committee was a creature of the Association, there is little hope that that body can do anything, however strongly it may be disposed.

The International Sanitary Conference.—Public opinion, both at home and abroad, says the *British Medical Journal*, appears to agree in thinking that the International Sanitary Conference that was "adjourned" last June, is never likely to reassemble. Last week the *Popolo Romano*, referring to the fact that the 16th of next month is the date fixed for the reassembling, stated that it was not certain if the event would take place, inasmuch as several of the States which were represented when the Conference met in May last had not sent in their adhesion to the proposal for its reconvocation.

"The Florida Medical Journal" is the title of a new monthly medical journal, published at Jacksonville, Fla., and edited by Drs. T. O. Summers, C. H. Mallett, and Neal Mitchell. It is edited with spirit and shows a mastery of the rhetoric appropriate to the land of flowers. We congratulate it on not being the organ of a new medical college, as is just now too often the case with new medical journals.

The Hospitals of Rome.—A commission, specially appointed by the Royal Academy of Medicine of Rome, has pronounced a very unfavorable opinion on the hospitals of the Italian capital. It condemns the position of all, with the solitary exception of the Hospital of St. John in Lateran; but the construction and sanitary arrangements are censured without reservation.

The Russian Medical Congress.—A lengthy programme of subjects for discussion by the congress of St. Petersburg and Moscow Medical Societies, to be held from December 26th to the 31st, has been published. Among other topics the following may be mentioned: Self-help for Medical Men; Post-graduate Courses; The Best Way of Increasing the Knowledge of Ophthalmology among Russian Surgeons; Unanimity in Methods of Disinfection; Hospital Diets; Paraldehyde in Whooping-cough; Disinfection in War; Tubercular Joints; Transfusion; Antiseptic Midwifery in Hospital and Private Practice; The Need of a Special Obstetrical and Gynecological Society in St. Petersburg, and the Establishment of a Special Journal dealing with this Department.

Cholera in Spain and Italy.—Cases of cholera are still reported, but the disease continues to decline. The reports of the National Board of Health show that in Spain there were, from March 4, to September 28, 1885, 267,689 cases of cholera with 98,929 deaths, giving a mortality of 36.9 per cent.

The Small-pox Epidemic still continues with unabated activity at Montreal. During he week ending November 10th over 230 deaths were reported.

Bequests to New York Charities.—By the will of the late John P. Howard, about $250,000 is divided equally among the Association for the Relief of Respectable Aged Indigent Females in New York, the Home for Destitute Children in Burlington, Vt.; the New York Society for the Relief of the Ruptured and Crippled, St. Luke's Hospital, New York; New York Juvenile Asylum, Children's Aid Society, New York, and the New York Orphan Asylum.

Boracic Acid is largely used by milk-dealers in the summer time to preserve milk. It is, we understand, the basis of a preparation known as "vex magnus.'

Defence of a Montreal Anti-vaccinationist.—A correspondent from Montreal, M. M. Mitivier, writes us a letter defending Dr. Emery Coderre, the professor who has been fighting the dogma of vaccination. We are informed that Dr. Coderre is a gentleman of profound learning, large experience, and attractive personal character, and that he has been greatly maligned on account of his anti-vaccination views. We are glad to learn that the Montreal professor is so admirable a man. There are certain times, however, when a well-meaning anti-vaccinationist may do more harm than a whole band of murderers.

An Honor to a Medical Man.—In presenting the Albert Medal to Dr. S. C. Thompson, of Tyrone Infirmary, the Lord-Lieutenant of Ireland paid a just

tribute to the personal courage of Dr. Thompson, and took the opportunity of saying some handsome things about the professors of medicine as a body. The Earl of Carnarvon is the only English peer who has a near relative at this moment engaged in the practice of medicine, and therefore it was with peculiar fitness that it fell to his lot to make this public recognition. Such courage as Dr. Thompson has displayed, and for which he was worthily rewarded, is, we have reason to believe, common to the profession. Every day deeds of self-sacrifice, in the truest sense heroic, are done by medical men, and it is pleasant to see that they are occasionally recognized. "Every year thousands of illustrations of self-denial, self-sacrifice, and sympathy with human suffering in its most terrible forms are exhibited, and not less courage in its best and highest sense." These were the words of the Lord-Lieutenant, and they do not overstate the case. The honor done to one of its members is appreciated by the whole profession. We congratulate Dr. S. C. Thompson on his courageous discharge of duty, and on the recognition his merit has received at the hands of the Sovereign. It is somewhat remarkable that this presentation should have taken place as nearly as possible on the anniversary of the death of another medical hero—the late Dr. Rabbeth.

Office Thief.—A man is calling at physicians' offices who, in case he finds the doctor at home, represents that he suffers from some nervous affection of the scalp; is on the point of removing to this city from Detroit; may bring his family with him; is just now in some haste to go down town to keep an engagement, but will call at some other time by appointment if the doctor thinks anything can be done for him, etc.

The Constitutionality of Laws Regulating Medical Practice.—The Attorney-General of Indiana has given an opinion upon the State Medical Law, in response to the request of the Secretary of the State Board of Health, Dr. C. N. Metcalf. This law requires that in order to practise medicine a person must obtain a license, and in order to obtain a license he must have a diploma from a reputable medical college, or have practised medicine continuously for ten years in the State, or have practised three years in the State and attended one full course of lectures at a medical college. The Attorney-General is doubtful as to the constitutionality of these last two provisions, and advises a settlement of the question in the courts. Of the constitutionality of laws regulating medical practice he expresses no doubt.

The Endorsement of Medical Diplomas by Colleges.—By a resolution of its Faculty, in the future all persons intending to practise medicine in Pennsylvania, and desiring the endorsement of the University of Pennsylvania on its "diploma demanded by Section 4, of the Act of 1881, will be required to pass an examination on Chemistry, Anatomy, Physiology, Materia Medica, and Therapeutics, Pathology and Morbid Anatomy, Practice of Medicine, Surgery, and on Obstetrics; failure in any branch will cause rejection. To compensate for the labor of such examinations, a fee of $30 will be charged." The University Faculty announce that "during the last few months it has become more and more apparent that the University of Pennsylvania, if it continues to grant certificates as to the genuineness of diplomas, must issue such certificates for the diplomas of all sorts of colleges. The genuiness of the diploma is in no way dependent upon the scientific character of the body issuing it. A diploma is genuine if the body from which it emanates has a legal right to issue such diploma, and if the law is to be interpreted by the University as requiring its faculty simply to testify as to the genuineness of a diploma, it can make no difference whether such diploma is issued by a regular or irregular college. Further, the gradations between colleges in this country are so close as to make the drawing of lines a task of great difficulty, and the Medical Faculty cannot set itself up as a judge between colleges, and say that the diploma of this suffices and that does not. A very serious matter is the fact that these certificates issued by the University are looked upon by persons ignorant of the circumstances, *i.e.*, by the general community, as endorsements of the medical qualifications of their possessor, and as being in some measure tantamount to the diploma of the University. When the ease with which such genuine diplomas are obtained in America, and the little significance which so many of them have, are remembered, it becomes evident that the issue of these certificates by the University is an injustice to its own graduates." We would call the attention of the schools of our own State to this action of the Pennsylvania College. The law with us resembles that of Pennsylvania, and there is no reason why impositions may not be practised upon the Faculties of our schools.

Cincinnati College of Medicine and Surgery.—Dr. Charles E. Caldwell has been elected to the Lectureship of General Pathology. The large dispensary accepts patients only upon presentation of a card of introduction signed by a responsible person. In cases of doubt, independent inquiry is made, and when found able to pay, patients are denied the charity of the institution.

To Discuss the Medical Charity Question.—We trust that all interested in reforming the present abuses of medical charity will bear in mind the invitation of the Charity Organization Society to meet at the Academy of Medicine on Friday evening, November 20th. This promises to be a step in the right direction, and the meeting should be well attended. The times are ripe for practical suggestions, and the Charity Organization Society is able and willing to carry them out.

Out-patient Department of the New York Hospital.—It is rumored that the out-patient department of the New York Hospital is to be reorganized.

St. Francis Hospital, New York.—Examinations for the filling of the yearly vacancies on the house-staff of this hospital will be held at the hospital, December 8th, at eleven o'clock. Applications should be addressed to Dr. Joseph W. Howe, 38 West Twenty-fourth Street.

The Cocaine Habit.—Dr. A. P. Meylert, of New York, writes: "Articles on the subject of cocaine hydrochlorate are occasionally published, in which it is assumed that there is no danger of the formation of a cocaine habit. This is an error. Physicians should know that cocaine must be prescribed with considerable caution, where its administration is left at the patient's discretion. I have already had one case of cocaine habituation, complicating the morphine habit."

Obituary.

WILLIAM BENJAMIN CARPENTER, M.D., LL.D.,

LONDON, ENGLAND.

William Benjamin Carpenter, M.D., LL.D., F.R.S., F.L.S., F.G.S., the eminent English physician, physiologist, and writer on scientific subjects, died in London, November 9th, from the effects of terrible burns caused by the upsetting of a lamp while he was taking a vapor-bath for rheumatism. Dr. Carpenter, who was in the seventy-third year of his age, was born at Bristol in 1813. He studied medicine, and was graduated M.D. from the University of Edinburgh in 1839, when he began the practice of his profession in Bristol. He soon resolved, however, to devote himself wholly to scientific and literary pursuits, and in 1843 he removed to London, where his writings at once attracted attention, and he was appointed Examiner in Physiology and Comparative Anatomy in the University of London, and Professor of Medical Jurisprudence in University College. He held these positions until 1856, when he was appointed Registrar of the University of London. In 1861 the Council of the Royal Society awarded to Dr. Carpenter the royal medal for his contributions to physiological science. From 1868 to 1870 he took a principal part in the expeditions fitted out by the Government of Great Britain for the exploration of the deep sea, which yielded results of the greatest value to physical and biological science, and it was at his suggestion that the Challenger was afterward dispatched to prosecute similar researches more extensively. The honorary degree of LL.D. was conferred upon him by the University of Edinburgh, in 1871. Among his more widely known scientific works are: "The Microscope and its Revelations," "Principles of General and Comparative Physiology," "Principles of Human Physiology," "A Manual of Physiology," "Principles of Mental Physiology," and an "Introduction to the Study of the Foraminifera." He was the editor for many years of the *British and Foreign Medico-Chirurgical Review*.

Reviews and Notices.

Lectures on the Diagnosis of Diseases of the Brain. Delivered at University College Hospital by W. R. Gowers, M.D., F.R.C.P. 8vo., pp. 246. Philadelphia: P. Blakiston & Co. 1885.

It could hardly be expected that Dr. Gowers, in a small work, should deal so successfully with the subject of diseases of the brain as he did with diseases of the cord. It is indeed quite out of the question to give in a nutshell an account of cerebral anatomy, physiology, and pathology. Our author recognizes this quite fully, and has done his best to meet the difficulties, and he has succeeded in making a very useful little work.

It is put in the form of lectures, of which there are eighteen. The first three are devoted to cerebral anatomy and physiology. Of this a very good account is given. The author, however, does not describe so fully or accurately as he might the course of the afferent fibres into and through the brain.

The descriptions of the origin and relations of the cranial nerves are clearly given, but naturally present nothing more than is given by standard text-books.

The subject of symptoms is considered under the head of motor symptoms, sensory symptoms, cranial-nerve symptoms, and mental symptoms. There is very little to criticise and much to praise in the mode in which the author has dealt with this the major part of his work.

In the thirteenth lecture the subject of local diagnosis is taken up; after this, the diagnosis of the nature of the lesion, while in the last two lectures is a review of symptoms due to the various lesions to which the brain is subject.

The book is illustrated with several good diagrams.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 28, 1885.

John A. Wyeth, M.D., President, in the Chair.

Dr. L. Waldstein, from the Committee on Microscopy, presented the following report on the specimen presented by Dr. H. J. Boldt, at the last stated meeting:

"Transverse sections show that the specimen is composed of fibrous tissue in process of granular disintegration, between the fibres of which are found a series of large distended, generally rounded spaces, either entirely empty or partly filled by a finely granular mass and a delicate network of fibrin; a state of œdematous imbibition of the submucous tissue.

"As regards the muscular elements, they are comparatively rare throughout, and when they can be demonstrated they have undergone either a granular or more hyaline degeneration, the nuclei being faintly and diffusely stained by the reagent. The blood-vessels are in many cases densely filled with blood-corpuscles, and surrounded by small hemorrhagic foci; most generally, however, they are found empty and their walls degenerated, while the nuclei have entirely disappeared. The thickness of the specimen can therefore be accounted for by the œdema of the tissue and the comparative insignificance of the muscular components stands as additional proof that it is only a superficial stratum of the urinary bladder. The committee has been unable to make out any remaining epithelial covering or glandular structure."

Dr. Wesley M. Carpenter presented, on behalf of a candidate, a specimen of *primary ulcer of the duodenum*; also a specimen of *malignant disease of the liver*. The specimen was referred to the Committee on Microscopy.

Dr. L. Waldstein presented, on behalf of a candidate, a specimen of *sarcoma of the toe*.

Dr. H. Marion Sims presented

A UTERUS AND ITS APPENDAGES REMOVED BY HYSTERECTOMY.

Mrs. M——, aged thirty-eight, consulted me on October 1st of this year. She had been married eighteen years, and had one child fifteen years ago. She had always been perfectly regular in her menstrual periods, with normal flow, lasting four to five days, and never experiencing any pain with menstruation. She had been a remarkably healthy woman up to three years ago, in every respect, and had never been sick in bed for any length of time in her life. Three years ago, however, she noticed a heavy, dragged feeling across the lower part of the abdomen, with darting pains running down through the vagina and in both iliac regions. She thought nothing of it at the time, but the pains becoming more and more severe and lasting, she finally consulted a doctor, who told her she had an enlargement of the uterus that nothing could be done for. She had increased in size, and the pain becoming unbearable, she finally concluded something serious must be the trouble. She was a very large woman, weighing two hundred pounds, and I found on examination that she had a large fibroid tumor of the uterus. The uterine cavity

measured but four inches in depth, and I found the whole mass perfectly movable from side to side, and from before backward. Pressure caused pain on any side of the mass. It was determined to remove it, and she eagerly consented to an operation, fully appreciating all the dangers attached to it.

She was etherized twelve days ago, and I performed the operation, assisted by Drs. Pryor, Nash, and E. Liell.

An incision four inches long was first made, and this had to be extended to nine inches before I had room to roll the tumor outside of the pelvic cavity. After a great deal of difficulty this was successfully accomplished, a rubber ligature passed around the mass about on a level with the os internum; skewers were passed crosswise just above the ligature, and the whole mass then cut off above the skewers. Being such a large woman, with such thick abdominal fat, I closed the peritoneum muscles and fascia together with catgut ligatures, and then brought the skin and fat together with silk ligatures widely separated, placing a small rubber drainage-tube between every second of these ligatures, in order to prevent the abdominal abscesses which are so apt to occur when the adipose tissue is so thick. The stump of the tumor and uterus was securely held in the lower end of the incision by the skewers, the peritoneum being brought closely around it just below the rubber ligature. In order to prevent the projecting part of the skewers from causing sores on the abdomen and embedding themselves in the fat, I had taken warning from a former experience and had rubber plates made to place under the ends of the skewers.

The patient rallied very well from the operation, which lasted almost an hour. No nausea whatever followed, and she complained of very little pain. The next day she was bright and cheerful and had no severe pain. She had had in twenty-four hours only two one-fourth grain of morphia hypodermically. Her temperature on the second day was 100°, and her pulse only 104.

On the third day I dressed the wound and found everything progressing most favorably. Pulse was 108, and temperature 101°. About midnight of the third day she complained of a fulness of the stomach, and some tympanites. The following morning she complained still more of the tympanites, and a feeling as though something was in the stomach that she wanted to get rid of, but could not. Her temperature then was 100½°, and pulse 114. At four o'clock in the afternoon of the fourth day she complained of a sudden pain in pit of stomach, followed at once by belching of an immense amount of wind. This in turn was followed by the vomiting of at least a gallon of black water from the stomach and intestines, filled with fecal matter. One or two gasps followed this and my patient was dead. She had died of asphyxiation, from the large amount of fluid being thrown up from the stomach and intestines by the reversed action of the bowels. After death she had the appearance of a person who had been drowned.

I opened the abdominal cavity, and found everything in a beautiful process of healing. No sign of peritonitis or septicæmia was visible, and the pelvic cavity was dry and clean. I did not discover any invagination of the intestines.

The weight of the tumor after removal was nearly fourteen pounds.

PRIMARY NEPHRITIS IN A YOUNG INFANT.

Dr. J. Lewis Smith presented a specimen with the following history:

Margaretta B——, born January 28, 1885, was apparently well until July 15th, when the mother said that she had passed no urine in twenty-four hours. By one dose of sweet spirits of nitre the secretion was restored. Four days later, July 19th, the secretion of urine again ceased, but it was again restored by the same medicine. After this the child seemed well until July 31st, when diarrhœa occurred, and continued till the close of life, but without vomiting. The stools were green, and numbered from four to eight daily. On August 2d the infant had general convulsions lasting about four minutes, the only one during her illness. The eclampsia was succeeded by well-marked nervous symptoms, such as strabismus, rolling the head, twitching of single muscles and groups of muscles, the uttering of a sharp, piercing cry at short intervals, and rolling the eyes. These symptoms subsided in three days, except the rolling of the head which continued until the close of life. The fontanelles were not elevated; there was a frequent cough during the last two weeks of life, and the infant was unable to nurse. Death occurred on September 1st, at the age of seven months and three days. The temperature, taken daily during the last month of her life, was usually between 100° and 103°. It was commonly higher in the latter part of the day than in the morning. The highest evening temperature was 104° on one day, and 105° on another.

Autopsy.—Body not emaciated; alopecia over the occiput, due to rolling of head during the illness; the usual post-mortem discoloration along the back; a large amount of serum, for the age of the infant, in the cranial cavity external to the brain, estimated at from one to two ounces; brain preserved for subsequent dissection; ante-mortem clots in both ventricles of the heart; hypostatic congestion and commencing pneumonia in both lungs, posteriorly, to the depth of half an inch from the base to near the apex; anteriorly the lungs emphysematous.

In the stomach were spots showing post-mortem digestion; intestines of a pale appearance throughout; liver and spleen congested. The kidneys much enlarged; that on the right side showed cortex thickened and pale, and the pyramids large and red; hemorrhagic spots in the upper part of this kidney, and the mucous membrane of its pelvis deeply injected. The left kidney was much congested, so that blood flowed from its incised surface, and the pyramids and cortex were of a uniform red color. The capsules of both kidneys were non-adherent. The mucous membrane of the bladder was in a state of inflammation; urine retained in the bladder contained albumen in quantity nearly sufficient to solidify the specimen; hyaline, granular, and epithelial casts in great abundance; epithelial cells, red-blood corpuscles, crystals of triple phosphate and cystine.

Remarks.—It will be observed that the first symptom which attracted attention to this case was suppression of urine, which was relieved by treatment. This was followed by eclampsia and other cerebral symptoms, and diarrhœa, which continued until the close of life. It appears from the history that this patient had idiopathic nephritis, which gave rise to certain, if not all the symptoms and lesions observed in the case.

The case shows us how important it is to examine the urine in the obscure diseases of children, for we may find the kidney affected when there are no pronounced symptoms referable to this organ. The frequent occurrence of nephritis in scarlet fever has long been known. Its occurrence in a majority of the cases of diphtheria of a severe type, and in many cases of a mild type, was discovered, not many years since, by Mr. Wade, of Birmingham, and it is now known to occur occasionally in other febrile diseases, as measles and parotiditis. But I believe that the profession too much overlook nephritis in children occurring as an idiopathic or primary disease.

Microscopical examination, made by Dr. Frank Ferguson: "Kidneys of a child; surfaces lobulated, capsules loosely adherent. There are extensive superficial hemorrhages in the cortex of each organ, just beneath the capsules. There are also numerous hemorrhages in the cortex and medulla of each organ. No change noticed in the vessels' walls. In places the convoluted and straight tubules are not seen, and in these areas small, round, and spindle-formed cells are abundant. The straight tubes contain hyaline and granular casts. There is no increase in the fibrous tissue."

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 5, 1885.

A. Jacobi, M.D., President, in the Chair.

Dr. D. B. St. John Roosa read a sketch of the life of

JAMES L. LITTLE, M.D.,

and of the twenty-five years in which he practised surgery (see Record for November 7th).

Dr. Paul F. Mundé then read a paper on

ELECTRICITY AS A THERAPEUTICAL AGENT IN GYNECOLOGY,

which was prefaced by a brief reference to the use of this agent in obstetrics, as for controlling post-partum hemorrhage, for influencing the whole period of labor, induction of premature labor, in extra-uterine pregnancy, and for the nausea and vomiting of pregnancy.

His chief object, however, was to discuss the therapeutical application of electricity in gynecology.

The modern text-books on diseases of women casually refer in general terms to the faradic or galvanic current as a measure to be employed for certain diseases, and the manner of using the agent is briefly described in some of the works on electricity, notably in Beard and Rockwell's comprehensive text-book. Among journal articles on this subject which have attracted attention during recent years are chiefly those of Tripier and Apostoli, both of Paris, the former having lauded the value of electricity in uterine displacements; the latter, in uterine fibroids and pelvic cellulitis. Bayer has but little to say as regards gynecology, and limits his observations almost entirely to obstetrics.

Despite these various articles and the undoubted value of electricity in many of the conditions referred to, it can scarcely be said to have become popular with the mass of the profession, either in obstetrical or gynecological practice.

The range of applicability of electricity in the diseases peculiar to women was quite large enough to make it a valuable adjunct to other methods of treatment, especially as some of these affections were but little amenable to the routine remedies. Thus, the faradic current had been found useful in the various conditions of malnutrition of the sexual organs (arrest or deficiency of development of uterus and ovaries before puberty or excessive involution after parturition; amenorrhœa, irregular menstruation); deficient contraction of uterus (subinvolution, menorrhagia); displacements due to relaxation of ligaments. The galvanic current had been employed with benefit under circumstances where the melting down and absorption of adventitious products was desirable (subinvolution and hyperplasia of uterus, old plastic exudations, and adhesions from pelvic cellulitis and peritonitis, chronic oöphoritis and perioöphoritis; pelvic neuralgia, chiefly when due to pressure by exudations; fibroid tumors. And the galvano-cautery had been recommended by some authors for the cure of hyperplasia, fibroid and ovarian tumors). The use of the galvano-cautery did not properly come within the scope of this paper, since the electric current then acted merely in a secondary capacity as a heat-producing factor, the heat and not the galvanic current being the therapeutic agent.

His object was to show that it required no special talent and no prolonged study of the mysteries of electricity, and no complicated or very expensive apparatus to enable the practitioner, *who is competent to correctly diagnosticate his patient's condition and form therefrom the proper indication*, to employ the electric current *in gynecology* with safety, and in many cases with considerable benefit. In making this statement he spoke from experience; for the many excellent results which he had obtained with electricity during the past twelve years had been gained under precisely such conditions. Probably the electrologists might call the employment of electricity in this manner empiricism. Perhaps they were right; but he could only ask, was not the whole therapeutical use of the agent to some extent empirical? He should judge so, when he learned from practical electricians that it seemed to make little difference whether the current ascends or descends, or whether the faradic or galvanic current is used, so far as the therapeutical result is concerned, if only the poles be applied in the proper spots and the current be not too strong.

An experience of over ten years' almost daily use of one or the other of the two varieties of electric batteries had impressed him with several cardinal points of practical importance in the use of these instruments in gynecology.

Firstly, he had found the galvanic current far more generally used than the faradic.

Secondly, a mild, steady, absolutely painless current from a galvanic battery answered every therapeutical purpose, and was in every way preferable to a powerful or interrupted constant current, which caused painful shock or gave positive pain. As a rule, the galvanic current should produce no other sensation in the organs through which it passes than a pleasant tingling sensation in the skin to which the negative pole was applied.

Thirdly, when a constant current caused pain, or even momentarily increased the pain which it was intended to relieve, it was doing harm, and should be either reduced in strength or discontinued.

Fourthly, despite frequent inquiries of electrologists and experiments on his patients, he could never decide that it made any difference, so far as the therapeutical result was concerned, which pole—negative or positive—was placed within the body, if care was only taken not to have the current too strong, and the metal was covered by leather, when the internal electrode was connected with the negative pole.

There was one marked exception to this rule, and that was, in case it was desired to relieve pain in a certain circumscribed spot; then it was best to place the *positive* pole next to the painful point. Hence, in pelvic exudations with consequent local or reflex neuralgia, he connected the vaginal electrode with the positive pole, and attached the negative cord to the large sponge on the abdomen, sacrum, or hip, as the case might be.

Fifthly, he had always found it a safe plan to begin with a mild current (the galvanic, say four to six cells, the faradic, as much as the patient can bear without discomfort), and gradually increased to the limit, either at one sitting or day by day, and toward the end of each sitting gradually diminish the current before disconnecting the poles.

Sixthly, when internal electrization was to be employed (vaginal, vesical, or rectal), it was always well to introduce the internal electrodes before closing the circuit, and to break the circuit before removing them, since the contact of the metalicl electrodes with the sensitive skin at the orifices of the cavities mentioned, while the current was at its height, caused acute pain.

Seventhly, whether benefit would be derived from the electric treatment could not be known for some time, except when the faradic current was used to bring on the menstrual flow, the result then being either immediate or, at least, speedy, after one or several applications.

Eighthly, in order to give permanent relief, in fact, in order to derive any appreciable benefit from galvanism, it must be used often, steadily, and for a long time. Thus, less than two sittings a week was merely waste of time; every other day, or even every day, was much better than less frequently, and the sittings should vary from fifteen to thirty minutes each.

Ninthly, but while relief and freedom from pain might be often achieved by galvanism, a permanent cure, a complete absorption of the exudation, and a restoration of the organ to perfect health in hyperplasia, chronic

oöphoritis, cellulitis, and peritonitis, was seldom achieved. But this was unfortunately the case with all other methods of treatment for these obstinate affections, without even the relief afforded by galvanism.

Tenthly, he had seen no bad effects follow the rational and careful use of either form of current. A slight bloody oozing from the uterus after intrauterine electrization might occur, but was of no consequence.

CONDITIONS INDICATING ELECTRIC TREATMENT.

The pathological conditions of the female sexual organs in which electricity would be most likely to prove beneficial were the following: Deficient development of uterus and ovaries; amenorrhœa; dysmenorrhœa, obstructive and neuralgic; superinvolution; subinvolution (with or without menorrhagia); hyperplasia uteri; chronic ovaritis and salpingitis; chronic cellulitis and peritonitis, and lymphangitis; pelvic neuralgia, local and reflex; uterine displacements; erosions of cervix; uterine fibroids; ovarian tumors.

It was not his intention to make more than a passing mention of the tonic effect of the faradic, and the sedative influence of the galvanic current on the general system in the anæmia so frequently accompanying uteropelvic disease.

The author of the paper then discussed at length the use of this remedy in the above affections, and then gave the following *counter-indication*, that the rule to avoid it in all cases of acute or subacute inflammation of the pelvic organs about covered the ground, although there might be exceptions to that rule in instances of mild subacute cellulitis and ovaritis.

The conditions in which the two varieties of the electrical current act most beneficially were summarized as follows:

Faradism.—Deficient development of uterus and ovaries; amenorrhœa; subinvolution and menorrhagia; superinvolution; uterine displacements, and uterine fibroids (interstitial).

Galvanism.—Hyperplasia uteri; chronic ovaritis and pachy-salpingitis; chronic cellulitis and peritonitis, and lymphadenitis; pelvic neuralgia, local and reflex; dysmenorrhœa, neuralgic and obstructive; erosions of cervix; subinvolution, and uterine fibroids (subperitoneal).

The conclusions to be drawn from the experience detailed in the paper were the following:

1. Electricity locally applied was a valuable agent in gynecological practice, and should be more widely used than it was.

2. It did not require special knowledge or experience as an electrologist to be able to use the agent safely and beneficially in gynecological practice.

3. The remedy, if properly used and on correct indications, could not do harm.

4. It should be used only in chronic conditions, and if it was the galvanic current, should give no pain.

5. The conditions in which the faradic current was indicated were chiefly those characterized by deficient development or want of tone of the sexual organs, such as imperfect development of uterus and ovaries, superinvolution, subinvolution, amenorrhœa, uterine displacements, interstitial fibroids. The object of the faradic current was to stimulate the organs to increased growth or activity, and to produce muscular contraction.

6. The conditions in which the galvanic current was indicated were those in which it was desired to promote absorption of adventitious products, chiefly the result of previous inflammation; to allay pain, to excite reparative action, and occasionally to act as a caustic. The rapidly interrupted galvanic current, however, also excited muscular contraction.

7. Perseverance in the treatment was essential to success.

8. Acute and subacute inflammatory conditions, as a rule, counter-indicated local treatment by electricity.

9. The pathological conditions in which electricity proved useful were such as those in which other treatment often failed or could not be borne by the patient.

10. In organic diseases a permanent cure, or a restoration of the diseased organs to perfect health, could usually not be accomplished by electricity, but great relief from pain, and certainly temporary improvement in otherwise intractable cases could be achieved by it, without danger and with comparatively little discomfort to the patient.

Dr. John N. Freeman, of Brooklyn, on invitation, opened the discussion, and said that in nearly every particular Dr. Mundé's paper coincided with his experience. He began the use of electricity with the faradic current twenty years ago, and at that time almost entirely empirically, yet with valuable results in many gynecological cases, and often with disappointment.

Sixteen years ago his old dyspepsia began to be attended by attacks of severe gastralgia, and for the relief of the distressing pain he began, at the suggestion of the late Dr. Geo. M. Beard, the use of electricity, first with the faradic, without much benefit, and then with the galvanic current, and was completely cured. Since that time he had used the galvanic current almost entirely, until he began the use of *static* electricity, with which he had obtained very satisfactory results in gynecological practice. He now employed static electricity in about the proportion of 40 to 1 of all other varieties, and one special advantage was that it could be applied through the clothing.

A special benefit attending the use of electricity was the relief from pain which it afforded, thus obviating the use of opium. For example, gynecological manipulations involving the endometrium were frequently followed by intense pain, but this could be quickly relieved by the application of static electricity.

With regard to electricity in the treatment of fibroids, he had seen the patient referred to by Dr. Mundé very recently, and ascertained that the tumor had not given her any trouble whatever since treatment by electrolysis.

Dr. Freeman related the history of a case referred to him by Dr. A. S. Clark, in which the fibroid was as large as an ordinary-sized cocoanut, to which the bladder was adherent, accompanied by cystitis, and the tumor pressed backward so firmly that constipation was a prominent symptom. He introduced the positive pole into the interior of the uterus, and attached the negative pole to a needle thrust through the anterior abdominal wall into the tumor, using thirty-two cells (galvanic) for a little more than half an hour: no severe reaction followed. At the second sitting, two months later, the fibroid was very much softened and diminished in size nearly one-half. Two months subsequently the tumor was treated again, and two months after the last application the patient was able to be about the house, and now is in excellent health, although there remains some thickening of the anterior wall of the uterus, and she still has some pain. The uterus is about normal in size.

Dr. Freeman also related the history of another case in which there were two tumors, and both were removed by electrolysis. In neither of the three cases did the temperature rise above 99° F. after treatment.

Dr. A. D. Rockwell could confirm in great measure the statements made by Dr. Mundé, and believed, as he had often said, that while electricity was a remedy which had a wide range of usefulness, it should be used with care and caution. In the treatment of the sequelæ of pelvic cellulitis, he was unable to understand how any gynecologist could get along without it, especially for promoting the absorption of old adhesions and thickenings. With regard to subinvolution of the uterus, he would expect theoretically, and had found it so clinically, that galvanism was more beneficial than faradism.

The subject was an exceedingly interesting one to him,

and he had had more or less experience in the use of electricity in all the classes of cases of which the author of the paper had spoken, but time did not permit him to refer to them in detail.

Dr. H. J. Garrigues said that all were indebted to Dr. Mundé for bringing forward a subject which should receive more attention than it had yet received. He had used electricity more or less in gynecological practice during the last thirteen years, and the chief reason why he had not employed it more than he had done was because the proper application consumed so much time; besides, he had been able to obtain equally good results by the use of other remedies, which could be easily applied with the consumption of less time.

The condition for the relief of which he had resorted to its use most frequently was *amenorrhœa*, although it had not always served him well in those cases; not only where the uterus was defective, but where the condition seemed to be merely functional. The simple introduction of a sound, with the internal administration of iron, had served him about as well as any plan of treatment he had ever adopted.

With regard to the use of electricity in the treatment of uterine fibroids, he had recently read a report by a French author, who had used it with special benefit in one hundred and eighteen cases. As to the hemorrhage, however, which so commonly accompanies fibroid of the uterus, Dr. Garrigues would recommend the use of *cotton-root*.

In the use of the galvanic current he had, with one pole within the vagina, seen unpleasant results by way of producing an eschar, although he had used a smaller number of cells than advised by Dr. Mundé, and also had covered the electrode with several layers of muslin.

Dr. W. R. Birdsall regarded the literature of the subject as rather mystifying and unsatisfactory. On general principles he had but little to add to the conclusions given by Dr. Mundé, which, on the whole, represented sound views.

One difficulty in studying the question is in ascertaining what observers have used, and how they used it. Better results would be obtained when more exact methods were employed, and until the strength of the current was reckoned by milliamperés, and the galvanometer was employed, science would not get the benefit of good observations and results.

The conclusion reached by the author of the paper, that electricity should not be used in acute and subacute cases, Dr. Birdsall regarded as exceedingly important.

Dr. Malcolm McLean spoke of the efficacy of electricity in the treatment of those cases which, by many, would be regarded as suitable for Tait's operation—an operation performed too frequently, and the benefits of which are not so lasting as has been supposed.

Dr. H. J. Boldt mentioned three cases of metrorrhagia and menorrhagia in which cure was affected by the alternate use of faradism and galvanism.

The discussion was closed by Dr. Mundé, who said that the points referred to by those who had participated in the discussion had been discussed in the parts of his paper which, on account of lack of time, he had omitted to read. He had, however, not used static electricity. The main object of the paper was to direct attention to the benefit which might be derived from the use of this remedy, and thus to make it more popular in special and general practice.

ANNIVERSARY MEETING.

The President announced that Dr. Janeway, on account of ill-health, had resigned his appointment as orator for the anniversary meeting, to be held November 19th.

It afforded him great pleasure, however, to give notice that the anniversary discourse would be delivered by Dr. Henry D. Noyes.

The Academy then adjourned.

FIFTY-EIGHTH CONGRESS OF GERMAN NATURALISTS AND PHYSICIANS.

Held in Strassburg, Germany, September 18 to 23, 1885.

(Special Report for The Medical Record.)

Nearly one thousand of the scientists and physicians of Germany and Austria were present at the opening of the first

GENERAL SESSION,

held in the large hall of the University at Strassburg.

THE ADDRESS OF WELCOME

was delivered by Professor Kussmaul, who dwelt upon the scientific history of Strassburg, and recounted the great names which had been associated with this city from the time, one thousand years ago, when Ottfried sounded God's praises in the German tongue, down to the present. The speaker then summarized the history of the growth of the University from the year 1621, when the Emperor Ferdinand III. raised the then existing academy to the rank of a university.

Other addresses were made by von Hofmann, Sempel, and Virchow. Berlin was selected as the next place of meeting for the Association, and then the session was adjourned, the members repairing to the different halls in which the Sections were to meet.

SECTION FOR INTERNAL MEDICINE.

Herr H. Eichhorst, of Zurich, presented the first paper, on

HEAT RADIATION FROM THE HUMAN BODY

in conditions of health and disease. By means of a delicately constructed apparatus the speaker and Herr Masse had made a number of observations upon the radiation of heat from various portions of the body. They found that this was greater from the trunk than from the face, and from the flexor than from the extensor surfaces. There was no perceptible difference between the two sides of the body. One interesting fact was observed, viz., that there was no obvious parallelism between the surface temperature and radiation. Thus, in a case of epididymitis, although the skin covering the inflamed part was hotter than that on the healthy side, it nevertheless gave out less heat. In fevers, also, the radiation of heat is not invariably increased in proportion to the degree of elevation of the body temperature. Quinine, kairine, cold baths, and other internal and external antipyretics had the effect of greatly increasing the radiation from the body in fevers, and to this, probably in great degree, was due their power of lowering temperature. The speaker exhibited the instrument which had been used in his investigations.

Herr Vierordt, of Tübingen, had devised an instrument for

MEASURING AUSCULTATORY SOUNDS,

as regards their force and degree of intensity. His investigations had shown that the first mitral tone is loudest of all the heart-sounds, being more than three times stronger than the first aortic sound. He gave the comparative degrees of force of the other sounds also, as he had measured them with this instrument.

Herr Stein, of Frankfort, exhibited a number of batteries for use in

ELECTROTHERAPEUTICS,

which he considered preferable in many respects to those in common use. He also showed several Edison lamps for illuminating different cavities of the body.

Herr von Jacksch, of Vienna, read a paper on the presence of

VOLATILE FATTY ACIDS IN THE URINE.

Normal urine, the author said, contains occasional traces of these substances. In fever there is a consider-

able increase of the fatty acids. Lipaciduria is also seen in liver affections accompanied by destruction of the glandular parenchyma, and in leucæmia. This condition, as well as acetonuria, the speaker believed to be due to increased disintegration of albuminous substances. If the fatty acids—butyric, acetic, and formic—be separated from the urine of healthy individuals or of those suffering from fever or hepatic disease, it will still be possible, by the addition of oxydizing agents, to obtain in all three cases volatile acids.

Herr Schuster, of Aachen, related a case of supposed

MULTIPLE SCLEROSIS OF THE BRAIN AND SPINAL CORD OF SYPHILITIC ORIGIN.

The patient had difficulty in locomotion, oscillation of the eyeball, resembling nystagmus, upon attempted fixation, uncertainty in muscular movements, a feeling of constriction about the body, exaggerated tendon reflexes, and tenderness over the spine. The man presented at the same time unmistakable evidences of syphilis. The nervous as well as the syphilitic symptoms disappeared almost entirely under the use of mercurial inunctions.

Herr Rumpf, of Bonn, read a paper on

SYPHILITIC MONOPLEGIA AND HEMIPLEGIA,

in which he sketched the varying symptoms and sought to explain the uncertainty of prognosis which existed, even when the treatment was apparently most suitable. He then related four cases in which a diagnosis of syphilitic cortical disease was made from the co-existence of monoplegia with spasmodic symptoms, and from the antecedent history. In two there was motor paralysis without any changes in sensation, and in the other two there was no paresis, but a very marked diminution of tactile sensibility, and especially of muscular sense. The first two the author regarded as disease of the motor centres, and the last two as "cortical disease of the sensory area." From a study of these cases he concluded that the centres of motion and of muscular sense were not identical.

SECTION FOR DISEASES OF CHILDREN.

Herr Pfeiffer, of Wiesbaden, read a paper on

RACHITIS,

in which he referred especially to a number of analyses he had made of the milk of women who were nursing rachitic children. In all these cases the older children, as well as the mother herself, presented signs of former rickets. The infants seemed to be well nourished, and the supply of milk was ample. As a rule, the milk differed but little from the normal. In some cases there was a diminution in the proportion of salts. In two there was an increase in the relative amount of calcium salts, and in two others the analysis showed a deficiency in phosphoric acid.

Herr Kassowitz, of Vienna, thought that great caution was necessary in drawing conclusions from these analyses as to the etiology of rickets. In the first place, it should be remembered that the disease was not uncommonly seen in the new-born before they had begun to nurse, and in other cases its commencement was observed in children three or four years of age, who had been weaned long before. He did not regard the phosphorus treatment of rachitis with favor.

Herr Unruh, of Dresden, believed rickets to be a congenital disease, and independent, as far as its etiology was concerned, of the quality and quantity of nourishment received.

Herr Lorey, of Frankfort, asked why the specific gravity of the milk had not been taken. He believed that if the mother's milk was sufficient in quantity and had a specific gravity of 1.030, together with a normal proportion of cream, the child would not become rachitic.

Herr Pott, of Halle, read a short paper on

GASTRO-ENTERITIS OF CHILDREN,

and said that he had obtained excellent results with tincture of coca. He also claimed to have been very successful in the

TREATMENT OF PERTUSSIS WITH COCAINE,

using a five per cent. solution in local applications.

Herr von Dusch, of Heidelberg, thought that cocaine could hardly be curative of whooping-cough, by reason of its transitory effects, but he acknowledged that it was of exceeding value as a palliative measure.

Professor Kohts had used

COCAINE IN DIPHTHERIA,

but was not particularly pleased with the results obtained. In tubercular ulceration of the glottis he had, however, seen excellent effects produced by cocaine in five or ten per cent. solution.

Herr Ranke, of Munich, read a paper on

TRACHEOTOMY IN DIPHTHERIA.

He had operated, in the course of the last seven and a half years, upon 45 cases, 19 of which resulted fatally, and 26 recovered, giving a percentage of recoveries of 57.7. This was regarded as very good for Munich, where previously the mortality following tracheotomy had been very high. The speaker advocated thorough ventilation in these cases, and had two rooms, in one of which were the patients while the other was being thoroughly aired, and the children were changed from one to the other room several times a day. He permitted no furniture in the room except iron bedsteads, a few chairs, and a table or two. The operation was not performed in this place, but in the clinic or at the patient's residence, and then the child was carried to the infirmary in a carriage. Herr Ranke had never seen any evil consequences follow this transportation. He operated early in the disease, as soon as the vocal and respiratory symptoms of laryngeal invasion became manifest. He admitted that some of his cases might have recovered if let alone, but he doubted not that at least ninety per cent. would have died if not operated on. After opening the trachea, he was accustomed to wait a while before inserting the tube, so as, if possible, to get rid of some of the false membrane. During the first few days he used steam without any other medication. The canula was changed only on the third day, as a rule, but if the false membrane formed on the tracheal wound the canula was changed once or twice a day, the wound being then covered with a cloth dipped in a three per cent. carbolic solution, and the canula plunged into boiling water and thoroughly cleansed.

SECTION FOR PATHOLOGICAL ANATOMY.

Professor Orth, of Gottingen, read the first paper, detailing the investigations he had made in regard to the

ETIOLOGY OF ACUTE ENDOCARDITIS.

He said that he was able to affirm that valvular disease of the heart was not always of parasitic origin, for in none of his microscopical examinations of the so-called acute verrucous endocarditis had he discovered any micro-organisms, and culture experiments had likewise given negative results. As to the question of the special form of micro-organism which was concerned in the etiology of parasitic valvular disease, he was unable to answer with certainty. In one case of malignant ulcerative endocarditis, he had found vast numbers of staphylococcus pyogenes aurens. In experiments upon animals he had induced fatal endocarditis by introducing this micro-organism into the circulation, while injections of other varieties of microbes were negative in their results. In these experiments the cocci were found always on the surface, so that it seemed that they were deposited from

the general blood-current and not primarily in the vasa vasorum. They were deposited only in those places where there was an injury to the endocardium, but this injury might be very insignificant and consist only in a slight unevenness of the surface.

Herr von Recklingshausen stated that he had seen cases of secondary endocarditis in pyæmia and pulmonary phthisis, in which the warty excrescences had formed upon previously normal endocardium.

Herr Ribbert, of Bonn, then read a paper entitled

THE LOCALIZATION OF INFECTIOUS DISEASES,

in which he attempted to show that certain organs are attacked by the specific microbes because the latter are held mechanically in these localities, and not because, as is more commonly supposed, they find only there the conditions essential to their growth and development. He instanced in favor of this theory some experiments which he had made with the spores of mykosis, which seldom give rise to inflammatory foci in muscular tissue. Thinking that a possible explanation of this dissemination was that the spores were too minute to be arrested in the capillaries of the muscles, he cultivated them for a time, until they had advanced so far in their development as to be too large to pass readily through the smallest vessels, and then injected them into the circulation. He found that then the spores were arrested in the muscular tissue, and as a consequence there were many spots of inflammation in this location. In a second series of experiments the author injected pure cultures of staphylococcus flavus into the circulation, and found that they gave rise usually to a myocarditis, but sometimes also to endocarditis. In the latter case he found, contrary to the experience of the author of the preceding paper, that the micro-organisms were arrested on the valvular endocardium even in cases in which there was no roughening or previous lesion of this membrane.

Herr Virchow said that it was impossible that the microbes could in all cases be carried to the valves solely by the vasa vasorum, for there were portions of the latter, as the chordae tendineæ, which were absolutely non-vascular. But these portions were also frequently the seat of endocardial inflammation, and it was impossible for micro-organisms to be carried to such localities except by the general intracardial blood-stream. He himself, however, had never seen endocarditis following intravenous injections of micro-parasites, although he had made numerous experiments of this nature.

Treatment of Acute Rheumatism by Cold Sponging.—Dr. R. H. Fox, in the *British Medical Journal*, says: "Beshara Bey, M.D., Friends' Hospital, Brumana, Mount Lebanon, in a recent letter to me, described a severe case of rheumatism, in which salicylate of soda, potash, quinine, colchicum, and liniments, all failed to relieve the fever and the pain. Almost in despair, he sponged the patient with cold water, quickly drying the skin afterward. The relief was immediate, and the man was able to walk a short distance to his home in six days from that time. Dr. Beshara wrote that he had used the same treatment in two other cases with success."

Another Case of Gonorrhœa in a Boy.—Dr. W. W. Greer, of Rockdale, Tex., writes: "In The Medical Record of August 15th is reported a case of gonorrhœa in a boy seven years old. I can beat that record by one year. In October, 1884, while practising medicine in Atlanta, Ga., I treated a negro boy six years old for gonorrhœa. He had been sleeping with a girl seventeen years old, whom I had previously treated for the same disease. The boy was carried before the class at the medical school, and the diagnosis was sustained by Dr. James A. Gray, who had charge of the venereal clinic."

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE COLLEGE OF PHYSICIANS—THE BALY MEDAL—THE HARVEIAN ORATION—DR. QUAIN AND "THE TIMES"—THE COLLEGE MEETING AND THE DOCTORATE—THE FELLOWSHIP OF THE COLLEGE—THE MEDICAL SOCIETY OF LONDON—A NEW THEORY OF FEVER-HEAT—A LIFE DEVOTED TO SCIENCE—THE BEST EDUCATION FOR A PATHOLOGIST.

London, October 24, 1885.

We have had rather a lively week in London, and the College of Physicians is to the front. In their hall, on Monday, the annual oration was delivered; after which the President presented the Baly Medal to Mr. William Kitchen Parker for his researches in minute comparative anatomy, particularly the anatomy of the skull. The Baly Medal, in memory of Dr. Baly, is awarded once in two years as an acknowledgment of original work or research. In presenting the medal to Mr. W. K. Parker, the President (Sir W. Jenner) complimented him on the work he had achieved while engaged in general practice, and said he could appreciate this as he had begun his own career as a general practitioner.

The oration preceding this presentation is the annual ceremony in memory of Harvey. Dr. Richard Quain was the appointed orator, and took for his subject "The Progress of Modern Medicine." He tried to answer the question, why the profession is so little appreciated, and to vindicate it from the flippant assertion that it has made no advance since the time of Hippocrates; an assertion which was rather a query in the mouth of a deceased politician. Dr. Quain had no difficulty in substantiating the claim he made for progress, since he could point to the microscope, the ophthalmoscope, the laryngoscope, the sphygmograph, etc., as proofs of more accurate work, and could cite chloroform, chloral, bromides, salicin, and other agents as indices to therapeutical triumphs. Besides, was he not speaking to those who used these resources of modern practice? But he had also a larger audience. He obviously spoke to the outsiders, too, and the next morning some of the purists among his dear confrères were scandalized to find a report of his oration in *The Times*, together with a leading article founded upon it. Was it not shocking? Here was evidently a man who would speak to *The Times*, a "lay paper"—and get a report in the "lay press" of his lecture—"quite an advertising dodge." These and still less complimentary remarks were made by gentlemen too pure to hold any communication with the public press. There was no jealousy—oh! no. It was only the honor of the College and the profession that so upset those who have not the opportunity of dining with the editor of *The Times*. If they had that chance—who knows?

Then, again, the College itself has sought publicity—has thrown off some of its old traditions; and, though it still officially condemns every kind of publicity, announces its lectures in the public press, and is generally understood to consider respectable the publishers' columns of the daily papers. What nice distinctions—nay, what ridiculous squeamishness. Or rather it must be that they who have risen in life may do anything, but struggling men must be denied the help by which those who deny them have got up the ladder they are so delighted to kick down.

But there is more about this ancient College. During the week an adjourned meeting has been held to discuss whether, jointly with the College of Surgeons, it might not undertake to confer the doctorate, and a pretty discussion ensued. I have before informed you that London students are practically debarred from obtaining the coveted degree of M.D., which is easily gained by Scotch

and Irish students. This is a monstrous injustice to England, and the wonder is that it has been patiently endured so long. The two colleges having lately agreed to work together, and to give their double diploma; it is suggested that those who thus become qualified ought to be dubbed M.D., or at least M.B. Others think it would suffice for them to be called Dr., without having the liberty of writing M.B. or M.D. after their names. The truth is that the Colleges have no power to grant degrees; and, if they seek a new charter, with extended powers, they may be compelled, as the price, to grant some urgently needed reforms. So some assume the right, and, reposing on the notion that every physician is a doctor, licentiates of Colleges of Physicians use the prefix Dr. It is now proposed that the two colleges recognize this "courtesy Dr." so far as holders of the conjoint diplomas go. This would go far to settle some disputes, but every otherwise legally qualified practitioner would have just as much legal right to such courtesy, and we should all become veritable doctors and real professional brothers. But this enrages the possessors of the University M.D.'s, and that, too, though their university may be inferior. Anything to make a clean sweep of a contemptible bone of contention would be a blessing to the profession, and there is some chance of a compromise being effected, as it promises to replenish the coffers of the College of Physicians; and, after all, it is money which weighs most there. The stupid fiction is still kept up that the Fellowship of that College is obtained by merit, whereas it is the fact that this diploma is given by election of the Council—that is, to those who are personal friends of councillors, or who feast them at dinners, or, being too poor for that, toady them until nominated. As I explained to your readers three or four years ago, there are hospital physicians and lecturers who are still kept out in the cold, while their juniors find the way to become Fellows. Sir W. Jenner was so liberal as to propose to admit a few general practitioners. Had he proposed a simple act of justice to teachers before an act of generosity toward others, his motives would have been less open to misconstruction.

The Medical Society of London opened this week, with an address by the President for the year, Dr. Ord, who propounded a new theory as to the increase of heat in fever. He found increased combustion an unsatisfactory hypothesis, and thinks there must be, with arrested metabolism, no use for the heat which that process ought to render latent, and which therefore remains kinetic. He illustrated his meaning by the facts observed when a metallic vessel containing water is heated. We shall hear much more of this, and it will be a relief to have a different figure instead of the few that have been so worn as to be fairly worn out.

Dr. Ord's dissatisfaction with the prevailing theories started from a statement of Dr. Burdon-Sanderson's, in his paper on "Fever."

This last-named Professor delivered an address at University College last week on "A Life Devoted to Science." The life he took as an example was Cohnheim's, and he gave a précis of Professor Kühne's recent biography of that eminent pathologist. As to such a life in England the openings are few, and Dr. Sanderson said if he were asked how to give up a life to pathology, he would advise the aspirant to qualify for the medical profession, take resident appointments as if he intended to practise, and after that make up his mind whether to do so or to cultivate pure science only.

MEDICAL EDUCATION AND PRACTICE IN HOLLAND.

To the Editor of The Medical Record.

Sir: No country presents more of interest to the average foreigner than Holland, for in its cultivated fields, its many canals, its curious houses with their quaint roofs and chimney-pots, he sees a true picture of the ideal he has conceived from reading and the representation of others. The energetic little people, in their grotesque peasant costumes, seem to be *in* our world, but not *of* it, for the Hollander has a world of his own that has never thrown open its gates to foreign manners and customs; although almost entirely hemmed in by the diverse civilization of England, France, and Germany, it holds its individuality with a methodical, instinctive, self-contented grasp that characterizes the Dutch people. Wherein the individuality of this people lies has been the theme of many books, but the study and practice of medicine in Holland presents peculiarities that have more or less escaped general notice, the narration of which may be of interest.

There are universities at Leyden, Utrecht, Groningen, and Amsterdam. These are all under the control of the Government. The first three are supported by the State. The professors receive their appointments from the State, on the recommendation of the faculty, and generally on their merits. At Amsterdam the university is supported by the city, professors are nominated by the city government, subject to confirmation by the king. At the age of seventy all professors are retired on two-thirds pay. In the session of 1884–85 there were enrolled at all the universities 2,220 students, about one-half of whom, 1,054, were students of medicine.

Generally speaking, we may say that the medical course proper occupies five years. The student, as a rule, is obliged to spend two years at the university studying collateral sciences preparatory to the study of medicine, making seven years at the university. The element of time, however, is not taken into consideration; after passing one examination the student is allowed to present himself for the next, nor is he asked where he acquired his knowledge. They are absolutely free to attend lectures or to remain at home, to study or to play. As a matter of fact, a few get over the course in less time than I have indicated, some remain longer at the university, while a few never get through at all. The course of study differs slightly for those who want the degree of M.D. from that pursued by those who are satisfied with the title of "arts." For the former the preparatory studies are more extensive and the examinations are somewhat harder. These are held by the faculty representing the university, while the "arts" students are examined by a committee appointed from the faculty, who act on behalf of the State.

The following is an outline of the curriculum of study:

Preparatory.—The candidate for the degree of M.D. takes a course of six years at the gymnasium before entering the university, while the "arts" student need spend only four years at the gymnasium, or in lieu of that, five years at the "hoogere burgerschool," corresponding somewhat to our high school; but the student from this high school cannot secure the degree of M.D. unless he at this time pass the final examination of the gymnasium in Greek and Latin, which he is permitted to do without having attended that institution.

The seven years at the university can be divided as follows:

First examination: Mineralogy, physics, chemistry, botany, zoölogy, and comparative anatomy, two years. Students from the high school often pass this examination after one year, because they have had more of these studies than those from the gymnasium.

Second examination: Anatomy, physiology, normal histology, general pathology, and pharmacology, two years. After this examination the future M.D. is called a medical candidate.

Third examination: General and special pathology and histology, pharmaco-dynamics, therapeutics, clinical medicine, surgery, obstetrics, and hygiene, two years. After this examination the medical candidate is entitled to be called medical doctorandus.

Fourth examination, called the "practical arts" examination: Practice of medicine, surgery, gynecology,

obstetrics, pharmaceutics, and ophthalmology, one year. This examination is held by a committee appointed by the Government, and entitles those who pass it to practise medicine in all its branches with the title of "arts." It must be passed by all, as the degree of M.D. confers no right to practise.

Before presenting himself for this examination the student must have had charge of twelve confinements, two of which must have been artificial deliveries. In addition to the above, the M.D. must write a thesis and defend twelve propositions before the faculty, but this may be done before passing the "practical arts" examination. Other medical degrees conferred by the university are Doctor of Surgery and Doctor of Obstetrics. They are given to Doctors of Medicine on passing an examination, writing a thesis, and defending twelve propositions on each subject. These degrees are seldom taken at present, the title of "arts" giving the right to practise in these branches. After passing his final examination the "arts" frequently resorts to Germany, where he can obtain the coveted M.D. degree in about six months. The M.D.'s are for the greater part from the best families; the "arts" are recruited from all sources. Lectures are given mostly in the morning; the afternoon is given to laboratory work, dissecting, etc.; the evening to study or social enjoyment; but the habits of the students vary considerably.

The tuition is $80 a year, for four years, after which attendance at the university is free. There are no private colleges. Private courses, for which extra charges are made, are given only by assistants and private docents.

Holland does not offer the facilities for post-graduate study that some other countries do. For this purpose the Dutch resort to some of the large cities of Europe—Paris, Vienna, and Berlin being favorite places. Foreign students are scarce. An occasional student of ophthalmology is attracted to Utrecht by the names of Professors Donders and Snellen. The former has the chair of physiology, the latter that of ophthalmology. Foreigners are allowed to practise on passing certain examinations. Homœopathy does not exist, but patent medicines and other quackery abound. There is only one lady physician in all Holland, but there are three or four students at some of the universities. Fees in small cities average about forty cents a visit; obstetrics, five dollars. In Amsterdam from forty cents to a dollar is an average for visits; obstetrics, from five or ten dollars up. In wealthy villages most people will pay from thirty to fifty cents a visit; the very poor are treated at the expense of the corporation. Many of the latter are members of benefit societies, that furnish medicines and medical attendance at from one to two dollars a year. There are many of these benefit societies in all parts of Holland. They differ greatly in detail; most are for the poor only; but there are a few which any one can join. In some the physicians are paid a regular salary; in others they get so much a head, eighty or ninety cents per year; while in others the profits are divided between the doctors and the druggists. There are no dispensaries, excepting those connected with the universities. Doctors are not allowed to dispense medicines, unless it be in small places where there are no drug stores.

The local medical societies send one delegate each to the Medical Society of the Netherlands, which meets once a year. The delegates vote according to the membership of the societies they represent. Several medical journals are published. The *Weekly Medical Journal*, the organ of the above society, is the most important. The surgeons of the colonial army have until quite recently been supplied from foreign sources, but of late the State has given aid to medical students on condition that they would enter the service. After passing the first examination at the university the student may make a contract with the Government, by which they agree to serve eight years after graduating. While attending lectures they are entitled to $320 a year, and a like amount after passing each examination. The home army and the navy have always been supplied with native doctors.

The profession is not so crowded as in America, and, on the whole, seems more prosperous, but they envy us our higher fees. FRANK T. SMITH, M.D.

THE VULGARIZATION OF MEDICAL SCIENCE AND THE DISREGARD OF MEDICAL ETHICS IN NEW YORK.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: It may not appear consonant with the competitive life and advertising enterprise which our facilities in turning out doctors (like "Spanish in six easy lessons") to touch upon the sanctity—for it should be a religion—which should characterize the vocation which is made the recipient of the most delicate, nay the most painful, confidence. Its representatives in distress are looked up to as soul-stricken penitents look up to their Maker. It is possible that there are some physicians who read this who have realized, in the dire suffering of those most dear to them, that I am not grandiloquent nor poetical. Even in remote heathen times the practice of medicine was often conducted with sacred rites. But in this country (*only*, so far as I know) the details and intricacies of disease, complex and perplexing enough to the diligent student of medicine, are held up to the gaping public who gaze upon them with the oblique and dim eyesight of ignorance.

The rasping of the saw upon the bones, the flow of blood, the quivering of the flesh, are described in daily papers with sickening detail. The true physician, the high priest of nature and of the home, if he be true to his calling, does not enjoy such details. He recognizes them, but only as a part of his duty, and not as a sort of magic lantern for vulgar exhibitions. A portion of this letter owes its inspiration to a prominent article in this morning's *Tribune*, headed in big caps: "Removing a Huge Tumor—The Different Steps that were Taken." The article occupies three-fourths of a column. It is an account of an operation at one of our best (the Mount Sinai) hospitals. Here are a few lines from it: "A leaden paleness spread over her face, the muscles of the abdomen contracted convulsively," "her breath came in short sonorous gasps." "A sharp knife" (of course the public, except for this *description* of the knife, might think that dull knives were usually employed in surgery) "was inserted into the flesh at about two inches below the umbilicus," etc. Now in whose interest, *et cui bono*, all this is published it is hard to tell, as, perhaps singularly, the surgeons' and patients' names are not given. I would not descant upon this subject, but there come under my observation constantly other instances of violated medical ethics, etiquette, and humanity. I believe we have in New York the best gynæcologists anywhere, and I, as a general practitioner, avail myself often of their skill, but I know several of the best of them who cannot refrain from telling me the names and ailments of many of their female patients—these same physicians even tell lady patients the names and diseases of other patients.

Now some women suffer so long with the unfortunate complaints to which their sex is subject, that they become indifferent to the nature of their ailments being known, but many of my patients have told me that the gynæcologists whom I recommended told them about this and that lady's complaint, and that naturally enough they thought they were in the same box. These diseases are afflictions, and many women shrink with horror at their being generally known; still, through my patients and through doctors, the amount of knowledge that I profess about ladies I do not treat would be regretted I am sure by many of them.

A physician has no right, even in a thoughtless way, to disclose the names and diseases of his lady patients. It

would not be a bad thing, either, if ladies could go to gynæcologists without meeting with gentlemen in the reception room, the bare fact of ladies being there indicating the nature of their complaint. *Ohe! jam satis!* The signing certificates of wines which are not what is claimed for them, of hypophosphites which are not hypophosphites, of mineral waters which have never been properly analyzed, etc., I will touch upon another time, making due allowance for the fact that the sweetness of dying for one's country is as nothing compared with the sweetness (to many physicians) of seeing their names in the papers.

I have the good fortune, Mr. Editor, to have been known to you for many years, and I know you will credit what I have said. Respectfully yours,

A STRAIGHT-LACED DOCTOR.

NEW YORK, November 2, 1885.

THE MEDICAL CHARITY QUESTION.

TO THE EDITOR OF THE MEDICAL RECORD.

CHARITY ORGANIZATION SOCIETY OF THE CITY OF NEW YORK, November 6, 1885.

SIR: Will you kindly give notice in your next issue that in compliance with many requests from officers in charge of medical institutions the Charity Organization Society invites the medical staffs, and the boards of managers of the several hospitals and dispensaries of the city, to meet at the hall of the New York Academy of Medicine, on Friday, November 20th, at 8 P.M., to confer together concerning the existing abuses and misapplication of medical charity, and to consider how these abuses may be remedied, through the registration system and other facilities of the Charity Organization Society.

Yours very truly,

CHARLES D. KELLOGG,
Organizing Secretary.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from November 1, 1885, *to November* 7, 1885.

MCCLELLAN, ELY, Major and Surgeon. Leave of absence granted in orders, Cavalry Depot, Jefferson Barracks, Mo., October 30th, is extended seven days. S. O. 254, A. G. O., November 4, 1885.

EBERT, R. G., Captain and Assistant Surgeon. Ordered from Camp Grant, Riverside Park, New York City, to Fort Hamilton, New York Harbor, for duty. S. O. 237, Department of the East, November 5, 1885.

BUSHNELL, G. E., First Lieutenant and Assistant Surgeon. Assigned to duty at Camp Grant, Riverside Park, New York City. S. O. 237, Department of the East, November 5, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 7, 1885.

KINDLEBERGER, DAVID, Medical Director. Granted leave of absence to June 30, 1886, with permission to leave the United States.

WIEBER, F. W. F., Assistant Surgeon. To remain on Receiving Ship Vermont until May 15, 1886.

THE TREATMENT OF ASTHMA.—Dr. C. G. Roehr, of Milwaukee, writes that he has successfully treated a number of cases of asthma by means of anti-epileptic remedies. He was led to institute this mode of treatment from observing that most of his asthmatic patients presented a decidedly neurotic history. He asks that others try this method in those cases of chronic asthma in which there is a family history of neurotic affections.

Medical Items.

FRESH PAINT AND ABORTION.—Dr. Llewellyn Eliot, of Washington, D. C., writes: "In the October 31, 1885 number of THE MEDICAL RECORD, Dr. Charles H. French, of Waterbury, requests information on the matter of the odor of fresh paint as a producer of abortions. What the experience of others may be I am unable to state, but my own points very strongly in favor of this as a factor in producing such a misfortune. There are several instances which might be cited in support of this statement. It brings about a 'colica pictonum' with the result indicated. This has been, during the past ten years, illustrated to me in a very forcible manner. Whether the pregnant state renders the patient more subject to the influence of these odors can only be ascertained by the collected evidence of the many, but as one willing to subscribe to this view I record my testimony. It is my practice to discourage pregnant women from moving into newly-painted houses, as well as to deter them from having any painting done in the one in which they live until after the expiration of the gestation." Dr. O. Eugene Larkin, of Deerfield, Wis., November 3, 1885, also writes: "Some weeks ago, I had under observation a primipara in the seventh month, who aborted shortly after moving into a newly painted house. At the time, I attributed it to the improper use of the syringe, although not fully satisfied that that was the cause. Perhaps the odor of paint was a factor in the causation of no small influence."

A NEW HEALTH JOURNAL.—We have received the first number of *Zdrowie* (Health), a monthly journal of hygiene published in Warsaw. It contains several original articles on subjects related to public and private hygiene, and a number of good selections from *The Sanitary Engineer*, and other English, French, and German periodicals. This is the only journal in the Polish provinces devoted exclusively to sanitary matters, and we sincerely hope that its missionary labors in this field will be crowned with success, for it certainly supplies a want long felt.

HEAT AS AN OXYTOXIC.—Dr. J. R. Jones, referring to an article published in this journal, by Dr. Arbery, entitled "Heat as an Oxytoxic," reports in the *Medical Age* a case in which very hot linseed poultices acted successfully in bringing on the pains.

SUING FOR A LARGE FEE.—Dr. Alvarez, a homœopathic physician of Paris, brought suit against the Princess of Medina Cœli for 600,000 francs, for medical services, alleging that he was entitled to more than the usual compensation because of the great wealth of the defendant. The court awarded him 84,000 francs and imposed upon him the cost of trial. The plaintiff was somewhat chagrined, as he had refused an offer of a much larger sum to compromise the suit.

TOO MANY SURGEONS.—Considerable complaint is made by the French journals over the fact that two new hospital surgeons are appointed every year, while no vacancies exist for them to fill. There are at present, it is said, seventeen surgeons with empty appointments, and the number is increasing each year. The journals ask why the authorities do not cease creating new surgeons for a time, until those already on the list have found something to do to justify the title that they hold of hospital surgeons. But the ways of municipal authorities all the world over are past finding out.

CINCHONA RUBRA IN INEBRIETY.—Dr. D'Unger, of Chicago, Ill., wishes us to announce that Dr. Charles Warrington Earle is an untruthful man, because he has said that cinchona rubra is not a cure for inebriety. We should like to oblige Dr. D'Unger, but cannot do so in this case, owing to our belief that Dr. Earle is not the bad man indicated.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 21 NEW YORK, NOVEMBER 21, 1885 Whole No. 785

Original Articles.

TWO RARE CASES OF ABDOMINAL INJURY.[1]

BY J. A. STUCKY, M.D.,

LEXINGTON, KY.

SURGEON TO ST. JOSEPH'S HOSPITAL; MEMBER KENTUCKY STATE SOCIETY; VICE-PRESIDENT AMERICAN RHINOLOGICAL ASSOCIATION.

I DESIRE to submit the clinical history, as taken from my note-book, of two rare cases of abdominal injury, with recovery in each case. I do so without theorizing or commenting.

CASE I.—On August 4, 1884, at 3 P.M., John C——, Irish, aged thirty-three, while engaged in a bar-room fight received a cut (made with a dirk-blade six inches long) in the abdomen, on right side, extending from the anterior superior spinous process of ilium to just over the symphysis pubis, passing through the abdominal parietes, peritoneum, and almost severing the small intestines in three places. I saw him in a few minutes after receiving the cut. Found him lying on his back on the sawdust-covered floor, the intestines protruding to the extent of six or seven feet and lying on the floor (to his right) in a mass of blood, sawdust, and fecal matter. He had lost considerable blood, but the hemorrhage had about ceased. His body was bathed in profuse clammy perspiration; his expression anxious; pulse, 128. He was given $\frac{1}{4}$ gr. morphine, with $\frac{1}{150}$ gr. atropia, hypodermatically, and $1\frac{1}{2}$ oz. brandy. He swallowed with difficulty. Mental faculties normal. With the assistance of Drs. R. D. Greene and T. L. Patterson, I dressed the wound in the following manner: After placing the protruded intestines in a basin of carbolized water, and thoroughly washing them, a search was made for the wounds from which came the fecal matter. Three wounds were found. The first was almost a complete division of the cylinder of the gut, only a small portion of membrane holding the cut ends together. This served as a guide in inserting the sutures and bringing the edges of wound close together. The second wound, about eight or nine inches from the first, was a transverse incision about three-fourths of an inch long. The third wound, three inches from second, was a longitudinal incision half an inch long. From each fecal matter escaped. These were closed with sutures of carbolized catgut. The abdominal cavity was washed and sponged out as thoroughly as possible under the circumstances, there having escaped into it a quantity of blood and fecal matter. On account of the great amount of intestine protruding, and the protruding portion being much distended by flatus (the patient being intoxicated, and intestines much distended) it was found impossible to reduce it. The external wound was amply large, there being no constriction. Attempts were made to "gently and carefully press the air back in the abdomen." This failing, a number of minute punctures were made with the point of the scalpel to allow the exit of gas. This accomplished, the reduction of the entire mass was easy. The external wound was closed with an uninterrupted silk suture, rubber adhesive strips and abdominal bandage were applied, and the patient removed to St. Joseph's Hospital. At 6.30 P. M. the same evening patient was resting easy; pulse feeble at 126; slight delirium and nausea; temperature, 98⅘°. Gave hypodermic of morphia, gr. $\frac{1}{4}$, and atropia, gr. $\frac{1}{150}$, and ordered 5 grs. of subnitrate of bismuth every four hours. On the following morning he was still resting easy; no nausea or delirium; wound looked well, and as if it might heal by first intention. On the fifth day his bowels acted freely, causing no pain or inconvenience. On the sixth day some ulceration at several points of the sutures was noticed. At these points the suture was cut, which caused the wound to gape, necessitating the bringing of the edges together with long strips of adhesive plaster. The wound continued to gape for about an inch near its lower edge, but filled in rapidly by granulation.

On the ninth day he had slight diarrhœa, due to imprudence in diet, which continued for two days. Subnitrate of bismuth and morphia were given to relieve this. The dressing used in this case was Listerine and water (1 to 12). Cloths wet with this were applied every four hours. Patient was kept on his back and liquid food given. On the seventeenth day he sat up, and in four weeks from the date of the injury he was discharged from the Hospital, having made a good recovery without a bad symptom.

CASE II.—On April 27, 1885, William R——, Irish, aged twenty-eight, brakeman on freight train on Chesapeake & Ohio Railroad, in making a coupling of the engine to the train attempted to raise the draw-bar, so that the coupling-link could enter, when the engine pushing back, the coupling-link struck him, and entered at a point about two and a half inches above the crest of the ilium, one inch to the left of the spinal column, and just below the last rib, passing directly through the abdominal cavity. The point came out about three and a half inches above, and one inch anterior to the anterior-superior spine of the ilium. The link is what is known as the "curved coupling-link," and weighs $17\frac{3}{4}$ pounds, is $5\frac{1}{2}$ inches wide, and 18 inches long. The patient states that he was "pinned or coupled between the engine and car several minutes," and when the engine pulled away from him, he placed one hand over the abdominal wound and the other over the wound in his back, and walked to the caboose, a distance of several cars' lengths, where he was placed on a cot and brought to St. Joseph's Hospital, at Lexington, Ky., a distance of twenty-six miles. He was first seen by Drs. T. L. Patterson and W. O. Sweeny, four hours and thirty minutes after the accident occurred.

On examining him it was found that the muscles of the back and abdomen were greatly lacerated; but a close examination of the intestines, liver, kidney, and stomach revealed no injury whatever. The entire hand and arm was easily pushed through the abdominal cavity, thus enabling a minute examination to be made. The intestines were pushed aside, and no appreciable injury done them. The wound was thoroughly washed with carbolized water, and the edges brought together with deep silk sutures, reinforced by thin strips of adhesive plaster. There was very little shock. Morphia and atropia were administered hypodermatically to relieve pain and secure rest.

The following gives an outline of the treatment pursued, as well as the temperature and pulse, beginning twenty-one hours after reception of injury:

Treatment.—The wound having been dressed so as to favor thorough drainage, the patient being kept on his

[1] Read before the Kentucky State Medical Society, at Crab Orchard, Ky., June 26, 1885.

back, morphia, $\frac{1}{4}$ grain; atropia, $\frac{1}{150}$ grain, given hypodermatically from one to four times a day as required, until the eleventh day. Liquid food—milk, and broths—was the only nourishment allowed. Symptoms of circumscribed peritonitis were noticed on the third day.

Day.	Time.	Temp. Fahr.	Pulse.	Day.	Time.	Temp. Fahr.	Pulse.
2d	9.00 A.M.	100	96	9th.....	9.00 P.M.	101 1/2	113
"	3.30 P.M.	102 2/3	120	10th.....	8.45 A.M.	99 2/3	116
"	10.00 P.M	102 2/3	130	"	2.00 P.M.	100	102
3d	9.50 A.M.	101 3/5	115	"	9.00 P.M.	99 4/5	104
"	2.00 P.M.	102 2/3	125	11th.....	9.30 A.M.	100 1/4	100
"	9.00 P.M.	103 1/3	130	"	4.00 P.M.	100 1/5	102
4th.....	9.25 A.M.	101 2/5	125	"	9.00 P.M.	100	98
"	2.30 P.M.	102 1/4	128	12th.....	9.00 A.M.	99	94
"	5.30 P.M.	101 1/8	120	"	4.30 P.M.	99	88
"	10.10 P.M.	101 4/5	125	"	8.10 P.M.	99 1/4	80
5th.....	8.30 A.M.	101 4/5	130	13th.....	9.30 A.M.	99	84
"	2.30 P.M.	102 2/5	128	14th.....	10.00 A.M.	99 1/4	90
"	11.45 P.M.	101 2/5	120	"	5.30 P.M.	100 1/2	86
6th.....	8.15 A.M.	100	112	"	10.30 P.M.	101	90
"	2.15 P.M.	101	110	15th	8.00 A.M.	98 4/5	84
"	9.30 P.M.	102 1/2	120	"	6.30 P.M.	101	96
7th.....	11.00 A.M.	101	108	"	10.00 P.M.	99	90
"	6.30 P.M.	103	128	16th.....	9.15 A.M.	98	83
"	10.00 P.M.	103	120	"	10.00 P.M.	98 1/2	80
8th.....	8.00 A.M.	100	96	17th.....	8.45 A.M.	98 1/2	84
"	2.15 P.M.	101 3/4	125	"	7.00 P.M.	100	86
"	8.00 P.M.	102 2/3	116	18th.....	10.00 A.M.	98 1/2	84
9th.....	8.30 A.M.	100 2/4	102	"	8.00 P.M.	98 1/2	80
"	4.00 P.M.	101 2/3	110	19th.....	9.00 P.M.	98 1/2	82

The abdomen became distended, tympanitic, and tender; respiration quick and labored; tongue dry. Warm fomentations were used, and tr. digitalis, 15 gtt., and spts. terebinthinæ, 15 gtt., given every fourth hour for thirty-six hours, when the inflammatory symptoms subsided. On the eighth day the sutures began to tear through the tissues, and a large gangrenous slough filled both wounds. Sutures were removed, and poultices of flax-seed and

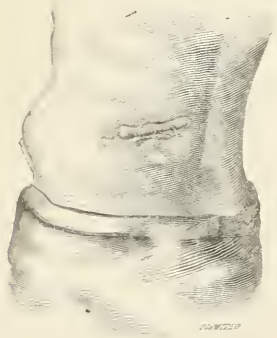

Fig. 1.—Entrance of link.

charcoal applied every four hours. Poultices were continued until the seventeenth day, when the slough had entirely separated, leaving healthy granulating wounds. These were thoroughly covered with iodoform and filled with carbolized oakum; the edges of wounds were brought together as close as possible, with a number of long, narrow adhesive strips. A heavy abdominal bandage was used throughout the entire treatment, to give support and retain the dressing. On the twelfth day a fluctuating tumor was discovered pointing over the junction over the lumbar and sacral vertebræ. A free incision gave exit to a large quantity of pus, after this the wound healed rapidly. Tr. ferri mur., 20 gtt., given every four hours until the sixteenth day, when the dose was reduced to 15 gtt., three times a day. On the thirteenth day chloral hydrate, gr. x., and potas. brom., gr. xx., were given to induce sleep. On the same day patient complained of pain in his bowels; an enema of warm soapsuds was given, resulting in two copious stools. After this the bowels acted daily. Appetite improved, and on the eighteenth day he was allowed to sit up in bed.

From this time no medicine but tr. ferri mur., 15 gtt., three times a day, and potas. brom., at night, was given.

Fig. 2.—Exit of link.

Solid food was allowed, and taken with a relish. The wounds were dressed with iodoform and oakum once or twice daily for several weeks.

Five weeks after reception of injury patient walked to my office, a distance of four blocks, and on the same day was photographed.

The illustrations are made from the photographs. Fig. 1 shows entrance of link, Fig. 2 shows the exit of link, Fig. 3 represents the link.

Remarks.—In Case I. the man was able to go to work (as section-hand on a railroad) seven weeks after receiving the injury. A pad and bandage had to be worn over the

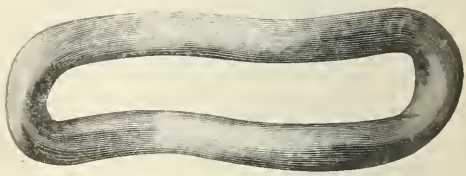

Fig. 3.—Link. Weight. 17¾ pounds; width, 5½ inches; length, 18 inches.

seat of injury on account of a small hernia at point of separation of muscular fibres. Union of the muscles was only partial.

Case II. was able to resume work (as brakeman on freight train) three months after receiving the injury. The union of wound in back was complete, that of abdomen incomplete, and a large hernia is the result. With aid of pad and bandage the man experiences no inconvenience in his work, climbing on top of cars, running, jumping, etc.

At this time, November 1, 1885, both men are in good health.

The Name of Dr. Benjamin Rush, the distinguished physician, patriot, and philanthropist of Philadelphia, has been on tens of thousands of tongues, and in hundreds of public journals during the last few months. Just one hundred years ago he published his celebrated essay on "The Effects of Ardent Spirits upon the Human Body and Mind." It was an elementary treatise, setting forth the pernicious influence of the strongest alcoholic beverages, and recommending "sudden and entire abstinence" from them. In lieu of ardent spirits he recommended coffee, cider, light wines, beer, and such drinks as could be compounded of molasses, vinegar, maple-syrup and water. His essay was republished in England, and one thousand copies of it were presented to the Presbyterian General Assembly in 1811; the good doctor himself visited various religious bodies and commended his views to them; so that he stands also as the pioneer temperance lecturer.—Dr. Theodore L. Cuyler.

CASE OF CÆSAREAN SECTION AFTER DEATH OF MOTHER.—SUCCESSFUL.

By J. MACK HAYS, M.D.,

OXFORD, N. C.

A SHORT while after eight o'clock on the evening of October 3d, I was hastily summoned to the wife of Mr. C——, living seven miles distant. On reaching the house I was informed that the patient was too far gone for me to do her any good. The following history was briefly given me: About four hours previously Mrs. C—— was in the yard looking after her domestic affairs, and enjoying, apparently, her ordinary good health, when she was suddenly attacked with a violent headache and sent in haste for her husband, at the mill, a hundred yards distant. When he reached the house she told him to send at once for the doctor, as she felt very sick, and her head hurt her terribly; then throwing her hands to the back of her head, fell on the bed with the exclamation, "I can't stand it!"

She was speechless from that moment, vomited frequently for some little time, several times threw her left hand to her head, and sank rapidly into the condition in which I found her. She was evidently suffering from an extensive cerebral apoplexy, presenting the following symptoms: Complete motor and sensory paralysis of left side of body; both pupils widely dilated and totally insensible to a bright light; very slow, stertorous breathing, and "drawing in of the paralyzed cheek with inspiration, and its puffing out with a sort of explosion in expiration;" pulse rapid and barely perceptible; face pallid. A sharp pinch on the non-paralyzed arm produced no evidence of sensation, nor did the hypodermics of whiskey which I administered as a forlorn hope. The patient was rapidly approaching her end, and was eight and one-half months advanced in pregnancy.

I satisfied myself from the husband that the child was probably alive, as he had heard his wife speak of having felt quickening the same day. I then laid the case clearly before the husband, telling him that while one life was fast passing away, another was at stake which might be saved even after the mother had breathed her last. He told me to do as I thought best. Accordingly I made the necessary preparations, and after all evidences of life had disappeared in the mother, and the bystanders sent out of the room, I proceeded without delay with the operation. With one stroke of my scalpel I incised the skin and subcutaneous tissues from the umbilicus nearly to the symphysis pubis; two incisions more, through the linea alba and peritoneum, exposed the uterus to full view; through it I next made an opening as low down as possible, and of sufficient size to admit my two fingers, at the same time liberating the liquor amnii. Using my fingers as a director I slit up the uterus to the placenta, which I easily detected. The body of the child was now fully exposed, lying in the second cranial position. I lifted it from the uterus, and by exerting some little force to overcome the suction brought to bear upon the head, removed a living male child from its dead mother. The cord was tied and cut as usual. The operation was attended with a very slight loss of blood, and that of a dark venous character.

The unusual shape of the child's head, born without any pressure having been exerted upon it, was quite noticeable.

The child is being fed on fresh cow's milk, diluted and sweetened, and at the present writing, October 15th, stands a fair chance of being raised. It makes the fourteenth child born of Mrs. C——, all of whom are living.

I will not inflict upon the reader any remarks upon the foregoing case, nor will I undertake at this time to give a *résumé* of previous operations of a similar nature, but would refer all who may be interested in the literature of the subject to the *American Journal of the Medical Sciences*, October, 1879; *American Journal of Obstetrics*, January, 1879; *Wiener Medical Wochenschrift*, No. 22, 1879; *British Medical Journal*, June 14, 1879; and to the *Index Medicus*, for more recent cases.

My thanks are due Dr. R. P. Harris, of Philadelphia, for kindly directing me in my search after statistics, etc., bearing upon my case.

BRIGHT'S DISEASE OF THE KIDNEYS.[1]

By R. C. M. PAGE, M.D.,

INSTRUCTOR IN DISEASES OF THE HEART AND LUNGS AND GENERAL MEDICINE, NEW YORK POLYCLINIC.

DR. RICHARD BRIGHT, of Guy's Hospital, London, first established the fact that albuminuria and dropsy coexisted with renal disease. That occurred in 1827. Since that time the subject has received such universal attention from the medical profession, and is so well known even to the laity, that the term Bright's disease has become a household expression.

Without entering upon the various classifications proposed by different authors, suffice it to say that the disease may be acute or chronic; the latter sometimes resulting from the former, or, more frequently, being chronic from the first. Whatever be the ultimate pathological result, all forms of the disease, except perhaps waxy degeneration, appear to be of an inflammatory nature at the outset. Both kidneys are attacked, and one portion of a kidney may be affected differently from another part of the same organ.

Acute Bright's disease (acute tubal or tubular, parenchymatous, desquamative, catarrhal, croupous, diffuse nephritis, inflammatory dropsy) usually has a well-defined outbreak and a cause not difficult to ascertain. Whatever the predisposition may be, exposure to cold and wet are frequently exciting causes. In these cases the inflammation is usually diffuse. Abuse of alcoholic beverages and exposure incident to intoxication may produce it. Other toxic agents which cause the disease when taken internally are copaiba, turpentine, cantharides, the mineral acids, phosphorus, arsenic, nitrate of silver, lead, and mercury. Sometimes, as is well known, it follows scarlet fever in children. In these cases the inflammation is usually limited to the tubules of the cortical substance, although in severe cases it may extend to the intertubular tissue here and there in spots. Or, coincidently, the child may also have diffuse nephritis from cold, especially during desquamation. Sometimes also it follows diphtheria and epidemic cholera. Occasionally it is developed in the course of measles, and, according to Flint ("Practice," fifth ed., p. 868), in pulmonary tuberculosis, articular rheumatism, typhoid and typhus fever, erysipelas, relapsing fever, acute lobar pneumonia, pyæmia, septicæmia, endocarditis, dysentery, carbuncles, and suppurative processes. Extensive burns are also mentioned by the same author as a cause.

In some cases pregnancy appears to favor the production of the disease, if indeed it does not actually cause it. According to Bartholow ("Practice," p. 482) it occurs not oftener than once in one hundred and fifty pregnancies. It is probable, therefore, that a predisposition exists in these cases, pregnancy being merely the exciting cause. According to the same author it occurs usually in primiparæ, and is more common in twin pregnancies. This accords with my own observations.

All persons are subject to the disease, but it occurs more frequently among children and those under middle life. Men are said to be more subject to it than women, and it occurs sometimes among those who were apparently in previously robust health.

Dropsy is usually the first symptom that causes the patient to seek medical advice. It is probably due to loss of albumen, thus allowing the watery portion of the blood to transude more readily, aided, in some cases, by pressure due to diminished excretion of water by the

[1] Read before the Section of Practice of Medicine, New York Academy of Medicine, November 17, 1885.

kidneys, and the anæmic condition of the patient. Along with this there are pallor of the face, and more or less uræmic symptoms, such as drowsiness, headache, nausea or vomiting, paroxysmal attacks of dyspnœa, temporary disturbance of vision, and the like. These are all readily described by the patient, or those in attendance, without even waiting to be questioned. Upon investigation, however, it will usually be found that, a short time previously, there were chilly sensations, or a distinct chill, followed by more or less febrile excitement. Pain in the back, unless associated with lumbago, is usually absent, but there may be tenderness under firm pressure.

The urine is scant and high-colored, sometimes smoky or even bloody. The specific gravity is higher than normal, sometimes going up to 1.030, or even 1.065 (Roberts), and is loaded with albumen. It contains epithelial casts usually, but there may be also blood and hyaline casts.

The presence of albumen in the urine is probably due to its transudation through the walls of the renal capillaries from increased tension. If rupture occurs, blood also will be found. After structural changes have taken place the albuminuria will continue. According to Cohnheim, however, the albuminuria is due to changes in the epithelium of the glomeruli.

Albumen appears in the urine transiently, and in moderate quantity, in connection with other conditions than Bright's disease. It sometimes occurs in the course of dyspepsia, as in a case that came under my charge five years ago. Dr. Francis Delafield critically examined the urine, and Dr. Alonzo Clark, being called in consultation, confirmed the diagnosis of dyspepsia. The patient completely recovered. The albuminuria was probably due in this case to nervous depression, attended with temporary vaso-motor paralysis and dilatation of the renal capillaries. Occasionally albumen is found in the urine of soldiers after exhausting marches, and athletes, and is probably due to the same cause. Such cases accord with Runeberg's theory of diminished pressure.

There is no possibility of mistaking albumen in the urine for anything else, if the heat and nitric-acid tests be used with proper care. Even in those cases where there is only a trace of albumen, Heller's test is the best. Peptones, and all derivatives of albumen, and vegetable alkaloids, clear up under heat. If Heller's test, therefore, gives a film which remains under heat, it is albumen. Moreover, peptones and the like are of little or no clinical significance, except as indicating dyspepsia. If resinous substances are suspected, alcohol should be added to dissolve them. This occurred several years ago at Professor E. D. Hudson's clinic, where urine had been brought in a vial containing some resinous liniment.

In unfavorable cases œdema of the lungs may occur, also secondary inflammations of serous membranes and the lungs, but these are far more frequent in the chronic form.

Besides the uræmic symptoms already mentioned, there may be convulsions and coma. The cause of these symptoms is also a matter of dispute. The most commonly received opinion has been that they were due to urea retained in the blood. Frerichs believed that the urea was converted into ammonium carbonate by decomposition from the action of a ferment in the blood. This theory, according to Loomis ("Practice," p. 538), has been disproved. According to Oppler, Zalesky, and others, the uræmic phenomena are due to the retention in the blood and tissues of creatine, creatinine, and other extractives, the urea and uric acid being formed by the kidneys themselves, and present in the blood by absorption. On the other hand, Traube considers that the so-called uræmic symptoms depend upon œdema of the brain and cerebral anæmia. Niemeyer (vol. ii., p. 29, Am. trans. eighth Germ. ed., 1881) goes so far as to discriminate between symptoms due to uræmia, and those dependent upon such œdema. Other causes, including cerebral lesions, have been advocated by different authors.

In favorable cases the patient usually recovers in about six weeks. Roberts mentions a case that completely recovered in ten days. The patient may also recover after several months or more.

The diagnosis is usually simple, and the prognosis nearly always favorable, especially if the patient is seen early. According to Roberts, the prognosis is more favorable in the aged than in the young. With others it is just the reverse. The longer the albuminuria continues, the more unfavorable the prognosis, and recovery cannot be said to be complete until it has entirely disappeared.

Regarding treatment, authors prudently recommend that the patient be kept warm in-doors, and in bed, if necessary, and among other means, diaphoretics. Of these I would prefer the hot-air bath or other mechanical means to the administration of drugs, except in the case of marked uræmic poisoning, as will be noticed hereafter. Cups to the loins, with or without scarification, and hot fomentations, are also recommended. Of the two I prefer hot poultices, as they are more comfortable to the patient, and are, I believe, equally efficacious. Unless properly applied and kept hot, however, they are a delusion.

All these means may be employed, it is true, but in the last six cases treated by me at the Northwestern Dispensary, in this city, I have found them unnecessary. The patients were from puberty to thirty-two years of age, and walked to the dispensary for treatment. In all, dropsy was a prominent symptom. One of them, a lad eighteen years of age, was so disfigured by swelling that his most intimate acquaintances could scarcely identify him.

The question naturally arises, Shall we give diuretics? and if so, at what stage of the disease? In cases of tubal nephritis, as is usual when the disease is caused by the infection of scarlatina, I have found that the diuretic treatment alone is sufficient to effect a speedy and complete cure. The diuretic employed is the one recommended by J. Hughes Bennett (potass. acetat., ʒ ij.; spts. ether nitrosi, ℥ ss.; aquæ ad ℥ ij.; sig. ʒ j. t.i.d.)

But in cases of acute diffuse nephritis, as usually occurs among adults from exposure to cold, we have a more serious pathological condition to deal with. The tubules are not merely obstructed with epithelium that may be easily washed out by diuretics, they are effectually blocked by epithelium and exudatory matter within, and without by pressure from interstitial inflammatory products. According to Recklinghausen, the white corpuscles of the blood play an important part in separating the epithelium from the inner surface of the tubules. In this condition I doubt if diuretics are indicated. I prefer to wait until the more acute symptoms have subsided before their positive administration, their use being simply to wash out the tubules.

The first thing I do in such cases is to administer a hydragogue cathartic. It unloads the bowels, relieves pressure on the kidneys, and lessens inflammatory action in those organs, thus preparing the way for diuretics.

After a fair trial in one hundred and seventy-five cases of œdema and general dropsy at the Northwestern Dispensary, assisted by Dr. J. C. Mackenzie, pulvis purgans (pulv. jalap. co.) was found to be more certain and uniform in its action, and better for general use than elaterium, although the latter was obtained from some of our leading drug stores. Elaterium may be invaluable, however, in uræmic coma, owing to its rapidity of action sometimes, and the facility with which it may be given. A drachm of the pulvis purgans may be given, and the dose repeated if necessary.

Deterioration of the blood occurs early, and I usually give twenty drops tr. ferri chloridi in water, every three hours, from the start. According to Roberts, iron acts very beneficially, and hastens in a marked manner the disappearance of blood and albumen from the urine. But he suggests that, when begun too early iron is apt to induce a return of the acute symptoms. On the contrary, where

I have given iron from the first, I have not observed any such effect.

After about a week, when the more acute symptoms have subsided, I combine the iron with tr. digitalis and a bitter tonic (cinchonid. sulph., ʒj.; tr. ferri chloridi, tr. digitalis, āā ʒij.; aquæ ad ℥ij. Sig. ʒj. t.i.d.). A good milk diet is indispensable. In all my cases the milk was furnished by the New York Diet Kitchen for the Sick Poor.

Should uræmic symptoms become urgent, or convulsions occur, I prefer the hypodermic morphine treatment, as advocated by Loomis (op. cit., p. 542), to the administration of chloroform. Both chloroform and ether may fatally depress the heart, which sometimes acts as it does in shock. It would be interesting here to inquire whether or not renal disease has any bearing on the cause of death that sometimes occurs during the administration of chloroform and ether for surgical operations. The morphine may be given first, and other means employed afterward. In a limited number of cases, however, I have given morphine and pilocarpin together hypodermically, with good results. A grain of muriate of pilocarpin is dissolved in eighty minims Magendie's sol. morph., of which ten minims are injected. The morphine sustains the heart and allays nervous excitement and dyspnœa, while the pilocarpin materially aids in eliminating the poison through the skin. Both indications are thus met at once. The morphine alone may be repeated if necessary, or given in larger doses at first, but great care should be taken not to give large doses of pilocarpin, owing to its depressing effect on the heart.

In the autumn of 1883, I first gave morphine and pilocarpin combined. The case was a boy, aged fifteen years, with a severe attack of bilious remittent fever, and was seen with me by Dr. H. Koplik, of this city. In spite of large doses of quinine the temperature rose to 105° F., the urine became almost suppressed, bloody, and highly albuminous, and the patient delirious, partly from fever, and partly, as I thought, from uræmic poisoning. In less than half an hour after the injection he was bathed in a profuse perspiration, and soon became conscious. The quinine was pushed, and the patient entirely recovered within a week. Should coma occur, elaterium alone, or in conjunction with other means, may be sufficient, as occurred in a case at Bellevue Hospital seventeen years ago. By order of Dr. Austin Flint, Sr., I gave the patient, who was a man about thirty-five years, two grs. of Clutterbuck's elaterium. He was made to swallow by manipulating the larynx, but it may also be given with a tube. The remedy proved successful and the patient left the hospital afterward, much improved, though not cured.

After a complete cure of acute Bright's disease, the patient should be made to understand that care must be taken for a long time not to bring on a relapse by acts of imprudence. Temperate habits, and comfortable, but not too warm, clothing are necessary.

Chronic Bright's disease may assume one of three typical forms, according to the renal elements affected. 1. The tubules. 2. The interstitial tissue. 3. The blood-vessels. Or there may be, and generally are, mixed cases in which all these anatomical elements become more or less involved.

1. Chronic tubular (parenchymatous) nephritis may result from one or more acute attacks, or generally it is chronic from the first. The kidney is large, smooth, and white, the changes occurring chiefly in the cortical portion; or it may subsequently undergo collapse from disintegration of the tubal elements and become smaller than normal. The etiology in general is the same as that of the acute disease, but is often obscure. It may occur at any age, in both sexes. The symptoms are more marked than in any other form, dropsy being prominent and the face pale and puffy. There is also more liability to secondary inflammations of serous membranes, and uræmic symptoms. The urine is scant, above normal sp. gr., and high colored. It is loaded with albumen and contains fatty and hyaline casts. Dyspnœa, besides paroxysmal uræmic attacks, sometimes occurs, due to œdema of the lungs, or other intercurrent affection of the organs of respiration or heart. Besides temporary disturbance of vision due to uræmia, there may occur neuro-retinitis, to be detected by the ophthalmoscope. Cardiac hypertrophy, with or without valvular lesions, sometimes occurs. The valvular lesions may be due to some previous disease, or developed during the renal affection. Simple hypertrophy of the left ventricle without valvular lesion may exist, but it is more frequent in connection with cirrhotic kidney.

2. Chronic interstitial nephritis is productive of the cirrhotic kidney. The organ is red and smaller than normal, due to shrinkage of the cortical portion, and also the tissue between the pyramids. The disease is chronic from the first, and occurs usually in men past middle life. It is caused by habitual intemperance, gout, rheumatism, syphilis, chronic lead-poisoning, and the like. Often the etiology is obscure or unknown. It begins insidiously, and may have existed months before detection. There is generally little or no dropsy. A slight fulness under the eyes (called *pods* by the laity), and, perhaps, about the ankles, may be all that the closest inspection can reveal.

The urine is abundant, pale, and of a lower specific gravity than normal. It contains but little albumen, and at times may be entirely free from it. The casts are hyaline and granular. From a fit of intemperance, or other cause, acute tubular nephritis may supervene with its usual symptoms, notably dropsy and albuminuria.

Simple hypertrophy of the left ventricle, without valvular lesion or degeneration of muscular fibre, often occurs in this form. According to Traube, it is owing to increased resistance to the renal circulation, but Bartholow (p. 496) and others consider additional obstruction in the arterioles throughout the body due to hypertrophy of their muscular layer. Neuro-retinitis, apoplexy of the retina, and even of the brain, may occur in this form.

3. Lastly, we have waxy (lardaceous, amyloid) degeneration of the kidney. The afferent vessels of the glomeruli are primarily affected, and it is secondary to some other pre-existing wasting disease, as caries, phthisis, syphilis, and the like. I have observed it mostly in connection with the last stages of pulmonary consumption. Parenchymatous nephritis usually supervenes, and it is attended with more or less dropsy.

Regarding treatment, little or nothing can be done in case of waxy kidney. In chronic tubular (parenchymatous) nephritis, treating symptoms may become necessary, a general outline of which was given in the acute disease. Pricking the skin for the relief of dropsy is not to be thought of, and bandaging may contribute to œdema of the lung, as in a fatal case reported by Dr. D. H. Stewart, of this city. The repeated use of pilocarpin as a curative agent has not, in my experience, been justified by results. As a temporary makeshift for uræmic poisoning, when combined with morphine, I believe it worthy of further trial. In cirrhotic kidney, if the patient had syphilis, potassium iodide, with or without the mercuric chloride, or, in case of chronic plumbism, the potassium iodide alone may be given. In a number of cases I have given small doses of the mercuric chloride in some bitter tonic, after the plan in vogue at the old New York Hospital, 1867–68, but without permanent benefit. Iron and bark, with or without digitalis, are recommended. Paroxysms of uræmic dyspnœa, occurring in any form of the disease, may be relieved by hypodermic injections of morphine, as I witnessed at Bellevue Hospital, 1868, in Dr. Loomis' service. The diet should be nutritive, consisting largely of milk. Clothing should be comfortably warm, and the patient should winter, if possible, in a warm, dry climate. With the best treat-

ment, however, and every precaution, although the patient's condition may be improved and life prolonged, the tubular (parenchymatous) form of chronic Bright's disease is the only one ever cured, I believe, and even here recovery is very rare.

31 West Thirty-third Street, November, 15, 1885.

A CASE OF ACUTE GENERAL TUBERCULOSIS DIAGNOSTICATED, DURING LIFE, BY THE PRESENCE OF TUBERCLE BACILLI IN THE SPUTUM.[1]

By EUGENE HODENPYL, M.D.,

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Joseph K——, aged thirty-five, a truck driver, was admitted into the St. Francis Hospital, New York, March 16, 1885. His family and previous history were good. Was a moderate drinker; had gonorrhœa once; no evidence of syphilis. Patient stated that two weeks before admission he developed, without apparent cause, a moderate cough, at first without expectoration, accompanied with fever, loss of appetite, and exhaustion.

On admission the rectal temperature was $104\frac{4}{5}$° F.; pulse, 100, and somewhat feeble; urine normal. He had a slight cough, and occasionally expectorated a small quantity of tenacious mucus. He was very apathetic, and the expression of his face was dull and stupid.

Physical examination revealed a moderate degree of bronchitis, most marked posteriorly. The liver was somewhat tender on pressure, and the spleen was slightly enlarged. The bowels were regular until the last few days of the disease, when there was diarrhœa with incontinence of urine and fæces. While in the hospital, his temperature was extremely irregular, varying from 100° to 106° F. At no time did he complain of pain. His bronchitis remained moderate. The apathy gradually merged into coma, which was complete at the time of his death, April 16th.

On April 3d a small quantity of the expectoration was obtained, with difficulty, and was found to contain tubercle bacilli in moderate numbers. A diagnosis was then made, based first upon the presence of tubercle bacilli in the sputum of the patient who gave no indications of phthisis. Secondly upon the very indefinite character of the clinical symptoms.

Autopsy.—Brain and meninges normal. Heart smaller than normal in proportion to the size of the body, and in the cardiac muscle were several miliary tubercles. Lungs: There was a catarrhal inflammation of the smaller and medium-sized bronchi. Scattered throughout both lungs were an enormous number of rather small, sharply outlined miliary tubercles. In the apex of the right lung was a nodule about the size of a walnut, apparently composed of dense connective tissue.

The bronchial glands were enlarged and the seat of a tubercular inflammation. Portions of them were in a condition of cheesy degeneration, forming semi-fluid masses. The liver, kidneys, diaphragm, and omentum contained miliary tubercles; also the spleen, which was enlarged and soft.

Microscopical examination.—The tubercles in the lungs are irregular in shape and frequently merge into one another. Microscopically, they consist in general of groups of air-vesicles and smaller bronchi, whose outlines are still fairly distinct, and are filled in part with tubercle tissue, and in part with a dense structureless, cheesy material. The air-vesicles in the periphery of the nodules show desquamation and proliferation of the vesicular epithelium. So abundant are the tubercles, and so extensive the peripheral inflammation, that on section of the lungs somewhat more than one-half the air space is solidified. Giant cells appear to be entirely absent from these pulmonary tubercles. Tubercle bacilli were present in very large numbers. These tubercles, as will be seen from the above description, are similar to the miliary tubercles frequently found in the lungs of children, and which usually contain great numbers of tubercle bacilli. In children they are sometimes called pneumonic tubercles. Microscopically, the tubercles in the other internal organs presented no morphological features worthy of remark.

Remarks.—The difficulty of diagnosis in cases of acute general tuberculosis is so great, that at the time of Koch's announcement of the discovery of the tubercle bacillus, it was hoped that in this disease, as in phthisis, examination of the sputa might furnish us with a definite means of diagnosis. Thus far, however, the examinations of sputum which have been made in this disease have given negative results, no tubercle bacilli being found. Recourse was accordingly had to examinations of the blood[1] from the spleen, removed by puncture. This procedure has proven successful.

The above case seems worthy of record, because examination of the sputum did show tubercle bacilli and upon the result a diagnosis was possible. The recorded cases are too few to enable us to say whether this result is exceptional or not; for the difficulty of obtaining suitable sputum, and the short duration of the disease, together with the uncertainty which always exists in examinations for tubercle bacilli when they cannot be repeated in case of failure, would readily explain negative results.

It should be borne in mind as possibly bearing upon this case that the tubercles in the lungs were not of the type usually found in adults, but were loose in texture, exceedingly abundant, intimately connected with the bronchi and contained unusual numbers of tubercle bacilli. In regard to the source of immediate infection, it was undetermined, as unfortunately the vessels at the bases of the lungs (pulmonary veins and thoracic duct) were not examined, but the tubercular bronchial glands furnished conditions which, according to the researches of Weigert[2] would serve as a focus of infection.

In whatever relation the above-mentioned nodule of connective tissue at the apex of the right lung may have stood to the present acute disease, its firm, dense character, and the absence of any other phthisical process whatever in the lungs, would seem to preclude the possibility of the bacilli coming from any other source than the acute lesion.

43 Seventh Avenue, Brooklyn, N. Y.

[1] A contribution from the laboratory of the Alumni Association, College of Physicians and Surgeons, New York.

[1] Alexander Lustig: Wien. Med. Wochensch., 1884, xxxiv., 1429–1431. Weichselbaum: Vortrag gehalten am 29 Feb., 1884, in der K. K. Gesellsch d. Aerzt in Wien. W. Meissels: Wien. Med. Wochensch., October 1884. Rutimeyer: Centralbl. f. klin. Med. Leipzig, 1885, vi., 353. G. Sticker: Ibid. vi., 441.

[2] Phila. Med. News, July 5, 1884. Verbreitungswege der Tuberkelgift. Jahrbuch für Kinderkrankheiten, 1884, 21–146. Wege der Tuberkelgifts su Serösen Häuten, Deutsche Med. Wochens. hrift, 1883, ix., 453.

Preventive Inoculation by a Russian Priest.—A Siberian journal states that in 1868, when the plague was killing all the cattle in the country, Father Andrew Joakimansky, of the Troitzky village, resorted to a desperate means in order to save his cows. He got some blood from a dying cow, saturated threads with that blood, and passed these threads through the ears of the healthy cows, numbering eleven. At the place where the ears were punctured there appeared tumors of the size of pigeon eggs. In a short time these tumors disappeared, and the cows remained alive and healthy, though the rest of the cattle of that village perished.

The French Association for the Advancement of Science.—The next meeting of this Association will be held in 1886, at Nancy. The session will be presided over by M. Friedel, the vice-president of the Grenoble meeting. Dr. Rochard has been elected vice-president for 1886.

Clinical Department.

TEETH IN A NEW-BORN CHILD.

Dr. T. A. O'Callaghan, of Worcester, Mass., writes that Mrs. H—— gave birth in January last, to her seventh child, a large healthy boy. Pain on nursing suggested to the mother an examination of her child's mouth, when she discovered the two lower incisors protruding from the jaw fully one-sixteenth of an inch. These two teeth still remain, are perfectly sound, and differ in no way from their companions which have since appeared, except that they are larger.

COCAINE IN HAY FEVER.

Dr. W. Cheatham, of the University of Louisville, Ky., writes that he has had quite an extensive experience in this direction during the past summer, and has been well satisfied with the results obtained. Nearly all the head symptoms are relieved by applying a cocaine solution to the anterior two-thirds of the nasal cavities, and in the few cases in which the itching and discomfort about the eyes still remain, they are relieved by occasionally dropping the solution on the conjunctiva. In this case, since cocaine dilates the pupil and affects somewhat the accommodation, eserine sulphate may be added in the proportion of $\frac{1}{100}$ grain to a drachm of the four per cent. solution, or $\frac{1}{200}$ grain to the same amount of a two per cent. solution. The asthma is readily and entirely relieved by making an application to the posterior ends of the inferior turbinated bones, to the pharynx, and in some cases to the larynx also. These two sensitive areas, Dr. Cheatham says, have not, as far as he knows, been noticed by writers on the subject, but he has found that the pharynx is implicated in most cases, and the larynx in a few. In applying the drug to the nose a piece of absorbent cotton, large enough to reach to the posterior extremity of the inferior turbinated bones, and to fill comfortably the middle meatus, is wet with the solution, introduced and allowed to remain about twenty minutes. In some cases, however, in addition to this and dropping into the eye, applications must be made to the soft palate, pharynx, and occasionally to the larynx, in order to reach the several sensitive areas and control the asthma. Dr. Cheatham relates several illustrative cases in which confirmed hay fever subjects were relieved of all their distressing symptoms by cocaine. In several young patients great comfort was obtained by the use of a strong infusion of coca leaves in an atomizer. Boroglyceride was added in the proportion of one ounce to the pint of infusion in order to preserve it. The writer concludes by expressing the belief that many, probably the majority, of hay fever sufferers can remain at home without any marked discomfort, if taught to use cocaine properly. And most of the remainder can also do so by submitting to active treatment designed to correct the nasal hypertrophy, deflected septum, polypus, or other affection to which many of them are subject. The best treatment for these conditions is cauterization by chromic acid, the galvano, or the actual cautery.

THE ANTIPHLOGISTIC ACTION OF MENTHOL.

Dr. Selwyn A. Russell, of Albany, N. Y., writes to call attention to the use of menthol as an antiphlogistic and anodyne remedy in superficial inflammations, in which, he says, its effects are truly remarkable. "My discovery of its value in such conditions was quite accidental; a patient who was suffering from acute aural perichondritis, failing to obtain relief from the usual anodyne applications, bethought himself of menthol which he applied by means of the ordinary pencil; the relief from pain was immediate, and from that time, to my surprise, the inflammation quickly subsided. I have since made frequent use of it, and I believe inflammations have aborted which, without it, would have ended in abscess; and in addition the pain, itching, heat, and swelling have been considerably reduced. I have used the ethereal solution (alcohol is also a good solvent) in the strength of from ten to fifty per cent., applying it by means of a camel's-hair pencil. The applications may be made two or three times a day, or more or less frequently according to the indications. A solution in one of the fixed oils may be used on mucous membranes. I have observed the good effects of menthol more especially in boils, carbuncles, excessive inflammation following vaccination, etc. The employment of this substance in superficial neuralgias, for its anodyne effect alone, is often very satisfactory, but its use in this way has been noticed and written upon by others."

COCAINE IN OPERATIONS ON THE PREPUCE.

Dr. Charles Graefe, of Sandusky, O., writes: "Apropos of Dr. Bruce's article in The Record of October 31st, I should like to describe a case I had last March. A young man came to my office desiring relief from a phimosis, and as the foreskin was not much lengthened, though constricted, I decided to operate after Roser's method of incision. Preparatory to the operation, I rubbed a five per cent. solution of oleate of cocaine, and during the time it took to get my instruments and thread my needles, I had the patient hold a small piece of cotton saturated with the same solution along the proposed line of incision. During the operation, which was completed in about ten minutes, the patient experienced no pain, and even held the cutaneous and mucous layers together while I sewed them. He afterward said that he experienced more during the removal of the sutures than he did when they were put in."

ABNORMAL MOBILITY OF THE TONGUE.

Dr. T. F. C. Van Allen, of Albany, N. Y., reports another case of the above. S. A——, now a practising physician, was a student at the time when he kindly permitted me to examine his fauces. He had never suffered from more than an occasional "sore throat," nor had he ever developed the mobility of his tongue by practice. The tongue, fauces, and palate appeared to be perfectly normal. He could with perfect ease place the tip of his tongue into the naso-pharyngeal space, and apply it to the openings of the Eustachian tubes, to the vomer, and turbinated bones.

RESECTION OF THE ANKLE-JOINT.

Dr. C. S. Van Riper, of Paterson, N. J., reports the following case of resection of the ankle. The patient, a German woman, thirty years of age, was admitted to St. Joseph's Hospital, suffering from disease of the ankle-joint. She stated that one afternoon, some twelve weeks previously, she had experienced a dull, aching pain in the heel for a time. This pain came and went for a few days, and finally became persistent, and was accompanied with swelling. Both ankles were affected at first, but after a time the trouble appeared to centre on the left side. On admission to hospital, the ankle was found much inflamed, having a brawny appearance, and presenting a point of fluctuation over the external malleolus. A diagnosis was made of fungous arthritis, and it was decided to resect the joint. An incision was made on either side, from a point about two inches above the end of the malleolus downward over this process and on the side of the foot, in a curved line, to about two inches below the tip of the malleolus. The lateral ligaments

were divided, and then, the posterior tibial artery and the tendons of the flexor longus digitorum and tibialis posticus being protected by a retractor, the internal malleolus was divided by bone-forceps, and removed. The foot was then firmly grasped by the hand, and luxated toward the inner side, exposing the articular surface of the tibia and the external malleolus. A thin layer of bone from this surface was removed by the saw, and the diseased portion of the astragalus gouged away. The foot was replaced, and, a decalcified bone drainage-tube being inserted, the wound was closed by interrupted sutures. The foot was then immobilized by means of a splint, consisting of galvanized iron foot- and leg-pieces, joined by a stout iron bar, curved so as to permit of the application of the dressing to the wound. The splint, being well padded with felt, was attached to the foot and leg by a plaster-of-Paris bandage. When this had become firm, the wound was syringed out with a sublimate solution of the strength of one to three thousand, dusted with iodoform, and enveloped in an antiseptic dressing, and the limb suspended from a horizontal bar passing over the foot of the bed. The dressings were changed every eighth day, and at the end of two months the wound was entirely healed, and the patient allowed to leave the bed, the ankle being protected by lateral supports attached to the shoe. The operator was assisted during the operation and in the after-management of the case by Dr. Carroll, the house-physician to St. Joseph's Hospital, to whom he desires to acknowledge his indebtedness. The patient is now able to attend to her work in the mill, but uses a cane when walking in the street, as she is afraid of stumbling. The removal of the internal malleolus, and luxation of the foot, the writer says, render the operation more easy of performance, and reduce the risk of injury to the posterior tibial artery to a minimum, since this vessel is not put on the stretch.

Progress of Medical Science.

The Use of Carbonate of Ammonia in Cerebral Hemorrhage, Thrombosis, and Embolism.—Dr. R. C. Van Wyck, in *Gaillard's Medical Journal*, claims the following advantages for the carbonate of ammonia in the treatment of cerebral hemorrhage, thrombosis, and embolism: 1. As a diffusible stimulant to the general circulation, relieving the anæmia which is present in the brain, increasing the cutaneous circulation, and inducing perspiration—relieving in this way intercranial pressure. 2. By its direct action in dissolving the clot. The only agents which possess this property are the alkalies, and the most effective of these is ammonia. 3. In œdema and congestion of the lungs, so often seen in apoplexy, the use of this salt will often relieve the existing condition, partly by its stimulating action on the terminal capillaries, and also by its expectorant action on the broncho-mucous membrane. 4. By keeping up the alkalinity of the blood, and preventing further thrombosis. I do not claim this drug as a specific, but only an auxiliary to other remedies. In the treatment of a case of cerebral hemorrhage, the following would seem to me the order of treatment: 1. The prodromal symptoms which threaten an attack of apoplexy, by prompt venesection and catharsis. 2. To relieve the period of reaction, after paralysis has taken place, by arterial sedatives, preferably aconite. 3. To remove the exudation and all retrograde changes in the clot, anæmia, pulmonary congestion, and further thrombosis, by the free use of carbonate of ammonia. 4. To support the system by nourishing yet unstimulating diet, and by the use of medicines which nourish the brain tissue, such as syr. lacto-phosphate of lime, cod-liver oil, and the phosphide of zinc. 5. To increase the muscular development by massage-frictions, electricity, and strychnia. The carbonate of ammonia should never be given in cerebral hemorrhage until the period of reaction has fully taken place, say from ten days to two weeks. It should then be given continually for at least a month or more, or until the retrograde changes in the clot are accomplished. In thrombosis and embolism, if the diagnosis can be clearly made, it should be given at once. The dose used was five grs. three times daily in ʒ ss. of the solution liquor ammoniæ acetatis. There is one class of cases in which the carbonate of ammonia has not acted well in my hands, viz., cerebral hemorrhage associated with interstitial nephritis and hepatitis. In these cases I have had good results from the phosphate of sodium twenty to thirty grains, three times daily in the infusion of dandelion, given after meals, and small doses of corrosive sublimate, $\frac{1}{24}$ gr. three times daily before each meal. I have sometimes combined it in a pill with digitalis and squill.

Ready Method of Applying Dressings to the Perineum.—In *The Lancet*, October 3, 1885, Dr. Laffan draws attention to a ready method of applying dressings to the perineum. His advice is as follows: Take an ordinary elastic cricket-belt. Buckle it round the waist next the skin. Any handkerchief tied before and behind passing between the legs will furnish a perineal bandage, for which he claims the following advantages: The belt, being elastic, yields readily to any strain, and thus accommodates itself to all changes of posture, without altering the position of the handkerchief with reference to the part whereon the dressing is applied. It is to be found in almost every house; it is easily adjusted; and it does not in any way interfere with locomotion, or with the free movement of the abdominal muscles.

The Etiology of Asthma.—The dependence of some forms of spasmodic asthma upon the presence of nasal polypi or other morbid conditions of the naso-pharyngeal tract, has been of late much discussed in Germany. A wider view is that taken by Dr. Schadewaldt, who declares that for some years past he has been convinced that genuine spasmodic asthma is due to reflex excitation from a hyper-sensitive nasal mucous membrane, whether there be any anatomical change visible or not (*The Lancet*, October 3, 1885). If this conception of asthma as a "nasal trigeminal neurosis" be held, so that the sphenopalatine ganglion is regarded as the special asthma centre, he thinks that a sufficient explanation is given of the violent phenomena of the paroxysms. In severe attacks an excessive degree of reflex excitability may be overlooked; and it must be borne in mind that a hysterical temperament especially favors asthma. He further thinks that if this doctrine be accepted, an advance may be made in the treatment of asthma, and is surprised that the nasal symptoms characteristic of the affection have been so long disregarded. Upon this we would remark that undoubtedly in some cases true spasmodic asthma is preceded by, or the paroxysms alternate with, violent attacks of sneezing; but, on the other hand, there is often no pronounced disposition to bronchial asthma (at least in its well-marked and severe form) evinced by the sufferers from "hay asthma," which must surely be regarded as a marked instance of "trigeminal neurosis." Dr. Schadewaldt, however, adduces other arguments in support of his view, and indicates a method of diagnosis by excitation of the nasal branches of the fifth by means of the nasal sound. He asserts that fumigation of belladonna or stramonium leaves soaked in strong solution of nitre forms the best means of calming the asthmatic paroxysm, and is far better than smoking, unless the fumes are inhaled into the nostrils. Facial neuralgia or headache often follows the subsidence of the asthmatical paroxysm; and this he adduces as another proof of the trigeminal nerve being the origin of the disturbance. Physicians will be grateful for any fresh light that is thrown upon the nature of spasmodic asthma, and especially upon the possession of remedies which will have a more lasting effect than any now in vogue. Perhaps if attention be directed to topical medication—by means of

pencilling or snuff-taking—of the nasal mucous membrane rather than of the whole respiratory tract, a more certain method of relief may be found, at least in those cases where it is impossible to assign any other source of reflex irritation.

Is Alcohol a Food?—Regarding the much-disputed fate of alcohol in the animal system, Professor Cloetta recently published some original investigations. The conclusions he arrives at are: That alcohol becomes converted in the system into carbon dioxide and water; that only a very small proportion passes off as alcohol by the lungs, kidneys, and skin, and that nearly the whole of the quantity consumed becomes oxidized. None is found in the fæces or milk. In moderate doses it has no influence on the body heat, and it only lowers it when taken rapidly and in large quantity, the effects being the same whether fever is present or not. In the tissues, in consequence of absorption of oxygen by the alcohol, tissue metamorphosis is checked, and the essential constituents of the urine are diminished. Alcohol is in so far a food, that it protects against too rapid consumption. It is thus an important agent in febrile cases in daily divided doses of five to seven drachms. In larger doses its importance as a nutrient and conserving agent recedes, and its effects become injurious, and accumulation of the terminal products of tissue metamorphosis takes place, along with increase of uric acid and urea. This fact indicates that oxidation in the tissues has its limits, and that the terminal products of tissue metamorphosis may be produced in other ways.—*Medical Press*, October 21, 1885.

The Treatment of Cephalocele and Spina Bifida.—A paper by Professor Schatz, of Rostock, on the respective advantages of expectant and operative treatment of cephalocele and spina bifida, is of some interest when considered in relation with the report lately presented to the Clinical Society by its Spina Bifida Committee. Taking as his text the expressed opinions of Heinecke and Steffen, both of whom speak in gloomy terms of the prospects of success after any radical operation, he presents a list of cases of encephalocele to illustrate the relative prognosis with and without operative interference. Of 105 cases, 59 were occipital and 46 frontal in position. Of the former, 24 were left untreated, and only 3 recovered, 35 were operated upon by incision, injection of iodine or ligature, with 6 recoveries. Of the frontal encephaloceles, 6 out of 32 survived without treatment, and only 3 out of 14 cases after operation. A few cases of spina bifida, quoted from Lorinser, show much the same proportion of success, and, in the opinion of that author, justify the view that no operative interference should be attempted when it can be clearly shown that a communication exists between the sac and the vertebral canal. Professor Schatz himself considers that operation is only justified when there is no such communication, and when the tumor is covered with healthy skin, is fully translucent and not painful. In other cases, however, he would endeavor to secure the isolation of the tumor from the arachnoid cavity by means of graduated constriction or pressure calculated to set up a process of plastic adhesion, when applied to the base or pedicle, if there be one, of the tumor. He relates the particulars of three cases in which he operated by emptying and removing the sac, the base or pedicle of which was firmly secured by means of a long clamp, such as is at times used to secure the stump of an ovarian tumor. His first case was one of spina bifida, and was not successful in saving the life of the child. In the second a large encephalocele was successively emptied and removed with but little disturbance of the child's health, life being prolonged to the eleventh year. The symptoms and physical signs of internal hydrocephalus were, however, always present, and gradually increased, the child remaining paralyzed in the lower limbs and of very feeble intelligence. In the third case, a series of encephalic protrusions were in like manner clamped and removed, and notwithstanding the great extent of the hernia, the case, after some suppuration and many fluctuations of temperature, ultimately recovered, and is still living, although with a steadily increasing hydrocephalus. All these cases were in themselves severe, and hence the merits of the operation must be considered apart from them: it is possible, however, that the method of compression by clamps, when applied to the more simple cases of the kind, may be found to enhance the chances of success to a very considerable degree.—*Berliner klinische Wochenschrift*, No. 28, 1885.

Ptomaines.—Professor L. Brieger, of Berlin, has recently published a monograph in which he gives the results of his own researches into this interesting subject. From fibrine digestion he obtained a poisonous substance named by him *peptoxi*. It crystallizes with difficulty, and is readily soluble in water. It gives precipitates with most of the common alkaloid reagents. A few drops of a dilute aqueous solution suffice to kill frogs in fifteen minutes. Those experimented on became paralyzed, and were insensible to irritations. Symptoms of paralysis also showed themselves in rabbits after subcutaneous injection of the solution. From human and other decomposing muscle-flesh he succeeded in isolating a new poisonous substance, *eurindine*. It crystallizes in hydrochloric acid combination. From the mother liquor of nuridin a second base, *neurine*, was obtained ($C_5H_{13}NO$) which has a poisonous action on both warm and cold-blooded animals. A few milligrammes act on cats; 0.04 gramme pro kilo kills rabbits with a constant train of symptoms, among which are profuse secretions from the mucous surfaces and powerful clonic convulsions. Atropine was an efficient antidote to the poison. Three bases were obtained from decomposing fish that had been exposed to the air for five days: 1. *Entylediamine* ($C_5H_{12}NO_2$). Frogs showed a certain tolerance of this; rabbits were scarcely affected by it; but in the case of mice and guinea-pigs it produced a copious secretion from the nose, mouth, and eyes, dilatation of the pupils, and dyspnœa. 2. A substance analogous to muscarine. Injected subcutaneously into rabbits, it produced copious secretions and excretions, dilatation of the pupils, and convulsions. Atropine prevented the action of the poison. 3. *Gadinine* ($C_7H_{17}NO_2$), which appeared to be innocuous. From ten pounds of cheese that had been decomposing in water for six weeks, neuridine and trymethylamine were obtained. Neuridine and dimethylamine were also obtained from decomposing glue. The writer remarks in conclusion that the ptomaines form two classes—the poisonous and the non-poisonous—and that we are no longer justified in imputing chemical putrid infection to *none sepsi*. The formation of chemical poisons by the action of formed or unformed ferments is now proved. The character of the soil determines the synthetic power of the bacilli of decomposition. Thus, putrid muscle gives rise to the poisonous neurine, and putrid fish to the poisonous muscarine. These substances give rise to symptoms that have their analogues in certain forms of disease. The writer is now directing his attention to the ptomaines to be obtained from the human body as it undergoes different forms of decomposition.—*Medical Press and Circular*.

Pathogenic Microbes Transmitted to the Fœtus.—Dr. Koubassoff has communicated to the Académie des Sciences a paper on the relations of the fœtus to the mother in infectious diseases (*L'Union Médicale*, July 18, 1885). He injected cultivations of the bacillus of anthrax under the skin of pregnant guinea-pigs. It was found that these bacilli always pass from the mother to the fœtus. He further found that inoculation of pregnant females with a too powerful vaccine nearly always causes the death of the fœtus; that inoculation with a virulent virus after the mother had been protected by satisfactory vaccination nearly always killed the fœtus.

In other words, the fœtus cannot be protected by maternal vaccination. After the publication of the above Dr. Koubassoff continued his experiments on animals, and addressed a second communication to the same scientific body on August 21, 1885. The conclusions of this paper are as follows: (1) The bacilli of anthrax and of tuberculosis inoculated in the case of pregnant females pass into the lacteal secretion. (2) Once noted in the milk, they remain there until the end of lactation or until the death of the female. (3) The offspring nourished with milk containing these bacilli do not take these diseases, and continue to live in cases where the mother dies. (4) The passage of microbes from the mother to the fœtus depends probably on the existence in the placenta of direct communications between the vessels of the mother and those of the fœtus. It is to be hoped that these experiments may be extended to the study of erysipelas and other diseases. Long before the erysipelas coccus was described, or even thought of, observers have put to themselves the question, Is not puerperal erysipelas transmissible to the fœtus? The possibility of such transmission was suggested to Kaltenbach (*Centralblatt für Gynäk.*, No. 14, 1885) by the observation of an infant presenting at birth a well-marked desquamation of the head, neck, and back. The mother had recently had two attacks of erysipelas, the last corresponding exactly in period of evolution to the desquamation observed upon the infant. Careful examination of the patches of desquamation and of the placenta for the micro-organisms of erysipelas gave only negative results, but the length of time which had elapsed since the beginning of the affection might explain their absence. In 1879 Dr. Runge observed the following case (*Centralblatt für Gynäk.*, No. 48, 1884): When the erysipelas coccus was yet unknown, a pregnant woman developed an erysipelas on the left leg, which soon spread to the thigh. Thirteen days after the cessation of febrile movement, while desquamation was still in progress, she was delivered of a child, which presented absolutely similar desquamation of the neck, chest, and abdomen.

Simple Method for the Detection of Biliary Gravel.—Dr. Merle, of Vichy, in a communication to the Académie de Médecine, describes what he terms biliary coniasis, or biliary gravel. Pain in the hepatic region is the most important symptom. In order to detect the presence of biliary gravel, Dr. Merle recommends pouring hot water on the stools. The gravel necessarily falls to the bottom. When poured into a clean receptacle and washed, it is easily recognized.

Iodic Purpura.—At a recent meeting of the Harveian Society (*The British Medical Journal*, October 24, 1885) Mr. A. Q. Silcock related the case of a woman who was admitted into St. Mary's Hospital on account of proptosis. Although no history of syphilis could be obtained, iodide of potassium was prescribed in ten-grain doses three times a day. After the lapse of thirteen days the dose was increased to fifteen grains; seven days later a purpuric eruption appeared, most marked on the legs. Arsenic was then prescribed, in combination with the iodide, the rash disappearing after three days. The arsenic having been discontinued, the spots recurred in an aggravated form. Five minims of liquor arsenicalis were again added, and this was followed, in six or seven days, by a disappearance of the eruption and by general improvement. Arsenic was omitted; the rash again returning after ten days, accompanied with malaise and some catarrh. After this the patient lost courage, and ceased to take her medicine regularly. A few months later the iodide was again prescribed, and once more slight purpuric spots appeared after a few days, when the drug was finally omitted, the case being regarded as one of exostosis or of ossifying chondroma. In his remarks, Mr. Silcock rejected the view that the effect was due to increased diapedesis, such as is said to follow the intravenous injection of salines. Arsenic was prescribed in the hope that it might possess the same specific influence which attaches to its administration in bromide eruptions. He believed that it was frequently prescribed conjointly with iodide of potassium. In the course of the discussion which followed, Mr. Malcolm Morris alluded to the rarity of recorded cases of iodic purpura. The exceptional case published by Dr. Mackenzie deserved mention, the child having died from purpura after a single dose of two and a half grains. Even in the rash of bromide, arsenic after a time lost its beneficial effect. The paper was of great value as demonstrating that purpura was not a disease, but a symptom. Dr. Lees considered the case one of idiosyncrasy; in cases of meningitis he had administered to children large doses of iodide of potassium (three grains every three hours), for weeks and months, without any toxic effects. Children were more liable to the rash of bromide, adults to that of iodide of potassium.

The Use of Ether as an Intoxicant.—One of the members of the Diocesan Synod of Armagh, at its recent meeting, made reference, in discussing the report submitted on temperance, to a practice which exists in various parts of the north of Ireland, namely, the consumption of ether instead of whiskey. A large traffic exists in ether, more especially as it is a cheaper intoxicant than whiskey. Several cases of insanity are stated to have occurred from the excessive use of ether, some at present being in the Omagh and other lunatic asylums.—*British Medical Journal*, October 24, 1885.

The Non-contagiousness of Leprosy.—In an instructive paper on this subject by Dr. Fitch, of Honolulu, the author gives his reasons for believing that leprosy is not communicable from person to person (*Pacific Medical and Surgical Journal*, October, 1885). He sums up the evidence in favor of this view as follows: First, women conceive in numerous cases by lepers, and neither the women nor their offspring develop the disease. Second, as we have seen, drinking the saliva of a leper for years, and smoking the same pipe, fail to reproduce the disease. Third, in ten cases of inoculation, the disease is not communicated to those so inoculated in a single instance. Fourth, men married to leprous women, and *vice versâ*, are no more likely to contract the disease than are those who hold no known intercourse with lepers. Fifth, leprous parentage is no assurance that the child will become a leper. Sixth, segregation plays very little part in the decrease of the disease. Dr. Fitch then continues that, in view of these facts, he believes himself to be fully justified in saying that leprosy is a disease which cannot be communicated from a leper to any other person, by, through, or under any combination of circumstances, except heredity. That even this plays but little part in the propagation of the disease, we may know from the fact that from 1866, when Kalawao leper settlement was founded, until March 31, 1884, 2,941 lepers were consigned there, and up to October 9, 1884, only twenty-six children born in the settlement were alive, where either parent was a leper before the birth of the child. Peter Mikona is the only case that he has been able to find, so far, the parent being a leper previous to the birth of the child, who has lived to mature age and in turn become a parent. Cases where the child is born while the parent is still in the quiescent or even active stage of syphilis, and parent and child both develop leprosy afterward are common enough. Unfortunately, the fact that the disease is non-contagious does not, so far as this country is concerned, do away with the necessity for segregation; for, let a native be ever so loathsome and disgusting an object, that, to his ideas, is no reason why he should not make a public exhibition of himself, and therefore, as a measure of public decency, the community must put the leper away from others by process of law. The author believes leprosy to be a fourth stage of syphilis, or a form of scrofula subsequent to syphilis, occurring but rarely except in a virgin race, or contracted from a member of such race; and then

only in persons of a broken-down, or cachetic, nervous constitution, and rarely met with among Anglo-Saxon or Celtic races, except in blondes. On November 14, 1883, he inoculated six lepers with the virus of syphilis, by taking six ivory vaccine points, and scraping off the surface of a mucous patch on the under side of the lower lip of a native woman. The points were then allowed to dry, and in three hours after he transferred the virus to the arms of six leper girls under twelve years of age. December 14th, following, he repeated the experiment, taking the virus from a hard chancre on the penis of a Portuguese who came to his office. He saw this same man in March, 1884, three months later, in the office of a brother physician, and found he was suffering severely from secondary syphilis. The last time he used fourteen points, and inoculated fourteen lepers therefrom; but no result followed in any of the twenty experiments.

Hæmatemesis and Melæna in the New-born.—At a recent meeting of the Clinical Society of London (*British Medical Journal*, October 17, 1885), Dr. Sawtell read particulars of this case, and exhibited a preparation of the stomach showing ulceration. A small male child, born April 9, 1885, after a natural, but rather tedious, labor, suddenly vomited blood twenty-one and a half hours after birth; and, a few hours later, melæna succeeded. Up to this time milk was taken, and vitality seemed but slightly impaired. The discharge of blood continuing, much altered by admixture with meconium and mucus, the child rapidly sank, and died within twenty-four hours from the first appearance of blood. Besides general measures, sulphuric acid was given in tincture of cardamoms. Post-mortem, the stomach alone showed casual lesions, namely, small, but deep, round or oval ulcers, on the posterior wall of the cardiac end, near the lesser curve. Dr. Sawtell remarked that, after some examination of the subject, he had failed to find any record of a similar case. He quoted Billard's paper, in the *British and Foreign Medico-Chirurgical Review* for 1853, in which Rahn-Escher stated that softening of the stomach and bowel was sometimes found. An interesting case, observed by Dr. R. Neale, revealed no lesion of any kind. Dr. Edis, in the *British Medical Journal* for 1879, dealt with spurious hæmatemesis; so also Dr. Thorburn. But records of true intestinal hemorrhage in infants were so rare that Dr. West related only three as occurring in his extensive practice, and only one of these in the new-born. Finally, Rilliet's elaborate essay did not give any cases of ulceration. The author inclined to the opinion that the ulcers arose from portal obstruction and erosion by gastric juice, and concluded his paper by pointing out the difficulty of diagnosis and treatment, and the truth of Dr. West's observation, that the new-born suffered less from the effects of hemorrhage than might be expected.

The Initial Lesions of Pulmonary Tuberculosis.—The Paris correspondent of the *British Medical Journal*, October 27, 1885, writes that, at a recent meeting of the Paris Biological Society, M. Thaon, of Nice, read a paper on the initial lesions of pulmonary tuberculosis. The author has examined a considerable number of pathological specimens taken from different animals; also the lungs of animals which had died from experimental subacute pulmonary tuberculosis, or chronic tuberculosis, according to the will of the experimenter. Guinea-pigs fed morning and evening on tuberculous sputa, powdered and mixed with sterilized water, invariably died on the twelfth or fourteenth day. The lungs were a solid, compact mass of a reddish brown color, covered with yellow spots. On making a histological examination, the tissues presented small separated areas of lobular pneumonia, measuring about one-third of a millimetre; treated with picrocarmine, they were colored a deep red. They consisted of closely packed cells undergoing proliferation, free from degeneration, and were lodged in the beginnings of branching bronchial tubes. Similar lesions were observed in the pulmonary alveoli; corresponding miliary masses were also grouped round the pulmonary vessels, resulting from the infiltration from the lymphatic vessels. Bacilli were present in considerable numbers in the areas of miliary pneumonia; in those of catarrhal pneumonia they were less abundant. Bacilli could be observed migrating from the bronchi into the alveoli; there they provoked proliferation of the pulmonary epithelium, and its subsequent degeneration. Giant-cells, the zones of epithelial cells, which formerly were recognized as the characteristics of tuberculous granulations, also the various fibrous transformations special to pulmonary phthisis, were only observed in organs far advanced in tuberculosis. The bacillus, M. Thaon says, is the agent which produces all these changes. It is seen in the centre of the cellular elements in the giant-cells, and does not disappear until the caseous masses become one uniform vitreous mass.

Surface Temperature of the Abdomen in Enteritis of Children.—Dr. Moncorvo, of Rio de Janeiro, has published a very interesting account of his studies in this direction (*Journal d'Accouchements*, October 15, 1885.) He divides his little patients into two classes, the febrile and the non-febrile, according as the diarrhœa is attended or not with an elevation of the general temperature. The normal temperature of the abdominal surface in children varies, the author states, between 94.5° and 95.5° F., but it is always considerably higher in febrile diarrhœa, the average elevation being 100°. But it is especially in cases of subacute or chronic apyretic enteritis that he regards the surface thermometer as an invaluable aid to diagnosis. In a general way, he says, he has been able to satisfy himself by numerous observations that the temperature of the abdominal parietes rises a little, even before the diarrhœa begins. And, on the other hand, he often met with cases in which the diarrhœa had seemingly disappeared, but in which the surface temperature remained at 96° F., or above. But in these cases he invariably found, on interrogating the mothers, that the stools, though possessing some consistence, were not yet formed, an indication that the mucous membrane had not yet returned to a healthy condition. In apyretic enteritis the temperature of the surface varies between 96° and 99°, rising and falling with the increase or decrease of intestinal inflammation, affording thus an indication of the progress of the disease and of the benefit obtained by treatment.

Urticaria in Young Children.—At a meeting of the Clinical Society of Paris, Dr. Comby read a paper upon this subject, in which he stated that urticaria in young children was often due to dilatation of the stomach. He reported several cases in children between one and one-half and three years of age, in which there was an evident relation between the repeated attacks of urticaria, from which they suffered, and digestive troubles consequent upon dilatation of the stomach. If the skin affection be treated solely by baths and topical applications, without regard being had to the pathogenetic condition, the result will surely be a failure; but if the stomach affection be overcome by a dry régime the urticaria will disappear. In addition to a dietetic treatment it is well to conjoin washing out of the stomach and the administration of pepsine and other remedies to aid digestion.—*Journal d'Accouchements*, October 15, 1885.

Ergotine in Meningitis.—Dr. Lacroix has published a number of observations of acute meningitis cured by ergotine. He was led to use this remedy from the consideration that in this disease the vessels are first dilated and then follows the exudation. He gives the extract of ergot in a mixture of fifteen to thirty grains for children four years old, and of forty-five grains to a drachm for adults, in four ounces of water. Of this a teaspoonful is given every half hour.—*Rivista Clinica e Terapeutica*, No. 9, 1885.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, November 21, 1885.

THE HISTORY OF THE TROUBLES OF THE NINTH INTERNATIONAL MEDICAL CONGRESS.

AN esteemed correspondent, who has recently returned from Europe, writes us that he met very few, if any, physicians who understood the nature of the International Congress muddle, and that he himself is still rather in the dark. We are requested to state the case again.

At the meeting of the American Medical Association, in the spring of 1884, it was decided to extend an invitation to the International Medical Congress to hold its ninth session in this country. A committee of seven was appointed, and authorized to extend this invitation in the name of the Association and of the American medical profession; also, if the invitation was accepted, to proceed with the work of preliminary organization. The invitation was given and accepted, it being perfectly understood at the time that no local, ethical, or medico-political issue should be introduced. The committee then became a Committee on Arrangements, and it proceeded, as empowered to do by the resolution creating it, to nominate the officers and formulate the rules and regulations of the Congress. Their work was very nearly completed early last spring, and its results were published in pamphlet form. There was an almost, if not completely, unanimous commendation and indorsement of this work by the medical press throughout the whole country, the officers nominated being about as nearly a representative body of men as could be easily selected.

When the American Medical Association met at New Orleans last spring a report of what had been done was made. Instead of being received favorably, this report excited a great deal of indignant criticism, combined with some strongly vituperative condemnation. The charges were, first, that the committee had given its own members too many good positions; second, that it had appointed too many gentlemen from Philadelphia and the East, and had not sufficiently recognized the claims of the West and South; third, that it had appointed as officers, and had allowed the privileges of membership, to gentlemen having so-called "New-Code" affiliations. As the New Orleans meeting was not a large one, and as its membership was made up mostly of gentlemen from the South and West, a resolution to revise the work of the committee and to enlarge its membership by the addition of a representative from each State and Territory, and from the Army, Navy, and Marine Hospital Service, was easily carried. This new committee, therefore, composed of over forty gentlemen, instead of the original seven (later eight), held its first regular meeting after adjournment of the Association in Chicago last June. It then proceeded to organize and lay down its policy. This policy embraced the elimination of all "New-Code" men from the organization and membership of the Congress, and a revision on a basis of geographical representation of the list of officers of the Congress.

This repudiation of the work, authority, and policy of the original committee, together with the election as officers of the committee of gentlemen not widely recognized as leading or representative men, caused most of the members of that committee to resign. Their resignation was quickly followed by the resignation of nearly all the leading officers of the Congress, and of many others, to the number at present of over one hundred and seventy names.

The action of the new committee, like that of the Association at its meeting in New Orleans, met with the most wide-spread and earnest disapproval from the medical press and leading medical men both of this country and England.

The grounds of criticism were and still are as follows:

First, that an organization of the Congress, which had been widely approved and was proceeding smoothly, should have been interrupted.

Second, that this interruption and rejection of the work of the first committee was really incited by a few malcontents, who took advantage of a small and unrepresentative meeting of the Association to effect their ends, and that it was not the real expression of the feeling of the profession.

Third, that the Association and the new committee have introduced a medico-political issue, viz., that of the Code, into an international scientific body, after an explicit understanding had been given that no such thing should be done.

Fourth, that by this means the Congress has been deprived of the work and help of some of America's foremost physicians and surgeons, and that the large State of New York has been almost disfranchised.

Fifth, that the character of some of the gentlemen who have been most active in promoting the present reorganized Congress is not such as to enlist the support and sympathies of the profession.

The action of the Chicago meeting of the enlarged committee was received with such a storm of indignation and was followed by so many resignations that the new managers became alarmed, and a special meeting was called at this city last September. Great affront was caused by the fact that this meeting was held in secret and its action not disclosed until several days after adjournment, and then only in the organ of the Association. At this meeting it was voted to admit as members gentlemen of New Code affiliations, but none of these were appointed officers of the Congress. Some of the vacancies caused by the numerous withdrawals were filled.

Since the September meeting resignations have continued to come in, and there are as yet no signs of reconciliation. Many of the most important offices of the Congress are still unfilled.

A few weeks ago the Executive Committee of the Congress passed a resolution declaring their independence of the American Medical Association, and thus entirely cutting themselves away from the authority of that body.

It was claimed at the time of the action of the American Medical Association last spring in repudiating the first committee's work that this committee was not really amenable to the Association for its authority, but that after the acceptance of the invitation by the International Medical Congress it became a creature of the latter body. The same gentlemen who denied this interpretation of parliamentary law last spring, now justify the action of the present Executive Committee. Thus the charge of inconsistency and insincerity has been added to the others.

As matters stand at present, the management of the next Congress is in the hands of an Executive Committee representing the new and enlarged committee, the best men of the country have withdrawn from all connection with the Congress, and the great majority of the numerous important vacancies in the list of officers remains unfilled. The sentiment as so far expressed abroad is unqualifiedly adverse to the policy of the present management.

As there seems to be distrust of the Congress abroad and absolute hostility to it at home, the question is asked if it would not be wiser to have no Congress at all.

Under the present policy this seems to be very advisable.

THE HOSPITAL PAY PATIENT ABUSE.

As rightly suggested by one of our correspondents in the present issue, there are two sides to the question of the pay patient abuse. One of these represents the lay management, which in the name of charity and religious zeal, gets all the glory it can from the free work of the medical staff; and the other is the desire on the part of attending physicians to give their services freely for experience and reputation. But there are gross abuses connected with both the management and the medical service. It is mainly the fault of the profession that the lay management of our hospitals dare to act as they do in assuming to be masters of the situation. It has come to pass that managers can make any rules that suit their purposes, whether they be pleasing to the medical staff or not. The members of the staff can resign if they choose, but have no other way of righting matters. If the managers decide to force the members of the staff to attend pay patients for nothing, that practically ends the matter.

Submission on one side engenders arrogance on the other. There are plenty of medical men who stand ready to step with joyous meekness into the vacant places. This is what some may call the glory of professional ambition. But not only the hospital appointee is swindled by being compelled to heal gratis the pay patients in his wards, but he in turn cheats the family physician of many of his just fees. This is being done in one way or another every day in some of our metropolitan hospitals. Private rooms are fitted up for such a purpose, and rich patients are charged merely for room rent and extra nurse hire. Some of these hospitals pose as purely charitable institutions, are ostensibly founded for the care of the sick poor, are constantly appealing to the public for pecuniary aid, and make a pharasaical pretence in their annual reports of the noble work they are doing. It is painful to contemplate that such hospitals are abetted in their unfair practices by members of our own profession who apparently dare not object to the rules laid down for them. The managers know this, and act accordingly. They need go but a little farther, and we shall hear of that culmination of abomination, a dollar medical shop, connected with every hospital in the city.

According to a well recognized law of political economy that which does not pay for itself should not succeed. Success vindicates the utility of every good work. The two factors always go together. If a purely charitable institution cannot prosper on its own simple merits it is better that it should fail than be bolstered up by a rotten system of fraudulent representation. Common humanity is not so dead to all the finer instincts as to allow the really needy to suffer. In a general way the demand for charity is met by prompt and proper assistance. If a free hospital cannot succeed, the fault, if any, must rest upon a heartless community, and no one can in a general way be held accountable. If it is a wrong it must right itself in its own way without the aid of missionaries or hospital managers, even if it should cheat the latter out of the opportunity of proclaiming their so-called charity on the house-tops. In too many cases the word charity is used as a trade-mark for selfish motives on the part of ambitious trustees, scheming medical men, and sectarian cranks.

A STRONG ARGUMENT IN FAVOR OF VACCINATION.

Among the many queries which the present extensive revival of vaccination has raised, is the one relating to the effect of vaccination upon one who has already had small-pox or varioloid.

We have been somewhat surprised to find that vaccination "takes" with those who have had small-pox, two or three such cases having came under notice. Upon inquiring of a physician, whose position at the Board of Health has given him a wide opportunity for observation, he assured us without hesitation that after small-pox vaccination will take always, and in the primary form. Moreover, that vaccination is a surer safeguard from small-pox than small-pox itself, for he knew of instances where unvaccinated individuals had had the disease two or three times.

This information is therefore of great importance, for most people who have had small-pox feel that they are sealed with an immunity greater than a life-time of continued vaccination could purchase for them.

DEATH IN THE HURRY.

A death of a portly man is reported, caused by running after a train. He was seventy years old and could not wait. After severe exertion he jumped upon the platform of the rear car, entered the latter just in time to drop dead from heart failure. The fact points its own moral. And yet old men with weak hearts and heavy

bodies do the thing every day on steamboat docks, railway platforms, up elevated stairways, and at almost every street corner. It is the American fashion to be in a hurry, whether the time is short or not. It would appear to be a reflection on a man's energy and determination not to overtake what is a little ahead of him. Nature sometimes retaliates in the way we mention, and the hapless victim gains all his time at once. He is quite sure then not to be left by his funeral train.

JOHN McCULLOUGH.

From the very beginning of the late John McCullough's illness the character of his disease was manifest. He showed unmistakable signs of general paresis. If he could have been promptly and intelligently cared for and treated at once, some stay in the progress of his malady might perhaps have been secured. As it was, there has been no mystery about his case, and nothing new that could be learned by a post-mortem examination. He died, as was predicted, and of a disease which had been perfectly recognized. John McCullough was one of the best illustrations of what often happens when an untrained brain is subjected to continual and severe emotional visions and other excesses. In such cases (to use figurative rather than technical terms) the vascular machinery that regulates the work of the higher brain-centres breaks down, the brain-cortex degenerates, softens, and is destroyed. If twenty men began life as McCullough did, and continued with habits like his, the majority would end as he did. There was no mystery or "bad luck" about it, but only the operation of inevitable law.

A FRUITFUL FIELD FOR OUR MEDICAL SOCIETIES.

There never was a time when physicians have so uniformly complained of hard times and light practice. They have not for this state of things the philanthropic consolation that sickness, accident, and death are any the less, because the city mortality-rate is not unusually low, and the work in hospitals and dispensaries is more extended than ever.

The fact is that the profession is feeling the inevitable results of many years of injudicious fostering of habits of medical pauperism. It is also feeling the results of the continually increasing numbers of young doctors who simply swarm throughout the city and country. Not one in ten of these earns a good living; but all get a few cases, and the sum total of their activity is felt by older men in established practice.

This increase in the number of young men affects practice not only by drawing away cases but by obliging many to put down their prices to almost insignificant sums.

It is quite time that some serious attempts at checking these evils, that every year grow worse, were inaugurated. Our medical societies would do themselves more credit, and the profession more benefit, by looking out a little for the material affairs of the members, as affected by the causes we have indicated. Instead of wasting a thousand dollars in trying to imprison a few quacks, let us have the money spent in ridding the profession of the incubus of medical paupers and impostors, in fighting useless dispensaries, badly-managed hospitals, and even colleges, if need be.

DOCTORS AND PROHIBITION.

An active struggle is going on at Atlanta, Ga., on the subject of the legal prohibition of the sale of alcoholic liquors. A law passed by the legislature forbids the sale of alcoholic liquors of any kind for any purpose—excepting domestic wines, pure alcohol, and wines for sacramental uses. The physicians of Atlanta have embarked in the controversy as to whether this law shall be applied to that city. Dr. Joseph P. Logan, in a temperate letter to the *Atlanta Constitution*, claims that all the good which alcoholic liquors will do in any case can be done by pure alcohol properly diluted. Drs. W. S. Elkin and Henry Wile take strongly contrary grounds. Twenty-three physicians have signed and published a set of resolutions in which they "raise their voices in earnest protest against the great wrong which is attempted upon the sick, the feeble, and the infirm, whose comfort, whose welfare, and ofttimes whose very existence is dependent upon the judicious administration of some of the several forms of alcoholic stimulants commonly employed as remedial agents." They have also resolved "that the experience of medical men for ages has demonstrated unmistakably that pure alcohol is deficient in some of the most important constituents of the various kinds of spirituous liquors used as medicine, and notwithstanding the folly of legislative enactment to that effect, it can never become an efficacious substitute for them."

These Atlanta physicians are certainly as sincere as they are emphatic and eloquent in these announcements of their views. It may even be conceded that it is to their credit that they defend so vigorously the rights of their patients and the implements of their art. It must be confessed, however, that the case is put a little more strongly than medical science justifies.

The verdict of the profession at present is decidedly against the use of alcohol as a beverage, and opinion is growing in favor of a much greater limitation of its use as a medicine. It is quite untrue that "the medical experience of ages has demonstrated that pure alcohol is deficient in some of the most important constituents" which the physician desires to use in combating disease. The fact is that pure alcohol has been very little employed medicinally as a substitute for ordinary liquors, and the question whether all that can be done medicinally by the drug in any shape cannot be done by pure alcohol is, at any rate, still an open one.

Indeed, if pure alcohol were used instead of the vile concoctions that are now so extensively sold, better therapeutical results would probably be obtained.

We would not be understood as denying positively the assertions of the Atlanta doctors as to the insufficiency, medicinally, of pure alcohol. We only urge that the matter is one of those which is not yet fully tested. And perhaps our Southern confreres are right in not wishing to have Atlanta made the field of an extensive experimentation.

The Vacancy in the Chair of Practice of Medicine in the Long Island College Hospital.—The death of Dr. Armor creates a vacancy in the faculty which is to be filled by the best available man. All applications should be made to Dr. A. J. C. Skene, Brooklyn, N. Y.

News of the Week.

The New York State Board of Health held its quarterly meeting in this city during the past week. The report of the Executive Committee showed that the expenses for the year ending September 30, 1885, were $25,719.55. The work of bringing up arrearages in vital statistics has been satisfactorily continued throughout the year, and 51,800 certificates of births, deaths, and marriages have been thereby recorded. The Secretary reported what means had been adopted by the Board to ward off the introduction of small-pox from Canada. The most of its efforts have been in the direction of calling into active existence the local boards of health along the northern frontier of the State, and insisting upon the immediate vaccination and revaccination of all unprotected persons at all exposed points within their jurisdiction. So successful have been the measures adopted that small-pox has been reported in only eight localities of the State outside of the cities of New York, Brooklyn, Yonkers, and Albany, which are by law exempt from the control of the State Board. The chemists of the Board reported their progress in examining food and drugs for adulteration. Their report revealed the existence of extensive departures from the standard in the case of drugs, but affecting commercial interests so large that it was deemed unwise to give publicity to the evidence until more certain results are determined and cases against offenders shall have been prepared.

Medical Department of the University of Wooster, Cleveland, O.—On account of the death of Professor Geo. Hunert, A.M., M.D., the chair of Theory and Practice of Medicine is vacant in the Medical Department of Wooster University, Cleveland, O.

Was it Alcoholismus, or Cocaine-poisoning?—Dr. Lilienthal, of this city, thinks that Dr. J. S. Spear's case of cocaine-poisoning simulating opium-poisoning, "was in reality one of alcohol-poisoning, and that the patient took the large doses of cocaine 'to sober up.' When we read the many cases of alcohol-poisoning recorded in our literature, as in Caspar-Lyman or in Woodman Tidy, we find the same symptoms as recorded here by our navy-surgeons; whereas I cannot find such a state as coma, pinhole-pupil, weak heart, and pulselessness recorded in any work on Coca. Vin Mariani and similar preparations of coca are rather given for toning up a weakened, exhausted nervous system."

Charity Hospital.—As an evidence of the discipline of Charity Hospital, New York City, the Committee on Clinical Records reported for October 422 admissions, and 445 histories of patients, the excess being due chiefly to patients transferred from one ward to another. The average monthly increment of patients is 525, of which number only about twelve per centum of histories has been lost for 1885.

The Late Dr. Samuel G. Armor, of Brooklyn, N. Y.—The following was adopted at the last meeting of the Detroit Academy of Medicine:

Whereas, It has been announced that Professor Samuel G. Armor, M.D., LL.D., an honorary member of this body, and for many years a resident of Detroit, died at his home in Brooklyn, N. Y., on the 27th ultimo, in the prime of his vigor and usefulness,

Resolved, That while we bow in submission to the decree of Infinite Wisdom, yet we hereby express our sense of sore bereavement in his death.

Resolved, That the untiring devotion which our friend has exhibited in his chosen life-work, the large-hearted generosity which he uniformly manifested toward his brother-physicians, and the delicate sense of honor that marked all his dealings with them, together with his thorough integrity and broad manhood, endeared him to the majority of our membership personally in life, and remain enshrined as his best legacy in death.

Resolved, That we extend our warmest sympathy to the great number who, in the death of Dr. Armor, mourn the loss of a friend and teacher.

Resolved, That a copy of these resolutions be sent to the family of Dr. Armor, to the Long Island College Faculty, to the several medical journals of Detroit, and to the New York Medical Record and *New York Medical Journal*.

Edward W. Jenks,
Geo. P. Andrews,
J. F. Noyes,
Committee.

Pasteur's Method of Inoculation against Rabies, and Guerin's Objections.—The full text of Pasteur's description of his method of preventing rabies appears in the "Bulletin of the Académie de Medécine." Pasteur began by saying that, after innumerable experiments, he had discovered a prophylactic method both prompt and practical. It has proved so effective, applied to dogs, as to warrant M. Pasteur in applying it to all animals, even to man. Inoculation of a healthy rabbit, by trephining underneath the dura mater, from a spinal cord removed from a rabid dog, always produced rabies after fifteen days' incubation, on an average. Inoculation of a second rabbit from the first, of a third from the second, and so on through a series of inoculations, provokes a form of rabies presenting in each successive inoculation a shorter term of incubation. After a series of from twenty to twenty-five inoculations, the term of incubation is reduced to eight days. After a further series of from twenty to twenty-five, the term is again reduced to seven, which remains stationary up to the ninetieth. M. Pasteur, in his successive series of inoculations, has arrived at the ninetieth, and there is a very slight tendency in the term of incubation to be less than seven days.

These experiments were commenced in 1882, and they have been continued without interruption. The only virus used was obtained from a successive series of rabbits which died from rabies; consequently, a perfectly pure virus was used in these experiments, and one always identical. This, says M. Pasteur, is the great secret of the method (*le nœud pratique*). The spinal cord of these rabbits is rabid throughout. If a portion of a few centimetres in length be detached from these rabid cords, every cleanly precaution being carefully observed, and then suspended in dry air, their virulence slowly leaves them, and finally thoroughly disappears. The time required to destroy the virulence depends on the thickness of the fragment removed, and still more on the temper-

ature of the surrounding atmosphere. The lower the temperature the longer the virulence persists. If the rabid cord be removed from contact with air into carbonic acid gas, the virulence is maintained during several months, always provided no foreign microbes are allowed to attack it.

In order to render a dog refractory to rabies in a comparatively short time, M. Pasteur proceeds as follows: A portion of fresh rabid cord is suspended in a bottle containing dry air, fragments of potash being placed in it for this purpose. The period of incubation of the rabies is seven days. Every successive day the dog is inoculated by passing under the skin the quantity of sterilized broth a Pravaz's syringe can hold, a small fragment from these desiccated cords having been previously mixed with the broth. The first inoculation is made with desiccated cord that has undergone some days' preparation, in order to be certain that it has entirely lost its virulence. The next inoculation is made with a fresher preparation, and so on until a virulent portion is used. Two days must be allowed to elapse before a fresh inoculation is made. The last inoculation is made from a portion of cord which has been dried one or two days previously. The dog thus treated is rendered exempt from rabies. Inoculation under the skin, or on the cerebral surface, by trephining with the virus of rabies, fails to produce any symptom of this disease. By this method M. Pasteur rendered fifty dogs refractory to rabies without incurring one failure.

M. Pasteur had arrived at this period in his experiments, when two people who had been bitten by a mad dog arrived, on July 6th, at his laboratory, from Alsace. Theodore Vone, a wholesale grocer at Messengott, had been bitten on the arm on July 4th. Joseph Meister, aged nine, was also bitten on July 4th by the same mad dog; the child was bitten in several places on his hands, legs, and thighs; some of the wounds on the thigh were very deep, and caused him to walk with difficuly; the principal wounds were cauterized with carbolic acid at eight o'clock in the evening. The third person was the mother of Joseph Meister, who had not been bitten. M. Vone had his arm very much bruised, but he assured M. Pasteur that the bite had not passed his shirt. He was sent back to Alsace. On July 6th, sixty hours after the bite, Joseph Meister was inoculated. A Pravaz's syringeful of cord removed from a rabbit dead from rabies was injected under the skin on the right side. The rabbit died on June 21st; the marrow had been preserved in dry air from that date, a period of fifteen days. The following days fresh inoculations were made, morning and evening; each succeeding inoculation was made with cord more recently prepared; thirteen inoculations were made, covering a period of ten days.

M. Pasteur does not believe that the progressive attenuation of the rabid spinal cords enclosed in dry air is due to the action of the air. Facts that he will describe later on negatived this interpretation. He considers the cause more probably to be explained by the microbes, the origin of rabies, producing, during their cultivation, a substance endowed with a property hostile to their own development. Data already acquired concerning the *modus vivendi* of these organisms encourage the belief in this hypothesis. M. Pasteur will continue his researches on this subject, and publish the results. Since October 20th, M. Pasteur has had under treatment for rabies a young shepherd, fifteen years of age, who, on the 14th of the same month, had been badly bitten on both hands by a mad dog. The results of this further test of his prophylactic method against rabies will be made known to the Académie des Sciences.

At the close of Pasteur's communication, M. Jules Guerin rose, and after some difficulty obtained leave to put on record the following protests: 1st, That M. Pasteur made his inoculations with the virus of an artificial rabies, there being no proof that his rabbits really had the genuine disease; 2d, the patient on whom M. Pasteur had experimented was not a proper one, since his wounds had been treated with carbolic acid, and since bites of rabid dogs are not always followed by hydrophobia; 3d, M. Pasteur had only found a preventive for rabies, not a remedy for the declared disease.

Careless Comments on Royalty.—It is all very well for the laity, but it is hardly the proper thing for *The Lancet*, to speak about "the Queen's movements."

What Cocaine May not Do.—The knowledge of the therapeutic virtues of cocaine has made such strides during the year, that it would seem a better method of pursuing investigation, and entering upon classification, to do it in a negative way, that is, by making a list of those diseases in which it cannot be used.

The American Public Health Association will hold its Thirteenth Annual Meeting at Washington, December 8 to 11, 1885.

A Successful Medical Society.—On October 28th the Berlin Medical Society celebrated its twenty-fifth anniversary. An opening speech was made by Virchow, who recalled the names of the distinguished members of the Society in the past, and announced that Professor Eulenberg had given the Society 10,000 marks as a fund for securing a suitable building for its meetings. Speeches were then made by Fränkel, Bergmann, and others.

Dr. Thad. M. Stevens, the first secretary of the Indiana State Board of Health, died at his home in Indianapolis, last week, of congestion of the brain. His death was quite sudden. He was fifty-four years of age. He was a nephew and namesake of Thaddeus Stevens, the great commoner. He readily took rank in the profession of medicine, and paid great attention to sanitary science. He was a member of the American Public Health Association, in which he took great interest.

The Small-pox.—The Secretary of the National Board of Health reports that, during the week ending November 4th, there were 233 deaths from small-pox in Montreal and 89 in adjacent municipalities. Dr. J. T. Reeve, Secretary of the State Board of Wisconsin, under date of October 26th, states that, notwithstanding the precautions taken, a second outbreak of small-pox, brought from Montreal, has recently occurred in the State. The first outbreak was promptly suppressed, and, it is expected, by the adoption of similar vigorous measures, to prevent the spread of the disease on the present occasion.

Reports of Societies.

NEW YORK STATE MEDICAL ASSOCIATION.

Second Annual Meeting, held in New York, November 17, 18, and 19, 1885.

TUESDAY, NOVEMBER 17TH—FIRST DAY—MORNING SESSION.

THE morning session was called to order by the PRESIDENT, DR. JOHN P. GRAY. After the announcement by the Secretary of the number of attendants from each district, the annual

ADDRESS BY THE PRESIDENT

was delivered, which dealt principally with the question of the State having power to license doctors, and its effect upon medical schools. Schools of special education, as theological seminaries, law and medical schools, and institutions of technology are sustained by private contributions. Such institutions receive no privileges or grants from the State, and medical colleges do not seek pecuniary assistance from such source. No immediate legislative interference is called for in this matter, either in the interests of medical schools or medical science. The State cannot adopt any particular school or system of medicine as against another, and hence has acknowledged the legal equality of the graduates of all schools. It has been claimed that the State should create an examining body, independent of the schools, and practically take away from corporate schools of medical learning, to which the State contributes nothing pecuniarily, the power of examining their own pupils. This would be an anomaly in political economy. The English and German governments are cited as precedents to encourage State interference. Our Government, however, is not parental. and

MEDICAL COLLEGES ARE THE PROPERTY OF PRIVATE INDIVIDUALS.

Medical students likewise pay for their education. Teachers are striving to elevate the standard of medical education under great difficulties.

The annual reports of the Presidents of Branch Associations, and of the New York County Medical Association, giving the work of the year, was next presented.

THE ADDRESS ON STATE MEDICINE

was delivered by DR. ALFRED L. CARROLL, of Richmond County.

State medicine includes medical jurisprudence, medical education, and public hygiene. In the public mind, the latter assumes the greatest importance. State medicine constitutes the oldest specialty in medicine. Moses was eminent in this branch, and some of his rules might be well copied at the present time. Circumcision was taught with reference to its hygienic effects. The causes of disease should be carefully sought out. Hippocrates was eminent in this field. Galen wrote much on hygiene. The earlier teachings dwelt most upon personal hygiene. The sanitarian must be primarily

AN ACCOMPLISHED PHYSICIAN,

not a mere engineer or architect. All sanitary studies must be based on medical knowledge and experience. Medical schools almost entirely neglect the important study of hygiene, and appear to overlook the necessity of a preliminary knowledge of the science. There are thirteen hundred local boards of health in this State, and in examining for health officers, the utmost ignorance is often displayed. Only about ten per cent. of our graduates have any conception of the period of incubation of contagious diseases or the cubic feet of air necessary for each individual in a room.

A SCATHING REBUKE TO THE COLLEGES

was next administered for their laxity in admitting and graduating students.

THE PRELIMINARY KNOWLEDGE OF MANY MEDICAL STUDENTS IS ON A LEVEL WITH THAT OF A RETAIL GROCER'S CLERK.

Our metropolitan colleges are no better than country institutions in the matter of preliminary requirements. In England, hygiene is included in the four years' course. Sanitary legislation suffers at the hands of wholly ignorant demagogues and half-educated persons. From twenty to thirty per cent. of the death-rate can be reduced by sanitary measures. This pays in a financial point of view. The causes of disease must be studied more by physicians before sanitary science can be much advanced.

AFTERNOON SESSION.

The first paper was read by DR. HENRY DIDAMA, of Onondaga County, entitled

TUBERCULAR CONSUMPTION—IS IT EVER INHERITED?

The speaker said that he started with the assumption that tuberculosis was an infectious disease, due to the presence of a specific bacillus. After reviewing the literature of the subject, he read a letter from Dr. Wise, describing an epidemic of tuberculosis among cattle, in which the disease was found many times in very young calves, and even in fœtuses. He thought there could be no doubt that the disease could be transmitted in cattle, but the conditions in the human subject were different, and, notwithstanding much search and the examination of many dead infants, no case of inherited phthisis had yet been found. The author concluded that (1) tubercular consumption is not hereditary; (2) there is no peculiar inherited tendency, although (3) children of tuberculous parents, as well as those of other parents debilitated by disease, may be weak and in this way predisposed to acquire tuberculosis. And that they are more likely to become phthisical is to be explained by the fact that they are living in an atmosphere of the disease, and thus more exposed than are the children of other debilitated non-tuberculous individuals. The therapeutical indications, the author said, were to give the child of a tuberculous mother to a healthy nurse and isolate it from its parent; and, if there were any syphilitic taint, specific treatment should be commenced at once and continued for a long time, in order if possible to fortify the constitution and thus avert bacillary infection.

DR. ROCHESTER, of Erie County, related a case in which he found tubercles and a cavity in the lungs of a child three weeks old. The mother was a strong, healthy woman, but the father had died of tuberculosis before the birth of the child. The speaker believed that this was an evidence of the possibility of inherited tuberculosis.

DR. SIMEON T. CLARK, of Niagara County, then read a paper on

PSOITIS AND PERIPSOITIS,

reviewing briefly their pathology and differential diagnosis, and relating the histories of three cases of psoitis which had recently come under his observation.

DR. HYDE, of Cortland County, said that these acute abscesses were at first unconnected with the vertebral column, but that when left alone they eventually set up caries of the spine, and then at the autopsy the case is diagnosed as one of Pott's disease. His conclusion was that an early evacuation of the pus was absolutely necessary, and we should never wait for the abscess to point.

DR. MOORE, of Monroe County, believed that there was more danger of tubercular infection after opening of the abscess than before.

DR. CHARLES W. BROWN, of Chemung County, followed with a paper entitled

SHOCK, AND THE EFFECTS OF INJURIES ON THE NERVOUS SYSTEM,

in which he detailed the different forms in which shock is manifested, and mentioned the various states which

modified the intensity of this condition. He said that the surrounding circumstances exerted a greater influence upon the progress of the case than is usually supposed, and related an instance in which the patient was apparently doing well, but began to sink immediately after being told by his mother that he would not recover. Treatment should be twofold: 1, To promote reaction by application of external heat and the administration of hot brandy and coffee internally, or brandy hypodermatically; and 2, to control as far as possible the ensuing inflammation.

Dr. Frank H. Hamilton, of New York County, presented a brief paper on

RAILROAD SHOCK.

The author said that there were two forms of this affection. In the first there were early symptoms of shock, but in the other there were no early symptoms. This form, he maintained, was not true shock; there was primarily no injury to the spinal cord, but the condition was one of injury to the ligaments. This injury leads eventually to inflammation, which extends in time to the meninges and spinal marrow. It is then that the remote symptoms are observed. The injury was caused, he thought, by the throwing forward of the upper part of the body, and its sudden recoil, similar to the snapping of a whip-lash.

Dr. Edmund S. F. Arnold, of New York County, read another paper upon the

ESSENTIAL NATURE OF SHOCK,

in which he stated his belief that the phenomena of shock were due to an injury of the nervous centres presiding over nutrition, and to a partial arrest of the latter.

The discussion was participated in by Drs. Kneeland, Hyde, Moore, Kearney, Hendricks, Van de Warker, and others.

Dr. Carlos F. MacDonald, of Cayuga County, reported a case of

INSANITY FOLLOWING GUN-SHOT INJURY OF THE HEAD.

The patient presented a slight depression in the skull in the frontal region, which was the result of a gun-shot injury. It was proposed to trephine the skull, but, upon cutting through the scalp, the bone was found to be open, and through this opening a hypodermic needle was inserted, with the result of finding a cyst. Its contents were evacuated through the needle; and upon recovering from the ether the patient was found to be perfectly rational, while previously he had for weeks been wildly maniacal.

A paper by Dr. O. G. Selden, of Greene County, entitled "A Case of Intracranial Tumor, with Remarks relating to the Diagnosis of Intracranial Disease," and another, by Dr. Simeon T. Clark, of Niagara County, on "Two Peculiar Conditions of the Mammary Gland," were read by title.

Evening Session.

A DISCUSSION ON PNEUMONIA

was opened by Dr. Austin Flint, in which he propounded eight questions relative to the nature, pathology, prognosis, and treatment of acute lobar pneumonia. To the query "Is blood-letting ever indicated?" Dr. Flint answered that thirty years ago he was in sympathy with those who objected to the indiscriminate employment of this agent; now he is in sympathy with those who think it may sometimes be employed. In rare cases it may shorten or abort pneumonia by preventing the overloading of the right side of the heart. It may lessen the chances of a second or third lobe becoming involved. It must be employed early, when there is pain and dyspnœa with fulness of the systemic veins. It is of course contra-indicated in such conditions as typhoid fever, rubeola, and anæmia. Is alcohol useful in pneumonia? Whenever there are symptoms of heart-failure it should be employed. No rule can be laid down for all cases, and a careful tentative use is often indicated. An enormous tolerance of alcohol is sometimes acquired. In sickness there are never any phenomena of intoxication. In regard to antipyretic measures, quinine in large doses is often useful and often very uncertain. The doctor has not arrived at definite conclusions about antipyrine. In employing cold externally, whenever the temperature rises above 103° Fahr., a sheet wet with water at a temperature of 80° Fahr. is wrapped around the patient, who is then sprinkled every fifteen or twenty minutes with cool water. The wet sheet should be kept on until the temperature sinks to below 103° Fahr. If the patient complains of being chilly, he may be wrapped in a dry blanket. Three cases were reported in which the wet sheet acted admirably in reducing temperature. The cold bath may be dispensed with, on account of the fatigue and annoyance that it causes the patient.

Dr. Flint stated that relapses did not occur during or shortly after convalescence from pneumonia, in which respect it acts like an essential fever. Pneumonia likewise leaves no tendency to phthisis.

Question 1. Is acute lobar pneumonia a primary local inflammatory disease, or is it an essential fever, the pulmonary affection being secondary thereto and constituting its anatomical characteristic?

Dr. Didama, of Onondaga County, stated that three views have obtained in reference to pneumonia: First, preceding the attack there is an excess of fibrin in the blood, or hyperinosis. This causes an involvement of the nervous system. The lungs have an affinity for this blood and hence are affected. This view assumes what has not been proven. Second, pneumonia is an ordinary inflammation, induced by a chilling of the surface and other like exciting causes. Soldiers, sailors, and others much exposed, however, are not liable to contract the disease, which is not so prevalent in colder climates. It differs from an ordinary inflammation by the marked chill and sudden defervescence. Third, pneumonia is an essential fever with a local lesion. It is infectious and even occasionally contagious. Why are the lungs or one lobe alone affected? No more reason can be assigned that in the case of the specific lesion of typhoid fever and like diseases. This question is not finally settled, but pneumonia is probably an essential fever with a secondary pulmonary affection.

Dr. Ross, of Chemung County, stated that nothing must be accepted not borne out by fact and experience. A careful study of the pathology of pneumonia is important. Most physicians consider it a local disease, but from the following facts the doctor considers it otherwise: The onset is distinct and well marked; the disease selects by preference certain ages; when the temperature falls recovery quickly begins, although the lung is still seriously crippled; a true croupous pneumonia cannot be artificially induced; there is generally a selection of the right lower lobe, and the prostration is entirely out of proportion to the amount of lung involved.

Question 2. What facts and rational grounds, with our present knowledge, can be cited in support of the doctrine that acute lobar pneumonia depends on the presence of a specific micro-organism?

In answering this question, Dr. Janeway, of New York County, gave a history of the various researches in which pneumococci have been found in the sputa and different parts of a pneumonic lung. Mice, guinea-pigs, and rabbits inoculated with the pneumococci have contracted pneumonia. A strong case can be made out for the pneumococcus as a cause of pneumonia. The microbe acts by gaining entrance to the mouth and respiratory tract, where it grows, thus establishing the disease. In cases of inoculation there may be a mixture of septicæmia with other symptoms.

Question 3. What conditions or circumstances incident

to acute lobar pneumonia tend to render the disease fatal?

Dr. Robb, of Montgomery County, stated that pneumonia is more fatal among blacks than whites, also among females than males. A pregnant woman is in greater danger than a non-pregnant one. Pneumonia is very fatal when the upper lobe of the lung is affected. In cases of debility from alcohol the prognosis is particularly bad. Some years the disease is very fatal, from some epidemic influence. If the temperature reaches 105° F. the attack is very serious. Prune-juice expectoration and an irregular pulse and temperature, or active delirium, are bad signs. A low, muttering delirium and subsultus are always fatal.

Dr. Biggs, of New York County, stated that in six hundred uncomplicated cases the mortality was six per cent. The prognosis is bad in the following instances: 1. Patients with bad habits or in a bad condition; alcoholics especially fare badly. Over five years of age the disease is much more fatal than under that age; in old age the disease is nearly always fatal. The excitement and exertion of moving patients to a hospital may cause a fatal ending. 2. As a complication of other affections, as the exanthemata, chronic Bright's disease, valvular disease of the heart, and after surgical operations, the prognosis is bad. 3. Certain complications of the disease, as purulent infection, abscesses, albuminous urine, pleurisy with effusion, endocarditis and pericarditis render the prognosis bad. Only one per cent. of cases terminate in abscess. 4. If more than one lobe is affected the prognosis is bad; if more than two are involved the disease is nearly always fatal. 5. The intensity of action of the morbific principle affects the prognosis. Malignant epidemics seem to point to a germ theory for the disease. The immediate cause of death is heart-failure, with a collateral œdema of the lungs secondary.

Question 4. Are there known remedies or therapeutic measures capable of arresting this disease, or of exerting a curative influence by either shortening its duration or conducing in any way to a favorable termination?

Dr. Rochester, of Erie County, stated that in the earlier years of his practice a free use of the lancet and calomel gave him as good results as he has since obtained. He has used the carbonate of ammonia for many years, from the very beginning of the disease. He gives from gr. v. to x. q. 2 h. in milk, and a little Dover's powder, if necessary, to quiet the nervous system. Alcohol is to be used only in asthenic cases. The doctor does not believe in arterial sedatives like veratrum viride. For an external application, a large poultice or oil-silk jacket.

Question 5. Is blood-letting ever indicated in this disease, and, if so, what are the circumstances indicating and contra-indicating this means of treatment?

Dr. Clark, of Niagara County, has found a plurality of causes for pneumonia and a varied treatment. In plethoric cases, or where there is exhaustion of the heart with a passive congestion and dilatation of the right ventricle, blood-letting will relieve when stimulants fail. The infrequent and careful use of the lancet will often do much good.

Question 6. Is alcohol useful in the treatment of cases of acute lobar pneumonia, and, if so, what are the indications for its use, and how is its use to be regulated as regards the quantity given, etc.?

Dr. John Shrady, of New York County, stated that as a medicine alcohol has been overrated. In most cases where it is employed, from four to eight ounces a day will prove sufficient. In pneumonia of old people stimulants should be freely given. Alcohol has very little effect upon the temperature.

Dr. Ferguson, of Rensselaer County, stated that the impression through the profession of the good effects of alcohol was vague and not based on statistics. Is alcohol a food? There is no doubt that it is destroyed in the body and gives force, and is therefore food. Especially in disease it acts as a food. Alcohol is a sedative in pneumonia. It temporarily increases the strength of the heart muscle.

The meeting then adjourned.

Wednesday, November 18th—Second Day—Morning Session.

After the transaction of some general business the

DISCUSSION ON PNEUMONIA

was continued.

Question 7. To what extent is it safe and useful to employ antipyretic measures of treatment in cases of acute lobar pneumonia, inclusive of the cold bath, sponging the body, or the wet sheet?

Dr. Charles G. Stockton, of Erie County, believed that antipyretic treatment was very useful when it was not dangerous; but when, as often happens, antipyresis is ill borne, it should not be persevered in. He quoted the views of a number of American practitioners for and against the employment of external antipyretic measures. The speaker himself believed that the selection of an antipyretic should be made according to the indications of the case. He deprecated the use of external antipyretics, with the possible exception of cold sponging. He thought that antipyrine should never be given in doses larger than twenty grains, nor at intervals of less than eight or ten hours.

Question 8. Do relapses of acute lobar pneumonia ever occur during or shortly after convalescence, and does this disease involve any special liability to other diseases or sequelæ?

Dr. John G. Orton, of Broome County, said that during an extensive practice of many years past, he had never met with such relapse, and he did not believe that it could occur, admitting that pneumonia was an essential fever; and he regarded the so-called relapses of other observers as merely due to complications or the involvement of a new portion of the lung. He regarded bronchitis, pleurisy, acute nephritis, pericarditis, and heart-clot as favored in their origin by pneumonia. Meningitis he did not regard as often due to the pulmonary affection. He believed that one attack of pneumonia left behind it a predisposition to subsequent attacks, and he believed that the lung might also be so modified as to offer a nidus for the lodgement of the tubercle bacillus.

Dr. Ely Van De Warker, of Onondaga County, then read a paper on the

MEDICO-LEGAL BEARING OF PELVIC INJURIES IN WOMEN.

The speaker said that the defence, in actions concerning pelvic injuries of women, was always at a disadvantage, since it could not ascertain the real nature of the case, owing to the repugnance of the court to order an examination of the plaintiff. He related several instances of this sort. He believed that many of these plaintiffs were sincere but mistaken, their pelvic troubles dating back prior to the receipt of the alleged injury; but there was another and large class comprising women who were unmitigated frauds. The only remedy suggested was that courts insist upon evidence other than that of the plaintiff or of her physician.

Dr. A. Flint, Jr., of New York County, then delivered the address on

SOME OF THE RELATIONS OF PHYSIOLOGY TO THE PRACTICE OF MEDICINE.

Physiology, the speaker said, is the only rational basis of the practice of medicine. Although empiricism is sometimes useful, its results must be substantiated and explained by physiological knowledge. He illustrated the value of physiological researches in the diagnosis of heart disease, and showed the aid which these studies had given to the advance of physical diagnosis as a science, and to a proper appreciation of the pathology

of cardiac and other affections. The speaker then referred briefly to the medical errors, handed down from former times, which had been overthrown and cleared away by the labors of physiologists. He said that physiology teaches us that fevers should be fed in order to save the tissues, which would otherwise be sacrificed to sustain the abnormal elevation of temperature, and alcohol may be given for the same purpose. Finally, the speaker instanced the discovery of vaccination as a triumph of physiology, and referred to the study of micro-organisms, which latter he believed would eventually lead to the detection of the means both of prevention and of cure of infectious diseases.

AFTERNOON SESSION.

DR. ISAAC E. TAYLOR, of New York County, read a paper entitled

RECTO-LABIAL OR VULVAR FISTULÆ—THEIR CAUSES AND TREATMENT.

Recto-anal fistulæ are of frequent occurrence, recto-vaginal come next in frequency, while recto-labial, or vulvar, are infrequently seen. The latter subject has not received sufficient attention from the profession. The subject is akin to recto-anal fistulæ. Works on gynecology are silent in reference to the glands of Bartholin, their diseases, and the unfortunate results of them. Labial or vulvar abscesses are most usually considered as of trivial occurrence. Under the influence of various causes inflammation ensues, which may be confined simply to the excretory duct, or the gland itself. Eventually the cellular tissue which surrounds the gland becomes irritated and suppuration follows. A fistula may result from this. Vulvar-rectal fistulæ arise from abscesses in (1) the gland itself; (2) in the areolar tissue surrounding the gland; (3) the prerectal vulva. The pathognomonic symptoms are air and very thin liquid fecal matter being discharged.

DR. EDWARD M. MOORE, of Monroe County, read a paper on

RECURRING LUXATIONS,

in which he maintained that this accident was in no sense the fault of the surgeon. Torn or weakened ligaments are common factors in producing a recurrence of luxation.

DR. FREDERICK HYDE, of Cortland County, then read a paper entitled

THE DIFFERENCE IN THE SYMPTOMS OF STRANGULATED OBLIQUE INGUINAL HERNIA.

He thought that much time was often lost in seeking advice in consultation, and that it was better for each one to acquaint himself thoroughly with the symptoms so as to be able to dispense with the advice of others. The speaker formulated a number of conclusions, giving the symptoms of strangulation and the indications for herniotomy.

DR. JOHN W. S. GOULEY, of New York County, deprecated attempts at prolonged taxis, the use of ice and other topical applications, and believed that an early herniotomy was advisable. Even if there were no hernia, this operation was, as a rule, safe.

The paper was further discussed by Drs. Barrett, of New Jersey; Dudley, of New York County; and Ferguson, of Rensselaer County.

DR. JOHN S. JAMISON, of Steuben County, followed with a paper on the

MEDICINAL AND DIETETIC THERAPEUTICS OF THE COMMON FORMS OF CHRONIC INTESTINAL CATARRH.

He said that the catarrh was often kept up by retained fecal masses, and therefore laxative remedies were indicated. Starch should be avoided, as should also sweet preserves.

DR. GARRISH, of New York County, thought hygienic and dietetic treatment was more important than medicinal. Warm clothing and the use of milk were the most important prophylactic measures in children. In dysentery he gave rectal injections of subnitrate of bismuth. Oatmeal he considered harmful.

The paper was further discussed by Drs. Pomeroy, Gillis, Collins, and others.

EVENING SESSION.

DR. ISAAC PURDY, of Sullivan County, read a paper entitled

A CURSORY REVIEW OF THE EPIDEMIC AND ENDEMIC DISEASES OF SULLIVAN COUNTY DURING THE LAST THIRTY-FOUR YEARS.

The paper was an interesting sketch of the medical history of the county, in which the author described the origin and spread of the different epidemics and noted the varying characteristics of each, adverting briefly to the methods of treatment found best adapted to these different types.

The discussion which followed turned principally upon the treatment of diphtheria, and was participated in by Drs. Peters, Cronin, Pomeroy, Gerrish, and others.

DR. W. B. SABIN, of Albany County, related a case of

REMOVAL OF ENTEROLITH,

weighing between four and one-half to five ounces. The stone was removed, after crushing, through the dilated anus. It consisted of petrified fecal matter.

DR. HENRY VAN ZANDT, of Schenectady County, followed with a paper entitled

COMMERCIAL PRESCRIPTIONS,

in which he dealt very severely with the special preparations of the manufacturing chemists, not omitting a few strictures upon the physicians who lend their names to the certificates appended thereto. In the discussion, various remedies for this evil were proposed, but it was agreed that the only efficacious remedy lay in the physicians' hands—they should not use these preparations nor certify to their assumed value.

The next paper read was by DR. ISAAC DE ZOUCHE, of Fulton County, upon

PROPHYLAXIS.

The author dwelt upon the ignorance of the elementary rules of hygiene, so often displayed in rural districts, as well as in cities, and insisted that the physician's sphere lay not only in administration of drugs to cure disease, but also, perhaps even more, in the inculcation of the lessons of cleanliness.

DR. BAKER, of Oneida County, thought it was not so much the *fact* of prophylaxis that needed discussion as it was the *how*. He said that the profession seemed to be apathetic in the matter, much was said but little was done. The discussion then turned upon the Plymouth epidemic, and DR. THORNTON, of Erie County, described the origin of the disease as he studied it when a delegate from the Buffalo Board of Health.

The following papers were read by title: "The Relation of Drink to Insanity," by Dr. G. Alder Blumer, of Oneida County; "Tumors of the Jaw," by Dr. W. S. Tremaine, of Erie County; "The Treatment of Incontinence of Urine in Women, resulting from Hyperdilatation and Paralyzation of the Urethra," by Dr. Nathan Bozeman, of New York County; "Skin-flaps in Amputation and Umbilical Hemorrhage in Infants," by Dr. U. C. Lynde, of Erie County.

(To be continued.)

NEW YORK ACADEMY OF MEDICINE.

SECTION IN SURGERY.

Stated Meeting, Monday, November 9, 1885.

STEPHEN SMITH, M.D., CHAIRMAN.

IS WIRING THE FRAGMENTS ATTENDED BY SUCH SUCCESS AS TO MAKE THIS METHOD THE RULE IN THE TREATMENT OF SIMPLE FRACTURE OF THE PATELLA?

DR. JOHN A. WYETH opened the discussion on the above subject, and formulated his views in answers to the following questions:

1. Can simple fracture of the patella be treated by a method which will secure a perfectly useful limb without danger to the patient's life or limb?

2. If so, what is that method?

Dr. Wyeth said that, in the history of surgery, the first question had been answered affirmatively thousands of times. By the use of the posterior splint, obtaining ligamentous union, he had never treated a case which did not result in a useful limb; perhaps not so useful as that with the original patella, but one which permitted the patient to subsequently perform his usual work without very marked inconvenience.

Thus the second question was partially answered, but the method which he now employed and advised was Hamilton's; that is, the use of a posterior splint of some kind. This method positively incurred no risk to life or limb or comfort of the patient. The posterior splint should never be removed for at least six weeks. The dressing for the anterior aspect of the limb designed to hold the fragments in close apposition—such as the figure-of-8 application of the roller-bandage—should be inspected frequently, perhaps daily, to determine whether or not the desired approximation of the fragments was being maintained.

At the end of six weeks slight passive motion should be begun. The posterior splint should be worn for six months. Some form of splint which furnished a flexion-check must be worn for at least one year longer, making a total of eighteen months during which the posterior splint was worn. The length of time for which the patient is incapacitated for ordinary work was, by this method, six weeks.

3. Is a ligamentous union of one inch or less in length, properly obtained and protected for eighteen months, as strong as bone?

Hamilton says that it is, and Dr. Wyeth had several cases which showed that such a union was even stronger than bone. In 1877 he treated a patient for fracture of the patella, beginning two or three months after the accident occurred, and in the meantime the patient had fallen and succeeded in separating the fragments over two inches. He approximated the fragments, by the method of the posterior splint and the figure-of-8 roller over the patella, to within three-fourths of an inch, and kept the limb dressed for one year only. The result was satisfactory to the patient, and he pursued his ordinary labor without special trouble for five years, when he fell again, and produced a transverse fracture of the upper fragment, the old ligamentous union holding firmly. Dr. Hamilton relates several such cases, and they are not of infrequent occurrence.

4. Does a ligamentous union, two or three inches in length, necessarily imply a loss of function? After an unhappy experience in wiring the patella in 1882, a patient came under Dr. Wyeth's care with this fracture, and practically the case received no treatment. He was placed in bed and an ice-bag applied, and after a time a simple roller-bandage was adjusted which satisfied the patient. In that case union took place with a ligament at least *two inches* in length. The man is still under observation, and can go up-stairs—three steps at once, if necessary—and walk without limping; he can also kneel and raise himself with the limb, and is satisfied with the result of the treatment. Dr. Wyeth was well aware that ligamentous union was very apt to be followed by impaired or imperfect function, and sometimes loss of the function of extension altogether.

5. Does wiring the patella secure a better limb than can be secured by other methods of treatment? Of course, if wiring is successful, and union by bone is complete, thick, and solid throughout, it is better than anything else.

6. Is wiring a safe operation? This was the part of the subject which was most interesting to him, and in connection with it, Dr. Wyeth gave an abstract of a case he had reported in THE MEDICAL RECORD, vol. xxi., p. 596 (1882). A German girl, twenty years of age, during a storm at sea was thrown against the guard-rail, and her left patella was fractured while the leg was strongly flexed. He had at that time never heard or read of an unsuccessful result in a patella which had been wired under antiseptic precautions, and therefore performed the operation under the fullest antiseptic precautions; no untoward event occurred during its performance. The case, however, did badly, and he was obliged to amputate at the middle of the thigh to save the patient's life. At the time of the publication of his paper, he had collected nineteen cases; in five the operation was performed without antiseptic treatment, *three* dying and *two* recovering; fourteen with Listerism more or less modified. Only one out of the fourteen died. One lost the leg. In five cases bony union was supposed to have been obtained. The remaining seven recovered; one with "no bony union," and in the others motion was more or less limited.

After the study of these cases, and in the light of his own sad experience, and from a study of the subject since, Dr. Wyeth was as much convinced of the danger of the operation as he was of his own existence; and also that the benefit derived from a close coaptation of the fragments was not great enough to warrant the risk incurred by opening the joint and wiring the fragments together.

7. If it were a safe operation, would it be preferable to the method of treatment by the use of the posterior splint? Certainly, as between the two he would not hesitate to decide in favor of the latter method.

Some of the prominent objections to wiring were that the operation necessitated longer confinement in bed than the other method of treatment, as the patient must remain there six weeks or two months, with the leg in complete fixation. By Hamilton's method the patient is not confined to the bed for more than three or four days. With wiring the patella the patient is incapacitated for any kind of work for at least six months after the operation. Furthermore, he had recently seen a case in which synovitis was caused by the wires.

8. Are there any cases in which wiring is permissible? Dr. Wyeth thought that the operation should be confined to fractures in which there was a wound communicating with the joint, and in which there must be drainage.

As to other radical methods, such as treatment by means of Malgaigne's hooks, Kocher's method of throwing a wire-loop around above the fragment, one-half the loop going through the joint, and Volkman's method, in which the loop did not pass through the joint, all were objectionable, as he did not see any justification for a method which interfered with the integrity of the skin.

DR. R. F. WEIR continued the discussion, and said that he had not had any experience in the performance of this operation. His surgical inclinations had rather leaned against it. When it was first proposed, it seemed to him that the gist of the question was with reference to the safety of the operation, and Lister claimed that he had sufficient practice in antiseptic surgery to enable him to place complete reliance on its safety. Dr. Weir believed that he had carried out the details of antiseptic surgery as thoroughly as was possible, and that he had

had a fairly large experience in that field; and yet he could not feel that he had confidence in its absolute safety. He thought that all surgeons had had unfortunate experiences and disastrous results, notwithstanding the observance of all recognized and known antiseptic precautions. He had not, therefore, felt that wiring the fragments in simple fracture of the patella was a perfectly safe operation. Dr. Bull's case, quoted by Dr. Wyeth, was certainly a startling one, resulting in death after simple fracture of the patella. He had seen, in the New York Surgical Society, cases in which the operation had been performed, as well as published cases in which it had been claimed that good results had been secured; yet motion did not extend through an arc of more than twenty-five or thirty degrees, an unusual limitation after simple fracture treated by other methods. He had felt that, when treated with a well-secured posterior splint worn for a long period of time, at least three or four months, the case terminating in a separation of the fragments varying from one-fourth to one inch, a very good limb and result had been obtained.

The only argument which he could see in favor of wiring was the fact that occasionally, with a narrow bond of ligamentous union, when the limb is put to some extra motion, the other patella was fractured.

Dr. Weir would feel that, in addition to compound fracture of the patella, where we were warranted in wiring the fragments, there was one condition which possibly might call for interference, namely, those cases in which union took place with half an inch or an inch of ligament, and the bond of union stretched and became three or four inches long. Although patients got along very well with such a great length of ligamentous union, occasional cases occurred in which there was an undue liability to do themselves injury, and therefore an attempt to bring the fragments into closer apposition might be justifiable. He believed, however, that the general sentiment of the profession was concentrating more and more strongly against this operation. He had contented himself with the application of the plaster-of-Paris bandage in the treatment of fracture of the patella, and had obtained as good results with that method as with any which he had employed. He also wished that Dr. Wyeth had added to his test the question, Has aspiration for the removal of serum and blood facilitated recovery?

Dr. Post had had no experience in wiring the patella, and had been very well satisfied with results obtained by the ordinary methods of treatment. He did not consider a limb as perfect with ligamentous union an inch or more in length as it would be with bony union, but it answered well in the performance of all ordinary functions. His opinion had been that wiring the fragments should be reserved for compound fracture and for old fractures with such laxity of the ligamentous union as seriously impaired the usefulness of the limb.

Dr. M. J. Roberts had not had any experience in wiring. He reported three cases treated with the posterior splint, and all the patients recovered with useful limbs, although impaired as to functional activity.

Dr. James R. Taylor had not wired the patella, but had secured average good results by means of the posterior splint, and a device of his own for approximating the fragments.

The Chairman said that wiring the patella for fracture was a frequent operation in Bellevue Hospital. He was induced to perform it with a great deal of reluctance, but had done the operation seven times, and, so far as dangers were concerned, they had all been entirely satisfactory, no unfavorable symptoms of any kind occurring during the treatment. Three were cases of simple fracture, three were cases of old fracture with long useless ligamentous union, and the other was a case of compound fracture.

As far as he observed the three cases of simple fracture, the movements of the limb were not as free as he had seen after the same period of treatment by the posterior splint. He supposed that they would eventually have as free motion as the others. In one old case the amount of flexion was less than fifteen degrees, and the result of the operation was satisfactory.

In one case, a comparatively recent one, he found a condition which was peculiar, namely, both fragments were covered with a shell of bone, apparently a new formation from the upper surface, which broke down very much like an egg-shell. Both fragments were quite soft, except the lower surfaces, which were firm. He sawed off two thin pieces from the fractured borders, and introduced the wire, but it immediately cut through the soft bone, and to make it hold he passed the wire through the entire fragments, and was able to bring the edges together on the internal; but the middle and external portions were not quite in contact. This case did perfectly well, and subsequently the surface of the patella was so covered that there was no evidence of any separation whatever; although the wires were in the joint, the appearance was that of union by bone, and the patient could walk very well.

With regard to St. Vincent's Hospital, wiring the patella had been done there, and, so far as Dr. Smith was aware, with entirely satisfactory results.

The method of treatment which had always commended itself to him was that described by Dr. Weir, and it had given as near bony union as any except wiring. His own impression as to the danger of wiring was, that the operation was not attended by any danger at all. He had not seen any unfortunate results in his own practice, nor in Bellevue, where the operation had been performed eighteen or nineteen times, besides four or five cases in St. Vincent's.

As to how useful the limb became he did not know the general results, but in two of his cases motion was very free, but in a third case it was less free, yet was improving, and the patient was perfectly satisfied with the result of the operation. In Bellevue, passive motion had been begun as early as two weeks after the wiring; of course, practised very gently at first.

Dr. Weir asked the Chairman if he would advise the operation in cases of simple fracture of the patella.

The Chairman said that he would not urge it, as he was not yet satisfied that the operation gave better results than had been obtained by other methods. But he would not hesitate to perform it on account of its being an unsafe operation.

Dr. Poore asked if there was not an impression among surgeons that the amount of motion was less after wiring than after treatment by other methods.

The Chairman thought that the reported cases thus far did not justify such a conclusion.

Dr. Poore believed that the lack of motion with any method was due somewhat to the condition of the flexor tendons.

A running discussion then took place, which was participated in by several members, and it terminated in the adoption of a motion empowering the Chairman to appoint a committee of three to report on the subject at some future meeting of the Section.

The Section adjourned.

The *Ensayo Médico* of Caracas is responsible for the following: "*To Darwinists.*—There has just been an interesting discovery in Paraguay of a tribe of Indians furnished with tails. One day a number of workmen belonging to Tacura Tuyu were engaged in cutting grass, when their mules were attacked by Guayacuyan Indians and some of them killed. The workmen pursued them and succeeded in capturing a little boy of eight years of age. He was taken to Señor Francisco Goleochoa at Posedas, and it was then discovered that he had a tail ten inches long, and has, in consequence, excited a good deal of interest. The boy says that he has a brother who has a tail as long as his own, and that all the tribe have tails."

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE GREAT MEETING OF THE COLLEGE OF SURGEONS—TRIUMPH OF THE MEMBERS—THE CO-OPERATION OF THE COLLEGE OF PHYSICIANS—THEIR MEETING—THE DEMAND OF MEMBERS—DISCUSSION.

London, October 31, 1885.

We have had a lively week in medical politics. Yesterday afternoon there was a magnificent meeting of members and fellows of the Royal College of Surgeons. It had been arranged that the Council would submit a report to such meeting, and the association of members was therefore active in seizing the occasion for maintaining its views. I have already informed you that the fellows have practically conceded the right of members to a share in the election of the Council. But the Council thereupon refused to recognize this principle. It is strange that men cannot see that educated members of a profession cannot always be debarred from a voice in the matters which concern them. The very title conferred, "member" of the college, is a standing rebuke to those who say members have no rights.

The meeting was held in the hall of the college. It is many years since such a privilege has been granted, and members from all parts of the country crowded the building. Mr. Sampson Gamgee came came up from Birmingham to take part in the proceedings. He is a capital speaker, a man much respected, and a thorough-going medical reformer. He took part in the meeting above mentioned many years ago, and the survivors of his then fellow reformers were delighted to again welcome him. Alas, how many of the company of the former fight were missed in this, and of those present what a change had come over them! Those then youthful looking are now old and gray, some infirm and decrepit, and some, though known to be alive, were unable to get out. Mr. Gamgee himself is much older, though he retains a good deal of his elasticity and is zealous as ever. He moved "that the Council of the Royal College of Surgeons, not having accepted the principle that members, as well as fellows, should take part in the election of the council, in the opinion of this meeting steps should be at once taken to memorialize Parliament and the Crown, so as to secure, in the interests of the public and the profession, the right to representation in the administration of affairs of the college for its 16,000 legally-qualified members."

A series of speeches followed, but it can scarcely be said that any discussion took place, as all the speakers were of one mind on the subject. No one had anything to say against the resolution, and it was adopted with much enthusiasm.

Then followed another resolution, "That in the opinion of this meeting no alteration in the constitution or in the relation of the college, or in any of its by-laws, or ordinances, shall be effected without the consent of the fellows and members convened to discuss the same." This resolution was also carried unanimously, and it was then proposed to adjourn until November 19th to receive the Council's reply, but the president ruled this *extra vires*, it is difficult to see why, as the right of adjournment is generally held to be inherent in every lawful assembly. However, a compromise was effected, for after a word or two with some of his colleagues, the president promised that another meeting should be called without unnecessary delay.

Thus the first campaign was won, and as the college wants a new charter and must get one for the contemplated conjoint action with the sister college, the members now have every opportunity of gaining representation, if they act together and agree to oppose any charter in which their rights are ignored.

A word about the report presented by the Council. It shows 16,723 members on the roll, and 1,153 fellows, and yet this little body of fellows has previously held the only privilege, that of electing the Council. During the past year 113 candidates went up for the first examination for fellowship, 64 of whom were rejected, and 56 went in for the final examination, 19 failing. For the membership there were 1,258 candidates at the primary examination, and 960 at the final. The rejections were 705 and 397 respectively. The fees paid by members constitute the main income of the college, and will certainly diminish if justice be any longer refused.

The College of Physicians, as I have already informed you, has by a large majority passed a resolution that persons examined by the two colleges should have a degree in medicine and surgery conferred upon them. Steps will be taken at once to secure for the joint colleges the necessary right, either by charter or act of Parliament. In either case the members will be able to present their grievances to the Government, and may probably obtain redress. Sir R. Bennett, and a few others opposed the movement, and thereby showed their want of breadth more decidedly than ever. Sir R. Bennett, as one of his intimates says to me, was always a "weak man," and weak men, we all know, are apt to have strong prejudices in favor of the paths of their childhood. Sir W. Jenner supported the proposed advance heartily. He is reputed to be a strong man, and I used so to regard him, but his lamentable weakness in the matter of the college fellowship has gone far to annul the notion. Unless he goes carefully through the list and sees that London lecturers are not passed by to make room for personal friends or clients, his present term of office will have done much to deprive him of the respect he has long enjoyed as an honest and liberal-minded man.

It is justice, not favoritism, on which an upright man's reputation as a ruler should rest, and Sir William Jenner is a ruler in his college, and we may well look to him when advocating advance, to repair the injustices of his predecessors and—yes, of his own previous official career.

Unless this is done the members will follow the example of the members of the sister college, and the two institutions may find themselves face to face with an enraged constituency having the ear of the Government and denouncing the proposed united action as a job intended to put money in the coffers of the colleges and the purses of some of the officials.

YELLOW FEVER AND THE EFFICACY OF QUARANTINE.

To the Editor of The Medical Record.

Sir: In the September number of the *Sanitarian*, the editor writes: "If the case of the bark John Gibson," from which a case of yellow fever was introduced into New York city, on August 18th, "is a fair example of the administration of quarantine at Delaware Breakwater, it is evident that no protection is afforded by it to the cities on the Delaware, or anywhere else, and the sooner it is abolished the better. A vessel that has been 'cleaned and fumigated,' and communicates yellow fever within a week thereafter alongside of the wharf of a populous city, in midsummer, is a dangerous specimen of sanitary service." The spirit in which the above was written is apparent by referring to the August number of the same journal, where, referring to the same case, the editor fails to recommend the abolition of the New York quarantine, through which he at first supposed the bark passed. The facts of the case are as follows: Shortly after July 16th, on which date the bark John Gibson left Cienfuegos, the mate developed yellow fever. During the voyage to Lewes, Del., five persons, of the fourteen on the vessel, had yellow fever. One case was fatal.

At Lewes the vessel went into quarantine, Acting Assistant-Surgeon W. P. Orr, of the United States Marine Hospital Service, being in charge. She was thoroughly fumigated, detained in quarantine from August 3d until August 12th, when, no further apprehension existing, she was allowed to sail for New York, where she arrived August 14th.

Acting Assistant-Surgeon Orr gave her a clean bill of health, which was referred to Health Officer Smith for personal inspection. It was publicly stated that he decided that it would be safe to honor the bill of health, but took the precaution to fumigate the vessel again.

On August 18th one of the discharged seamen of the vessel developed yellow fever, of which he died the next morning.

For eleven days this man was under observation, and yet he presented no symptoms of yellow fever. While we will not enter into any discussion of the length of time necessary for yellow fever to develop after exposure, still we cannot entirely believe it was from materies morbi still in the vessel. If so, the fumigation received in New York was as useless as that at Delaware Breakwater.

I have desired to make this public record of the case, because the Health Officer of the port of New York saw fit to make some unprofessional remarks regarding the officer at Delaware Breakwater. In consideration of the fact that five cases of yellow fever passed the New York quarantine between the last of August and October 1, 1884, it would seem that the officer in charge might understand the fallibility of quarantine.

Very respectfully,

S. T. Armstrong,

Passed Ass't Surgeon U. S. Marine Hospital Service.

Memphis, Tenn., September 28, 1885.

PROGRESS IN MEDICAL EDUCATION—THE WOMEN TAKING THE LEAD.

To the Editor of The Medical Record.

Sir: As your columns are constantly open to notes of progress made in medical education, you will permit me to mention a detail in regard to that of the Woman's Medical College which is not generally known. This is the complete separation which has for several years been established between the courses of study in therapeutics and in materia medica. During the first year no students are permitted to study therapeutics or the action of drugs, it being theoretically absurd to suppose that this could be understood, in either health or disease, while as yet no study had been made of either physiology or pathology. But during the first year the students follow a special course on materia medica proper, under the direction of a separate professor (Professor Josephine Chevaillier). This course relates to the botanical, chemical, and pharmaceutical properties of drugs, which are not only described in systematic lectures, but handled, analyzed, dissected, and manipulated, during four months of laboratory work. The work done by the class in the last year may be estimated from the subjoined programme of laboratory work.

I think it worth while to call attention to this feature of our course, for it is an entirely original one, and entirely peculiar to our school, yet it is certainly eminently rational; and has been highly praised by so great an authority as Hoppe-Seyler, to whom Professor Chevaillier recently described it.

Practice in Chemistry.—The first four months which the first-year students spend in my laboratory are devoted to a course in qualitative analysis.

First, they acquire a knowledge of the processes by working on known bodies and mixtures of those bodies, which the student makes herself; and then analysis of unknown substances, and these are anything that may fall into my hands, such as residues from lecture-table apparatus, gall-stones, calcined bone-black, cosmetic powder (sent for analysis by Dr. Cushier), the tinted chalks, solder, one-half per cent. solution each of oxalic acid and sodium chloride (they are always puzzled by these!), mixtures of solids containing as many as ten or fifteen substances to be detected—acids and bases, etc. The laboratory work is accompanied by written examination on the groups in qualitative analysis, before the student begins the work on the group with unknown substances.

Practice in Materia Medica, 1885.—Microscopic work: Yeast, bacteria, starch grains, vegetable tissues, formic acid (from glycerine and oxalic acid), ammonium acetate, magnesium sulphate, zinc sulphate, opium suppositories, extraction of morphine from opium, acetic ether, oxalic acid, testing for alkaloids, oxide antimony, aq. camphoræ, aq. cinnamomi (distillation), aq. cinnamomi (with $MgCo_3$), arsenic iodide, ferric chloride, dialyzed iron, reduced iron, iodoform; mercuric oxide, chloride, iodide, turpeth mineral: mercurous oxide, chloride, iodide; yellow iodide mercury; red, yellow, and black wash, $Hg(Ch)_2$ (mercuric cyanide), Monset's solution, tersulphate iron, zinc delphinium, test for cod-liver oil, pil. antimonii compositæ, citrion ointment, reduced iron, fluid extract rhubarb, Fowler's soluton.

Mary Putnam-Jacobi, M.D.

110 West Thirty-fourth Street.

SPONTANEOUS ORIGIN OF TYPHOID FEVER.

To the Editor of The Medical Record.

Sir: I see by The Record that the Academy of Medicine has discussed the question as to the possibility of the "spontaneous origin of typhoid fever." To avoid a tedious discussion and loading of your columns, allow me to state briefly that the question is forced upon the attention of the practitioner of the Rocky Mountain region, as well as of the adjacent plains, by the presence of what in former days, when the country was sparsely settled, was called "mountain fever." It obtained its name from the fact of the early explorers scattering in isolated parties during the summer months in the mountains along the streams in search of gold, and while so employed would be attacked with a continued fever; and as they did not have the "antecedent case" of the old settled communities—the convenient milkman, or the sewer and its priest, the plumber—to explain the origin of the fever, and as the teachings of the colleges required that there should be certain environments in order that there could be a case of typhoid fever, the disease was termed "mountain fever." Not that it necessarily originated in the mountains, because we find it all over the country, and under sanitary surroundings that could not be equalled in perfection anywhere else on the continent.

In my opinion, it is impossible for physicians to settle the question as to the spontaneous origin of some diseases as long as they remain in old settled communities, where the modes of communication are so varied.

The antecedent case of that year, or the year before, can generally be found, and the methods of communication are at hand. But let the same gentlemen come out to a new country, where the patient is not under these sanitary surroundings, as I did in 1872, and see patients, children who have not been away from home, adults who have been isolated for months in some mining cabin, or a ranchman off on his ranch "baching it," and not a neighbor nearer than ten or twenty to thirty miles, and see the disease pursue its fatal course with all the symptoms of typhoid fever, examine the eroded intestines, and the question of the spontaneous origin of typhoid fever would be settled so far as his individual opinion goes.

If typhoid fever depend upon a bacillus, then that bacillus is as thoroughly disseminated as the spore of the yeast-plant, that is always on hand when sugar and water

are mixed in the right proportions and the temperature is at the right point for its development.

In this country, dry weather seems to be a factor in the development of typhoid fever. A rainy spell will check its progress. This I have seen in Northwestern Texas: typhoid fever during dry weather, and ague during wet weather, the ague succeeding to the typhoid fever, both in the same season.

That the so-called mountain fever of the Rocky Mountain region is a typhoid fever, there can be no reasonable doubt in the minds of the early physicians still remaining in the country, and that mountain fever is of spontaneous origin, everyone who has had experience in the treatment of the disease will agree to.

I do not bring these arguments forward as new: the early writers recognized the similarity of the lesions in "mountain" and typhoid fevers. Hammond speaks of it, and Smart recognizes it (if I am not mistaken), but tries to reconcile the prevalent theories about typhoid fever and the fact of the spontaneous origin of mountain fever by claiming malarial origin, caused by water containing vegetable matter brought down from the timber line with the melting snow; but in this section the vegetable matter contained in the water of our mountain streams is a myth. I have kept the water bottled for years without decomposition or odor, and with but a very slight cloudiness in the slight sediment, and have examined the water for vegetable substances, but after evaporating the water there was next to no organic matter in the residue.

In old settled communities there is no doubt but that typhoid fever is a much severer disease than we usually find it to be in the country regions of Colorado, our larger cities in Colorado having all the conditions for the intensification of the disease, and in them the disease is severer. On page 547 of the "National Board of Health Bulletin" (1881), I state that I believe that "typhoid fever can be caused by a poison generated within the body of the patient (ptomaines) under the best circumstances of drainage, food, and water supply, healthy locality, and *absence* of contagion. The disease thus originated may be intensified, and communicated by infection or contagion to other persons, defective sanitary and hygienic conditions, of course, favoring such transmission."

Colorado is now, in the eastern portion, too well settled to prove much about the spontaneous origin of typhoid fever, even admitting the identity of mountain fever with typhoid, because the antecedent case has occurred, and those holding to that theory can, as in New York, prove anything. But in an early day, before the advent of railroads, the antecedent case was not on hand; then three, four, or more miners started out to prospect a gulch mine, and remained isolated all summer. During the fall, one of their number would be attacked with "mountain fever," or the ranchman who had not been to town for months was taken with a fatal attack of the dreaded mountain fever, even when he had not been near the mountains.

All that is now changed in this part, and it is to the older and earlier practitioners that we must turn for information.

Yours truly,

CHARLES AMBROOK, M.D.

BOULDER, COL., November, 1885.

THE PAY PATIENT ABUSE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: I have read with interest the editorial, "The Pay Patient Abuse," which appeared in THE MEDICAL RECORD of November 7th. It is indeed a question of the day, and one which comes very close to physicians. That patients can receive medical attendance or enjoy the benefits of surgical operations, simply for the price of board, is a monstrous injustice to those who are faithfully and diligently following the practice of their profession.

Is it not time that *lawyers* contributed their share to the public welfare? Why should there not be some public institution, where for a mere nominal fee, enough to support the establishment, say, the best lawyers in the city should be approachable for free consultations at stated intervals?

There is a screw loose somewhere. The whole system needs readjusting. The more opinions are ventilated in regard to this matter the better it will be and the brighter the hope for its adjustment.

I remain, yours truly,

A READER OF "THE RECORD."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: As often as a problem has been presented for solution, so often has it been remarked that there are two sides to a question. Apropos of this, I wish to respectfully call your attention to the opposite argument in reference to what you were pleased to call, in an editorial occupying a prominent place in the columns of a recent number of THE MEDICAL RECORD, "Pay-Patient Abuse."

The occupation of the positions of, in turn, resident physician, and attending physician, of hospitals, is a voluntary one; nay, more, these posts are sought after with fierce competition. The physicians receive ample compensation for their time and services in experience and fame. If those at present occupying such posts do not feel so, they do great injustice to the numerous aspirants waiting with longing expectancy for a vacancy.

Possibly it is unjust to the majority of those toiling in the profession that an inducement to enter hospitals is held out by the comparatively small charges, which include no physician's fees, but the hospital staff are not the ones to complain. They have bargained for experience as their honorarium, and they get it. When it is an insufficient recompense, then the position should be vacated to one of the many who will be glad of it.

If the trustees of hospitals should exact medical fees, ought not these to belong to the physician who places the patient in the institution?

I remain, yours obediently,

A HUMBLE ASPIRANT FOR A HOSPITAL APPOINTMENT.

THE TREATMENT OF MASTITIS BY REST AND COMPRESSION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: I have been somewhat interested in the controversy which has taken place between Dr. Milroy, of Omaha, Neb., and Dr. Harris, of Paterson, N. J., relative to "the treatment of mastitis by rest and compression." I am somewhat surprised at the claims which these gentlemen set forth, as to priority of treatment of mastitis by compression, either with adhesive straps or by the bandage; and I am more surprised to learn that Professor Mundé has taken the field as the champion of Dr. Milroy's claim. In the July number of the *Western Medical Reporter* for 1881, Dr. Oppenheimer, of Seymour, Ind., says: "I have been unable to discover the name of the originator of this method of strapping the breast in mastitis, but his name certainly deserves to be written high as a benefactor to women." I desire to call your attention to a paper upon this subject, by Dr. George E. Ranney, of Lansing, Mich., which was published in the Detroit, Mich., *Review of Medicine and Pharmacy*, in June, 1866, p. 99, and in order that there may be no mistake, I inclose a *verbatim* copy of the paper.

At a meeting of the Michigan State Medical Society, held at Bay City, June 8, 1881, in the discussion of this subject, in reply to Dr. Johnson, of Grand Rapids, who

recommended rest and light cool dressings, Dr. Ranney again explained his method of compression as follows:

"In 1866, I published, in the June number of the *Detroit Review of Medicine and Pharmacy*, an article detailing a method I had adopted for the treatment of congested and inflamed breasts, and for the prevention of the secretion of milk when, on account of a still-birth, or death of the child after delivery, or for any other reason, I wished to diminish the augmented activity of the circulation, the tendency to tumefaction, inflammation and its results, or to arrest the secretion of milk in the mammæ. This method consisted of pressure on the distended glands by means of a bandage.

"Since the publication of that article I have had frequent opportunities to test its efficiency, and in every instance where extensive exudation had not occurred, have applied the bandage to the great relief and comfort of the patient and satisfaction to myself. In fact, I feel as though I had got a perfectly sure, efficient, and simple means of absolutely controlling the distressing difficulty.

"In selecting a bandage I take a strong piece of cotton cloth sufficiently wide to reach from the axilla to below the tumefied glands, and long enough to reach around the chest and tie at the ends, which should be 'many-tailed.' The ends should be tied over the sternum, and by the many-tailed arrangement it may be tightened at short intervals, and at one sitting at the bedside, as the engorgement will rapidly diminish under the pressure thus applied. In many cases it may be necessary to place napkins or sponges between the mammæ to complete the rotundity and equitable pressure."

I send you by this mail a copy of the "Transactions of the Michigan State Medical Society" for 1881, and I beg to refer you to page 18 for the above quotation. I do not wish to in any way detract a single iota of praise which may be bestowed upon the originator of the treatment of mastitis by compression. We are all seekers after truth in the vineyard of medicine, and if Dr. Harris or Dr. Milroy, or some other person, cannot give us some facts, and proof of originality, which antedates the paper of Dr. Ranney, I can see no other way than for them to accord the originality of treatment of mastitis by compression to that gentleman.

I am aware that Dr. Ranney, since my acquaintance with him, now nearly five years, has practised this method of compression, and recommended and proclaimed it on every suitable occasion.

JULIUS A. POST, M.D.

208 SOUTH WASHINGTON AVENUE,
LANSING, MICH., October, 14, 1885.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from November 8, 1885, to November 14, 1885.

BAILY, E. I., Colonel and Surgeon. Relieved from duty as Attending Surgeon, San Francisco, Cal., and ordered for duty as Medical Director of the Division of the Pacific and Department of California. S. O. 260, A. G. O., November 11, 1885.

NORRIS, BASIL, Lieutenant-Colonel and Surgeon. Ordered for duty as Medical Director of the Department of the Columbia. S. O. 260, A. G. O., November 11, 1885.

MCKEE, J. C., Major and Surgeon. Ordered for duty as Attending Surgeon and Examiner of Recruits, Boston, Mass. S. O. 260, A. G. O., November 11, 1885.

VOLLUM, E. P., Lieutenant-Colonel and Surgeon. Ordered for duty as Medical Director of the Department of Texas. S. O. 260, A. G. O., November 11, 1885.

SMITH, J. R., Lieutenant-Colonel and Surgeon. Ordered for duty as Attending Surgeon at New York City, N. Y. S. O. 260, A. G. O., November 11, 1885.

ALEXANDER, R. H., Lieutenant-Colonel and Surgeon. Ordered for duty as Medical Director of the Department of Arizona. S. O. 260, A. G. O., November 11, 1885.

KANE, JOHN J., Captain and Assistant Surgeon. Ordered for duty as Post Surgeon, Fort Ringgold, Tex. S. O. 141, Department of Texas, November 4, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 14, 1885.

SAYRE, J. S., Assistant Surgeon. Detached from Naval Hospital, Mare Island, and ordered to the Omaha.

DIXON, W. S., Surgeon. Detached from Coast Survey steamer Hassler upon reporting of his relief, Passed Assistant Surgeon D. O. Lewis, and wait orders.

LEWIS, D. O., Passed Assistant Surgeon. Detached from Naval Rendezvous, San Francisco, and ordered to relieve W. S. Dixon, steamer Hassler.

DUNGAN, J. S., Medical Director. Ordered to Naval Rendezvous, San Francisco, to relieve Passed Assistant Surgeon D. O. Lewis.

Medical Items.

THE GLASS-EATER A FRAUD.—Dr. T. E. Murrell, of Little Rock, Ark., writes us that the glass-eating negro whose case was reported by Dr. Burke is a humbug.

MEDICAL OFFICES in this city, with reception room privileges, command a rental of from fifty to one hundred and fifty dollars per month, according to locality.

RECENT LEGAL DECISIONS ON MEDICAL MATTERS.—The Second Comptroller of the Treasury, Judge Maynard, has charge of pension matters and occupies a semi-judicial position in regard to the proper construction of the law. Section 4718 of the United States Revised Statutes contains the following paragraph: "If any pensioner has died or shall hereafter die; or if any person entitled to a pension, having an application therefor pending, has died or shall hereafter die, his widow, or if there is no widow, the child or children of such person under the age of sixteen years shall be entitled to receive the accrued pension to the date of the death of such person. Such accrued pension shall not be considered as a part of the assets of the estate of the deceased, nor liable to be applied to the payment of the debts of said estate in any case whatever, but shall inure to the sole and exclusive benefit of the widow or children; and if no widow or child survive, no payment whatsoever of the accrued pension shall be made or allowed, except so much as may be necessary to reimburse the person who bore the expenses of the last sickness and burial of the decedent in cases where he did not leave sufficient assets to meet such expenses." The latter part of this paragraph came before Judge Maynard to decide as to the meaning of the phrase "last sickness," under the following circumstances: An old soldier named Mark Newman died in August, 1884, while his application for a pension was pending but undecided. It was granted in October, 1884, and it was decided that there was due him $2,439. He left no widow or children, and consequently, under the Statute, there was nothing payable except what was sufficient to reimburse the person who bore the expense of his last sickness and death. The pensioner had lived at the house of John Parsons during part of the time between his discharge from the Army in 1864 and his death in 1884, and the event took place at Mr. Parsons' house. The latter put in a claim to the Pension Office for $4,401 for expenses incurred during the last sickness and burial of Newman, upon the theory that the injuries received by him in the service of his country were so serious and permanent that the whole period of twenty years was to be regarded as his "last illness." The claim was once passed upon by the accounting officers of the Treasury, and allowed

in January, 1885, to the full extent of the pension, viz., $2,439. The case then came before the Second Comptroller, who decided that the phrase "last sickness" had always been limited to that which was the immediate cause of death, and could never be applied to a long period of disability, as in this case, from which no fatal results were to be immediately apprehended. For this reason the claim made by Parsons was disallowed, and instead he was granted, for expenses of board, nursing, and care of Newman, $320; for bill of physician, $92, and for funeral expenses $57, or $469 in all.—A Connecticut graveyard was recently disturbed and three old graves opened to enable an English gentleman to see if any of them contained a signet-ring, which was necessary to prove certain impressions on seals. It seemed that an important link was wanting in the settlement of an English estate, and the production of the ring would determine the succession to the property. A careful examination was made of the graves, but without finding the much-desired ring.—One of the Boston telegrams recently contained an amusing story of the examination of a witness. It appeared that a liquor trial was going on in a police court at the same time that an examination was to be held at Police Headquarters for appointment on the police force. By some misunderstanding a witness in the liquor case was admitted to the room containing the applicants for police positions. The sergeant in charge supposing that he desired to be examined physically, ordered him to remove his clothes. He appeared to be greatly surprised, and asked if that was necessary. He received an affirmative answer, and as several others in the room were doing the same thing, he followed their example. In a few minutes the physician came to examine him, and made a very thorough business of it. The face of the witness was all the time a curious study. He was evidently trying to determine what connection there was between his bodily condition and his evidence in the liquor case. All doubts were dispelled, however, when the physician remarked, casually: "So you want to be appointed on the police force, do you?" The man jumped as if he had been struck. "Mein Gott, no, I don't!" he yelled. The spectators say that he beat the record in getting inside his clothes.—A Michigan Court has recently had before it a case involving a contract made by a drug establishment not to sell certain pills below a certain price. Such a contract the judge held to be valid, on the ground that pills, unlike wheat and other articles of food, were not necessaries of life, and so not contrary to the rule which forbade, for reasons of public policy, contracts to raise the price of food artificially. The judge enunciated the startling opinion that the assertion that pills were "in any sense indispensable to the human race would be a violent presumption, not to be entertained judicially, and only to be established by evidence which every sensible man knows has no existence." The learned judge in thus attempting to annihilate a whole trade forgets that pills are indispensable to the druggist and to the patent-medicine manufacturer, if to nobody else. This extensive class of people are most positively of the opinion that the safety of the world depends upon the unhampered manufacture and sale of pills.

Concerning Points in Bacteriology.—Dr. Alfred C. Haven, of Lake Forest, Ill., writes: "I have read with pleasure the 'Lecture on Bacteriology' of Dr. Loomis, published in The Record of October 24th. While I would not presume to criticise so distinguished a savant, I cannot but notice a few statements which seem to be contradicted by other authorities, and would appeal to The Record as a referee. Is it definitely settled that bacteria belong to the *fungi*? does not Cohn, whose classification Dr. Loomis accepts, regard them as belonging to the *algæ* (vide Sternberg's 'Bacteria,' page 21)? Did not Nägeli first classify them as schizomycetes, not Cohn (Sternberg, 'Bacteria,' page 22; Klein, 'Micro-organisms in Disease,' page 34)? Dr. Loomis also says: 'Certain forms are found in the blood of *healthy* persons.' Dr. Sternberg writes: 'I have, therefore, come to the conclusion that bacteria do not occur in the blood nor in the tissues of the healthy living body, either of man or of the lower animals' ('Bacteria,' page 261). Another author writes: 'It is now admitted by most competent observers that in the healthy and normal state the blood and tissues contain no micro-organisms whatever, and that the assertions to the contrary are due to errors in the experiment, *i.e.*, to accidental contamination' (Klein, 'Micro-organisms in Disease,' page 176). Pasteur is credited by his son-in-law with the following: 'In 1863 he had established that the bodies of animals in full health are sealed against the introduction of the germs of microscopic organisms' ('Louis Pasteur,' by his Son-in-law, page 184). Dr. Loomis also writes: 'Pasteur, experimenting with the bacilli of anthrax, found, by exposing the microbes to a certain temperature higher than the most favorable for their development, they lost their virulence to such an extent that he could vaccinate sheep without danger.' In reading the 'Life of Pasteur' we do not find stress laid upon *temperature*. 'The *oxygen* of the air, then, appears to be the cause of modification of the virulence of the microbe' ('Life of Pasteur,' page 225). The virulence is diminished by exposure to the oxygen for a sufficient length of time. Finding difficulty in harmonizing these statements, I would simply refer them to The Medical Record."

To Err is Human.—"Indeed, madam, I know all about it; I saw just what ailed the woman as soon as I came into the room. There is a young man up street who is sick the same way, and I am attending him. Give the medicine as directed, and I will call around in the morning." Having delivered himself thus the young doctor took up his hat and departed. Not long after this, the pains having come on again with increased rigor, another messenger was hurried off for the old doctor, who was found just returning from a far-out call. The young doctor, upon coming over in the morning, expressed much pleasure at the supposed result of his treatment, and was rubbing his hands with an air of "I never make any mistake," when the nurse, turning down the bed-coverings, discovered to him the little one lying on his mother's arm, as she said: "By the way, doctor, has the man up street got through yet?" The moral is obvious: Do not be too previous in your diagnosis.

The Kleptococcus.—We learn with pleasure that Professor Meandra has succeeded in isolating the bacillus of kleptomania. It has long been thought that this disease owed its origin to an organism of a snaky, elusive nature, which rendered detection difficult, but it remained for Professor Meandra to first demonstrate its existence. The difficulty was, of course, to obtain pure cultivations. At length Professor Meandra secured a magpie of well-known thievish propensities, and removing a small portion of its brain, under the spray, he began the first of his long series of experiments. The organism can be readily grown in beet-juice (prepared by beating beets and straining) or in cabbage-infusion. It stains easily of a deep steel color. Under a power of eighty diameters this organism presents a hook-shape, thus ?, which gives it the name of Meandra's Interrogative Micrococcus; we would, however, suggest (with due deference to the professor's taste) the name of hookey-coccus, both as more euphonious, and as applicable, no matter what position the organism may assume; it also indicates its character as well as shape. Injected subcutaneously into cats the effects of the hookeycoccus were remarkable. Several of these animals, let loose in a back-yard, were seen two days after to creep surreptitiously into some of the neighboring houses and kleptomize pieces of meat, fish, etc. While we cannot quote the whole of this important article, we relate one interesting event. A quantity of beet-juice, in which a cultivation was far advanced, was spilled on the floor of the

laboratory. Three days after the professor missed his pocket-book, watch, and other articles of value; it was also noticed that several houses in the place had been visited and valuables taken. Mr. Lestees, the professor's assistant, a man of the highest respectability, was also missing. Professor Meandra thinks he must have inhaled some of the dry dust from the spilled cultivation. There was much excitement when the affair leaked out, and, as there are two banks in the town, the people petitioned the mayor to prevent all communication between the professor and the cashiers. There is no doubt that an attenuated cultivation can be obtained, in which case the criminals confined in the prison at Moros will be vaccinated. We agree with this great investigator when he says, "the bacillus opens a wide field for thought—an almost unfathomable vista." "Many generations must pass," he continues, "before the last microbe is stained and mounted, drawn and photographed, and stamped with the name of its discoverer." "The next two hundred years will be known in history as the Microbian Age."—*The Birmingham Medical Review.*

The Megaloscope.—Baron Larrey recently presented, in the name of Dr. Boisseau de Rocher, to the French Academy of Sciences, a new apparatus under the above title, for exploration of the bladder, rectum, œsophagus, and stomach. The name is derived from the Greek words, μεγας, great; εικων, image; σκοπέω, to see. The mechanical part is composed of a sound carrying at its extremity, for bladder exploration, a lantern containing an incandescent lamp for illumination of the cavity. That for the stomach is formed by a sound in which another sound glides carrying an objective, and the movements of which are regulated by special mechanism. By means of the objective an image is obtained, and the interior of the cavity can be studied. As it exposes a diameter of twenty centimetres, the objective lens presents an image which is magnified by the megaloscopic lens.

Human Electrotypes.—M. Kergovatz, a chemist of Brest, has, says the *Scientific American*, proposed a new method of disposing of the human body after death, which he considers preferable in every way to either burial or cremation. His system is an antiseptic one, much simpler and less expensive than the old process of embalming, and is nothing more than a new galvanoplastic application. The body is coated with a conducting substance, such as plumbago, or is bathed with a solution of nitrate of silver, the after-decomposition of which, under the influence of sunlight, leaves a finely divided deposit of metallic silver. It is then placed in a bath of copper sulphate, and connected for electrolysis with several cells of a gravity or other battery of constant current. The result is, that the body is incased in a skin of copper, which prevents farther change or chemical action. If desired, this may again be plated with gold or silver, according to the taste or wealth of the friends of the dead. M. Kergovatz has employed the process eleven times on human subjects, and on many animals, and states that in all cases it was perfectly satisfactory. In spite, however, of his warm recommendation, the idea, our contemporary thinks, is repulsive. It seems a mockery to give permanence to the temple, when all that once made it valuable is gone.

Penis Captivus.—Our esteemed contemporaries, all the world over, have been making merry over a case of supposed vaginismus reported some time ago by Dr. Egerton Y. Davis, in a Philadelphia journal, and some of them have not attempted to conceal their incredulity. The case was one of a coachman caught in *flagrante delicto*, whose efforts to extricate himself from his predicament, when discovered by his master, were a dismal failure. Most of the journals which noticed it remarked that it was a good story for the dog-days; but now, Dr. Liebrecht comes to the rescue of the reporter's reputation for veracity. He writes, in a recent number of the *Journal d'Accouchements*, to the effect that the case was not one of vaginismus, for that prevents the act of copulation, but rather of contraction of the levator ani muscle. And he states that several cases of this sort have been reported by Hildebrandt, Budin, and others, the present one differing from them only in the persistency of the spasm.

Premature Rupture of Membranes.—Dr. F. L. Putt, of Middlebury, Ind., writes: "Please permit me to say to Dr. R. M. Cole, of Idah Springs, Cal., that in his case of premature rupture of membranes he does not state if any water escaped when true labor did come on. On the presentation I have quite frequently met with cases where there was dropsy (so to speak) of the membranes covering a fœtus, which passed away one, two, or three weeks before true labor came on, and when labor did come a normal quantity of fluid escaped; again, where the fœtus assumes a malposition, with feet or knees to appear, the membranes are ruptured in a valve shape and all the water escaped with no expulsion pain. In such cases prudence dictates patience, and the wise and frugal practitioner sits by and consoles the expectant mother to give herself no worry, as such accidents are more of a relief than a source of anxiety."

The Compound-oxygen Humbug.—Oxygen has a very narrow range of therapeutical utility, however applied. It is somewhat curious that a special oxygen or compound-oxygen treatment has been able to gain so much support and extract so much money from a credulous public. Regarding this matter, Dr. Wm. B. Clarke, of Indianapolis, Ind., sends us an account of the way in which he was deceived by a person of whom he had bought an "oxygen-plant." The person in question claimed that the formulæ were the same as those used by the quacks Starkey and Palan. The following are the formulæ, *verbatim*: "Comp. Oxygen Treatment: ℞. Citrate ammonia, 25 parts; carbonate ferri, 1 part; mix, put in retort, apply gentle heat till whole compound comes to a boiling heat, then add heat gradually, and conduct oxygen to the tank. Home Treatment of Oxygen: ℞. Nitrate ammonia, 1 ounce; chlorate potassa, 1 drachm; alcohol, 2 ounces; aqua distilled, 14 ounces; mix; one teaspoonful to inhaler full of hot water; inhale two or three times a day." By the first formula, says Dr. Clarke, nothing is produced but laughing gas, and this is the real compound oxygen. The carbonate of iron is of no chemical import. By the second formula nitric oxygen or nitrous oxide is evolved. The exhilarating effects of nitrous oxide, and its stimulating effect in the treatment of certain nervous conditions, may account for some successes.

A Hospital in the Morgue.—A Vienna journal relates that the authorities of a certain village wished to have a small-pox hospital, and being unable to find a suitable location, hit upon the morgue as being well adapted for their purpose. Accordingly they moved in a number of beds, and congratulated themselves on having secured a pest-house at small expense. They had no corpse and no patient at the time, but felt that they were ready for either, whichever might present himself first. But unfortunately the Austrian health officers heard of the new combination arrangement and vetoed the project, much to the disgust of the thrifty villagers.

Hæmostatic Pills.—The following formula is recommended by M. Huchard: Powdered digitalis and extract of hyoscyamus, of each three grains; ergotine and sulphate of quinine, of each thirty grains; make into twenty pills. From five to ten pills may be taken during the twenty-four hours in metrorrhagia, epistaxis, hæmoptysis, and other hemorrhages.

Glycerine as a Tænicide.—Maccallum, says that glycerine is an excellent anthelmintic. He gives it in doses of one ounce and follows it with a mild purgative. He was led to employ it from observing that tape-worms were killed by immersion in it.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 22 NEW YORK, NOVEMBER 28, 1885 Whole No. 786

Original Articles.

PATHFINDING IN MEDICINE.[1]

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NEW YORK.

IN assuming the position which I occupy on this occasion, I comply with the request of our President, who invited me to take it in place of our esteemed and distinguished colleague, Professor Janeway, to whom it had been assigned, but who has been prevented by severe illness from fulfilling the office. On behalf of the Academy, and also in expression of my own warm feeling, I beg to utter the most sincere congratulations to him and to ourselves that his health and activity have been restored, and that we may still admire and draw upon his shining abilities and his stores of knowledge, his untiring industry and his willing helpfulness.

During the year past, it has been permitted me to see many medical men and medical institutions in various parts of Europe. One gets a new impulse from such an opportunity, and one may also be lifted to a wider horizon in the field of medicine. The privilege of attending the great International Congress at Copenhagen, and also the smaller but no less interesting annual Ophthalmological Congress at Heidelberg, could scarcely fail to ennoble one's view of the science and practice of medicine. The impression which, to me, has come uppermost, is that the line of advance must hereafter be through acute, exacting, and deep research. How little did the centuries contribute to correct knowledge of disease so long as only our unaided senses were employed! What an epoch arose when physical diagnosis began to be cultivated! How steady has been the advance, and how rich the treasure of facts, since means of physical study and examination have become more complete and numerous! We supplement the eye by the microscope, the ophthalmoscope, the laryngoscope, and the spectroscope; we augment the hearing by the stethoscope; we read the pulse by the tracing of the sphygmograph; we test muscularity by the dynamometer; we take the weight on the scales; we take the temperature by the thermometer and record it on charts; and we determine the quality of nervous and muscular reactions by the galvanic current.

Physiology has for many decades been a science founded on experiment; pathology has been rapidly pressing forward in the same direction. To read the account of how certain conclusions have been arrived at in the laboratory, by ingenious devices, and by skilful manipulations, is as fascinating as a tale of adventure. A modern laboratory for medical research is equipped with apparatus and means of experiment to a degree which creates something akin to the feeling of awe inspired by a great astronomical observatory. Chemistry, mathematics, physics, applied optics, the deft hand, the keen eye, the quick ear, the delicate touch, all are taxed to solve these subtle problems. In such a place the ordinary medical practitioner may think that he sees nothing which has any special importance to him or to his daily calling.

What relation exists between laboratory experiments and the routine of measles and childbed and pneumonia, *et id genus omne*, is perhaps unintelligible to some solid practitioners; but many a shrewd physician will admit that he is sometimes greatly puzzled by the cases which he meets, and he would like to better understand the true nature of the morbid process whose phenomena he is watching. He has learned to rely on certain drugs and therapeutic methods, he would gladly know the true affinities of these agents, and how they accomplish their work. If you tell him that a dose of iodide of potassium produces certain results according to certain laws of molecular physics, he knows that he has heard that phrase; but to trace those laws demands the laboratory with an extensive equipment, and a man to work in it who has large attainments and commanding talent. The value of good clinical observation is not to be depreciated, it must always take high rank in practical medicine; but it cannot lead far in the path of scientific medicine. We may at this day almost say that clinical observation has wrought the consummation of its work. This may not be true in the department of therapeutics, as witness cocaine, jequirity, nitro-glycerine, convallaria, and so forth. But in knowledge of the essential nature of disease, of its causation, of its prevention, and of how medicines exert their effect, and, in some measure, by what rules they are to be chosen—for all this clinical observation must be supplemented by the laboratory. I must guard myself against being misunderstood. It must be noted that I do not speak of the instruction of students, or of young practitioners. Neither do I disparage the advance in knowledge which every good practitioner gets from long experience. Much valuable knowledge is locked up in the mental storehouses of shrewd practitioners, which dies with them. It sometimes happens that important discoveries are made several times, by different individuals, before they get into the current of common knowledge. A great clinical teacher contributes not a little to the sum of truth from his own observations. The lectures of Trousseau and of Nélaton were a delight and a treasure to their listeners. But if I were to call upon our own eminent clinicians to tell us the sources whence they draw their deepest draughts of wisdom, we should hear them tell how they have sought explanation of morbid phenomena, their sequence, their mutual dependence, and their origin, in studies which have been made by the microscope, by analysis of the blood, of the urine, and of the tissues; they have called in the subtle aid of organic chemistry, they have resorted to the breeding oven, and to cultures upon gelatin. In other words, they have been working in their private laboratories, and they pride themselves on their ability to supplement their own fine senses and perceptions by these additional methods of research.

The activity which at the present time pervades our profession in zealous pursuits of this description, displays itself in all our medical journals. Our American physicians may be justly proud of their forwardness and energy in such efforts. The wonder is, that they do so much with the meagre facilities which are at their command. I pay willing tribute to men who sacrifice ease and health to pursuits of pure science; who must snatch time from bread-getting, who give public instruction, whose is the heroism of steadfastness and unshrinking labor, that they may contribute to the advance of scientific medicine. You will acquit me of any thought of belittling the achievements and aspirations of my brethren, if I venture to bring before you the need there is among us

[1] Anniversary Address delivered before the New York Academy of Medicine, November 19, 1885.

for better and more perfect methods of pursuing scientific medical research.

The conviction of the inadequacy of simple individual efforts to carry us much farther forward in medical attainment has led to the establishment of concerted efforts in the study of disease. It is proposed to gather together multiplied observations in the same diseases, and endeavor to elicit from the mass more accurate knowledge of their features and the effect of remedies upon them. Doubtless something, perhaps much, will be gained by collective investigations; but as the sum is merely the aggregate of all its parts, it is evident that by this method we shall only gain a better quality of simple clinical knowledge. We shall learn important facts in etiology, in distribution and duration of disease, in climatic influence, etc. I repeat that I do not depreciate the indispensable need of making this clinical knowledge as perfect as possible; but can we continue to rest satisfied with it? Is it not imperative that we search deeper into the phenomena of living tissues and try to understand what really goes on within them?

The affirmative answer, which every one is ready to give, may be illustrated by reference to chemistry, which analyzes the intimate character of every known substance, and creates new combinations of them, because it is not content to know only their outward qualities, their form, color, weight, consistence, etc. Chemistry is to a great degree the study of atoms and their behavior. Physics now busies itself with the affinities and repulsions of molecules, and finds in the infinitely small an ample field for its best powers.

In medicine, the aim has for a long time been in this direction. The great implement of search has been the microscope. And if the title of my paper may seem singular, perhaps it will be thought less grotesque if I suggest that the effort to penetrate the mysteries of the human organism is not a little like the attempts of explorers to make their way through a tropical jungle. They may hew ever so sturdily with axe and saw, but the mass of vine and twines, of bush and tree, of grass and leaf, shuts out the light, hampers their labor, and keeps them in deep ignorance of what lies beyond.

When the microscope began its work, how discouraging was the vastness and complexity of the discoveries which it brought to light! How many years has it been diligently used, and how uncertain are we still about many of its revelations! But when a happy conjunction of a man and the proper environment takes place, we may reach better results. Let me give an illustration.

Some thirty years ago Virchow began his studies and lectures upon cellular pathology. The enthusiasm which they awakened spread over the whole medical world. The wonderful attention to detail, and the broad philosophy which signalized his observations, were alike remarkable. His class-room was packed with students from every country, who thought it no hardship to struggle for a seat at eight o'clock in the morning. A man of medium height and slender figure, and with quiet face, you felt the earnestness which burned within him by the tumultuousness and complexity of his sentences, as thoughts crowded thick upon him in a struggle for utterance. With his blackboard behind him and specimens of pathology before him, and microscopes coursing upon railway tracks around the tables which filled the room, he was the embodiment of the teacher and the discoverer. Admired as a teacher, his highest honor was as a discoverer. It was my privilege to see him once more at Copenhagen, and again later, when presiding over a meeting of the Medical Society in Berlin, and to note that much of the wonted energy remains. A nobly gifted man has been placed for more than thirty years in a position where he could command all needful appliances for his scientific work, and what bounteous results have followed! If some of his theories have had to be modified, much that he has done remains—for instance, regarding embolism, thrombosis, and metastasis, we shall be always in his debt. He taught us to regard the cell as the constructive element and essential factor in both normal and abnormal processes of nutrition. The life and importance of the cell, in both health and disease, it has been his work to discover and to teach. The point of view from which he has classified tumors is founded on this basis, and remains the accepted method. The light which he cast upon the nature of inflammations has not yet been obscured, and while other phenomena appear, the multiplication of cells and nuclei, and the formation of connective-tissue in the process of inflammation, will always call to mind the labors of Virchow. The work which he did was within the pathological laboratory of the University of Berlin.

To Professor Cohnheim, and also to one of Virchow's pupils, Professor Recklinghausen, we chiefly owe our knowledge of the phenomena of diapedesis as a part of the inflammatory activity. How incredible it seems that masses of living matter can make their way through the walls of blood-vessels which do not rupture and which have no visible apertures! Professor Recklinghausen is now the director of a nobly furnished pathological institute in Strasburg, whose great museum is almost wholly his own creation.

While Virchow fixed attention upon the forms and activities of cells, their multiplication and degradation, and how they build up tissues both healthy and morbid, we have come now upon a new era in the study of their life and quality. Many observers have striven to unravel the mystery of the cell itself—to bring to light the nature of its contents. The declarations on this subject have been received with a degree of distrust; but now we seem to be approaching a clearer exposition of the matter. The work of the medical pathfinder has taught us that definite and remarkable formations and structure can be seen in cell nuclei when they undergo multiplication. Conspicuously is this set forth by Flemming in his book on "Cell Substance" (Leipsic, 1882); that he has made these discoveries is due to the use of immersion objectives aided by the Abbé illuminator and other similar devices. He speaks with much reserve about tracing organized form in the material of the cell. Although he asserts that in many cases a faint fibrillation can be discerned, he is far less positive about this than some observers. The interesting part of his book is that which describes the multiplication of the nuclei. In a few cases, he says, the division of cell and nucleus is *direct*, by which he means that no visible alteration in their interior structure can be seen while the division occurs. In leucocytes and in amœboid cells is this the fact, and in some other cells of both animals and plants; but in by far the larger number of cells, the division occurs in what he calls the *indirect* way. By this he means that during this act the nucleus elongates, and at each of its extremities appears a complex figure made of filaments, whose arrangement has a great variety of forms. Sometimes it is a mere mesh, sometimes there is a resemblance to a waving fringe of fibres, or they are coiled like a bunch of angle-worms. Innumerable varieties of arrangement appear, and with a certain symmetry of disposition, at the two extremities of the elongated nucleus; or the filaments may cluster around the expanded middle of the nucleus. The plates which he gives in illustration exhibit a wonderful variety. It is not for me to do more than to refer to this subject, I do not venture even to attempt to give a clear account of it. My purpose is served in calling your attention to the opening of another path into the unknown, and that we have come so much nearer to acquaintance with the processes which transpire in the cell itself. To this metamorphosis Flemming gives the name of karyokinesis, and to certain modifications of it he attaches the name of metakinesis. With new phenomena he has been obliged to invent a new nomenclature. He is professor of anatomy in the University of Kiel, and the most of these studies have been made within seven or eight years, in his laboratory.

To another matter with which, both literally and meta-

phorically, the air is full, I must also make allusion. The existence of micro-organisms in countless numbers is no new fact. What influence they exert over living tissues has only lately become the subject of earnest attention. So long as they were not known to have any practical bearing upon human welfare, they interested almost nobody. When, however, it was shown that putrefaction of meat is due to the agency of the bacterium termo, and the decomposition of albumen to bacillus subtilis; when anthrax in cattle and sheep was found to depend on the bacillus anthracis, and that in human beings it caused malignant pustule; when suppuration of wounds was found to be associated with the development of micrococci, and when Pasteur announced that by a process of inoculation cattle could be protected against anthrax, and Lister declared that by carbolic spray and other well-known precautions the suppuration of wounds could be prevented, all the world lent its ear and investigation at once began. To what the germ-theory has developed, it is not within the scope of my remarks to narrate. It is the wonder of the age; nothing has ever arisen in medicine which has had such far-reaching results. We stand expectant, ready not to be surprised at any new announcement of strange and potential discoveries in bacteriology. Whence did all this commotion come? Chiefly from the work-room of an acute and thoughtful man, an experimenter of unrivalled ability, who noted the cloudiness which came over his infusions of meat and studied its meaning under the microscope, and by chemical methods and processes of culture. Nothing could have been more purely scientific than the labors of Pasteur during the years between 1857 and 1863. Happily, his investigations led to results of the utmost value to mankind, and so evident was the connection between study and result, that the world rings with the praises of the man of science.

At the close of the first public dinner of the Congress at Copenhagen, the guests were strolling in the open court of the hotel. Among other dignitaries the Turkish ambassador, in full costume, was present. He sought an introduction to Pasteur, and on being presented, saluted him by kissing his hand, an act of homage which he emphasized by words expressing his profound respect. The world owes a debt to Pasteur like that which it owes to Jenner, and to the discoverers of anæsthesia. For men like Virchow it has scant praise, because it does not understand their work nor their merit. To both alike the reward of honor is due, because each has wrought to the full measure in his own way.

Because labors in bacteriology promise to be fruitful in practical results, the workers in it are innumerable, and we are accumulating a wondrous store of facts. How long is now the list of diseases in which germs make their appearance!—in pneumonia, in endocarditis, in erysipelas, in pyæmia, in tuberculosis, and so on, and so on. One of the most striking illustrations is in the gonococcus of gonorrhœa, whose presence in and around them gives to the pus cells their virulent properties, and, when transferred to the eye, work such lamentable mischief. Without their existence the inoculation of pus in the healthy eye is harmless; pus bearing the gonococci excites the most intense inflammation. Similarly suppurative action in the cornea is often caused by infection by cocci. The proof of causation may be found in the fact that the most effective cure now practised for such suppurations is to sterilize them by the actual cautery. The value of chlorine and of corrosive sublimate was known empirically long ago, but the true reason for their efficacy was not known until the germs were discovered. Now the hot platinum kills at once the organisms which other agents can only less perfectly destroy.

Rosenbach (Wiesbaden, 1884), page 63, says that he knows six distinct microbes which are capable of exciting suppuration in man. Some of them grow without oxygen, others require it. Their activity may be by the production of a poison, such as sepsin or ptomaine, or a putrefactive alkaloid, which is absorbed. The secretions of the lachrymal sac, when it is inflamed, exhibit, according to Sattler, at least three different microbes, which possess pernicious properties to a greater or less degree. Founded upon exact and laborious investigations of germs and their antidotes, is the whole practice of asepsis and antisepsis. As to its importance or its value, it is not necessary for me to speak. But long unfamiliarity with general surgery, and the vivid recollection of the sacredness which was held to belong to the large joints at the time when I was passing my pupilage in the old New York Hospital, under Buck and Watson and Cheeseman and Parker, qualified me to regard with amazement both the operation which Sir Joseph Lister did for a fracture of the patella, and the lack of special interest on the part of the spectators. Freely he laid open the joint, and with much force dragged down the comminuted upper fragment by a stout hook, and wired the pieces together. Meanwhile the carbolic spray was in active operation.

Again, in Heidelberg, I was witness to a still bolder act of surgery, which I may perhaps be allowed to partially describe. Professor Czerny excised the pyloric extremity of the stomach for cancer. The piece removed was not less than one-third of the organ. It measured twelve and one-half centimetres upon the greater curvature, and nine centimetres upon the upper or lesser curvature. The rigid attention to detail in this operation was most noteworthy. The temperature of the theatre was above 80° F.; for two hours previous to the operation the air was charged with carbolic spray, and the apparatus was kept at work during all the proceeding. The assistants and nurses removed their coats and wore long white gowns, many bared their arms to the shoulders, all washed their hands and arms vigorously with soap and brushes, and gave special heed to their nails in the scouring process. Two nurses took charge of the sponges; large porcelain trays, filled with solutions of carbolic acid, held the instruments. Alongside of the operator were two bowls of a weak carbolic solution, in which to rinse his bloody hands and the instruments, and at short intervals this water was changed. Before the cut upon the linea alba was made, the skin was shaved, soaped, scrubbed, and carbolized, and cloths wrung out of a carbolic solution laid close to the wound, and as they became soiled, fresh layers were put over them. The half-dozen spectators were not allowed to approach within ten feet of the patient, because they were not, in the surgical sense, clean. I need not refer to the steps of the operation. It was elaborate and difficult, especially in controlling the blood-vessels and in putting in the sutures to unite the pylorus to the cut end of the stomach. Two hours were consumed. It was the sixth case in which Professor Czerny had operated. He wrote to me, two months later, that the man had made a perfect recovery, and that his temperature had not risen above 100° F. No greater triumph of antiseptic surgery, it seems to me, can be adduced.

Let me briefly refer to what experimental physiology has lately done in acquainting us better with the functions of the several parts of the brain. In this field we can claim some good workers in our own country and in our own academy. But the most painstaking labor and skill, aided by suitable conveniences, have been needed to achieve what has been done. No physician counts these endeavors superfluous—we all wait for further results. I call to mind a room, not less than fifty feet long, the laboratory of the hospital for the insane, in the outskirts of Munich, where Professor Gudden, with three assistants, is carrying on his studies in brain structure, making sections in thin slices of the entire organ under fluid. He was also pushing through the press a book giving the results of his own experiments, and he showed me some of the specimens from animals which he had utilized. A well-appointed establishment and a man suited to the place were there combined. What he did a few years ago, in settling the question of the partial decussation of the

fibres of the optic nerves, will guarantee the thoroughness of his work.

If he be called one of the pathfinders in medicine, you will admit that the *iter a tertio ad quartem ventriculum* is a road not too large for comfortable travelling, and that some difficulties hang about the locality to which it leads.

Let me now call to your notice a man of great ability, who has done valuable work in medicine, but who, by ungenial influences around him, was not permitted to labor in his profession as he might have done, and whose talents have therefore been little appreciated among medical men. Dr. Thomas Young practised in London during the early part of the present century, and was a physician of Middlesex Hospital. In his youth he was precocious, and showed his scientific bent by constructing a microscope from a written description; to do it he learned the principles of optics, and the use of a lathe. At the age of fourteen, he had some proficiency in Greek, Latin, French, Italian, Hebrew, Persian, and Arabic. At nineteen he began his medical studies, and while pursuing them he presented to the Royal Society a paper entitled "Observations on Vision;" he was the next year elected to membership in the society. After taking his degree in medicine he went to Göttingen, in Germany, to continue his studies. The breadth of his aim is quaintly and truly stated in a letter to his mother in which he says, "I by no means wish to confine the cultivation of my mind to what is absolutely necessary for a trading physician." In 1797 he began practice in London. In 1801 he published in the "Philosophical Transactions" the results of further studies upon the eye, in which he anticipated what was more fully set forth fifty years later. He described the existence of astigmatism in his own eye, and proved by immersing it in water that the erroneous curve was not in the cornea but in the crystalline—at least such was his conclusion.

He also calculated the difference between the foc in the vertical and horizontal meridians, and indicated the power of the cylindric glass which would correct it. In 1802 he was made Professor of Natural and Experimental Philosophy at the Royal Institution. Two years later, when he married, he gave up his professorship by the advice of his friends, who considered it likely to interfere with his success in his profession. The comment of Arago upon this act was, that "in England a physician must not addict himself to any kind of scientific or literary research which seems foreign to the art of healing, if he would not lose the confidence of the public." He had, however, written his great paper on the "Interference of Light;" and his after-career was brilliant with researches in physical science and literature. He it was who fully deciphered the tri-lingual inscription on the famous Rosetta stone in the British Museum, and laid the foundation of the science of Egyptian hieroglyphics.

I call this famous man to your memory, not only that one who was little honored may be somewhat better known, but chiefly to bring out the fact that to succeed in medical practice his noble powers must be warped from their natural bent, and his eager mind was driven to investigations in physics, in tables of life insurance, in literary and linguistic studies, because scientific medicine was far inferior to other branches of science, and the prevailing spirit was hostile to efforts in this direction if a physician would gain popular favor. Dr. Young never was popular as a physician, but he happily inherited from an uncle a sufficient fortune. In optics, both physical and physiological, he did achieve great things, but what might he not have done in other fields of medicine, had his environment been more auspicious.

In his time nothing was esteemed in medicine which was not practical, and very narrow was the definition of the word. In this country and in our time we make the same demand with a somewhat broader meaning to the word. We admit that the strictly scientific man is a respectable but rather unintelligible person. How a Wall Street man would stare to hear Agassiz say that "he had no time for making money."

A man lately passed away who was rector of Lincoln College at Oxford, Dr. Mark Pattison. An English reviewer says of him: "A life devoted to learning in a country given over to practice, and in a university consecrated to cram, was original to the verge of eccentricity." "He believed in knowledge as a physician believes in ozone." "His paramount love and faith in knowledge dictated and governed all his mental affinities and sympathies." "He was a true liberal, because he knew what ruin a despotic government could bring upon all independent thought and study. He was no democrat, because he was aware how democracy, in its present stage at least, from no ill-will, perhaps, but out of sheer ignorance, is apt to scorn and destroy a science of which it cannot see the use and meaning."

Like virtue, like beauty, like art, knowledge has no need of apology or of justification. Up to a certain point society will admit this. Our age is more liberal in this regard than its predecessors. The meetings of scientific bodies are reported in the newspapers, and the discovery of comets is chronicled, and Tyndall's lectures are thronged. But do we in medicine hold the purely scientific studies in sufficient esteem? Medicine is, indeed, chiefly an art, but what would the art be, were there no science? As practitioners we, to some degree, separate with the cultivation of specialties. If a new book has more of recent knowledge than a reviewer thinks is easy to take in one meal, he makes the sapient remark that it is not meant for the general practitioner, but for the specialist. Why should not every medical man demand the last results of science in the books which he reads, and who shall assume, like the physician at the table of Sancho Panza, to say that this or that dish is too heavy or too dainty for his digestion? The thing which is to-day the property of the few, will next year be common to all. What men call abstract or transcendental science, will not long remain in the higher regions of study; soon it asserts its affinities with the already known, and in some way touches the ordinary needs of life.

Let me adduce an illustration in the life of one who recently met a heroic death. Edward Henry Palmer was born in Cambridge in 1840. He was not remarkable for talent in his youth, but he showed a curiosity respecting the life and manners of Gypsies, and learned their language by mingling with them. He made a dictionary of Romany for his own convenience, and he learned it with all the vagabond slang. He could always pass as one of the fraternity, and delighted to frequent their camps. After leaving school he became a clerk with a London merchant, and while employed about the docks he picked up Italian, both in its purity and in several dialects, and also French, and bits of other languages from sailors. Chance threw him in the way of a teacher of Arabic, who took kindly to him, and he essayed to learn the language. This and the growing spirit of acquisition of knowledge, moved him to give up business and enter Cambridge University. With comparative ease he gained a fair knowledge of Greek and Latin, but his craving desire was for oriental languages. To these he devoted himself intensely, and especially by intercourse with natives. He cared far less for grammars and dictionaries than for the spoken tongue; but his appetite embraced every modern language, and his facility in them was marvellous. He had a quaint humor, and he would don the dress of a dealer in oriental wares, and with the utmost gravity imitate the bearing and gestures, the protestations and unblushing falsehoods of the most practised merchant in the Turkish bazaars. He travelled in the East, and mastered Turkish, Arabic, Persian, and Hindostanee—not as scholars know them, but as the natives speak the languages—and he knew them in their dialects and variations. He was made Professor of Sanskrit and Oriental Languages at Cambridge. Once a burglary was commit-

ted in the town, and a scrap of paper was found in the room bearing strange characters. The police brought it to him. He told them it was Yeddish, which is Polish Hebrew, and indicated that the thieves were to "crack" another house the next night. They were waylaid and caught. Such was his omnivorous appetite for languages of all kinds. Such a man might never have been known beyond a small circle, and his gifts might not have conferred any great benefit upon mankind, or upon his country, save that he was a bright ornament of its cultured classes. But England found herself at war with Arabi in Egypt, in 1882. The safety of the Suez Canal made the pacification of the desert tribes of the highest importance. Whom to send among them was a difficult question to settle. What man could go knowing their languages, able to command their confidence, possessed of courage and address and discretion? That man was Palmer. The Arabs knew him of old; he had lived among them—they called him Sheikh Abdallah. He won their friendship to England, he secured the safety of the canal. As he was leaving their country his little party were cruelly murdered by robbers bent on plunder, and, at the age of forty-two, a brilliant life was quenched. Would one be likely to think that such a scholar could ever become anything more than a mere wonder and a man apart from his fellows? Such achievements as his are in themselves a triumph, the manifestations of a noble mind, something for pride and gratulation. But when these high talents and attainments found fit scope for play in the enterprise on which he entered, knowing well its peril, we see how indispensable they were to its success, and in the crowning sacrifice of patriotism we bow in homage to the lofty genius of the scholar.

Let me come back to the sphere of medicine, and I will bring before you a man, still living, who has nobly fulfilled the task of combining the highest scientific studies with results which have been of far-reaching utility. In 1850 Professor Helmholz occupied the chair of physiology in Heidelberg. He was a mathematician of rare attainments, he had a special aptitude for physics, he was a close observer and good experimenter. Like Thomas Young, he was attracted to the problems of sight. A question had been raised why the pupil of the eye is always black, save under some exceptional conditions. To this subject he addressed himself.

He not only developed the true explanation of the mysterious fact, but he also contrived the mirror which makes it possible to see the interior of the eye, and he evolved in masterly completeness the whole theory of the ophthalmoscope. Since 1851, improvements in the mechanism of the instrument have been made, but it can scarcely be said that its mathematical theory has been improved. What a boon that has been to the world, directly and indirectly, it is impossible to compute. Pursuing his studies, Professor Helmholz attacked the perplexing question of how the focusing of the eye is effected. To discover it a way must be found to measure the curves of its several refracting surfaces, viz., of the anterior surface of the cornea and of the two surfaces of the crystalline in the living subject. These elements and the distance of these surfaces from each other, and their exact position, must be determined to the fourth decimal. Taking a hint from astronomy, he contrived an instrument which permitted the needed exactness despite the involuntary movements of the most steadfast eye. His ophthalmometer was afterward improved in certain details—his measurements were slightly modified by his pupils working under his directions; but he settled these questions. He pursued the subject of physiological optics until he made a treatise which is the most perfect work on this topic in existence. It is profound and lucid; it is condensed, but it is complete; it demands close study and a mathematical training, but it satisfies the pursuit of the reader. In the ear, and in developing the theory of sound and the mathematics of tones, Helmholz did work scarcely less brilliant. To-day he holds the chair of physics in the University of Berlin, in a laboratory of magnificent equipment. He long since left physiology for his more congenial subject. That he achieved such shining successes in physiology was made possible by his exceptional talents, coupled with his mastery of mathematics and physics. To him the world owes the great strides of the present day in dealing with diseases of the eye, because he gave us the ophthalmoscope.

With this instrument in his hands Graefe began his masterly studies in clinical ophthalmology. The world has never known so brilliant a clinician, and no physician of this century lives again in so many devoted disciples. Under the same stimulus Donders turned from the general subject of physiology to the morbid conditions of refraction and accommodation of the eye, and supplemented the labors of Helmholz by systematizing and elucidating these errors of vision. The correct and scientific employment of spectacles may almost be said to have had its real birth in the labors of Donders.

His laboratory, at Utrecht, is, as you might expect, replete with all that can contribute to his department. To touch upon the labors of those who, by the influence of these men, have enriched the world with knowledge and practical achievements, would occupy the entire evening. I may not even mention any names. I may, however, show how the work of Helmholz in measuring, by an exact yet complicated instrument, the curves of the media of the eye, has borne fruit in the production by Javal, of Paris, of an ophthalmometer which becomes an instrument of daily practical utility. It measures the radius of the cornea with the least possible trouble, and reveals with ample exactness the degree of astigmatism which it may possess. By it what is often a tedious and annoying examination is done in two minutes, and the whole is an objective investigation which does not turn upon the intelligence or visual ability of the patient.

This instrument which is before you, and which was invented some five years ago, is an outgrowth of the studies of Helmholz in 1850.

Why do I present to you facts and illustrations which are more or less familiar to you all? You cannot fail to note that they have been drawn from sources foreign to our own country. You know well how our ambitious young physicians betake themselves to European capitals, and often to obscure small cities, for the knowledge which they crave. I am far from saying or feeling that American physicians are not among the best and most skilful. In surgery especially, and I may instance gynecological surgery, we have commanded the admiration of the world. In these achievements we have excelled mainly by the exceptional talent of certain individuals. Their successes were often a tale of perseverance under crushing obstacles and hindrances, as witness the early labors of Sims. But the advance of scientific study demands proper facilities in addition to the possession of talents. Even men of only average ability can accomplish useful work when they are placed in positions which facilitate it. I do not forget that the discovery of vaccination, of anæsthetics, of the ligation of arteries, was the work of individuals who were not surrounded by elaborate apparatus. But such men as Pasteur and Koch and Helmholz can do their best only when they are placed amid fitting surroundings. Because he did not have them Thomas Young was kept below the height of achievement which he might have reached in medicine. What are the surroundings fitted to bring out the powers of men of this type? They must have leisure and encouragement to work. They must have suitable pecuniary support. They must have apparatus, equipment, and laboratories adapted to the nature of their investigations.

In medicine there are two lines of study and effort. The one deals directly with the sick person, and may be called the bedside study, or, if you please, the clinical study of disease. It is founded largely upon empirical

experience. It is intelligent and rational. It strives to connect symptoms with lesions, and with the use of remedies. It is the practice of medicine which will be wise and sagacious according to how much a physician knows, and according to his consciousness of his ignorance. The second line is that which studies the secretions and tissues by the microscope and by chemical methods; which attempts to study the processes of disease as they may be imitated in the lower animals; which patiently inspects the lifeless body, where alas! only the results, and too often not the sequence, of morbid action are to be found. It attempts to give an accurate account of how remedies produce their effect, and sometimes the laboratory, as in the case of chloral, constructs a new remedy and forecasts what its application must be. The second may, perhaps, be called the philosophical study of disease. Between these two lines there is a wide gulf. How to bring them into closer connection is the problem. My plea to-night is on behalf of the laboratory. That we may have among us the same sense of its need, and the same provision which exists in Europe. Germany has taken the lead; France, Holland, Russia, Sweden, Denmark, Switzerland, and Italy are thus equipped. They do it in virtue of their centralized forms of government and education.

In republican America the case is different. We must act through the general sentiment of the community, and it is our part to awaken in it the conviction that our need in this regard is urgent. In this city we are proud of two recent noble acts of private munificence coming to aid medical teaching, and incidentally medical investigation: we boast the Carnegie laboratory, and the great gift of Mr. Vanderbilt to the College of Physicians and Surgeons. Most timely and most helpful are these generous bestowments. It will not, I hope, be thought invidious if I say that there is a still higher reach for similar philanthropy —above mere teaching, above the training of pupils beginning their course of study, above provisions for communicating what is already known; above these is the need of providing for the teaching of the teachers, of giving scope to well-trained men, already possessed of large attainments, to push their searchings into the unknown, and for study and experiment which shall lay bare new fields of scientific wealth. One such example has already been set in this country in the Johns Hopkins University. Can we in New York not hope for something similar? Will not this Academy set before itself the high ideal of seeking to realize such an establishment? Is it not an aim within its sphere, and fully appropriate to its purposes? Ought we as a profession, and organized in a corporate capacity as the Academy of Medicine —ought we to be content with an inferior aim?

This is not the first time that this suggestion has been brought before you. Most forcibly was it presented by Dr. Barker in his late valedictory address. Without plot or conspiracy between us, my thought has run in the same direction. I have brought before you some illustrations of what the higher medical research has accomplished, and I have referred to the difficulties which beset it.

In our country we have a high degree of average knowledge, we also have men of exceptional talent, who are peers among the highest; but we are just beginning to realize that, to make the most of these men, and to procure for ourselves the benefits which they can bestow, we must give them a suitable equipment, a place to work in, means to work with, and encouragement to pursue their researches into the farthest reaches. A wealthy Californian devotes a fortune to the founding of an unrivalled astronomical observatory. Honor to the man who lays this tribute at the feet of science. Will not men of wealth see that in medicine there is an opportunity and a need for wise liberality, which will not only shed lustre upon themselves and upon our country, but which is certain to bring forth fruit to bless mankind. Here, under the influence, and why not under the auspices, of this Academy of Medicine, why may we not have a laboratory which shall emulate the activities of Berlin and Strasburg, of Kiel and Heidelberg, of Cambridge and Leipzic. It is for us to proclaim our need. We show our zeal by the multitude of isolated observers, who are struggling by individual effort to do this kind of work; but we may justly ask for large and adequate appointments to fitly organize and prosecute scientific medical research. With the abundant wealth of this country, with its self-reliant and ambitious spirit, with its determination to hold a rank inferior to none, with the readiness which has been shown to provide for general education and to encourage certain departments of science, it cannot be long ere the necessity of large endowments for pursuing scientific medical research will be appreciated by those who with intelligence have also wealth.

Great gifts are obtained with little difficulty for hospitals, retreats, and dispensaries, where the wretched and sick may take advantage of medical skill; but the time is yet to come when donors shall see that their charity fails of its full purpose until a portion of it is applied to aiding the medical man to acquire a better knowledge of disease, and how to meet it. No hospital is complete which does not have its scientific appliances and conveniences for the study of the true nature of the diseases which it treats. A larger development of these arrangements is part of the topic to which I have asked your attention, and for which we may justly appeal to the liberality of an intelligent community. Give us endowment, organization, and equipment, and the fit men to utilize them will not be wanting, who shall bring out of them precious fruit, which shall ultimately go into every home with sound knowledge and skilful healing.

QUESTIONS RELATING TO STILL-BIRTHS.[1]

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It is sometimes observed that advancing civilization is particularly hard on women. While the exact truth of this statement can only be verified by an extensive and exhaustive study of statistics, the rapid growth of gynecology, together with the increased difficulty and danger so frequently attending the delivery of children, certainly seem to point toward a tendency to physical degeneracy in women. There appears to be little doubt, likewise, that the number of still-births is somewhat on the increase, although it is very difficult to get accurate and reliable statistics to prove it. The object of this paper is to bring out a few suggestive points of interest in regard to still-births, particularly in reference to causes, statistics, and the peculiarities of the law in connection with still-births and live-births.

It is written with the idea of instituting a discussion, as individual, unwritten experience is largely valuable in forming collective knowledge on a subject of this kind. Whether the Malthusian doctrine in the abstract commends itself or not, it certainly is desirable to save all fœtal life that has begun. Not only has the unborn child legal and moral rights, but the mother is likewise better for giving birth to a healthy, living child. There is no doubt of the fact of a tremendous loss of fœtal life, and that frequently of a quality undesirable to be wasted. As a high state of civilization appears to exhaust women physically, in order to advance them mentally, it is not strange that the more cultured women, who have the means and leisure to correctly train children, are just the ones who cannot or will not have them. The poorer classes, however, crowded in tenement-houses, and unable from their unfortunate environment to bring up children in a healthy condition, either morally or physically, are inordinately prolific.

It is a point of great social interest and importance,

[1] Read before the New York Medico-Legal Society, November 18, 1885.

although beyond the limits of this paper, to consider the immense destruction of fœtal life that is continually going on from natural and criminal abortion, as well as the loss from still-births. In a rapidly growing country like our own, continually reinforced by swarms of immigrants, this question does not assume the immediate importance that attaches to it in some of the older countries of Europe. It is said that in France the Government is becoming seriously alarmed over the decrease in native births, and has offered inducements in the shape of a prize for the seventh child. A still-birth may be defined as the delivery of a dead child in premature labor or at full term. Death may have taken place before, or in consequence of some delay or accident during delivery. Premature labor refers to that occurring after viability and before full term. The following concise definition of viability is found in Abbott's Law Dictionary: "An infant newly born is said to be viable, if the organs are in such a state of regular conformation and development as to render the infant capable of living. But if an infant, newly born, be affected with such a disease or malformation as to render a continuance of life impossible, the infant is said to be non-viable, and, according to some systems of law, is, so far as regards the transmission of right to legal representatives, as if he had never been born." Although there is direct continuity in the life of the fœtus from conception to delivery at full term, a physiological difference exists between a viable and non-viable child. In the former case, not only have the viscera a more perfect development, but the hold upon uterine life is much stronger. A majority of the cases in which the fœtus is passed earlier than full term happen before the period of viability. A miscarriage, by which is meant the expulsion of an ovum, or non-viable child, is a much more frequent accident than premature labor. According to Beck, the ancients believed that the vital principle was not infused into the fœtus until some time after conception had taken place. Thus Galen considered animation to take place on the fortieth day after conception, at the same time that he supposed the fœtus to become organized. We now know that the embryo possesses inherent vitality from the very beginning of conception, but it is not until after viability that this life can exist in any way independent of the intrauterine environment. Works on obstetrics generally state that a fœtus is viable at about the end of the seventh month, or at the completion of the twenty-eighth week of pregnancy. Thus, although a six months' fœtus may breathe feebly after birth, it will usually die in the course of a short time.

There are cases on record, however, in which infants have been born viable at an earlier period than is usually conceded by obstetrical authors. Wharton and Stillé cite a number of such cases. In one instance, a living child was born on the one hundred and seventy-ninth day and lived for four months, when it died of an epidemic disease (*Lancet*, April, 1852). In another case, Dr. Barker, of Dumfries, reported a child born on the one hundred and fifty-eighth day of gestation; it weighed one pound, and measured eleven inches. Three and a half years afterward it was still living, and weighed twenty-nine and a half pounds (*Med. Times*, September and October, 1850). The authors mention another curious instance of survival in a very premature child, narrated by Dr. Rodman, of Paisley. The child's uterine age could not have been more than five months, since, three weeks after birth, it weighed only one pound thirteen ounces, and measured between eleven and thirteen inches. It survived its birth one year and nine months (*Guy's Med. Jour.*). The question of viability is an interesting one, not only as affording a distinction between a miscarriage and a premature labor resulting in still-birth, but also as a subject on which legal distinctions may be drawn. In the case of Marsellis *vs.* Thalhimer (Paige's "Chancery Reports," vol. ii.), it is stated that children born within the first six months after conception are presumed to be incapable of living, and, therefore, cannot take and transmit property by descent unless they actually survive long enough to rebut that presumption. A glance at some statistics derived from the records of the New York City Board of Health will be of interest in the consideration of still-births. It is the desire of the Board that cases of miscarriage be reported as well as still-birth. As it is a misdemeanor to dispose of any body without a burial permit, and as a three months' old fœtus is a body, it follows that all such cases should be reported and a burial certificate given before disposal is made of the fœtus, however small. As a matter of fact, only the smallest fraction of the miscarriages that are constantly occurring are reported, and the remains of the fœtus find refuge in any place from the water-closet to an ash-barrel.

The following table contains the still-births, including such miscarriages as have been reported, and the live-births reported to the Board of Health for the fifteen years from 1870 to 1885. I am indebted to the courtesy of Dr. Nagle, Registrar of Vital Statistics, for the procuring of these figures:

	Still-births.	Live-births.		Still-births.	Live-births.
1870	2,254	14,524	1879	2,191	25,573
1871	2,276	20,821	1880	2,362	27,536
1872	2,322	22,068	1881	2,462	26,130
1873	2,312	22,683	1882	2,658	27,321
1874	2,227	25,747	1883	2,697	28,972
1875	2,274	23,813	1884	2,908	30,527
1876	2,290	23,744			
1877	2,164	25,569		35,639	370,757
1878	2,192	25,729			

According to this table the proportion of still-births, including the miscarriages that have been reported, is to the live-births as 1 to 10.44. This shows an enormously high percentage of still births. An objection may be raised to the reliability of these figures, inasmuch as the returns of live-births are unfortunately defective, owing to the carelessness of physicians and midwives. Death returns are extremely accurate, as burial permits have to be procured, but in the absence of such a necessity birth reports are often allowed to lapse. Physicians should recognize the importance of reporting each case and thus correct this source of error. Still, I doubt if the figures would be very much out of the way if they were taken to represent the total loss of fœtal life at all periods of utero-gestation, in proportion to all the live-births. The immense number of miscarriages that are concealed would more than offset the live-births not reported. The following is the month of utero-gestation in which the 35,639 cases occurred:

1	2	3	4	5	6	7	8	9	10	Not stated.
13	76	497	1,132	2,023	4,052	4,877	5,314	16,902	174	581

It is seen by glancing at this table that a large number of still-births are reported, but comparatively few miscarriages. It is not to be supposed from this that still-births are more frequent than miscarriages. The natural explanation given by the Board of Health is that in the latter cases the fœtus is so small that it can be easily destroyed and disposed of, particularly in cases of criminal abortion and illegitimate parentage. On the contrary, it is much more difficult and risky to get rid of a large and well-developed fœtus without a regular still-birth certificate and burial permit.

There is not the slightest doubt that fœticide is vastly more common in the early than in the later period of utero-gestation. It will never be possible to secure statistics approaching to accuracy on this subject. By adding the number of still-births in the above table, from the seventh to the tenth month inclusive, and comparing them with the whole number of live-births, it is found that in this city, for the past fifteen years, the number of still-births is to the number of live-births reported, in the

proportion of 1 to 13.59. Out of 8,000,000 births, quoted by Tidy from the *British and Foreign Medical Review*, it would appear that from 1 in 18 to 1 in 20 are still-born. Dr. Sozinsky, in the *Medical and Surgical Reporter*, April 4, gives a table from Quetelet, having the proportion of still births in six cities, including London and Paris. Stockholm had the smallest proportion of still-births (1 in 36), while Strasburg had the largest (1 in 11). As regards sex, it is the general experience that a larger percentage of males than females are born dead. Of the 35,639 cases, 20,035 were males, 15,298 were females, and in 306 the sex was not stated. The proportion of males to females is here as 1.30 is to 1, the former being thus not quite one-third in excess, including the comparatively small number of miscarriages reported. This is about the proportion found in other places. A number of causes may be considered as operative in the production of this inequality, such as the fact that there are more births of males than females, and that male infants are often of larger size than females, which increases the time and difficulty of labor. With reference to the period of the year that still-births occur with the greatest frequency, Dr. Sozinsky has published some interesting statistics, based upon the average number of cases occurring in Philadelphia for each month during a period of ten years. According to his figures, May is the month that has the largest number of still-births in proportion to the whole number of births, while in September the still-births are fewer than in any other month, although its whole number of births are larger than in many other months. After September, in which the infant has the best chance of not being still-born, August comes next, and July next in regard to exemption from this accident. From these figures it appears to the author that the fœtus passing most warm months toward the close of uterine life in its mother's womb stands the best chance of getting out safely. He also thinks that the increasing laxity of fibre produced in the pregnant woman by the heat of summer may prove an aid; also that there may be a difference in the size of the child. The factors that contribute to the production of still-births merit a careful attention. Works on obstetrics do not give sufficient consideration to this important subject.

The following are some of the principal causes assigned by the Board of Health, selected and arranged according to their numerical frequency, from reports as far as they have been received: "Difficult or protracted labor; accidents (such as falls, frights, etc.); sickness of mother (uræmia, convulsions, remittent fever, phthisis, malarious diseases, liver diseases, anæmia, asthenia, etc.); funis disarrangements (compression on cord and around the neck, etc.); placental diseases (fatty degeneration, detached placenta, etc.); asphyxia, hemorrhage (flooding); malformation of child (hydrocephalus, spina bifida, etc.); uterine diseases (cancer, metritis, inertia, etc.); atelectasis, constitutional disease of parents (syphilis, scrofula, etc.)." Not a few of the above causes can be avoided by skilful watching and care. Although syphilis is mention last in the above list, it may be reckoned, together with a faulty pelvis as an extremely frequent cause of still-birth. A large proportion of the still-births occurring in this city take place in tenement-houses, in the practice of ignorant midwives. Such accidents occur not only from a lack of proper anatomical and physiological knowledge on their part, but from the too general employment of the ergot of rye to hasten labor. This powerful drug should never be employed in any but careful and experienced hands. It is well known that it produces a tetanic contraction of the uterus, entirely unlike the normal rhythmical action of that organ during parturition. As a result, the infant is soon killed by the constant and unnatural pressure to which it is subjected. Every old woman who goes out to attend a confinement is supplied with her bottle of ergot, which she is not afraid to use. Indeed, some midwives enjoy quite a reputation in tenement-house circles, as possessing medicines that will hasten the pains and get a woman out of her suffering quickly, although it may be at the expense of a badly torn perineum and a still-born child. Some years ago I was called to see a woman in labor on the west side. The head was coming down on the perineum, and the pains, although progressing rather slowly, were still fairly effectual in gradually and safely producing extension. The woman, however, soon lost all patience, and complained bitterly that I was doing nothing to hasten her labor; she said she knew of a midwife in the neighborhood that had medicine to quickly terminate the pains. As her friends sympathized with her feelings, the midwife was sent for, and I retired after refusing to interfere at that stage of the labor. Some time afterward I learned that the woman had died a few days after the confinement, doubtless from a badly detached placenta, and a torn vulva and vagina. What became of the child I never heard. In this case there is no reasonable doubt that, with ordinary care and skill, the labor would have terminated safely and satisfactorily, but the uterus was probably overstimulated by repeated doses of ergot.

I cite this question as a fair example, and doubtless most practising physicians have had a like experience. The midwife question is a very important one in some of the poorer and densely populated districts of this city. A very large number of women are solely dependent upon these persons for help during confinement. It seems only right, therefore, that the practice of midwives should be regulated in some way. A legal sanction or license should be required, and attendance in confinement without such authority be made a punishable offence. I do not think this important question is much helped by institutions intended to give midwives a smattering of obstetrics. No rigid examination need be required, as a large proportion of labors progress safely, and require no great skill on the part of the attendant; if midwives can simply be taught routine treatment, and be able to recognize malpositions, and like emergencies, in time to send for help, the poorer women of the community will be much benefited, and the number of still-births lessened. In this city the still-births among foreign-born parents, who depend largely upon midwives, is more than double the number occurring among native-born people. The most satisfactory way of regulating the subject of midwives is a fair subject of discussion in this Society, and a proper solution of the question will not only lessen the number of still-births, but prevent much malpractice.

The law in relation to still-births and live-births is a subject for consideration. According to Tidy, the law has not defined live-births except by the decision of the judges. He gives the legal definition to be the manifestation of some certain sign or signs of life by the child after it is completely born. This does not imply that the placenta and cord shall have been delivered, but the child itself must be completely external of the mother. The following evidences of life immediately after birth are given: Muscular twitchings, respiration, crying, pulsation in cord, and beating of the heart. A case is cited in which mere muscular twitching, independently of breathing and other vital phenomena, was decided in the affirmative to constitute a sign of life in a case of disputed still-birth. There should be more of a correlation between law and physiology in this matter. According to the law, as stated above, an immature fœtus of five months, in no sense viable, may, by a few muscular twitchings immediately after birth, show an ephemeral spark of life, but, according to legal tests, approved by decisions of judges, be considered a live-birth. Supposing, on the other hand, a child at full term, whose head and shoulders have been born, cries lustily and shows other undoubted signs of vigorous life, yet, if by accident or design, death takes place before the feet have left the vulval ring, it is legally not a live-birth, but a still-birth, with all the consequences that the latter may entail. It

is obvious that there must be some legal distinction between still-births and live-births.

Much legal as well as physiological confusion would be prevented if some factor allowing of individual life, independent of the mother, should be taken as a test of live-birth. The immediate environment, whether it be the vagina of the mother or the lap of an old woman, may be considered non-essential so long as the infant has been sufficiently extruded to begin the physiological processes that will allow of a separate and independent life. Respiration, which results in an independent oxygenation of the tissues of the child, should be the only legal test of live-birth, as, without this function being performed, existence apart from the mother is impossible. Beating of the heart alone should not be considered a test of live-birth, as this takes place "in utero," and soon stops after birth when the circulation through the umbilical cord is checked. Leishman states that the lungs enter upon their function immediately upon the birth of the child, and when anything occurs to prevent the speedy occurrence of the respiratory act, the child is still-born. When the seat of respiration changes from the placenta to the lungs, independent life begins. After birth, if the heart beats but the child does not breathe, it is still depending upon that intrauterine lung. the placenta, for oxygenization, and hence is living under the same conditions as before leaving the womb. The child is alive, but in the same sense as it was alive before birth, and if death takes place without respiration, it should be considered still-born. It is stated in Beck's "Jurisprudence" that when a child is born alive, but has not yet respired, its condition is precisely like that of the fœtus "in utero." It lives merely because the fœtal circulation is still going on, as none of the other organs undergo any change. The lungs remain as they are in the fœtus, and the organs circulating the blood are in the same state. In Germany (Wharton and Stillé) a distinct vocal sound is required by law as the evidence of life. This appears, however, to be modified in practice by the substitution of breathing for vocal sound, and the doctrine is accepted that respiration and life are reciprocally evidences of one another. The Scottish law (Abercrombie) requires that a child must have cried after its entire birth before it is considered to have been born alive. A few apparently authentic cases are on record in which slight respiration has taken place before birth, with the head at the superior strait or in the vagina. It may fairly be considered doubtful whether the feeble sounds heard in a few cases have really been produced by the fœtus; but still, to avoid legal complication, respiration after the child has *begun* to be born should be considered the test of live-birth. As the law now stands, a child may breathe freely when it is two-thirds delivered, and yet not be accounted born until fully expelled from the mother.

The disputes in relation to still-births and live-births have arisen principally in connection with infanticide, and the law known as tenancy by courtesy. By the latter it is understood that when a married woman dies without children her property passes to her heirs-at-law, unless she shall have given birth to a living child during her married life; in which case her husband becomes a tenant by courtesy for life of her estate. Washburn on "Real Property" (vol. i.) states that in most of the States where courtesy is allowed, great strictness is required in the proof that the child was actually born alive in the lifetime of the mother. In the case of Marsellis *vs.* Thalhimer (Paige's "Chancery Reports," vol. ii.), it is stated that the party who claims property through the child is bound to establish the fact that it was born alive; and if the child never breathed there is no legal presumption in favor of the fact. The peculiarities of the law in regard to live-births are most markedly seen in connection with infanticide. To convict of this crime it is necessary to show that the infant was killed after birth of the whole body, even if it breathed and cried before complete extrusion. Tidy well states that to require the body of a child to be entirely external to the body of the mother before being considered legally born, is a physiological absurdity, and a direct encouragement to child-murder. He cites an instance in which there was actually drawn a distinction between physiological life and legal life, Erle, E. J. (R. *vs.* Christopher, Dorset Lent Assizes, 1845). As a result of this distinction, a man who had cut off the head of a child while it was being born was acquitted of infanticide. Again, if a child that has been born, but does not breathe, exhibits a slight beating of the heart, and is then destroyed, the perpetrator is guilty of child-murder, although continued existence may have been impossible. Wharton and Stillé state that while it is not enough for the child to have breathed, unless the whole body was brought into the world, and while more than one learned judge has expressly ruled there must be an entirely independent circulation; on the other hand, fifteen judges have united in holding that to constitute such an independent existence, so as to constitute murder, it is not necessary that the child should have breathed, nor that the umbilical cord should be severed. It would save possible injustice, as well as confusion, if, in the distinction between still-birth and live-birth, respiration be adjudged to be legally the essential condition of life.

29 West Forty-Second Street.

HYPERTROPHY OF RIGHT HEART, WITH DILATATION—ITS RELATIONS TO ABORTION AND DEATH.

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Cases like the following, while not exactly rare, possibly are enough so to arrest attention. Without reference to frequency, the teachings seem to me of practical value.

October 15th.—Was called by Dr. J.T. Strode, of Maysville, in consultation. Case: Mrs. S——, aged thirty, rather frail, thin, and anæmic; nervous temperament; four months advanced in first pregnancy. Though long subject to nervous vibrations, had enjoyed fair health up to a year ago, when she had a prolonged attack of malarial fever, since which and her subsequent pregnancy she had sharp turns of palpitation and dyspnœa upon slight exertion. It was for a pronounced attack of this kind that Dr. S. was called, and there being that in the condition which, giving merely functional possibilities due weight, led him to believe in structural lesion, and to thoroughly explore in consultation.

The resulting diagnosis was, hypertrophy of right heart, with dilatation. The distinctive features of this condition were well marked: area of cardiac dulness largely increased transversely; apex beat in sixth interspace; feeble and intermittent heart-beat; epigastric pulsation and disordered rhythm. The ultimate and more grave results of all this were becoming manifest in the deranged pulmonary circulation, as shown by dyspnœa, cyanosis, and commencing œdema. The situation compelled a discouraging prognosis, and reduced treatment to the merely palliative. Digitalis, quiet, nourishment, and fresh air was the prescription.

October 16th.—Patient a little more comfortable; the digitalis had steadied the heart-action somewhat, and there was an expression of more general ease—that was all. Digitalis, a little wine, and nourishment.

October 17th.—9 A.M.: Condition essentially the same—a shade more œdema; some puerile respiration over anterior chest-wall, with corresponding dulness and mucous râles posteriorly; dyspnœa and cyanosis much the same. Some unrest, but mind clear; temperature normal, strength fair; no other change perceptible—certainly nothing indicative of abortion, for which an eye was kept. Urine now taken for examination, but owing to early subsequent events was not tested, and the material finally misplaced, which, in view of all points involved, is to be regretted. Digitalis, with appropriate nourishment and absolute rest.

Were hastily recalled at 11, A.M. Patient had aborted; the whole time from initial pain not exceeding forty minutes. The placenta remained, but came away readily. Hemorrhage free, only in view of the condition, the fluid being dark and non-coagulable. The uterus was somewhat flaccid even under ergot, and some wasting continued for a time. The prostration was now extreme, and so continued at 9 P.M., the time of our last visit, notwithstanding external warmth and general stimulation. At 2 o'clock next morning, fourteen hours after aborting, she asked to be turned in bed, and in the movement died without a struggle.

As I see it, here we have the condition precedent—the heart trouble; as the incident, the death of fœtus and expulsion; as the resultant, hemorrhage, which, in the condition, necessarily meant death to the patient.

Confessedly this was an extreme case—so near the border-line that both the rational and physical signs might suggest a question whether or not the heart-trouble had culminated, resolving all that followed into mere mortuary phenomena? Nay, that the collapse, from whatever cause, might have been followed by like results? But there was that in the general and special condition, which, minus the determining factor—hemorrhage—forbade the idea of immediate dissolution; plus the same, death was a logical and necessary sequence. Even though the patient were *moribund*, abortions with hemorrhage have been known to occur in the asphyxia—the agony of death—as in coma from cerebral apoplexy, where the presumption was strong that no other cause than that of toxæmia was at work (Barnes). But it is fair to assume, in view of the conditions actually present in this case, that the uterus was responsive, through natural channels, to excitation, and was yet capable of physiological action; that the modus was dynamic rather than static.

And if so, I may present this case in illustration of the theory that heart-disease, through the toxæmia of carbonic acid, becomes a centric cause of fœtal death and consequent abortion. And with the hope, too, if accepted as typical, of erecting a landmark in practice, visible and intelligible to those who may be so unfortunate as to encounter like conditions.

In relation to the premises, views have changed somewhat, or advanced, since the time of Sir Charles Bell, who taught that among the maternal causes of abortion anæmia was frequent, and this through deficient blood-supply to the spinal cord. Brown-Séquard, however, demonstrates that the respiratory movements are not so efficient in the anæmic condition, hence the accumulation of carbonic acid, hence toxæmia, hence spinal excitation and the resulting abortion. Barnes accepts the reasoning, and assigns some forms of organic heart-disease as an active factor in the production of abortion, explained by the action of carbonic acid thus produced upon the uterine fibre, "or through the direct irritation of the diastaltic centre, and partly through the extravasating property acquired by the blood." While the heart-lesion in this case is not specified as a causative in abortion, dilatation of the right heart is, *per se*, the condition in a line with the theory. The engorged fœtal circulation, enlarged liver, congested kidneys constipated bowels are all tributary to the pulmonary stasis producing the tormenting cough, difficult respiration, serous effusion, and fatal cyanosis.

There is no more fruitful and unerring source in the organism for the alleged toxic agent carbonic acid.

It is not pertinent here to investigate the origin and trace the development of the heart-trouble. Theory and teaching would indicate that some obscure valvular lesion, as in other cases, was at bottom of it. And if it be correct that hypertrophy is a conservative process, the disturbed compensation likely occurred during the attack of fever, since which real trouble—synonymous in this case with dilatation—began.

The *rationale* of the movements seems to me clear: the abortion, hemorrhage, and death were logical sequences of toxæmia from carbonic acid, and this induced by hypertrophy with dilatation of right heart, the hemorrhage being the determining factor in the cardiac struggle. I should expect every unfortunate, under such circumstances, to die, and it is something to be able to say so in advance. While familiar with the theory in the premises, I would have been obliged to some one for details of a case in practice. Hence this, with a well-meant purpose.

Clinical Department.

A CASE OF BRANCHIAL CYST.

Dr. C. E. Busey, of Lynchburg, Va., gives the following report of one of these rare cases:

"In presenting this rare case of congenital tumor of the neck, I will only give its history and treatment, and refer the readers to Dr. Henry Dwight Chapin's excellent article, published in The Medical Record, July 25, 1885, giving the history, treatment, and embryology of two cases. A five-year-old boy was brought to me by his father to consult about a diffused fluctuating swelling, situated under his right lower jaw, which had been growing for six months, and when first noticed by his mother it was the size of an almond. As the little fellow had always been perfectly healthy, and had never complained, his parents paid no attention to the enlargement until it reached its present size. Becoming alarmed, they brought him to me for treatment. Upon examination, I found a growth about the size of an egg situated under the right lower jaw. Free manipulation produced no pain or discomfort. Skin, mouth, and teeth were found to be in good condition. No history of an injury. Family history good. Suspecting a congenital cyst, I introduced a hypodermic needle, and withdrew a straw-colored fluid, which, upon microscopic examination, was found to contain epithelial cells, confirming my suspicions. The introducing of the needle and withdrawal of fluid set up an active inflammation, which caused the tumor to decrease and disappear."

Progress of Medical Science.

Dangers of Antithermic Remedies.—In a recent therapeutical conference Dr. Dujardin-Beaumetz discusses resorcine, kairine, thalline, and antipyrine, and advises caution in the use of the first three agents especially, from their active toxic effects. After referring to the eminently antiputrefying and antifermentative properties of resorcine, he states that he had used it in pyrexia without obvious effects, probably on account of the smallness of the dose. He finally abandoned it altogether in the treatment of rheumatism and typhoid fever, not so much on account of its want of power as because he observed toxic symptoms. Resorcine is not only an irritant, it is also a toxic agent; and in his experiments upon dogs it was determined that a dose of two and one-half grains per pound of weight of the animal produced convulsive phenomena, and death was caused when the proportionate dose was increased to eight grains. After death, visceral congestions were discovered, and especially very intense pulmonary engorgement, as in animals poisoned by carbolic acid. Man is even more susceptible to the effects of resorcine than dogs. Munel reports a case in which a single dose of fifty-three grains rapidly induced a condition of great gravity, which, however, was finally overcome. Dr. Beaumetz says: "While recognizing resorcine as less toxic than phenic acid, I conclude that it is a dangerous antithermic agent, for I found in my typhoid patients treated with resorcine the same depression of fevers, the same adynamia, the same pulmonary congestion, which I had found in those to whom I had administered phenic acid. I

have therefore abandoned this medication, and I believe that, even in Germany, resorcine is not much employed internally, but it remains, on the contrary, a very valuable remedy for external use in the treatment of unhealthy wounds." Kairine is an antithermic, acting by diminishing the respiratory power of the blood and destroying hæmoglobin. The recent researches of Brouardel and Paul Loye confirm this view, and show that thalline and kairine exert the same destructive effect upon hæmoglobin. Moreover, contrary to the usual action of antithermic agents, kairine and thalline have no influence whatever upon fermentations. "Kairine should therefore be rejected from therapeutics; it is a dangerous drug, since it only produces antithermic effects by destroying the hæmoglobin and profoundly altering the blood, circumstances which should be avoided in the infectious febrile diseases." Antipyrine is less toxic than either resorcine or carbolic acid. While it takes eight grains of resorcine per pound to kill a rabbit, it takes thirteen grains of antipyrine. The toxic effect, moreover, is almost the same; it produces tetanic and paralytic symptoms analogous to those caused by strychnine-poisoning. It cannot be doubted, therefore, that antipyrine acts upon the cerebro-spinal axis, and it is probable that it lowers the temperature by modifying the nervous heat-centres. Contrary to kairine, antipyrine does not appear to change the liquor sanguinis, and particularly the hæmoglobin. It has also hæmostatic properties which Henoch declares superior to those of ergotine and of chloride of iron. (This is worth bearing in mind in treating hæmoptysis.) Antipyrine diminishes the urinary secretion, but increases the action of the glands of the skin, which renders it inconvenient to use in cases of tuberculosis. Like the phenols and oxyphenols, antipyrine is an antiferment. The study of recent antithermics shows that the effects of these new agents vary with the nature of the fever: a temperature of 104° in a phthisical patient will be lowered by eight grains of antipyrine, while in a typhoid case it might be without effect.—*Philadelphia Medical Times*, October 3, 1885.

Vesical Irritation of Reflex Origin.—Dr. Emil Schlegel reports in the *Algemeine Medicinische Central Zeitung*, of October 3, 1885, the case of a man, fifty-one years old, who had suffered for years from an extremely irritable bladder, for the relief of which he had tried many remedies without avail. The urine showed nothing abnormal, and for a long time the case baffled the skill of several physicians. Finally the writer discovered accidentally that the prepuce was rather tight, and that beneath it was an old accumulation of smegma. This was removed, and in a very short time the patient was relieved completely of his distress.

"Ideal" Cholecystotomy.—In the *Weekly Medical Review*, October 31, 1885, Dr. A. C. Bernays, of St. Louis, reports a successful case of cholecystotomy, upon which he bestows the epithet "ideal," for various reasons sufficient unto himself. The case was one of cholelithiasis, with impaction of a calculus in the cystic duct. The gall-bladder was first tapped, then incised, and after cleansing with ordinary water was stitched by seven ordinary silk sutures and eight Lembert sutures. The latter were intended to embrace only the peritoneum, and perhaps some fibres of the muscular coat. They were applied in such a manner as to completely cover the simple interrupted sutures. No "antiseptic tricks" were called into requisition. The patient made a rapid and complete recovery. From a critical study of this case, and similar ones scattered through the literature of the subject, the author is led to formulate the following conclusions: 1. The causes which indicate an operative interference with the system of gall-vessels are: *a*, jaundice; *b*, paroxysmal pain, or a tumor in the right hypochondriac region; *c*, suppuration; *d*, peritonitis; these conditions to be either severally or singly recognizable, the presumable origin being biliary calculi; *e*, malignant disease. 2. Explorative laparotomy must be preferred to acupuncture or aspiration as a diagnostic measure. 3. The incision in the linea alba is preferable when there is much doubt regarding the seat of obstruction, because the larger ducts can be reached much better from this incision than from the incision parallel to the free border of the ribs. 4. The escape of bile through an abdominal fistula is not injurious to the process of normal digestion. The bile is an excretion, and probably of no more use in the intestinal canal than the urine in the bladder. 5. Jaundice, when caused by an obstruction of the common duct, is no contraindication to natural cholecystotomy. We may often save life by its early performance. 6. Cholecystotomy, natural and ideal, and cholecystectomy, are the three operations at our service; cholecystenterostomy may be useful, but it has not yet earned a place among approved surgical procedures. 7. Ideal cholecystotomy is indicated when the bladder is normal in structure and when the gall-ducts have been cleared of obstructing calculi. 8. Natural cholecystotomy is indicated when the bladder is ulcerated or suppurating, or when there are permanent obstructions beyond reach at the time of operation. 9. Cholecystectomy should be limited to cases of otherwise incurable or malignant disease of the gall-bladder.

Gonorrhœal Urethritis in Children.—In the *Jahrbuch für Kinderheilkunde*, Dr. Widmarth describes two cases of gonorrhœa occurring in little girls. The first case was that of a little girl two years of age, who suffered for a long time with purulent conjunctivitis and also with a discharge from the vagina. Microscopical investigation revealed gonococci in both secretions. The child's mother had given birth to an infant six months previously, which manifested a severe conjunctivitis on the third day after birth. The mother herself suffered with suppurative adenitis in both groins two months after her confinement, and somewhat later with a sensitive tumor attached to the uterus. The secretion from her urethra contained gonococci. The father had had gonorrhœa. The second case concerned a girl, aged twenty months, who had long suffered with a purulent discharge from the genitals. The urethral secretion contained gonococci in abundance, and there had been a purulent conjunctivitis soon after birth. The mother's urethral secretion contained gonococci, and the father knew that he had previously suffered from gonorrhœa. It was not possible to say, in these two cases, exactly how the contagion had been communicated. The author thinks it may have been due to the use of the same sponges for washing by both mother and child. Sonden has reported two cases of vulvo-vaginitis in children of six and five years. In both cases gonococci were found in the secretions. The origin in the first case could not be ascertained; in the second it was found that the mother, who was pregnant at the time of examination, had suffered for a long time with a purulent discharge from the genitals. The father was not examined. The author also found gonococci in the urethral secretion of a boy eight years of age, and also in that of the boy's sister, who was nine years of age.

The Treatment of Diseases of the Lungs by Pneumatic Differentiation.—The pneumatic cabinet appears to be finding favor with the profession, as applicable to the treatment of pulmonary disease. In the *Journal of the American Medical Association*, November 7, 1885, Dr. A. S. Houghton, of Chicago, records his experience with this method in a series of thirty-four cases. He concludes from the study of these cases that: 1. Pneumatic differentiation is of undoubted service in all conditions of primary infiltration. 2. Where the febrile movement has been unchecked for many weeks before treatment, improvement, if any, will show itself within the first ten or twelve applications; if there is no abatement of symptoms its continuance is of questionable utility, and it may be absolutely contraindicated. 3.

That phthisical disease at the apices is more favorably treated than when at the base of the lungs. 4. That it is possible by this means to more thoroughly medicate the lungs than by any other known method. 5. That the expansion of the lungs by differentiation is itself a therapeutic measure of great merit. 6. That peri- and inter-vesicular exudation is capable of cure by this method, and even third-stage phthisis is benefited, at least temporarily. When the febrile movement is excessive, or when the evidences of septicæmia are pronounced, it is not wise to use the pneumatic cabinet.

Wound of the Gravid Uterus, with Reproduction of the Amniotic Fluid.—At the Italian Congress in Perugia Dr. Chiara related a case of a woman, thirty-four years of age, who had a large abdominal tumor. It had been noticed for about four months, and was bilobular. The left lobe was of the size of an orange, and fluctuating; the right was less distinctly fluctuating, and extended as high as the hypochondrium, being apparently inseparable from the uterus, the neck of which was small. There was complete amenorrhœa. Pregnancy was at first suspected, but this diagnosis was afterward rejected. A trochar was introduced into the left lobe, and about thirteen ounces of a slightly albuminous fluid was withdrawn. A second puncture gave exit to a reddish gelatinous fluid. A diagnosis of cystic sarcoma was then made, and an operation was decided upon. Laparotomy was performed, and, one lobe being punctured, a fœtal head was discovered. The other lobe, the real tumor, having chocolate-colored contents, was then removed, and the wound of the uterus was closed with sutures. Labor took place later, and presented nothing abnormal; and although recovery was slow, it is now complete.—*Journal d'Accouchements*, October 30, 1885.

Fracture of the Ribs from Muscular Action.—At a recent meeting of the Hospitals Medical Society of Paris, M. Desnos reported two instances of this rare accident (*La France Médicale*, October 20, 1885). The first case was that of a man, thirty years of age, who suddenly felt something snap on the left side of the chest during a violent fit of coughing. Examination showed fracture of a rib. The man had received no injury, and no other explanation for the occurrence of the fracture could be found than muscular action. The second case was very similar to the first, the rib being fractured during an attack of coughing. This patient was sixty years old. Although both these cases occurred in male subjects, the accident is more common in females. That sneezing is not always a harmless act is illustrated by the following case, reported by Dr. Hal C. Wyman in the *Journal of the American Medical Association*, November 7, 1885. "Mr. M——, aged 72 years, remarkably vigorous and healthy for his years, summoned me hastily for relief of severe pain in his right side, which had commenced suddenly after sneezing with unusual force. I found him standing, supported by a chair, his face pale, his breathing difficult and provoking cries, with pain in the lower part of the right side. I suspected pleuritis and neuralgia, and was surprised on placing my ear on his chest to hear distinctly the crepitus peculiar to fracture of bone. Further examination showed a fracture of the eighth rib near its angle. The treatment consisted in placing three strips, fourteen inches in length, of Seabury & Johnson's rubber adhesive plaster obliquely over the right side, crossing the ribs at right angles. The plasters were adjusted with sufficient firmness to draw the ribs snugly together, and to limit the motion of the fractured one. Recovery was prompt, and without complication. This case is of interest because it was unquestionably caused by sneezing, and the fact that sneezing is not usually referred to as a cause of fracture of the ribs. A glance at the mechanics of sneezing will show that two powerful sets of muscles may be brought into antagonism in a way to expend their opposed forces upon the ribs, making the fracture simply a mechanical matter. The treatment by means of plasters having some permanency of adhesive power has proven in many cases of fractured ribs, as it did in this one, a great advantage over the old method of a broad bandage encircling the chest. It permits freedom of motion on the uninjured side of the chest, while it insures sufficient immobilization of the fractured bone to control pain and favor union. It is said that insane persons are particularly prone to fracture of the ribs, and that sneezing among them is not infrequently the cause."

Treatment of Umbilical Hernia.—The following simple method is recommended by Dr. Archambault (*Journal d'Accouchements*, October 30, 1885). A piece of white wax is rolled between the fingers into a little ball the size of a marble. It is then cut in two, and one of the halves placed, with its convex side down, into the umbilical depression, and retained there by a strip of adhesive plaster. In an hour or two the little hemisphere becomes sufficiently softened to adhere to the skin, and thus answers as a truss, without any other support.

Antiseptic Treatment of Croup.—The following is a plan of treatment recommended by M. Renon (*Journal de Médecine de Paris*, October 18, 1885). The patient is placed in a well-ventilated room of medium size, the temperature of which is maintained at from 68° to 75° F. Upon an oil-stove is kept a vessel, of a capacity of two quarts, in which the water is constantly boiling. Into this is put, every three hours, a tablespoonful of a mixture of salicylic acid, 56 parts; benzoic acid, 112 parts; carbolic acid, 280 parts, and alcohol, 468 parts. The stove is placed near the bed, and the steam impregnated with this mixture is conducted, by means of suitably arranged curtains, to the patient. The patient is kept in this atmosphere until the symptoms have entirely disappeared, and for two or three days after; and, if tracheotomy has been performed, until the wound is closed. A close watch should be maintained over the case, and if any symptoms of poisoning are manifested, the quantity of carbolic acid should be diminished.

Hypertrophy of the Male Breast in Pulmonary Phthisis.—At the meeting of the French Association for the Advancement of Science, at Grenoble, M. Lendet read a paper upon certain changes in the mammary glands of men suffering from pulmonary tuberculosis. The glands themselves are not tuberculous, but they become swollen, and present as tumors, having a diameter of from one to two inches. The skin covering the breast is unchanged in color, and the subjacent connective-tissue preserves its normal character. The gland is the seat of severe pain, which radiates over the entire chest-wall. The breast upon the side where the tubercular lesion is most marked is the one more especially involved, though not infrequently both glands are enlarged. The condition is one of congestion, and is never accompanied with lymphatic enlargement. It usually exists for several months, and terminates in slow resolution without suppuration.

Repeated Attacks of Erysipelas.—M. Verneuil read a paper on this subject at a meeting of the Surgical Society of Paris (*Journal de Médecine de Paris*, October 25, 1885). Regarding the cause of repeated attacks of erysipelas occurring in the same individual, he said that it was easy enough of explanation when there was contact with other cases of the same disease, but in an instance like the following the cause was less easily discoverable. A Sister of Charity had had twelve attacks of erysipelas in eight years, the disease returning without any apparent cause, as the Sister had had nothing to do with others suffering from the same affection. On examining the patient, M. Verneuil found a number of eczematous scales on the scalp, and some little cracks in the skin between the pavilion of the ear and the head. He thought that in this case the microbes of erysipelas inhabited the scalp and found admittance from time to

time as new cracks formed behind the ear. He related also other cases of a similar nature, from a study of which he had come to the conclusion that the erysipelatous germs may exist for an indefinite period on certain portions of the body, and then the disease manifests itself anew upon the appearance of the slightest abrasion. He advised a thorough disinfection of the whole body in every individual who had suffered from an attack of erysipelas in order to prevent relapses. In contrast with these views, however, are those expressed by Dr. Labastide in an article on perversion of nutrition published in *L'Abeille Médicale* of October 26, 1885. He relates the case of a lady, fifty-seven years of age, who had suffered for many years from repeated attacks of erysipelas, recurring at very short intervals and excited by the slightest causes. The patient had tried various modes of treatment for years, but always without success; and her existence was one of misery, for she never knew, on going to bed, whether she would awake with a red face or one of natural color. It was noticed, however, that emesis and purgation shortened the attacks somewhat, and it was also ascertained that the patient suffered much from acid eructations. It was conjectured that the repeated attacks of erysipelas were dependent upon disordered digestion and malassimilation, and as a corrective of this condition pancreatine was ordered. During the five months which had elapsed since this treatment was begun there had been no erysipelatous attack, and the patient had improved in every way. The result of treatment in this case led the writer to believe that the cutaneous affection was directly dependent upon a perversion of nutrition.

Hemorrhagic Pleurisy.—M. Sorel reports several cases of this disease, having in their origin a common factor, viz., a state of malnutrition consequent upon want, overwork, alcoholism, or a pre existing disease. The dyscrasia so produced was the predisposing cause of the hemorrhage, which was caused directly by the rupture of the fragile vessels in the newly formed membranes. There was no pathognomonic sign of this condition, and its presence was determined only by puncture. The gravity of the prognosis results rather from the state of the general nutrition than from the hemorrhagic nature of the effusion. As regards the therapeutic management of such cases, the prime indication is to promote, as far as possible, good nutrition, and thus remove the causal conditions.—*L'Union Médicale*, October 15, 1885.

Discoloration of the Skin following the Use of Arsenic.—In a number of children who had been taking arsenic for various troubles, during a period of four or five months, Dr. Guaita observed a bronze hue of the skin, recalling that of Addison's disease. This discoloration began on the neck, and extended thence to other parts of the body; it was less marked on the face, legs, and back than on the abdomen, chest, and upper extremities. The arsenical preparation employed was Fowler's solution. The coloration of the skin usually showed itself during the fifth month of the use of the drug, and sometimes first appeared several days after the remedy had been discontinued, and disappeared after desquamation in about four weeks. All the patients were children of people in easy circumstances, and were from two to ten years of age.—*Annales de la Société Médico-Chirurgicale de Liége*, No. 9, 1885.

The Seat and Force of the Cardiac Pulsations.—Drs. De Renzi and Reale have been studying for some time past the differences in location and force of the cardiac pulsations in various diseases of the heart and great vessels. The conclusions arrived at by them from the study of a large number of observations, and published in the *Rivista Clinica e Terapeutica*, No. 9, 1885, are as follows: 1. In *pericarditis* the heart beat is usually strong and is seen to the left of the median. 2. In *mitral insufficiency* it is weak, and found in the fifth intercostal space, or, in exceptional instances, in the sixth; in about one-half the cases it is to the right of the mammary line, and in the other half, on the line to the left of it. 3. In *mitral stenosis* the pulsations are usually strong and accentuated, and are almost always located in the fifth intercostal space and to the right of the mammary line; very rarely they are seen in the sixth space or to the left of the line. 4. In *aortic insufficiency* they are strong and often expansive; most frequently they are found in the sixth intercostal space, less often in the fifth, and very rarely in the seventh, and almost without exception to the left of the mammary line. 5. In *aortic stenosis* the heart-beat is feeble, and situated, as a rule, in the fifth space to the left of the mammary line. 6. In one case of congenital *pulmonary stenosis* the beat was of moderate intensity, situated in the fourth intercostal space, between the parasternal and mammary lines. 7. In *aneurism of the thoracic aorta*, the cardiac pulsations were found nearly always in the fifth space, and to the left of their normal seat. 8. In comparing the different pulsations, it was found that they were pushed to the left in relative hypertrophy of the right ventricle, and downward in eccentric hypertrophy of the left ventricle; they were strong in eccentric hypertrophy of the right ventricle, and weak in simple or concentric hypertrophy.

Bronchial Urticaria.—Dr. Ruelle reports the following case in *Le Concours Médical* of October 17, 1885. A boy, aged fifteen, was attacked suddenly with a generalized eruption of urticaria, accompanied by fever, œdema of the face, and headache. In the evening his breathing became so oppressed that the writer was sent for in great haste. On his arrival he found the patient suffering from dyspnœa with whistling respiration, but there were no symptoms implicating the lungs; the cutaneous eruption had disappeared. In about half an hour the dyspnœa subsided, and then the eruption on the skin returned. The following day the same alternation of symptoms occurred, and then the trouble ceased. The author believes that the dyspnœa was due to an urticarial involvement of the bronchial mucous membrane.

The Danger of Phenic Acid Injections in Typhoid Fever.—Dr. Villebrun reports several cases of very grave toxic symptoms occurring in children after the administration of carbolic acid in enema. In one case, that of a child aged six, less than seven and a half grains was given; and in another, aged eight, not much over three grains. Both these children showed very marked symptoms of poisoning, profuse sweating, coldness of the extremities, and loss of consciousness, and reaction took place only after several hours. This hardly bears out the statement made by M. Desplats before the Paris Academy of Medicine, in 1880, that from fifteen to thirty grains of phenic acid could safely be given in rectal injection. In another instance the author ordered for a patient, aged sixteen, seven and a half grains in six ounces of water, a teaspoonful to be taken internally every hour; but after the third dose toxic symptoms declared themselves, and the administration of the remedy had to be suspended.—*Le Concours Médical*, October 17, 1885.

Prostatic Calculi.—At a recent meeting of the Surgical Society of Paris, M. Reclus reported the following case (*Revue Médicale*, October 24, 1885). A patient who had just had an attack of renal colic passed fourteen small stones by the urethra. Upon the introduction of a sound an obstruction was found at the level of the prostate, and as the instrument passed there was a sensation as if it were going over a number of roughened bodies. There was no stone in the bladder. Rectal examination revealed the presence of a hard swelling in the prostatic region. A perineal incision was then made on a guide, and 32 calculi, weighing 730 grains, were extracted; two of these were adherent, and were removed with difficulty.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, November 28, 1885.

THE PENALTY FOR REPORTING CONTAGIOUS DISEASES.

THE protest on the part of the medical profession here and elsewhere against the verdict of the jury in the case of the Drs. Purdy, of this city, who were fined for reporting a case of suspected contagious disease to the Health Board is significant in its purpose and far reaching in its influences. The questions involved relate not only to the safety of the community, but to the protection of well-meaning and law-abiding citizens, who strive to carry out the letter and spirit of a statute.

The Health Board as the custodian of the health of the people makes it obligatory on the part of physicians attending suspicious cases of contagious diseases, to report the fact to the said department without delay, in order that proper means may be taken to prevent epidemics. Although the State has no constitutional right to force a physician to do so without recompense, the physician in his turn has tacitly submitted to the imposition rather than openly interfere with a regulation which on its face is calculated to benefit the public at large. The Drs. Purdy conformed with the law regarding a case in their practice. They were called to see a woman with a suspicious eruption and with other symptoms attending the invasion of small-pox. They reported the case to the Health Board. Their diagnosis was confirmed by a member of the Health Department, who by the authority invested in him as agent of the Board, ordered the patient to be transferred to the small-pox hospital. After a stay of two days in that institution the case was said not to be one of variola, and the patient was discharged. Thereupon the said patient sues the physicians for damages to the amount of $10,000. The result of the trial was a verdict of $500 against the defendants.

There were the best of grounds from the symptoms presented at the time of examination for believing the case to be one of small-pox. So much was testified to on the trial by experts. No one acquainted with the skill and experience of the medical attendants would doubt this, even without the bolstering of extra testimony. Nor is it conclusively proven that the case was not one of small-pox which ran a mild course. At best it was the opinion of one set of medical men against that of another. The jury, however, held that there was no excuse for any difference of opinion, and found for the plaintiff.

But allowing that the case was not one of small-pox, what culpability have the physicians in the matter? No law can assume that the judgment of a physician is infallible. Such a proposition is an absurdity on its face, and militates against every principle of law or gospel. No one should be held accountable for his opinion when it is one honestly rendered. The motive is the only thing to be questioned. In the case before us this was beyond criticism, and was clearly in conformity with a higher law than that of the State, that of conscience.

When the report was made, however, and the case delivered to the health authorities, the personal responsibility with the case, on the part of the physicians, was virtually ended. The Health Department represented the State which alone assumes the right of interfering with the liberty of the subject, and by virtue of its power in the premises, took the patient under its jurisdiction solely, and confined her in the small-pox hospital. But then the Health Department cannot be sued. The only seeming chance for redress by a plaintiff for a supposed wrong of this sort, is to sue the physician whom he or she first called in, and who reports the case to the Board. The physician must, under penalty of a fine, report every suspicious case, and if his suspicions are not confirmed, even after the Health Board has taken charge of the case, he is fined or otherwise punished. The attending physician has nothing to do with sending any patient to the small-pox hospital. The Health Board takes the responsibility into its own hands and is alone accountable for damages. What encouragement or protection has any physician for conforming to such a law? It is one-sided from beginning to end; compelling the doctor, as a free and independent citizen, to use his time and his professional ability for the good of the State, not only without pay but without any protection against an ignominious penalty in case a jury shall decide that his unbiassed professional judgment was at fault.

Certainly something must be done to right this monstrous wrong. Already the Medical Society of the County of New York has taken the matter in hand, by showing a determination to test the case still further. There is no desire to cripple the usefulness of the Health Department or to curtail its powers. Such a course would be clearly against public policy. But while the law must be vindicated, the rights of the individual who assists in carrying out its provisions must be jealously guarded.

Unless the State protects the physician against just such penalties as have been inflicted upon the Drs. Purdy, medical men will not only hesitate to report suspicious cases, but may justly decline to take any course which may render them liable to such ignominious trials as the one in question. Certainly a very dangerous precedent has been established by the verdict. The time has apparently come when the martyr's stake can be used as the torch to light up the way to justice.

THE FIRST FRUITS OF CHARITY REFORM.

IT is always gratifying to see the fruits of labor. For months the RECORD has been engaged in a crusade against existing abuses in medical charity. It has given full and free discussion to the various phases of the ques-

tion. Each interested party has had its columns freely open to it, and fair opportunity to state its view of the case. Our aim has been to serve as a medium whereby there might result an interchange of ideas. While advocating no specific plan, we have always encouraged the good points of every plan proposed. In all these ways attention has gradually been drawn toward one existing agency, the efforts of which seemed to be of the greatest practicability. We refer to the Charity Organization Society.

The meeting held last week at the Academy of Medicine, under the auspices of this society, was a memorable gathering. It was the first effort, so far as we know, to bring together a representation of all the interested parties. One of the most interesting features was the freedom and frankness of discussion. The presiding officer, with commendable tact, held the speakers well down to the work in hand. The Charity Organization Society presented itself in the capacity of a clearing-house, through the agency of which there might be an interchange of information between all parties engaged in charitable work. The records of the society's labors speak for themselves. They are most commendable. They have demonstrated theorems regarding charitable work which cannot be ignored by those who are endeavoring to conduct such work upon the lines of true social science. The conclusions adduced are so in harmony with what has so often been expressed in these columns that we may be pardoned for feeling that in this pioneer work our own part has been by no means a small one.

At the meeting alluded to there were four distinct classes represented: the hospital and dispensary trustee, the attending physician, the physician—representing the rank and file of the profession who are not interested in dispensary work (except in so far as it is doing them an injustice)—and the benevolent citizen at large. The gentlemen in attendance were representative men of these several classes in the community, and the tone of their discussion bore out these facts. A wise proceeding was the limitation to a small number of the committee upon whom devolves further action in the work so auspiciously begun. The majority of representation was justly and generously given to the medical profession, who are the greatest sufferers under the present faulty methods of management. They have done more than any other one class to inaugurate the present agitation. Upon their conduct depends future success. The present abuses affect the hospital and dispensary trustee so distantly that from them much cannot be expected. To the average physician these abuses come nearer home. They affect his pocket-book directly. The meeting showed conclusively how deep the feeling on this question has been in the minds of the profession at large. The denunciation of some medical charities whose methods we have lately had occasion to criticise showed that our words had met with a response which will not spend itself in mere words.

From the statements made by the Charity Organization Society, we know that at least one-third of all who apply at our medical institutions for aid are unworthy of free treatment. On the part of the profession it was adduced that the average physician spends at least one-third of his time in charitable work. Representatives were present from several institutions which through the Society have sought information concerning the worthiness or unworthiness of those applying for aid. They have made a fair trial of the Society's resources. The latter when weighed in the balance have not been found wanting. The practicability of the methods employed has been amply demonstrated.

So the first blow has been given to the entering wedge. Many details await arrangement. The conflicting interests of various institutions, with their respective staffs, must be adjusted to each other. This will require time, but it can be done. The work must be thorough, in order to be lasting. No temporary or half-way measures will answer. All parties interested must be accorded a fair hearing. The cheering feature about the whole matter is that at last the community has become aroused to its social peril under present charitable methods. Now can concerted action be taken that shall result in true and lasting reform. We do not believe that a more important meeting has ever been held than the one whose features we have chronicled. If anyone feels that injustice lies in the methods outlined, let him now speak or forever after hold his peace.

THE DANGERS OF THE COCAINE HABIT.

It is asserted by the *Medical and Surgical Reporter* that for a long time while Peru was a Spanish colony the cultivation of coca was prohibited on account of the disastrous effects which the indulgence in it brought upon the inhabitants. We have already, since the introduction of cocaine, learned what these disastrous effects are which the systematic use of that drug induces.

And it is quite time to sound a note of warning, positive and decided, to the medical profession, regarding the administration of cocaine internally.

To some persons nothing is more fascinating than indulgence in cocaine. It relieves the sense of exhaustion, dispels mental depression, and produces a delicious sense of exhilaration and well-being. The after-effects are at first slight almost imperceptible, but continual indulgence finally creates a craving which must be satisfied; the individual then becomes nervous, tremulous, sleepless, without appetite, and he is at last reduced to a condition of pitable neurasthenia.

Some physicians have already fallen victims to the cocaine habit, and quite a number have observed the pernicious effects of this habit upon their patients. Dr. A. B. Shaw, of St. Louis, in the *Weekly Medical Review*, relates experiences showing the effects of the substitution of the cocaine habit for that of morphine, and the evil influence of the continued use of cocaine upon the mind.

Dr. J. K. Bauduy, of St. Louis, has testified to the same effect.

Dr. Louis Bauer, of St. Louis, at the last meeting of the Mississippi Valley Medical Society, described the effects of cocaine on an inebriate. The alcohol habit was destroyed, but a cocaine habit substituted.

The patient, says Dr. Bauer, would take ten grains at one injection. The action of the cocaine ensued in from fifteen to twenty-five seconds, arriving at its height in less than an hour; in two hours the effects were almost en-

tirely gone, and reaction gradually followed. The drug had a very decided and marked effect upon the heart, the pulse rising quickly from its normal standard to one hundred and twenty or one hundred and thirty beats per minute. The cocaine destroyed appetite; it also produced obstinate constipation, lasting many days and hard to overcome. The secretion of urine ceased for the time, and the sexual function was also suspended.

Dr. Bauer thinks that the cocaine habit is at least preferable to the alcohol habit. We believe that it will probably kill more quickly, if that is an advantage.

That cocaine, though often well tolerated, is sometimes poisonous in not very large doses, appears evident from a case reported in the *Chicago Medical Journal*, by Dr. G. W. Kennicott. A young woman, twenty-five years of age, of good constitution, snuffed up about three grains of muriate of cocaine into her nostrils. In fifteen or twenty minutes she became dizzy, her vision became dark, a sinking sensation occurred, with great weakness. When the doctor was called he found the patient in a semi-comatose condition, from which she was easily aroused, and when so aroused her mind was clear. Her temperature was above normal. Her skin was hot and dry. The radial pulse was very rapid, and so weak as to be scarcely discernible. Her pupils were widely dilated. Deglutition and articulation were difficult. There was some dyspnœa. She complained of dryness of her fauces and a bitter taste in her mouth. She complained also of cold shivers, and her teeth chattered, although her temperature was still above normal. Later she became drowsy; her eyes were closed and the muscles of her face affected. There was great weakness; she could not support her head. There was dyspnœa, but it was not severe. There was some nausea, but she did not vomit. She recovered in about three hours under stimulants (brandy and ammonia) and digitalis.

Dr. Merriman writes to the *Ohio Medical Journal* that he has lately seen a gentleman who had been taking cocaine for four months for sick headache, beginning with a drachm of the four per cent. solution hypodermically per diem, and gradually increasing this till at last he was found to be taking from five to seven drachms a day. He was very weak, with a pulse of 100, and his mind was wandering somewhat, as in delirium tremens.

INFLUENCE OF OZONE ON HEALTH.

The recent paper by Dr. Daniel Draper, of the New York Meteorological Observatory, in which he practically accused ozone of being the cause, or at least the predisposing cause, of pneumonia in New York, has given rise to discussions relating to the hygienic value of ozone in the atmosphere which may eventually throw considerable light on this disputed subject.

It is well known that plants exhale ozone, and if this substance is a predisposing agent to disease the danger of keeping flowering plants in the apartments of a house, especially bed-rooms, becomes apparent.

We are indebted to Dr. Anders and Dr. M. B. Miller for a series of observations pointing to the class of plants which exhale the most ozone, the conclusions showing clearly that it is only flowering plants which have this property, and it was noted that those possessing odoriferous blossoms have this function to the greatest degree.

The result of most of the experiments tended to prove that odorous flowering plants are energetic ozone producers, but that non-odorous possess the function in but a slight degree, the former being more active than the latter. Those, therefore, who believe in Dr. Draper's hypothesis that there is some connection between the quantity of ozone in the atmosphere and increased death-rate from pneumonia, will do well to keep all flowering plants from their dwelling-rooms.

Ozone is found in pine woods, and was considered of such hygienic value that people went miles to breathe it. It is also present in the greatest abundance at the seaside, and in country places noted as health-resorts, and no one has hitherto suspected it of having a dangerous influence.

Chemists show that ozone rarely averages more than one seven-hundred-thousandth part, by volume, of atmosphere. The quantity present being greater in spring than in winter it might be thought that such a small proportion would be inappreciable, but small as it is it certainly makes its presence felt, for in its pure state ozone undoubtedly acts violently on the lung tissue, and it is known to oxidize substances rapidly which resist indefinitely the action of oxygen.

To test the value of Dr. Draper's theory careful records should be kept of the various observations throughout the world, and we trust that such a course will find favor among those in a position to carry out this suggestion.

WHY DOCTORS' BILLS ARE SOMETIMES UNPAID.

One reason why bills of physicians are unpaid is negligence in collecting them. This is especially the case when mechanics and other persons of limited incomes are treated. Despite the temptations which constantly beset the honest clerk, and others of his ilk, to dodge pecuniary responsibility through the many avenues of medical charity, there is at first an inclination to pay the doctor, if reasonable opportunities are offered for so doing. Too often, however, the medical attendant, actuated by false pride on one hand and an eagerness for business on the other, allows the money question to be in abeyance until the bill becomes relatively of startling size. The clerk and mechanic, as a rule, are persons who are accustomed to pay small bills, and to do so frequently. They themselves are paid weekly, and if provident, calculate their expenditures regarding board, room rent, clothes, and family necessities to a nicety. They belong to the pay-as-you-go class, although their business is on a small scale. The trouble, however, is that the family physician generally places himself above that scale and suffers accordingly. If his bills were presented even weekly he might have a chance to be served with the same consideration as the grocer, the butcher, and the baker. But he believes it unprofessional to be pecuniarily concerned, and the consequence is that the patient gets into the habit of believing that the doctor's bills are the hardest of all to pay. It does not appear to him that there is so much necessity about it. The doctor by his indifferent manner gives him to understand that there is no pressing necessity about it, and the patient acts ac-

cordingly. The bill consequently runs on until in the course of weeks and months of attendance it amounts to possibly fifty dollars or more. The patient paying week by week for what he is taught to believe by the ordinary tradesmen are his cash necessities has nothing left for the forced luxury of medical services, the large bill becoming a millstone about his neck. If he reasons with himself he must acknowledge that the dues are just, but how to get blood out of a stone is a dreadfully perplexing problem with him. He may possibly commence to economize, in order to offset what he coaxes himself to believe is an infliction, for few men receive a doctor's bill joyously. But pressing necessities for ready cash in his household present themselves and offset his best intentions. The medical attendant in the meantime sends his collector. The latter always arrives at an inopportune moment. He is generally as much out of place under the circumstances as is the skeleton at the feast. He is sometimes not even treated as a friend who comes to help the impecunious sufferer out of difficulties. His purer motives are misinterpreted, and his smiling overtures are received with studied coolness. If he talks of discharging obligations to the doctor, the good wife, who was once sick, is now well enough to take her part. The visits were made oftener than was necessary, at least so she now thinks, and the charges were exorbitant; at all events the doctor must be patient until they get the money. But alas! the medical attendant waits in vain, even long after the enterprising collector has given up the case. Little Johnny is taken sick in due time. The doctor is sent for and will not come. The family are now righteously angry. Then the retaliatory spirit asserts itself. What might have been treasure on the earth for the expectant creditor, has been transferred to an account that can only be collected hereafter. Johnny's father feels indignant and independent. Hereafter he will do his doctor business on cash principles, and he takes Johnny to the Out-Patient Department of the New York Hospital, pays his dollar and takes his choice. His pretended poverty is counterbalanced by his respectability, and he reproaches himself for not taking advantage of such opportunities before. The only way, under the circumstances, for the doctor to get such patients back again, is to secure an appointment in the Department, and be privileged to treat them for nothing.

Establishments for the Cure of Obesity.—Professor Oertel, of Munich, inventor of the method which Schweninger had so successfully applied to the Chancellor of the Empire, has set out for different places, in order to found establishments therein for the cure of patients suffering from diseases of the heart, fatty heart, obesitas universalis, etc. Baden-Baden, Ischl, the Semmering, and Abazzia on the Adriatic, are already chosen for this purpose. As climatic stations, Meran, Bozen, Gries, and others have already been opened.

The Lackawanna County Medical Society held its regular monthly meeting at Scranton, Pa., on November 11th, and passed a resolution "That the County Medical Society of Lackawanna County pass a series of resolutions condemning the action of the Committee of the American Medical Association, in soliciting support for its action regarding the International Medical Congress."

News of the Week.

The Sims Memorial Fund.—The cash subscriptions to the Sims Memorial Fund received by The Medical Record amount to $8,166.34, from which is deducted $406.43, for stationery, printing, postage, telegraphing, and commissions for collection. The balance, which remains on deposit with the United States Trust Company, and is subject to the order of the committee, is $7,759.91. This amount is considered sufficient to erect a suitable bronze statue to Dr. Sims, and the necessary steps to that end will be taken by the committee without further delay.

The Lancet on the International Medical Congress.—*The Lancet*, which has for a time been inclined to take a hopeful view of the Congress, and to make somewhat light of the defection and opposition to the present management, now says: "The reign of concord is not yet within sight even of the sanguine and of those who believe that, whatever the grievances of individuals and the importance of ethical questions, the great and supreme duty of every medical man in the United States at this moment is to devise a way of peace and such a restoration of harmony in the profession as will secure the success of the International Congress in Washington in 1887. In addition to such resignations as we lately mentioned, we have Professor Henry I. Bowditch's resignation of the vice-presidency, announced in a letter to the *Boston Medical and Surgical Journal*. Dr. Bowditch complains of the tone of the 'Journal of the American Medical Association.' His resignation is the more serious as he had hitherto resisted all pressure to join in previous protests against the action taken at New Orleans and elsewhere. Another vice-presidency has been declined by Dr. Henry F. Campbell, late president of the American Medical Association; and various other resignations are reported, such as those of Dr. E. O. Shakespeare, of Philadelphia, Dr. Henry G. Beyer, Dr. John Mason, Dr. Jerome S. Kidder, and Dr. J. M. Flint, U. S. N. We record this process of resignation with great grief."

Dr. Ferrán and his Cholera Inoculations.—The *Independencia Médica*, of Barcelona, has, says *The Lancet*, for the last six months "written up" Dr. Ferrán and his cholera inoculation *usque ad nauseam*, a very considerable portion of each issue being included in the so-called *Sección Ferránniana*. In that of October 11th there is a long letter from Drs. Ferrán and Gimeno to the Ministry, recounting their inoculation successes in Ondara, Santa Pola, and Cambrils, and a lengthy article drawing attention to this and comparing Ferrán with Koch as a discoverer, pointing out that, while the German scientist was promoted from an obscure provincial appointment to a most important post in Berlin, with a subvention of 100,000 marks wherewith to carry on his researches, Ferrán has been dismissed from his charge of the Tortosa infirmary. As if this were insufficient for one number, there is an annotation headed "From Malice or Ignorance," complaining that some periodical edited by medical men had insulted "the illustrious naturalist Dr. Ferrán," by referring to "that distinguished and disinterested

practitioner" as having pocketed several thousand dollars by his inoculations. After all this, which is a sample of what has been going on in the *Independencia* regularly three times a month, there has come a sudden stop. The last number that has reached us (that of October 21st) contains no *seccion Ferràniana*, no eulogy of "our distinguished *confrère* and friend," no anathema against his ignorant, jealous, and prejudiced critics in Spain and abroad—in fact, not a word about him from one cover to the other!

Something Worth Knowing.—The genial editor of the *St. Joseph Medical Herald* informs his readers beforehand that "the next issue of the *Herald* will be a daisy."

A Suicidal mania has broken out in Berlin, and the number of persons taking their own lives has of late been rapidly on the increase. On one day last week no fewer than seven cases of suicide took place in that city.

Dr. A. N. Bell has resigned his position as sanitarian to, and membership of, the Medical Board of the New York Infant Asylum.

Suit against a Gynecologist.—The *Boston Medical and Surgical Journal* says: "We regret to note that a prominent gynecologist of Boston has been subjected to a suit for malpractice by a woman whom he treated gratuitously, the claim being made that he performed an operation upon her against her will, the operation itself being unnecessary and improper. Moreover, that she was discharged from the hospital where she had been treated, at an unsuitable time. She lays her damages against the physician at $10,000, and for a like sum against the hospital."

Dr. A. D. Rockwell on Sheridan's Ride.—In the *Magazine of American History*, for November, is a wonderfully clever account, by Dr. A. Rockwell, of the famous ride of General Sheridan. It is too seldom that the busy doctor is tempted to venture into the realm of general literature and to try his descriptive powers on something besides strictly medical cases. When he does so, he not infrequently makes his mark by infusing into his composition all those rare traits for observation which are brought out by his professional training, and by exercising his cultured judgment in sharpening the salient points of his story. Dr. Rockwell has so far succeeded in all these respects that his graphically-told story is a masterpiece in its way. We only wish was twice as long.

The Treatment of Mastitis.—Dr. Paul F. Mundé writes: "Will you kindly state in your next issue that I have nothing to do with the question of priority between Drs. Harris, Milroy, Ranney, or any one else, as to the origination of the 'Treatment of Mastitis by Rest and Compression.' I do not know who first recommended this treatment. My letter to The Record, of September last, intended merely to prove that Dr. Milroy did not derive his inspiration from Dr. Harris through me, who then happened to be Dr. Milroy's visiting surgeon at the Maternity Hospital. I think I distinctly stated that so far as I knew, the priority of the method, as between Drs. Harris and Milroy, belonged to Dr. Harris, but that Dr. Milroy *might* have hit upon it independently. I would like to be left out of this controversy in the future, as I have nothing to do with it except as above stated. I hope this will satisfy your correspondent (Dr. Julius A. Post, of Lansing, Mich.), and all others who may believe that I wish to contest their claims of priority to the method in question."

Death of Dr. William Frothingham.—The community was deeply shocked to learn of the sudden accidental death, on November 18th, of Dr. William Frothingham, of this city. It appears that while cleaning a pistol it was accidentally discharged, the ball penetrating the eye thence to the brain and killing him instantly. Dr. Frothingham had lived on Washington Heights for twenty years and had been the leading practitioner in that part of the city during this time. Dr. Frothingham was fifty-five years of age. He graduated from the College of Physicians and Surgeons in 1854. He then served three years as interne in Bellevue, and was one of a party of young physicians and surgeons who went abroad for hospital practice in Paris and in some of the cities of Germany. Dr. Frothingham served in the war as surgeon in Colonel Ellsworth's regiment. He settled in this city in 1865. He was a member of the County Medical Society, of the Academy of Medicine, of the Pathological Society, of the Physicians' Mutual Aid Association, and of the Society for the Relief of Widows and Orphans of Medical Men. He was Visiting Surgeon at the Colored Orphan Asylum and the Juvenile Asylum, and was consulting physician at the Deaf and Dumb Asylum. He was noted for his charity, not only in giving professional services, but with his money. He was a man of deep religious convictions. As a physician he was eminently successful, being one of those, apparently, who are born to the Art.

The City Charge for Ordinary Obstetrical Cases ranges from fifteen dollars for the poorer to two hundred for the richer class of patients. The tenement-house population are treated gratis by the dispensaries.

Correspondence.

THE ROMAN CATHOLIC VIEW OF CRANIOTOMY.

To the Editor of The Medical Record.

Sir: His Grace the Archbishop of New York having requested me to answer your letter to him bearing date of November 3d, I take pleasure in complying with his wish, not only out of regard for the Archbishop himself, but also because I rejoice to see this question being agitated in so commendable a spirit by the members of your profession.

Catholic theologians have always been practically agreed as to the sinfulness of the practice of craniotomy. The reason is simply that the end, however good and desirable, can never justify or excuse the use of means which are unlawful in themselves. Now, the killing of a human being, even though that being is within a few moments of death from other causes, is wrong in itself, and has all the guilt of homicide. This proposition has never been doubted by Catholics. They all admit that, even in that case, dominion over life and death belongs to God alone. Hence the killing of a human being can never be adopted as a means for obtaining any end, even one so desirable as saving the life of a mother.

Up to a few years ago this teaching was received without question by all writers on ethics within the Church. Of late years, however—moved, no doubt, by the practice prevailing among some medical men—some few theologians took up the opposite side, and began almost to maintain the lawfulness of the operation, provided an attempt had previously been made to baptize the child *in utero*. The chief writers on this side of the question were Rev. Drs. Avanzini and Penuacchi, of Rome. Their arguments may, in the main, be reduced to two:

1. The killing of the child is indirect, so far as the intention of the operator is concerned, for he looks only to the safety of the mother. Now, all moralists hold that the *indirect* killing of innocent persons may *sometimes* be lawful, as, for instance, in the case where a general advancing to the attack, places hostages in the first rank of his army. It is then lawful for the defending army to fire, though they are certain that they will thereby slay their own friends.

2. Even if the killing of the child be supposed to be *directly* contained in the intention of the operator, it is merely the slaying of an unjust aggressor. The mother has a right to her life, and the presence of the child will deprive her of that right. It is true that the child is unconscious of this fact, and is in no sense morally responsible for it; but it still remains true that it is in reality an impediment to the mother's enjoyment of her right to life; and so, just as I may, when necessary for saving my own life, kill the lunatic who attacks me, though he be not responsible for his act, so may I take the life of the child to save that of the mother.

It must be confessed that, in spite of the ability of the writers who have presented these arguments for the lawfulness of craniotomy, they would seem to be no better than trivial sophisms. With regard to the first, it is evidently false to say that a means which is *directly* adopted for attaining an end, is only *indirectly* contained in the intention of the agent who so adopts it. It is not indeed the *final* object of his intention, but it is the *immediate* and *direct* object—even more direct, if anything, than the end which is ultimately intended. The parity with the case of the hostages does not hold, for there the defenders do not kill their friends in order that from their death the destruction of the enemy may result: this would be to intend the death of the innocent in itself. They aim at the enemy, though they know that their balls will certainly strike also their friends. With regard to the death of the latter, their intention is purely *permissive*. The same cannot be said of the intention of the craniotomist. He takes the death and dismemberment of the child as a means to secure the safety of the mother. His direct intention, therefore, is, first and foremost, to kill the child.

The second argument is due to an equal confusion of ideas. To constitute an aggressor, some positive act is required. The child is in its unfortunate position through no act of its own; it has come there by the course of nature, and is, in itself, wholly passive in the matter—indeed, generally speaking, the mother might with more propriety be called the aggressor on the rights of the child.

No doubt these considerations are quite obvious and familiar to your mind; but, in order to give an outline of the state of the question among Catholics, it was necessary for me to repeat them.

After causing much discussion, the matter was carried to the Holy Office of the Inquisition, at Rome. This is one of the congregations of cardinals appointed by the Holy Father to assist him in the details of administration in the government of the Church. The particular province of this Congregation includes all matters relating immediately to faith and doctrine. The question of craniotomy remained under careful consideration by the Congregation, not for weeks or months only, but for several years. On May 25, 1883, the Cardinal-Archbishop of Lyons submitted three questions to the decision of the Holy Office. On December 10th of the same year, the Congregation replied to two of the inquiries, and added: "The third question (referring to craniotomy) having been the subject of many other inquiries, made by other bishops, is still under consideration." On May 31, 1884, was sent to the same prelate the decision which has been copied by THE MEDICAL RECORD. There is, however, a slight inaccuracy in the translation given in that journal, though the error does not affect the substance of the reply. In the original nothing is said of teaching the operation in Catholic *medical* schools. The question decided by the Congregation is stated in the letter to be this: "Whether it can be safely taught in Catholic schools that the surgical operation known as craniotomy is lawful, when, etc.," the remainder being as given in THE RECORD. The schools referred to are theological schools, as the Cardinal of Lyons had put the question with reference to his own seminary.

The authority of this decision is absolute and binding on the conscience of all Catholics. When Roman Congregations decide questions without immediate reference to the Holy Father, their authority is subject to limitations varying with the nature of the matter decided, and with other circumstances. But in important cases, especially with regard to faith and morals, their decisions are often submitted to the Pope in person, and if they receive his approbation and explicit confirmation, they become a part of the authorized teaching of the Church, and cannot be denied by any Catholic. This is the case with the present decision, as is evident from its closing paragraph.

The exact *meaning* of the technical phrase, "tuto doceri non posse," may not at first sight seem so clear. The Congregation, as you will perceive, does not in express and precise terms declare the act to be sinful. But it will be quite evident, I think, that it does this equivalently. An opinion that cannot safely be taught is certainly not a *probable* opinion. Now all Catholic theologians agree that an opinion in regard to the lawfulness of an act cannot without sin be followed in practice, unless it have at least a solid probability in its favor; and this doctrine is authoritatively confirmed by the condemnation of the contradictory proposition by Innocent XI. I therefore have no hesitation in assuring you that all Catholics are bound in conscience to admit the sinfulness of craniotomy, and that any one who performs it, unless he be excused by ignorance of the real nature of his action, incurs the guilt of homicide.

I trust that what I have said will be sufficient to enable you to treat the Catholic view of this question, as you wish, fully and intelligently. If any explanation should have been obscure or defective on any point, I shall be most happy to supply the deficiency whenever you desire.

I remain, sir, very respectfully yours,

A. SABETTI, S. J.,
Professor of Moral Theology.

WOODSTOCK COLLEGE, HOWARD COUNTY, MD.,
November 7, 1885.

SURGICAL METEOROLOGY.—The *New York Medical Journal* says that, according to Dr. B. W. Richardson ("Asclepiad"), the time is favorable for operation: (1) When the barometer is steadily rising; (2) when the barometer is steadily high; (3) when the wet-bulb thermometer shows a reading of five degrees lower than the dry-bulb; (4) when, with a high barometer and a difference of five degrees in the two thermometers, there is a mean temperature at or above 55° F. The time is unfavorable for operation: (1) When the barometer is steadily falling; (2) when the barometer is steadily low; (3) when the wet bulb thermometer approaches the dry-bulb within two or three degrees; (4) when, with a low barometrical pressure and approach to unity of reading of the two thermometers, there is a mean temperature above 45° and under 55° F.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Annual and Stated Meetings, November 23, 1885.

DANIEL LEWIS, M.D., PRESIDENT IN THE CHAIR.

LIABILITY FOR DAMAGES FOR REPORTING CASES OF CONTAGIOUS DISEASE.

THE *Comitia Minora* recommended that the Society request Drs. A. E. M. and A. S. Purdy, defendants in the case of Brown *vs.* Purdy, to appeal, the jury having brought in a verdict of five hundred dollars damages, and also that the sum of five hundred dollars, if necessary, be appropriated to aid in the proceedings.

The defendants reported what they believed to be a case of varioloid. The Health Board sent an inspector who saw the patient, and the Board ordered a removal to the Riverside (small-pox) Hospital. The plaintiff remained in the hospital a short time and was discharged, and subsequently brought suit for damages against the defendants, with the plea that she did not have varioloid.

On motion by DR. AGNEW the recommendation was received, and recommitted to the Comitia, with the authority of the Society to act in the premises.

The adjourned Annual Meeting then adjourned, and the Stated Meeting was called to order.

INAUGURAL ADDRESS.

THE PRESIDENT, DR. DANIEL LEWIS, delivered his inaugural address. To-day the Society began its eighty-first year. Organized before the days of Governor Clinton, upon a platform broad enough to embrace all that is desirable in the realm of medical science, professional advancement, and the public weal, it has steadily increased in numbers and influence till the present time.

It is to be expected, in fact is unavoidable, that vast changes occurring in society since 1805 should have affected the character of the medical profession favorably or otherwise. The profession of medicine, like other so-called learned professions, has its commercial side, whereby society contributes to its support for services rendered. In just the proportion in which the physician places the science and art of medicine first, and the question of dollars and cents afterward, is the practice of medicine

A PROFESSION OR A TRADE.

The President then directed attention to what seemed to be tendencies in our times to degrade the profession to a trade level. While "Listerine" and scores of other less pretentious quack preparations might be excellent, and certain brands of wines might be delicious, yet no professional man could afford to place himself in a position where a monetary consideration might be suspected. The indorsement of any proprietary remedy was certain to react unfavorably upon the legitimate practice of medicine. Our materia medica is extreme enough, and our therapeutics sufficiently perfected to enable any intelligent physician to prepare his own prescriptions, and avoid any possible recognition of the patent-medicine men who infest every community.

Numerous places for receiving patients are now tolerated which were not in vogue within the recollection of even the younger members of the Society. Men have been expelled from our ranks for having advertised private medical institutions for the treatment of diseases by the Swedish-movement cure, medical baths, and the like, whereas it now happens that infirmaries, sanitariums, homes for inebriates, etc., are described in the daily papers as being organized and conducted by the eminent Dr. Blank with a corps of competent assistants.

There is just ground for suspicion that an operation may have been undertaken either for the purpose of teaching the apprentice his trade or increasing a master workman's wages.

Removal of the ovaries may be useful, but if it proves to be popular, is there a probability of its being so extended or modified as to apply to diseased conditions not yet thought of in that connection, perhaps in both sexes?

There can be but one cause for this unseemly strife for medical business, and that is the overcrowded condition of our ranks, and the remedy lies in raising the standard of requirement for admission to practice. On a former occasion he had expressed to the Society the conviction that a

STATE EXAMINATION

was one of the most potent means within reach for securing these objects. That is the opinion of a very large majority of the best medical men of our land to day, and it would hardly seem necessary to discuss the question but for the fact that the superintendent of a lunatic asylum, who was also president of the New York State Medical Association, had publicly declared that the best interests of all concerned were subserved by the present methods of admission to practice.

The President then urged State examinations and a higher standard for admission and graduation from medical schools.

In closing, he expressed his appreciation of the obligations imposed by his unanimous re-election, an honor which he had no right to expect, but for which he was none the less grateful.

At the close of his address the President announced the following

COMMITTEES FOR THE ENSUING YEAR:

Committee on Hygiene—Dr. E. H. Janes, Chairman: Drs. Alexander Hadden, Cyrus Edson, John C. Peters, and W. L. Hardy.

Committee on Ethics—Dr. George A. Peters, Chairman; Drs. M. Blumenthal, C. C. Lee, W. T. Alexander, and E. Waitzfelder.

Committee on Prize Essays—Dr. F. R. Sturgis, Chairman; Drs. F. P. Foster and W. R. Birdsall.

Auditing Committee—Dr. P. A. Morrow, Chairman, and Dr. Gorham Bacon.

DR. NORMAN KINGSLEY presented a patient with

CLEFT SOFT PALATE,

tested his ability to articulate, so that the members could hear for themselves, and proposed to exhibit the patient at some future meeting, after he had been under treatment.

DR. MILTON JOSIAH ROBERTS then read a paper on

THE MECHANICAL AND OPERATIVE TREATMENT OF KNOCK-KNEE AND BOW-LEG,

in which he described methods of examination, new forms of apparatus, and new operations, etc. He objects strenuously to the use of subcutaneous saws, and to chisels for dividing the bone, and recommends the electro-osteotome, an elaborate instrument of his own device.

Dr. Roberts illustrated the operation of this instrument, and also exhibited another, designed for determining the width of the base of the wedge to be removed from a crooked bone, in order to make it straight, and called the gonometric bone-gauge.

THE PRESIDENT announced the death of Drs. E. B. Warner and William Frothingham.

THE SECRETARY read a communication received from the Board of Health announcing that the

WILLARD PARKER HOSPITAL,

at the foot of East Sixteenth Street, is open for the treatment of cases of such contagious diseases as scarlatina, measles, and diphtheria.

The Society then adjourned.

NEW YORK STATE MEDICAL ASSOCIATION.

Second Annual Meeting, held in New York, November 17, 18, 19 and 20, 1885.

(Continued from page 580.)

THURSDAY, NOVEMBER 19TH—THIRD DAY—MORNING SESSION.

THE Corresponding Secretary announced that 220 members had registered up to the present time. The Nominating Committee reported the following nominations of

OFFICERS FOR 1885–86.

President—Dr. E. M. Moore, of Monroe County, Fourth District.

Vice-Presidents—First District: Dr. William Gillis, of Franklin County; Second District: Dr. H. C. Van Zandt, of Schenectady County; Third District: Dr. F. Hyde, of Cortland County; Fifth District: Dr. D. Guernsey, of Dutchess County.

Recording Secretary—Dr. Caleb Green, of Cortland County.

Corresponding Secretary—Dr. E. D. Ferguson, of Troy.

Treasurer—Dr. John H. Hinton, of New York.

Members of the Council—At Large, Dr. John Shrady, of New York; First District, Drs. E. M. Lyon and Ira H. Abell; Second District, Drs. R. C. McEwen and Thomas Wilson; Third District, Drs. F. Hyde and F. W. Ross; Fourth District, Drs. Darwin Colvin and S. T. Clark; Fifth District, Drs. J. W. S. Gouley and E. S. F. Arnold.

The report of the committee was accepted, and the above-named officers were elected unanimously.

THE REPORT OF THE LIBRARY COMMITTEE

was then read. It was stated that about 3,500 volumes and 4,000 pamphlets had been received.

Dr. FELL, of Erie County, read a paper entitled

SOME ETIOLOGICAL FACTORS IN THE ACNEFORM DISEASES.

The author differed from most authorities as to the value of the *acarus*, or *demodex folliculorum*, as a pathogenetic factor of some, at least, of the acneform diseases. He thought that their almost constant presence in the pustules and in the free pus was a fact of considerable importance, although he was not prepared as yet to assert that they were the real and sole cause. They were found free in the pus and not in the sebaceous matter only. He then gave the results of a number of microscopical examinations of the contents of the pustules in a case of acne, in which he found the parasites almost invariably present. His treatment, which had been very successful, was directed to the destruction of the demodex.

Dr. E. G. JANEWAY, of New York County, then read the

ADDRESS ON PATHOLOGY.

We are witnessing now, the author said, a pathological revolution, and the strides made in the study of bacterial pathology are great. There are yet, however, many problems awaiting solution, one of the most important of which is that of the *de novo* origin of infectious diseases. Have the specific germs of typhus and typhoid fever a habitat outside of the body? The speaker thought it was possible that, as regards the latter disease, the germ might so live and propagate itself. He insisted upon the necessity of the careful observation and study of diseases arising, apparently *de novo*, in isolated places. Another important question is that of the prevention or mitigation of disease by inoculation with attenuated virus. While on this question, the speaker said that his experience had been that vaccination three days after exposure to small-pox would not prevent an attack of the latter disease; vaccination was delayed and the patient had an attack of small-pox, though a mild one. He explained that the Germans were ahead of other nationalities in the matter of pathological investigations, largely because of the liberality of their government in fostering scientific studies. Young men were stimulated to work in the hope of obtaining the honors of a professorship. Young men in this country were deterred often from undertaking practical scientific studies by the great cost of the necessary apparatus, which was double that of the same instruments in Germany.

At the request of several members Dr. Janeway made also some remarks on the use of

OXYGEN GAS IN PNEUMONIA.

He said it was of great value if given at the very commencement of cyanosis, but if begun later, after cyanosis was fully established, it was less useful. It should be repeated as often as the blueness of the skin reappeared.

AFTERNOON SESSION.

Dr. WILLIAM W. SEYMOUR, of Rensselaer County, read the first paper, entitled

A CASE OF GALLSTONES, PATENT AND CONCEALED—EXPLORATORY LAPAROTOMY—AUTOPSY EIGHT WEEKS LATER.

His conclusions were that the operation of incision of the gall-bladder was justifiable in suitable cases, and preferable to excision.

Dr. NELSON L. NORTH, of Kings County, then presented a paper on the

THERAPY OF THE CHLORIDES; ANTISEPSIS A PROMINENT AND IMPORTANT FACTOR IN THEIR MEDICINAL ACTION.

He regarded disease as a result of changed physiological processes, and due to the presence of disease germs; and if this be so, antisepsis is the key to the treatment of infectious disease. The efficacy of the mercurial chlorides in syphilis, dysentery, gonorrhœa, and other affections, rests in their power of destroying micro-organisms. It is probable that the action of the chloride of iron in Bright's disease will be eventually explained in the same way. The benefit of muriate of ammonia is doubtless due to its antiseptic action. In diphtheria, he said, the first thing should be to destroy the cause by tincture of iron and chlorate of potassium, and after this, if necessary, brandy and nourishing food may be given.

Dr. PETERS, of Albany County, said that he had never lost a case of diphtheria since he began to give the bichloride of mercury, one-thirtieth grain, alternating with tincture of iron every hour.

Dr. ROBERT NEWMAN, of New York County, followed with a paper entitled the

CAUSES OF FAILURE IN THE TREATMENT OF URETHRAL STRICTURE BY ELECTROLYSIS.

He said his success had been so great in his own cases that he was astonished when he heard that others had failed in this method of treatment. He was led to investigate the causes of these failures, and had come to the conclusion that these were three: 1. Incompetence of the operator; he should be not only a good surgeon, but a good electrician. 2. Incorrect diagnosis; electrolysis will not cure spasms of the urethra or enlarged prostate. 3. Faulty instruments; electrolysis properly handled cannot fail.

Dr. G. H. MEIER, of New York County, regarded the operation as one of great value, and destined to win a place for itself in the therapy of urethral stricture.

Dr. T. H. MANLEY, of New York County, thought

the operation was not one that could be undertaken by every one, as the author had said it required an expert in electricity to perform it successfully, and he thought it was a dangerous matter to recommend its general adoption by the profession at large.

Dr. W. W. Seymour, of Rensselaer County, read a paper on

THE DIAGNOSIS AND TREATMENT OF PELVIC HÆMATOCELE.

This affection occurs during the period of menstrual life, and is as common in nulliparæ as in those who have borne children. The author detailed the causes and mode of origin of hæmatocele, and the symptoms of this condition. A certain diagnosis is impossible before the expiration of several hours. The indications for treatment are to control hemorrhage and diminish shock. If there seem to be no tendency of the effusion to increase, rest is all that is necessary; but if it do increase and press upon the neighboring organs, aspiration of the uncoagulated portion is often beneficial; when suppuration has occurred, free opening is necessary; this should be done through the vagina or the abdomen, but never through the rectum.

The following papers were read by title: "A Case of Poisoning by Two Grains of Strychnia—Treatment, Chloral Hydrate and Coffee," by Dr. Wm. Fitch, of Tompkins County; "The Treatment of Abscess," by Dr. J. D. Rushmore, of Kings County; "Chronic Catarrhal Gastritis: Fatal from Complication of Sudden Enlargement of the Thyroid Gland," by Wm. H. Thayer, of Kings County; "The Proper Disposition of Street Sweepings, Ashes, Swill, and Garbage in our Cities," by Dr. Albert H. Briggs, of Erie County; "Ergot—Its Uses and Misuses," by Dr. J. K. Leaning, of Otsego County; and "Nutrition in Lithæmia," by Dr. Charles G. Stockton, of Erie County.

The session was then adjourned to meet in the morning at the Carnegie Laboratory, on East Twenty-Sixth Street.

Friday, November 20th—Fourth Day—Morning Session.

The meeting was called to order in the Carnegie Laboratory, at 10 o'clock, by Dr. Wm. Gillis, of Franklin County.

Dr. Samuel W. Smith, of New York County, read a paper entitled,

THE HISTORY AND TREATMENT OF THIRTY CASES OF DIPHTHERIA.

These cases were treated according to the method advocated by Dr. Billington. This consists of the internal administration, alternately, of tincture of the chloride of iron in glycerine, and chlorate of potassium; of thorough irrigation of the affected parts of the pharynx and nares with a solution of common salt, to which Dr. Smith adds borax; and of spraying the fauces with lime-water and carbolic acid. Of these thirty cases there were five deaths. The author was not attached to tracheotomy in laryngeal diphtheria. He was not a dualist, but inclined to the belief of the identity of membranous croup and laryngeal diphtheria. He thought that those who claimed to cure every case of diphtheria were not to be relied upon, but dealt rather with fiction than fact. Dr. Smith had given no alcohol or quinine in these cases, but kept his patients upon a strict milk diet.

Dr. Hannan, of Sullivan County, did not think much of the paper, and said no one in New York City, professor or otherwise, knew anything about diphtheria any way.

Further discussion was participated in by Drs. Garrish, Kneeland, Fell, and others.

THE REPORT OF THE COUNCIL

was then read, in which it was announced that the next meeting of the Association would be held in New York City, in November, 1886.

Dr. George T. Harrison, of New York County, followed with a paper on

PERI-UTERINE HÆMATOMA,

in which he described the principal symptoms, and dwelt upon the differential diagnosis.

Dr. John Shrady, of New York County, reported a case of

CANCER OF THE KIDNEY,

occurring in a young child. Malignant disease of this organ, the speaker said, is found relatively often in children under five years of age. The diagnosis of the affection, in infants and young children, is comparatively simple since malignant disease of the ovaries or spleen may be excluded. The idea that carcinoma is exclusively a disease of advanced life is erroneous. A point of value in the diagnosis is the position of the colon lying in front of the tumor; another is the astonishingly rapid increase in the size of the new growth. The other organs are displaced, and the pressure upon the lungs causes sometimes intense dyspnœa. Hematuria is supposed to be a pathognomonic symptom, but the author had not observed it in three cases which he had seen. One striking appearance was the prominent and somewhat varicose condition of the superficial abdominal veins. The pain may be severe and constant, or it may be intermittent.

Dr. Fell, of Erie County, extended an invitation to the members to be present at the next meeting of the

AMERICAN MICROSCOPICAL SOCIETY,

to be held at Chautauqua, in August, 1886.

The Committee of Arrangements announced that at the next meeting, in 1866, sessions would be held for three days only, and most of the scientific work would be confined to the morning and afternoon, leaving the members more at liberty to seek recreation in the evening.

The following papers were read by title: "The Modern Aspect of Therapeutics," by Dr. Thomas H. Manley, of New York County; "The Vectis in Cross-births," and "Pessaries and their Uses," by Dr. Jacob Hartmann, of New York County; "Notes on Contracture of the Bladder Consequent upon Cystitis," by Dr. J. W. S. Gouley, of New York County.

Afternoon Session.

This session was devoted to a

DEMONSTRATION OF THE PLASTER-OF-PARIS JACKET

in its application to the treatment of spondylitis and lateral curvature, by Dr. Lewis A. Sayre, of New York County.

The Session was then adjourned until evening.

Evening Session.

Dr. Frederic S. Dennis read a paper on

THE ACTION OF MICRO-ORGANISMS UPON SURGICAL WOUNDS, WITH DEMONSTRATIONS.

The following classification of micro-organisms was given: 1. Spherobacteria, or bacteria in spheres. 2 Microbacteria, or bacteria in rods. 3. Desmobacteria, or bacteria in straight filaments. 4. Spirobacteria, or bacteria in spiral filaments. 5. Fungi. Nos. 1, 2, 3, and 4 belong to Schizomycetes. To 5, belong Blastomycetes.

Later in the evening, the annual banquet of the Association was served at the Murray Hill Hotel. Dr. John P. Gray, the retiring president, acted as toast-master. The first toast, "The growth of our Association," was responded to by Dr. H. D. Didama. "Our District Associations" was responded to by Dr. Frederick Hyde. To "Our Future" response was made by Dr. E. M. Moore. "The Press" was represented by Mr. McElroy, of the *Brooklyn Times*, and Dr. Simeon Tucker Clark read a poem entitled "Life and Death."

NEW YORK ACADEMY OF MEDICINE.

Anniversary Meeting, November 19, 1885.

ABRAHAM JACOBI, M.D., PRESIDENT, IN THE CHAIR.

A SECTION on Laryngology and Rhinology was created.

THE BOARD OF HEALTH.

A letter from James Gallatin, Esq., addressed to the President, was read, in which the writer directed attention to certain facts in connection with the action of the Board of Estimate and Apportionment which might impair the usefulness of the Board of Health by reduction of salaries and dismissal of valuable medical members. Some reduction could be borne without inconvenience. The letter urged upon the Academy the propriety of expressing the desire that the old and tried medical members of the Board be retained.

On motion the letter was accepted.

DR. GOUVERNEUR M. SMITH offered the following preamble and resolution, and moved their adoption.

Whereas, It is a generally recognized fact that the value of the work of the Health Department of the City of New York depends largely on the presence and training of competent medical men; and

Whereas, It has been declared expedient that some reduction in expense should be made during the coming year; be it therefore

Resolved, That it is the sense of the New York Academy of Medicine that said reduction should be effected in such a way as not to impair the usefulness of the department, either by dismissal of competent and experienced physicians now years in the service, or by lowering their salaries below a fair and equitable rate.

With regard to the wisdom of reducing the appropriation for the use of the Health Department he had nothto say; but concerning the medical element of the department the profession certainly had the right to give an expression of opinion.

DR. FORDYCE BARKER seconded the resolution, and said that how far expenditures had been injudicious, and how far appropriations might be diminished, he was utterly unable to say; but as regards the resolution there was no doubt that, to secure efficient work, men fully competent to discharge the duties of the offices must be employed, and of such integrity that they were worthy of being employed and amply paid for their services.

The resolution was unanimously adopted.

DR. HENRY D. NOYES then delivered the Anniversary Discourse (see MEDICAL RECORD, page 589), on

PATHFINDING IN MEDICINE.

DR. FORDYCE BARKER, at the close of the address, gave a brief and entertaining review of the history of the custom of having an anniversary discourse delivered before the Academy, and made pleasant reference to those by the late Dr. Francis in 1847, and by the late Dr. J. Marion Sims in 1857, who included in his oration the history of the silver suture. While Dr. Sims was speaking, one of the ladies sitting by the side of Dr. Barker asked "What is this silver suture?" to which Dr. Barker replied that it was "a new-fashioned back-stitch." Dr. Barker also referred to the reference made by Dr. Noyes to the practicability and desirability of making the Academy the great centre of advanced study in medicine, and also spoke of it as one toward which the profession, not only of the United States, but of the world, might turn with the assurance that their desires and hopes would be fully realized.

He moved that the thanks of the Academy be tendered to the orator for his suggestive, interesting, and able address. Unanimously carried.

The Academy then adjourned.

SECTION IN PRACTICE.

Stated Meeting, November 19, 1885.

ALFRED L. LOOMIS, M.D., LL.D., CHAIRMAN.

DR. R. C. M. PAGE read a paper (see MEDICAL RECORD, November 21st)

ON BRIGHT'S DISEASE.

DR. FRANCIS DELAFIELD opened the discussion, and said that Dr. Page's paper brought before us a subject which, although it had been gone over so many times by so many different writers, always remained one of interest. The different forms of Bright's disease of the kidneys constituted some of the commonest diseases of civilized life. Every day we were brought face to face with them and were made to feel more and more how little we really knew concerning them. There was, perhaps, no set of lesions or of symptoms which had occupied the attention of so many of the best minds in the profession, and yet we were obliged to acknowledge that we could not fully understand them, nor did we know fully how to treat them.

It had always seemed to him that the first step toward improvement in our knowledge of kidney diseases lay in an accurate classification, and although one after another had made an attempt to do this, he thought it must be acknowledged that no one had yet made a classification that was acceptable to all. The sort of classification that one needed would depend partly on the particular way in which one was brought in contact with these affections. For clinical purposes the simple division into acute and chronic Bright's disease, and the further subdivision of chronic Bright's disease into the cases in which the kidneys were atrophied, and those in which atrophy was not present, certainly answered a reasonably fair purpose; it was a practical division, and one which corresponded fairly well with ordinary clinical experience.

But if we went a little further than this, and looked at the kidneys of persons who had died of either acute or chronic Bright's disease, then it would be found that all kidneys were not the same. Again, when we endeavored to put together the clinical symptoms in a number of cases and make them correspond to the varieties of exact anatomical changes, it would be found that our success would be somewhat limited.

Take, for example, what might be included under acute Bright's disease. Anatomically the acute affection included two different lesions: one in which the inflammatory changes were confined to the epithelium of the tubules and of the Malpighian body; this form might be called *tubular nephritis*, or *parenchymatous nephritis*, and anatomically the lesion was distinct enough. On the other hand, there were examples of acute Bright's disease in which, in addition to the changes in the epithelium of the tubules and of the Malpighian bodies, there were changes in the stroma, consisting in an infiltration of the stroma with serum and white blood-corpuscles. In these cases also it would be found that the change in the epithelium of the Malpighian bodies was very much more marked than it was in the first set of cases; this second set of cases might be called *acute diffuse nephritis*, and we might separate the special ones in which changes in the epithelial cells of the Malpighian bodies were most marked and call those *glomerulo-nephritis*.

These three different conditions constituted a very great majority of all the cases of acute Bright's disease. There were a very few cases, however, in which the lesion was almost entirely interstitial, and in which there was scarcely any change in the epithelium of the tubes, and but very little change in the Malpighian bodies; this, anatomically, had been called *acute interstitial nephritis*, but these cases were very rare.

But when we studied the cases of acute parenchyma-

tous, or acute tubular, acute diffuse, and acute glomerulo-nephritis, it would be found, after all, that their clinical histories were very much the same. There were many cases which it would be entirely impossible to distinguish during the life of the patient. Generally speaking, the cases of parenchymatous nephritis were less severe, and those of acute diffuse and glomerulo-nephritis were more severe; yet cases of parenchymatous nephritis which were quite as severe as those of acute diffuse nephritis were occasionally seen, and therefore, for clinical purposes, this anatomical division did not help us very much.

If a patient had acute Bright's disease, it was readily enough recognized during life; but we were not, as a rule, able to make a differential diagnosis between an acute nephritis which involved only the tubes and an acute nephritis which involved both the tubes and the stroma of the kidney. The comparatively rare cases of pure interstitial nephritis were so few that we could not speak of them with any certainty. He had found but few recorded by other observers, and had seen but few cases himself. Their clinical history was somewhat different from that of other cases of acute Bright's disease, yet he had not seen enough of this form of the affection to fully warrant him in trying to give an outline of the clinical picture.

When we came to the cases of the chronic affection, it was found that the general name, chronic Bright's disease, answered a very good clinical purpose. It covered a large number of cases of renal disease in which the symptoms were essentially the same, varying in degree of development in different individuals. The fact that in some of the cases the kidneys became atrophied, with very marked changes in the interstitial tissue, had very properly led to the separation of these kidneys from other forms of Bright's disease as a particular variety, and the *atrophic form of the affection* was well known. The clinical course of this form of chronic Bright's disease was apt to be long-continued, the early symptoms were often obscure, and there was a disproportion in many cases between the amount of kidney lesion and the symptoms during the life of the patient. Yet the kidney lesions remained, and the patient was capable of getting better, and then worse. The symptoms extended over a long period of time, the body had time to get accustomed to the gradual change in the kidneys, and finally, we may find kidneys which weigh not more than three or four ounces without having given rise to any renal symptom whatever.

Then, apart from these atrophic kidneys, there were a very considerable number of other cases of chronic Bright's disease which we were apt to group together rather loosely under the name of the *large white kidney*. These, again, had their own characteristic course, which was more acute and more likely to be attended by dropsy and acute symptoms of different kinds. Again, when we examined the kidneys more closely, we would find, in some of the cases of chronic Bright's disease, that the lesions were confined to the tubes and to the epithelial cells of the Malpighian bodies, and these cases might be called *tubular or parenchymatous nephritis*. Then we had the so-called atrophied kidneys, and with these were anatomically to be grouped a number of kidneys which were not atrophied at all. In these cases changes would be found in both the epithelium of the tubes and the Malpighian bodies, and also in the stroma and in the arteries. It has become rather customary to call this form of the disease by the name of interstitial nephritis, on account of the great development of changes in the stroma. There would be no special objection to this name, in many points of view, if it were not that besides these kidneys there were those which were examples of real *interstitial nephritis*, in which the changes existed in the stroma alone, without changes in the epithelium of the tubes or in the Malpighian bodies. These cases, however, were of comparatively rare occurrence, but were sufficiently numerous to make it more convenient to classify these atrophied kidneys under the common name of *chronic diffuse nephritis*.

Another point to which Dr. Page had called attention was that particular group of symptoms belonging to kidney diseases, and commonly called *uræmia*. All were familiar with this group, consisting of cerebral symptoms—headache, restlessness, sleeplessness, delirium, stupor, convulsions, and coma—repeated and uncontrollable vomiting, and dyspnœa, apt to be excessive. These three—cerebral symptoms, vomiting, and dyspnœa—sometimes the one, sometimes the other, being most marked, belong regularly to a uræmic attack.

This group of symptoms appears as an acute condition which seems to demand medical interference, has attracted, and always will attract, attention, and our treatment always seems to be influenced to a considerable degree by our special views as to what the cause of these uræmic attacks may be.

Of course, it would be out of place at the present time to attempt any prolonged discussion as to what the real cause of uræmia may be. Most observers, however, had come to a choice of one of these conditions: either that the attacks are due to anæmia and œdema of the brain and its membranes, or that they are due to the circulation of urea or some other excrementitious substance in the blood, or that they are due simply to disturbances of the circulation.

The idea that uræmic attacks are due to poisoning of the blood by urea or other excrementitious substance is one which has taken a very firm hold upon the profession, and one which is felt in every-day practice. When a patient has been found in the uræmic condition, purging, sweating, and the use of diuretics have been, and still is, a routine treatment. Most of us have applied this routine treatment, and may yet use it, although we may not think very highly of it. All must have felt that, although it is the routine treatment, it is one which but seldom has any favorable effect on the patient.

Within a moderate number of years the drift of practice has been rather to break away from this routine, and to use remedies belonging to a different class, remedies which really act upon the circulation of the blood, and the good effect of which seems rather to indicate that these uræmic attacks are not due to any blood-poisoning, but are simply due to an abnormal distribution of the blood throughout the body; and the abnormal distribution seems to consist in that the brain, the lungs, the stomach, the kidneys, perhaps the liver, contain too small quantity of arterial and too large quantity of venous blood.

The plans of treatment which have been brought forward in later years, whether adopted by those who hold that the symptoms are due to disturbances of the circulation or not, do seem to point in that direction—for example, the use of opium. All of us have learned to look upon opium in the treatment of both acute uræmia and the more prolonged uræmic conditions as our great reliance. We have also learned that the more severe the uræmic attack, so much the larger doses of opium can be used, and that to do the most good we should administer it in the most sudden way, and that is by large hypodermic injections.

In other words, we use a drug that strengthens the force of the heart's action and relaxes any contraction of small arteries and capillaries which may exist.

In the same way we use the chloral hydrate, which is certainly very efficacious in the treatment of uræmic attacks, and it acts apparently by dilating the small arteries and capillaries.

In uræmic attacks in which the heart is found to be acting feebly, it is best to resort to those remedies which stimulate the heart's action.

In the uræmic attacks in which the heart's action, during the attack, is found too forcible, the best results are obtained with drugs which reduce its force.

The uræmic attacks which resemble angina pectoris,

being attended by spasmodic contraction of the small arteries, are best relieved by inhalations of nitrite of amyl and the administration of nitro glycerine.

It seems, therefore, that in the treatment of the acute and of the more chronic uræmic attacks we are learning more and more to place confidence in the drugs which do not eliminate a poison from the body, but which simply act upon the heart and upon the arteries.

Dr. William H. Draper said he was not prepared to discuss the comprehensive paper of Dr. Page in the ten minutes allotted, and would therefore confine his remarks to the method of treatment of the uræmic attacks.

His own experience had brought him to the same conclusion which had been expressed so well by Dr. Delafield. He confessed, however, that he was perhaps more or less under the dominion, in cases of the more acute cerebro-spinal symptoms ascribed to uræmia, of the eliminative treatment.

At the same time he was prepared to admit that his views with regard to the manner in which so-called eliminative remedies act was not, perhaps, by the elimination of any poison from the body so much as by their action upon the circulation. He thought that we might arrive by blood-letting, by brisk purgation, and by active diaphoresis, at the same results, so far as the circulation was concerned, which were obtained by the administration of opium, glonoin, and nitrite of amyl.

When, however, he was brought into contact with a case of uræmic convulsions, he was prone to adopt either blood-letting or brisk purgation in connection with opium. He thought that was the point which Dr. Page wished to make when recommending the pilocarpin with opium. Dr. Draper had not for some years used pilocarpin in cases of uræmia, partly because he had not had very marked success with the remedy, and partly because he had felt that it was a dangerous cardiac depressant. He had been more given to the use of brisk purgation and blood-letting; his experience with blood-letting had been chiefly in cases of puerperal convulsions.

In the treatment of the less alarming uræmic symptoms—the uræmic headache, dyspnœa, and vomiting—he had felt for a long time that opium was the sheet-anchor. He had not, thus far, had the success with nitro glycerine that he had obtained with opium. He knew of nothing which relieved uræmic dyspnœa so well as a hypodermic injection of morphine, and it was equally efficacious in the relief of uræmic headache.

Uræmic vomiting he looked upon as one of the most rebellious and troublesome of all uræmic phenomena, and while opium sometimes did give relief, he thought that it did not act with the same energy as in the other cases.

Dr. Heineman asked a question with reference to uræmia. Some patients, suffering from chronic Bright's disease, pass two or three times the normal quantity of urine, and while the proportion of urea is diminished, the total quantity daily is in excess of the normal. How is uræmia to be accounted for in those cases if it depend simply upon the presence of urea in the blood?

The Chairman said that if he were to answer the question he should say that in chronic uræmia patients become accustomed to the influence of the poison, if urea acted directly as a poison, and while at one given examination in twenty-four hours a patient might pass more than the normal quantity of urea, if the urine for a week or a month were examined it would be found that the quantity of urea excreted was less than normal. His impression was, that if urea acted at all, its effects were upon the circulatory system, and in the way of changes in the arterioles and capillaries, and not as a direct poison upon the nervous centres, and that the uræmic symptoms in chronic Bright's disease are the results of these changes affecting the blood-vessels.

Dr. Heineman said that his examinations were not single, but extended over a long period of time. He brought the fact forward simply as evidence that the term uræmia did not at all times apply; that it was not urea only which was retained in the blood, but that there were other elements which produced the symptoms called uræmic.

Dr. Page, in closing the discussion, said he had hoped that one point referred to in his paper would have been discussed, namely, the influence which chronic Bright's disease exerted on the safety in administering ether and chloroform as anæsthetics, and therefore on their inhalation for the purpose of controlling uræmic convulsions or relieving other uræmic symptoms.

"About fourteen years ago, in my private hospital, I closed the lacerated perineum of a woman who seemed otherwise in excellent health. Ether was administered, but she never entirely regained her consciousness, and died with well-marked symptoms of uræmic poisoning, about thirty-two hours after the operation. It was found that she had Bright's disease of the kidneys. Since then I have had at least five deaths to occur in public and private practice, and these, perhaps, might not have occurred had the importance of examining the urine been appreciated before the anæsthetic was given. I established the rule, when in charge of the Woman's Hospital, that the urine should be examined in every case before an anæsthetic was administered. The result was that in a number of instances unsuspected disease of the kidneys was detected, and the operation was performed with the aid of opium, and without an anæsthetic" (Emmet's "Principles and Practice of Gynecology," p. 730. First edition. 1879).

In a case of twin pregnancy occurring three years ago, in a young primipara, twenty-one years of age, and attended by me, dropsy was well marked, and she had albuminuria. As labor progressed slowly, and fearing that she might have convulsions, I at once called Dr. George T. Harrison in consultation. We agreed that she should be delivered with forceps without further delay. Ether was administered, and she was speedily delivered. There was no more hemorrhage than is usual in a normal case of labor. The patient, however, went into a profound state of collapse, out of which I had the utmost difficulty in bringing her by means of hypodermic injections of morphine and hot bottles placed about her extremities. Dr. E. D. Hudson, Jr., also saw this case with me afterward.

The topic of general discussion was,

IS CROUPOUS PNEUMONIA AN INFLAMMATION OR A FEVER?

The discussion was opened by Dr. William H. Draper, who said: "I feel as if I ought to apologize for consenting to open the discussion on this subject, for the reason that I have no settled convictions to offer in regard to the question as to whether croupous pneumonia is simply a local inflammation or the lesion of an essential, specific fever.

"In approaching the question, it is important to remember that all that we positively know about the nature of pneumonia is that it is anatomically an inflammation of the air-vesicles and bronchioles. When we go beyond this fact, and attempt to determine its cause, we leave the confines of positive knowledge and enter the illimitable realm of conjecture, or the more or less obscure nebula which surrounds the body of exact science and is yet unincorporated.

"The question before us is one which has occupied the minds of pathologists and clinical observers for many years. In a discussion which took place in this Academy, in 1865, I read a paper in which, with somewhat more zeal than I could command now, I advocated the theory of the essential nature of the fever in pneumonia. In 1881 an excellent paper was read by Dr. Sanders, of this city, on the same subject, advocating a similar view; and in the discussion which followed, if I remember rightly, several observers, among them Drs. Flint and Loomis, lent the weight of their authority to the theory that the

lesion of pneumonia bears the same relation to the fever that is borne by the lesions of the exanthemata to the fever which is their essential characteristic. The arguments in favor of this theory are familiar to you all. They are simply, the occasional epidemic prevalence of the disease; the independence, in the majority of cases, of the exciting causes of cold and dampness; the precedence of the fever to the lesion, sometimes by a period of one or two days; the occurrence, especially in young subjects, of more or less violent cerebro-spinal symptoms; the frequent association with the disease of nephritis; and the fact, which has always especially attracted my attention, that the beginning of defervescence is nearly, if not exactly, coincident with the maximum of extent and intensity of the local lesion. But interesting, and at first sight striking, as these arguments appear, if we examine them, we shall see that some of them will scarcely bear critical analysis, and that all of them are open to more or less objection, as proving that pneumonia is always a septic fever. The occasional epidemic occurrence of pneumonia may prove that it is an infection fever, but it could scarcely be held to prove anything more. The independence of many of the sporadic cases of the exciting causes of cold and dampness is certainly a striking fact; but the fact that the lesion occurs suddenly in acute alcoholism and after immersion, as well as after severe exposures to cold, is also striking, and goes far to prove that the disease may sometimes recognize a nervous origin.

"The precedence of the fever in the sequence of events in pneumonia is not inconsistent with the theory that the pyrexia is due to the inflammatory process in the lung. It is quite possible that it is coincident with changes which are not recognizable by physical exploration.

"The occurrence, especially in young subjects, of more or less violent cerebro-spinal symptoms is quite as explicable on the theory of reflex disorder as on that of direct irritation.

"The frequent association of nephritis with pneumonia is certainly suggestive of a common cause, and yet it is not unlikely that the nephritis is the result of changes in blood-pressure brought about by the pulmonary disease.

"The coincidence of defervescence with the culmination of the local lesion, as I stated, impresses me as the most striking proof of the analogy which exists between pneumonia and typhus and erysipelas, and yet here again we must not fail to observe that the critical termination of pneumonia is not the only termination. Some cases terminate by lysis. Still, the rule of sudden defervescence has no more exceptions, perhaps, than occur in typhus and erysipelas.

"I think we must conclude, therefore, that arguments drawn from the clinical history of the disease are insufficient to determine the question as to the essential character of pneumonia—as to whether it is primarily a pyrexia of septic origin, or a local inflammation, a tissue disorder determined by a variety of causes which act primarily upon the nervous system.

"The recent revelations of bacterial pathology lend a new interest to this inquiry, and very properly suggest a reconsideration of the origin of the inflammatory lesion in pneumonia. We shall find, however, if we trace the history of the monas pulmonale from its discovery in 1877 by Klebs, to the present time, that the first glow of enthusiasm created by the supposed finding of the key which was to unlock this particular pathological mystery has subsided into a somewhat frigid skepticism as to its claim to bear a causal relation to pneumonia. But perhaps the monas will survive its foes, and yet substantiate its title to recognition. It may not be unprofitable to sketch briefly the history of the coccus which is thought to be the determining cause of pneumonia.

"'The monas pulmonale' was first described by Klebs in 1877. It was found by him in the lungs and ventricles of the brain and had independent motion.

"Eberth, 1881, gave more details regarding their characteristics, and described them as diplococci. He found them in the lungs and pleural exudation.

"Koch, 1881, found them in the kidneys and lungs, and gave further morphological details.

"Friedländer, 1882–83, described ellipsoidal cocci one millimetre long; also round cocci occurring chiefly in pairs, but also forming chains, found in the alveolar and in the bronchial fibrinous exudation. He has never seen them in the protoplasm of the cells.

"Leyden and Günther, 1882, found them in the fluid obtained from puncturing the lungs with a hypodermic needle.

"Griffini and Cambria, 1883, made pure cultures of the micrococci found in the *blood* of cases of pneumonia, and caused fatal septicæmia in rabbits and dogs (but *without* the occurrence of pneumonia) by injecting them subcutaneously. The same result followed the injection of sputum, blood, etc.

"Matrey and P. Seifert, 1882–83, found the 'characteristic cocci' in the sputum; *i.e.*, diplococci, but they think them pathognomonic.

"Strassman, 1883, found the same cocci in the mouth in health.

"Friedländer, 1883, described more closely the 'gelatinous envelope' previously discovered by Günther. He considered it characteristic of the coccus. He was able to produce typical lobar pneumonia in mice by the inhalation method.

"Emmerich and Fränkel inoculated mice with positive results. Rabbits suffered from fever for a day or two, but recovered. Fränkel does not consider the capsule characteristic.

"Platonow, 1885, has found capsulated cocci in sputum of many cases not pneumonic, and does not think that the examination of the sputum is of any value clinically. Injections subcutaneous in mice caused death without pneumonia.

"Inoculations upon animals are sometimes followed by septicæmia with pneumonia; sometimes by septicæmia without pneumonia. It may still be regarded as an open question whether the so-called 'pneumonia coccus' is the cause of the disease, or whether it only finds in pneumonic lungs a favorable soil for its development.

"In an article in the July number of the *American Journal of the Medical Sciences*, Sternberg shows, by carefully conducted experiments, that the pneumonia coccus of Friedländer is commonly found in normal human saliva. He shows also, what other experimenters have shown, that it is a pathogenic organism so far as certain lower animals are concerned, and that its pathogenic power varies under different circumstances. He concludes that it is extremely probable that it is concerned in the etiology of croupous pneumonia.

"If, however, the pneumonia coccus is one that we carry with us always in our buccal secretions, and so many of us happily with impunity, it looks as if we would have to invoke some other cause to explain its occasional virulence. This the bacteriologist is always prepared to do. The production of a proper soil is the only thing necessary to determine the auto-inoculation which produces the disease. This soil, they say, may be prepared by any of the depressing influences that belong to our environment or are begotten of our vices. This theory, of course, is capable of infinite expansion, and would solve many mysteries, if it were not that as physicians we are better prepared than most men to appreciate the wisdom of Mr. Billings' remark that 'there are so many things asserted in this world that ain't so.'"

Dr. William H. Thomson said that the present time he was very much in harmony with Dr. Draper in one respect, and that was he did not know what to believe; and Dr. Draper certainly had not helped him out of that uncomfortable condition of mind. He was, however, inclined, more than twenty years ago, to believe that this disease is a specific fever. Two illustrations would suffice to afford some grounds for inferring that, in some cases, this is the character of the disease.

In children we have frequently a pulmonary affection which is characterized by a local disease, and occasioned by local causes, namely, broncho-pneumonia.

But now and then we see typical cases of croupous pneumonia, the cause of which is in marked contrast with the ordinary pneumonia of children, and which has given color at least to the belief that the disease in these cases is of an infective nature. The disease is ushered in by an evident shock, the patient presents all the appearances of having a rigor, to be followed by severe and prolonged delirium, accompanied by a high range of temperature, developed suddenly. No pneumonic process whatever can be detected for thirty hours perhaps, and afterward the pneumonia follows the ordinary course and terminates with sudden crisis. It is difficult to suppose, in these instances, that the disease is the same as that which occurs with bronchitis; but instead the entire clinical peculiarities in such cases point toward a specific fever, if there is anything which points to a specific well-marked infection.

The other illustration is from cases in which ulceration, endocarditis, and pneumonia occur simultaneously with meningitis, dependent upon true infection. Where we find an inflammation developed under such circumstances, and running exactly the course of pneumonia, and originating from a single focus of infection, it is easy to demonstrate the infective character of the affection.

Dr. A. Jacobi said that pneumonia meant an exudation into the open spaces and into the tissue of the lung, after an incipient stage of hyperæmia. In some cases the exudation into the air-cells consisted of albuminous matter, with a large number of lucocytes, more or less fibrin, now and then a few red blood-corpuscles, and some mucus.

In other cases there was less albuminous matter, more mucus, etc., but the process was about the same. The first was called croupous, the second broncho-pneumonia. The difference, anatomically, was very slight. Thus we had been wrong in discriminating too strongly between the croupous and the broncho-pneumonic process. So far as the coccus was concerned, Dr. Prudden had demonstrated that Friedländer's micro-organism is found not only in croupous but in broncho-pneumonia as a rule, which shows that the species belong to the same class. Dr. Jacobi would deny *in toto* that pneumonia must necessarily be a bacteric process. The question was not at all whether or not it was a fever produced by bacteria or some other poison. The question is not, is it a fever? The question is, may it be a fever? He would answer, yes. There were a large number of infective cases, and some of them were bacteric in origin. As illustrated by Dr. Thomson, the pneumonia occurring with ulcerative endocarditis might be bacteric and embolic at the same time, and at other times it was not of that character.

Dr. Kinnicutt said, even if Friedländer's differentiation of a specific micro-organism in *primary lobar pneumonia* should be shown to be incorrect, we were now in possession of a large number of careful observations, by competent physicians, demonstrative of the existence of such a disease as *epidemic* and *apparently contagious pneumonia*. One of many instructive accounts of such an epidemic had been given by Surgeon-Major Costello, of the Bengal medical service. "Thirty to forty fatal cases of primary pneumonia occurred in his regiment of five hundred and fifty men in the course of a few weeks. When it occurred among married men, it spread to the different members of their families; when treated in hospital, it spread to other patients ill of other diseases, and to the nurses. Removal from barracks to tents, and careful isolation of affected persons and their attendants, immediately arrested the progress of the epidemic."

In support of Friedländer's micrococcus, Dr. Kinnicutt would remind the members of the Section of the discovery of Dr. Emmerich, of Munich, who demonstrated that "the material used as stuffing between the ceiling and the floor of a jail, where epidemic pneumonia had long prevailed, contained numberless micrococci identical with those described by Friedländer." In the presence of many trustworthy reports of the occurrence of epidemic pneumonia, we at least must recognize the existence of a *contagium*, even if we do not accept Friedländer's discovery as final, in the etiology of a *certain number* of cases of pneumonia.

It seemed to him, therefore, that only two views of the nature of primary pneumonia were tenable. The one, advocated by many authorities, that in all probability there were two forms of the disease: one arising from cold or a like cause, the other zymotic; that these two forms were at present confused together, such as typhoid and typhus fevers had been in the past.

The other view maintained the *unity* of primary pneumonia and the constant presence of a specific morbific germ in its causation. As an individual opinion, based upon his own study of the disease, upon its many phenomena, Dr. Kinnicutt would say that the latter theory seemed to him the more tenable.

Dr. Delafield had listened with much pleasure to the remarks of the different gentlemen, because it seemed to him that they indicated a very decided change in the feeling of the profession, and a change in the right direction. It was only within a moderate length of time that certainly the fashionable belief was that lobar pneumonia was an infectious disease, that croupous pneumonia was always the same thing, and that catarrhal pneumonia was something different; that croupous pneumonia was the lesion of a general disease, and that catarrhal pneumonia was local inflammation. He thought the remarks made this evening had shown that if this belief had not been abandoned, it had at all events been shaken, and that the profession were beginning to appreciate that pneumonia was nothing but inflammation of the lungs, the modifications depending principally upon the age of the patient and the condition of the lung inflamed, and that like inflammation of any other part of the body might be produced by a great variety of causes.

Still further than this, the idea that typical lobar pneumonia is an essential fever he was glad to learn that Dr. Draper was no longer fully convinced of. For himself lobar pneumonia had always been a typical example of local inflammation, and not an infectious disease.

Dr. Jacobi thought the instances cited by Dr. Kinnicutt should not be taken as evidence of contagion, for he had, very many times, seen a large number of patients, particularly children in hospitals, taken at about the same time with pneumonia, because they were exposed to the same influences. Pneumonia was not contagious because ten or twenty cases developed in one locality at the same time, and he should say that the explanation of the occurrence of so many cases lay in the fact that the patients had been exposed to the same causes.

Collective investigation with reference to pneumonia, begun in this country in the Medical Society of the County of New York, had resulted in establishing the following facts, which were known to every one of us: Cold weather, wind, and moist atmosphere would give pneumonia. With a large rainfall, distributed over a large number of days in one month, especially when accompanied by cold weather and wind, pneumonia prevailed, it was called frequently an epidemic; but the frequency of the development of the disease was because a large number of people had been exposed to the same causes. Jürgensen and Koeller had said that pneumonia occurred principally in dry weather. Why? Because micrococci are in the soil, and pneumonia is a bacteric disease, and when the soil gets dry the micrococci get loose and give rise to the disease. That was the style of reasoning of some men who were called up as reasoners in bacteriology, to prove the reverse of what our fathers knew, namely, that pneumonia occurs principally in cold, moist, windy weather, when the soil is not dry.

Dr. Draper said Dr. Kinnicutt's remarks with regard to epidemics observed by Emmerich recalled to his mind

some facts concerning the history of cerebro-spinal meningitis, which he had occasion to study at about the time he was studying the subject of pneumonia. He found in the literature of that subject the history of a number of epidemics of pneumonia, some of them in this country, all occurring under similar conditions, mentioned by Dr. Kinnicutt, in jails, camps, etc. As he had already stated, while he thought that epidemics of that kind went far to prove that pneumonia might be, under certain circumstances, an infectious disease, he also thought that they proved that only of the epidemics, and did not prove it of all cases of pneumonia.

Thus, cerebro-spinal fever produces sometimes extremely violent lesions, pulmonary, arthritic and meningeal, and all these lesions may occur in the same patient; the arthritic and the meningeal lesions frequently occur together. Whether cerebro-spinal meningitis is an infectious disease or not is still a mooted question, but circumstances seem to favor the view that it is a specific fever. He had, in conclusion, only to reiterate that it was impossible for us to decide the question, and that the limits of our knowledge at present compelled us, as Dr. Delafield had said, to regard pneumonia as an inflammatory disease, and beyond that we did not know. It was pleasant to speculate, perhaps profitable, but whether profitable or not, in view of present existing theories, could only be determined at some period in the future.

The Section then adjourned.

MEDICAL CHARITY AND THE CHARITY ORGANIZATION SOCIETY.

On Friday evening, November 20th, a large number of physicians and gentlemen who are connected with charitable medical institutions met at the hall of the Academy of Medicine, in answer to invitations issued by the Charity Organization Society, to consider measures for reducing, through co-operation with the Charity Organization Society, the existing abuses and misapplication of medical charity. The chairman of the meeting was John Harsleu Rhodes, a Director of the New York Eye and Ear Infirmary. Those who have been connected with charitable institutions for years in this city have noticed, he said, the great increase of paupers who applied for aid. By paupers he meant people who wanted for nothing what they were able to pay for. The question to be settled by the meeting was, how to remedy this abuse. The difficulty of separating the pauper from the poor man existed because the charitable medical institutions did not pull together. This difficulty, in a great measure, had been overcome by the formation of the Charity Organization Society.

Charles D. Kellogg, Secretary of the Charity Organization Society, explained its object and working. It was founded in 1882 for the purpose of increasing the efficiency of all charitable institutions and to elevate the condition of the poor. Such alliances exist in many European cities and in forty towns in this country. Its register shows the names of 98,000 families who have applied for relief since its organization. Cards are furnished by it to all charitable institutions. These in turn, if they return the cards with the names of those who apply to them for relief, are furnished with such information about the applicants as proves them to be worthy or unworthy of gratuitous relief. To show that much of the relief given is unworthily bestowed, Mr. Kellogg gave some statistics. Of 79 applications at one hospital in this city, 24 were able to pay for relief and 27 could not be found at the addresses given. At another time 400 applications were investigated. One-third of the number were unworthy, and one-third had given false addresses.

Dr. J. West Roosevelt offered the following resolutions favoring the use of the system of the Charity Organization Society by all the hospitals and dispensaries of the city:

"It is the sense of the representatives of the several hospitals and dispensaries of the city here assembled that steps should be promptly taken to reduce, and, if possible, prevent imposition upon medical charities and to insure that the contributions of the charitable are used only for the benefit of the destitute and not wasted upon persons who can and should pay a physician for his attendance.

"*Resolved*, That the best existing remedy lies in the use of the methods and system of the Charity Organization Society."

Mr. Kellogg stated that London and New York furnish medical aid to more than one-fourth of the inhabitants. Boston to a little less than one-fourth, and Philadelphia to one-fifth.

Dr. Roosevelt thought the provident dispensaries could not be made successful in this country. He thought that not more than 150,000 to 175,000 people received medical aid last year in this city.

Dr. Samuel Hall seconded Dr. Roosevelt's resolutions and made some remarks to show the advantage of charging a small fee for medicines. This sum would be saved from drink and be a direct gain. He said that the Northern Dispensary treats but two-thirds of the number of patients it did ten years ago and does much more good.

Dr. Walter L. Carr spoke of the increase of the pauper classes by immigration. He mentioned the college clinics as asking for patients, and suggested that some arrangement be made by which the dispensaries could supply the needed material so as to prevent the present abuse. The Charity Organization Society, he thought should have control of the dispensary districts, and new institutions should not be started unless the Society sees some need for them.

Dr. S. O. Vander Poel said that doctors give one-third of their time to charitable work. The young physicians are indirectly the cause of the trouble, as they are anxious for the dispensary practice. He then read a letter from Dr. T. T. Gaunt, of the New York Dispensary, showing investigation of 845 patients by the Society for Improving the Condition of the Poor. Of these cases 504 were deserving, 235 were not, 38 were doubtful, and 68 were not found. Dr. Vander Poel proposed that a committee of representatives from some of the best-known institutions be appointed to confer with the Charity Organization Society.

Dr. Newman thought that Dr. Vander Poel's committee would be partial, and said that medical men should be added.

Dr. A. Siebert spoke of the work done by the Organization Society at the German Dispensary. Of 434 investigated, 107 gave wrong addresses; 187 were fully able to pay; 42 able to pay small fees; 75 unable to pay; 23 no answer.

Dr. Mary Putnam-Jacobi said that it is hard to decide what is the proper income by which to regulate whether a man shall apply to a dispensary or not.

Dr. A. Jacobi thought that dispensaries could help the poor by aiding them to bridge over the first years of their poverty, then when they get better positions they can pay family doctors.

Mr. McNeil, of the Northwestern Dispensary, spoke against the Charity Organization Society. He said that people should be glad to be cheated once in a while when doing a charitable act.

After some discussion, in which a number took part, the following gentlemen were appointed by the Chairman to confer with all the medical charities of the city and the Charity Organization Society, with power to call another meeting: Mr. Hewlett Scudder, Demilt Dispensary; A. B. Ansbacher, Mt. Sinai Hospital, and Drs. S. O. Vander Poel, J. W. Roosevelt, and J. H. Emerson. The Chairman was added to this committee by popular vote.

Among those present besides the gentlemen who took part in the discussion, were Drs. C. R. Agnew, R. H. Derby, Robert F. Weir, F. R. Sturgis, S. D. Powell, H. J. Garrigues, D. Webster, and Charles E. Young.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 23 NEW YORK, DECEMBER 5, 1885 Whole No. 787

Original Articles.

DIPTHERIA AND ITS MANAGEMENT.[1]

ARE MEMBRANOUS CROUP AND DIPHTHERIA DISTINCT DISEASES?

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SOME apology is needed for presuming to bring before this Section a paper on the treatment of diphtheria, when it has been discussed here so recently; my apology is that, notwithstanding all the ability which has been devoted to it, diphtheria still remains the most defiant of the so-called zymotic diseases.

Before discussing the management of diphtheria let us understand what the term includes. Does it comprise all cases of membranous croup? Are croup and diphtheria identical diseases?

The word croup, or croops, was first used by the peasantry of Scotland to designate a series of phenomena due to obstruction in the windpipe. This appellation was introduced into medical literature by Dr. Patrick Blair in 1718, thus: "The tussis convulsiva, or chink-cough, is also some years epidemical, and becomes universal among children, as is a certain distemper with us called the croops. . . . This convulsion of the larynx, as it begins, so it continues, so violently, that unless the child be relieved in a few hours, 'tis carried off within twenty four or forty-eight hours."[2]

The word does not seem to have taken root in the medical mind, however, for it was not generally adopted until 1765, when a monograph by Dr. Francis Home appeared, entitled "An Inquiry into the Nature, Cause, and Cure of the Croup," which attracted universal attention. Dr. Home believed croup to be an independent disease, due to exposure to cold. In 1771 Dr. Samuel Bard, of New York, in a careful monograph, pointed out the fact that the croup of Home was but a complication, or a form of the "angina suffocativa." In this classical treatise Bard clearly proves that the "sore throat distemper," or contagious sore throat, then epidemic in New York, was identical with the croup of Home. After Bard, Ruppius, of Baden, and Bretonneau, of Tours, wrote to the same effect, but Bard's treatise antedated theirs by nearly half a century, and to him alone is due the honor of showing distinctly that croup is not an idiopathic disease arising from cold.

Although Bard's investigations were made in New York, and his work is in the possession of the Academy of Medicine, where it may be consulted by any one, most physicians of this city maintain that membranous croup and diphtheria are distinct diseases; and that while membranous laryngitis does occur as a complication of diphtheria, it may also occur independently of the latter, arising solely from exposure to cold and wet. This is not only maintained, but it is taught in the several medical schools of this city.

Dr. Jacobi is the only physician I know in New York who believes that diphtheria and croup are identical.

The reasons assigned for regarding these diseases as distinct from each other are, that pseudo membranous croup occurs sporadically without the presence of diphtheria, arising simply from exposure to cold. But diphtheria occurs sporadically, and sporadic diphtheria may primarily attack the larynx.

The existence of a pseudo membrane in the lower part of the larynx and in the trachea is no evidence of the non-diphtheritic origin of the exudate. Neither the extent nor the histological structure of the false membrane affords ground for a distinction between these two affections. Morbid specimens from cases termed croup and from cases of diphtheritic laryngitis cannot be differentiated by the pathological anatomist.

Sporadic pseudo-membranous laryngitis has been known to convey diphtheria in its most pronounced form. Again, a mild case of diphtheria may give rise to no symptoms to attract attention to the existence of the malady until the complication of croup obtrudes it on the attention of the parents or nurse; and in the event of such a case proving fatal, pseudo-membrane in the larynx may be the only lesion of a diphtheria which primarily involved the tonsils and pharynx, where all evidence of the disease has disappeared during, and subsequent to, its spread downward.

The occurrence of marked paralysis, after so mild an attack of diphtheria as to be almost overlooked, is sufficient evidence that the cases of membranous croup which are said not to have been preceded by diphtheria, may have been diphtheria of an equally mild type, in which croup was the first symptom to attract attention.

Croup is claimed to be a sporadic, diphtheria an epidemic disease. Dr. Blair, who first described croup, speaks of it as an *epidemical* disease, and as one which sometimes becomes *universal* among children. From the time of Home to this date, numerous writers have recorded epidemics of membranous croup. The following authors describe it as a disease *distinct* from diphtheria, although they have met with croup in epidemic form; for instance, Churchill says: "It sweeps over a family, leaving behind it distress and desolation."[1] Tanner says: "Occasionally it appears to prevail as an epidemic."[2]

"As it (croup) may from these causes be endemic in particular situations, so, from the prevalence of cold east winds, particularly after damp relaxing weather, it may be epidemic at particular seasons."[3]

"Temperature, together with some endemic or *epidemic influence*, has to be admitted."[4]

It is maintained that croup is not contagious, while diphtheria is.

Cases have been reported where membranous croup having attacked one in a family, other members of the same family have suffered immediately from diphtheria of the tonsils and pharynx (Ranke, Wilks, Woodman).[5]

A young girl who had not been exposed to the same atmospheric influence as her sister, already ill with croup, was attacked by it after having been playing with her at the same time when her disease was completely developed."[6]

Gregory says: "I feel myself bound to act upon the

[1] Read before the Section of Obstetrics and Diseases of Women and Children, New York Academy of Medicine, November 25, 1885.

[2] Observation in the Practices of Physic. By Patrick Blair, M.D., F.R.S. London, 1718.

[1] Churchill: Diseases of Children, p. 307. Dublin, 1870.

[2] Tanner: On Infancy and Childhood, p. 268. Philadelphia, 1871.

[3] Library of Med., vol. iii., p. 57. London, 1840.

[4] Squire on Croup, in Reynolds' Syst. of Med. In 5 vols. Vol. i., p. 73.

[5] Royal Medico-Chirurgical Transactions, 1879, vol. lxii., pp. 51, 52. In this connection Dr. Woodman's statements on p. 56 are interesting.

[6] The Study of Medicine. By John Mason Good. Vol. ii., p. 449. London, 1829.

principle that croup in its worst, or most malignant form, is capable of being communicated by contagion." [1]

Copeland says: "Several authors have adduced facts to show that the disease may occasionally prove infectious. . . . It has most indubitably manifested this property when it has prevailed epidemically. . . . When croup occurs in one child of a family residing in situations where it prevails, more will probably be attacked." [2]

"Some practitioners have supposed the disease (croup) to be contagious because, forsooth, two or three children in the same family have fallen victims to it within a few days. They have overlooked the fact that in such cases all the children had been exposed to the same exciting cause, viz., a damp and cold state of the atmosphere." [3]

The croup of Dr. Hamilton, as described in his work, is, if studied in our modern light on the subject of diphtheria and croup, clearly nothing else than diphtheritic croup.

Cheyne [4] says: "I have no reason to think that croup is a contagious disease. Some winters since, within ten days, I attended two children in the same house, laboring under the second stage of croup; but both had been exposed. . . . When a physician has to visit more children than one with a croupy affection, in a family or neighborhood, he ought carefully to examine the state of the fauces."

Certainly one could make no other version of *such* cases of croup, except that of diphtheritic laryngitis.

Home, the historian of croup, seems to have met with a contagious form of the distemper, as he terms it, in Cases 4 and 5. These were brother and sister, the latter being attacked with the disease six days after the former, in both of whom it proved fatal. Home's symptomatology and dissection appearances in these cases make them undoubtedly cases of diphtheria with laryngeal complications.

Diphtheritic laryngitis is much less contagious than tonsillar and pharyngeal diphtheria, as it is evident that it would be, owing to the seat of the disease, but the contagious property in the cases of so-called non-diphtheritic croup has been as marked as we ever note it in diphtheritic laryngitis. *It is certain that an idiopathic laryngitis arising from cold could no more be contagious than bronchitis from the same cause.* The lymphatics are said not to be enlarged in croup, while they are so in diphtheria. The fact is, that in membranous laryngitis the cervical lymphatics may be involved, while glandular enlargement is not a necessary attendant on diphtheria. Swelling of the cervical lymphatics in laryngeal disease does not depend upon the character of the affection, but rather upon the amount of disease in adjacent structures, as shown by the absence of lymphatic involvement in malignant disease strictly limited to the larynx.

The condition of the lymphatic glands is no criterion of the nature of the laryngeal affection. So albuminuria may be present or absent in either. It is held that croup is a sthenic, diphtheria an asthenic, disease. Croup may be, and oftener is, an asthenic, while diphtheria may be sthenic, depending upon the condition of the subject attacked and the character of the epidemic.

Sthenic and asthenic diphtheria have been seen in the same house, the former in a robust German child, the latter in a delicate, sickly child. The degree of febrile and circulatory reaction may be mild or severe in either croup or diphtheria, and is not of the slightest diagnostic value.

Paralysis and other sequelæ remain long after the local symptoms have disappeared in diphtheria, while it is said that croup has no sequelæ following in its train. Paralysis after diphtheria is not often met with, and recovery from diphtheritic laryngitis is very rare; hence paralysis as a sequela of diphtheritic membranous laryngitis must be a rare event. Yet cases of paralysis following "membranous croup" have been reported. In fact, everything that has been written by those who have contended that membranous croup is an independent disease, distinct from diphtheria, is merely a compromise, and does not give one tenable diagnostic characteristic between them.

Many of the cases of croup recorded by various authors, and many of the descriptions in the text-books are, in the light of present pathology, clearly cases of diphtheria.

Case 5 (p. 17), of Dr. Francis Home,[1] was certainly one of diphtheria, probably contracted by contagion from Case 4 (p. 14), the brother of Case 5. Case 7, as related, presents to us the usual course of diphtheria, with laryngeal complications; the boy being allowed to walk about, and consequently exposed to cold, a reaccession of the symptoms occurred. Treatment apparently controlled the disease again, when there was a second exacerbation, during which the child died of croup. As is *usual* in such cases, the diphtheritic inflammation *then* involved the larynx only.

Home says himself of this case, "I suspected that there was considerable mixture of the angina with the croup here." On page 36, in his conclusions, Home says (Corollary iii.): "In some of the former cases the whole glands, at the root of the tongue, and the *amygdalæ* were turgid, and the parts covered with mucus." Again he says (p. 51): "This disease appears, in general, to be a very dangerous one, and the more so as it is silent in its progress, and gives no visible alarm till death is near at hand. The first stage of this distemper often passes unobserved, and before we see it, is beyond all remedy." This is exactly the experience which we too often have with diphtheria now in New York.

Bard [2] in his monograph says what any intelligent observer would say after a careful analytical study of Home's *croup*, p. 14: "Such a remarkable agreement in the symptoms is of itself almost sufficient to determine these diseases to be the same, but when we compare the appearances from dissection, it is placed beyond a doubt."

Dr. Austin Flint, in his article on Diphtheria, says: "Regarded from a clinical point of view, it seems to me clear that this question (Are diphtheria and croup distinct diseases?) is to be answered in the affirmative" (Flint's Practice, 1881, p. 1082). In his article on Croup (op. cit., p. 295) he says: "The exudation, in the form of a false membrane, is found in the larynx and trachea; it is also present, as a rule, in the pharynx, on the tonsils, *soft palate*, base of the tongue, or epiglottis. . . . The larynx may be primarily affected, or the false membrane may appear first in either the pharynx or the trachea; the point of departure of the inflammation and exudation being in some cases the larynx, and in other cases the pharynx, oftener the latter" (p. 298). Unmistakably this description can apply to nothing else than diphtheria.

In former diphtheria epidemics it appears, from the descriptions handed down, that diphtheritic laryngitis must have frequently occurred independently of any membranous affection of the throat above, and even now in some places, according to the evidence of many good observers, it is occasionally met with, but at the present time it certainly occurs almost exclusively with diphtheria of the throat.

I have never seen a case of membranous laryngitis of non-diphtheritic origin, although I have been called in consultation to many cases of so-called croup. Nor have I met with a case in which there was a membranous ex-

[1] Theory and Practice of Medicine. By George Gregory. P. 225. London, 1835
[2] A Dictionary of Prac. Med. James Copeland, M.D., F.R.S. In 4 vols. Vol. i., pp. 458 and 472. London, 1858.
[3] James Hamilton: Diseases of Infancy and Childhood, pp. 144, 145. Edinburgh, 1813.
[4] The Pathology of the Membrane of the Larynx and Bronchia. By John Cheyne. Pp. 18, 19. Edinburgh, 1809.

[1] An Inquiry into the Nature, Cause, and Cure of the Croup. By Francis Home, M.D. Edinburgh, 1765.
[2] An Inquiry into the Nature, Cause, and Cure of the Angina Suffocativa, or Sore-Throat Distemper. By Samuel Bard, M.D., Professor of Medicine in King's College, New York. 1771.

udate in the larynx, but that there was some evidence of a diphtheritic process in the parts above, either preceding or subsequent to the laryngeal affection. Even in cases where no patches of membrane were discovered in the fauces during life, patches of exudation were found about the posterior nares or at the root of the tongue after death.

Sudden vicissitudes of atmospheric temperature, especially in combination with rain, constitute the principal cause of croup, according to those who claim that croup is an independent disease. Nothing is more common than catarrhal laryngitis with croupy symptoms in a young child at the same time, what would be more phenominal in the varied experience of a physician than for such a case to terminate in pseudo-membranous laryngitis? This catarrhal croup may last several days, and it may become chronic, but has it *ever* been seen to terminate in membranous croup?

I have had three such chronic cases within the last four years. One died since of pneumonia; I found at the post-mortem examination congestion and thickening of the mucous membrane lining the larynx, and infiltration into the submucous tissue of the subglottic region, with subchordal swelling, but there was no pseudo-membrane. This child had had a croupy cough with paroxysms of dyspnœa for twenty months previous to its death. The other two are living, and apparently quite comfortable, with the exception of a most distressing croupy cough and dyspnœa when excited, or when there is a sudden change of atmospheric temperature. We have all met with instances where a young child, after coming out of its bath, having been allowed to be about naked and exposed, has an attack of catarrhal croup, which, in the severity of its symptoms, has apparently placed life in immediate jeopardy, yet such cases *never* terminate in membranous laryngitis. If a child already ill with diphtheria should suffer the same exposure, the catarrhal laryngitis will rarely fail to invite the diphtheritic inflammation to the larynx, and induce the formation of a pseudo-membrane. Though membranous laryngitis occurs in diphtheria in adults, who has seen even the oft-repeated attack of severe laryngitis in the adult terminate in the membranous form, which it surely would if one were merely a higher degree of the other, no special cause or element being necessary?

We frequently meet with cases of loss of voice in the adult after exposure to cold, which lasts many days without causing any inconvenience, passing off without treatment, and never attended with the discharge of false membrane. Nor does the more acute laryngitis, with high fever and symptoms dangerous to life, produce the membranous exudate which so quickly results when diphtheritic inflammation attacks this organ. The simple laryngitis of both adults and children may exist for months, even almost indefinitely, without showing any disposition to extend into the deeper air-passages; but diphtheritic laryngitis manifests this tendency very quickly, and always early involves the trachea and bronchi. Dr. Geo. Johnson says:[1] "For myself I may say that, having diligently worked with the laryngoscope for twelve years, I have never seen croup with a membranous exudation in the larynx which was not the result of diphtheria." The laryngoscopic investigations of Dr. C. Rauchfuss and Dr. Karl Dehio in the laryngeal affections of children have made clear many forms of acute laryngitis in them hitherto obscure. First Rauchfuss, and after him Dehio more fully, showed, that in acute laryngitis with œdematous infiltration of the submucous tissue below the vocal cords, especially where the cords are inflamed and swollen, there is laryngeal stenosis, with the same cough, dyspnœa, and loss of voice that we have from membranous obstruction at the rima glottidis; symptoms which we have been accustomed heretofore to refer to pseudo-membranous laryngitis. In acute diffuse laryngitis, with subchordal œdema, we may have all the symptoms of membranous laryngitis, except the laryngoscopic and post-mortem appearances.

These facts, their recent discovery, and the statement of Dr. Johnson, make it not only probable, but altogether presumable, that some of the cases of so-called membranous croup of non-diphtheritic origin were cases of acute subchordal swelling with stenosis. While it is conceivable that pseudo-membranous laryngitis may occur idiopathically from exposure, we feel justified in the conclusion that, after careful clinical and pathological studies, no one has yet proved that such is the case.

Again, if membranous laryngitis, as the outcome of cold, does occur, it cannot be differentiated clinically or pathologically from diphtheritic croup.

The committee appointed by the Royal Medico-Chirurgical Society in 1879 to make investigations as to the identity of croup and diphtheria, state that[1] "notwithstanding urgent and repeated public appeals, no single case of membranous exudation in the larynx resulting from exposure to cold has been furnished to the committee."

Quite recently I have found evidence, striking enough in itself, of men like Sir Thomas Watson, Sir Wm. Jenner, Dr. Charles West, and others of equally high repute, who at one time maintained that croup and diphtheria were distinct diseases, but now express their opinions to the contrary. Sir Thomas Watson in his article on Diphtheria, says:[2] "Some analogy to this disease (croup) it certainly has, but the points of difference are stronger and more essential."

"We are now prepared for the consideration of a most important question. Is the disease, which has for so many years been called in this country the croup, and which is attended with a membranous exudation in the larynx, anything else than diphtheria? I believe it is not. I believe, with Dr. Johnson, that ever since Dr. Home's pamphlet on 'Croup' was published, in 1765, our writers on the subject have given us the history, the symptoms, and the treatment of acute catarrhal laryngitis, with the morbid anatomy of diphtheria."[3]

"Are diphtheria and croup essentially the same disease? I think not."[4]

"My opinion has undergone some modifications, and I am inclined now to the belief that there is no such disease as idiopathic, simple, membranous inflammation of the larynx. I say I am inclined to the belief. I am not sure that this is true, but as I formerly thought that the weight of evidence was in favor of their non-identity, I am now inclined, from my further experience, to think that the two diseases are really identical, that the so-called croup is really diphtheria."[5]

"There are, indeed, two diseases which have often been included under the common name of croup, though the points of difference between them are at least as numerous and as important as are those in which they resemble each other.

"If we extend our inquiry beyond the mere changes wrought in the respiratory organs, the differences between croup and diphtheria at once become apparent. Different, however, as these two diseases are, there are yet between them points of similarity no less striking (p. 323)."[6]

"For all practical purposes membranous laryngitis or membranous croup must be regarded as the outcome of diphtheria, and consequently as essentially different from catarrhal croup or catarrhal laryngitis.[7] . . . Diph-

[1] London Lancet, 1859, vol. i., p. 252.

[1] Royal Medico-Chirurgical Transactions, 1879, vol. lxii., p. 15.
[2] Watson's Practice. American Reprint, from Fourth English edition, p. 564.
[3] Watson: Practice of Physic. From Fifth English Edition, vol. i., p. 873. Philadelphia, 1872.
[4] Dr. William Jenner: Diphtheria, its Symptoms and Treatment. London, 1861.
[5] Sir William Jenner, London Lancet, January 16, 1875, vol. i., p. 75.
[6] Diseases of Infancy and Childhood. By Charles West. pp. 322, 323. Article on Croup. Article on Diphtheria, p. 350. Philadelphia, 1874.
[7] Diseases of Infancy and Childhood. By Charles West. p. 413. London, 1884.

theria, then, is the disease, croup but one of its symptoms.

"I have been well-nigh fifty years in coming to this conclusion. I do not know that my confession of faith loses in value because I have been a tardy convert tomy creed."

Although cold has been regarded as the principal etiological factor of croup, since the time of Home, it is clear to us that it cannot give rise to a membranous exudate in the larynx, except with the presence of the diphtheritic poison.

If membranous croup, then, is only a complication of diphtheria, is it the natural tendency of diphtheria to propagate itself into the larynx, or is this an accident of the disease, which, with due precaution, can be evaded?

We have the question, then. What relation does cold bear to croup as a complication of diphtheria? We all know that a catarrhal state of the mucous surface of the pharynx and larynx favors and hastens the spread of the diphtheritic inflammation. Catarrh, therefore, becomes the great predisponent of diphtheritic laryngitis, and exposure induces catarrhal inflammation the more readily in a child depressed by diphtheria.

When diphtheria occurs in a child recovering from, or who has recently had severe measles, there is a special tendency to laryngeal complications. Scrofula, rachitis, etc., with catarrh of the mucous tracts, also make us especially apprehensive of this accidental danger.

In corroboration of the view that cold and catarrhal inflammation predispose to,[1] and even directly cause, the spread of the diphtheritic process into the larynx, we see that croup complicates diphtheria more in autumn, winter, and spring, than in the summer; that it occurs especially after sudden vicissitudes of temperature and rainfall, in connection with, or soon after, prevailing east or northeast winds,[2] more in boys, who are more exposed, than in girls,[3] and that it is more prevalent in rural than in urban districts.[4]

Pseudo-membranous laryngitis is a more frequent complication in sporadic diphtheria than it is when the malady is epidemic. I assume the explanation of this to be the greater care taken at the time of an epidemic, the nature of a larger proportion of the cases being earlier recognized, and the patients being more likely to be confined to bed, thus removing the accidental element in the causation of this complication. The greater hardihood of boys and their unwillingness to complain, and their consequent exposure, is, I believe, the reason of the greater frequency of diphtheritic croup in them.

In country districts where less is known by the people about diphtheria, where the more robust children give less heed to its first symptoms, and where, in consequence, a physician is not so early summoned, *croup* is more common than in the city, where it (membranous croup) is scarcely ever heard of except among the very poor, but as a complication of a previously recognized diphtheria.

We have all seen exacerbations of diphtheria from cold. A patient allowed to go about during convalescence suddenly has an augmentation of all the symptoms; this is the more likely to occur if there is a sudden fall of temperature, but even in the absence of this, exhaustion of the patient's powers causes a relapse, and a spread of the inflammation. Not unfrequently such a relapse proves more severe than the first attack, and if there has been marked exposure, the disease for the first time shows a disposition to, and does extend into, the larynx.

It is not the cases in which ulceration and sloughing of the throat occur from the very commencement (a circumstance which indicates a more intense form of the disease), that the larynx is most frequently involved, but rather in the so-called mild types of the disease, in which the patient, not being considered very ill, is allowed to expose himself, and exhaust his strength; both the exposure and the exhaustion promoting the extension of the morbid process. Although croup may be an unavoidable complication in some cases of diphtheria, my experience forces upon me the conviction, that it occurs for the most part in cases where there has been exposure and undue exhaustion, which would tend to show that croup is not so much a necessary consequence of diphtheria as its frequency would seem to impart. It follows, logically, that by judicious management, we can, in many cases, prevent this complication. To manage patients with diphtheria, so as to prevent the occurrence of croup, would be casting an anchor of safety in a large proportion of the now fatal cases. It may seem unnecessary to urge the importance of keeping patients with diphtheria in bed, but I know that it is common in the practice of many physicians to allow patients with extensive exudation to go about the house; and in many of the mild cases the patient is not confined to bed throughout the entire period of the disease. Although physicians do not often relate or record cases exemplifying this negligence, yet such cases are recorded, and they show distinctly that between cold and croup as a complication of diphtheria, there is the relation of cause and effect.

In the *British Medical Journal*, June 25, 1849, p. 498, it is stated that "Case 45 died of laryngitis, from imprudent exposure during recovery from diphtheria." By turning to the record of the case, we find that the girl got up and went out of doors while making favorable progress toward recovery.

Another case is found in the "Transactions of the Medical Society of Pennsylvania," for 1879, p. 888, by Dr. G. A. Linn, in the following words: "An older child (three years) seemed to be doing well on the treatment, when, from exposure to wet, during the funeral of the other, he grew suddenly worse, the membrane formed in the windpipe, and he died from obstruction." This instance is often repeated in the tenement-houses in New York.

In the *British Medical Journal*, July 4, 1863, p. 4, in connection with Case 7, it is stated that "the throat having cleared off, pain in swallowing increased. He could be persuaded to swallow only milk, and very reluctantly gargled or permitted any cleansing of the throat. Still he held his ground for a fortnight; was able to walk about his room and went for a drive, so that we hoped he would gradually get better. There was no indication of affection of the lungs or trachea, till one night he was attacked with cough, bloody expectoration, and dyspnœa, with râles all over the chest. In the fluid expectorated we found some branching strings of tenacious mottled substance, which were evidently casts, in lymph of the air-tubes. He could not swallow anything, and rapidly sank and died in the middle of the next day."

Squire[1] says: "A child has been taken out for a walk on the fifth day with a temperature *in recto* of 103.7° F.,"

[1] "The majority of cases occurred in winter and spring; in other words, at a time when catarrhal disorders are of most frequent occurrence" (A System of Practical Medicine. By American Authors. P. 682. Philadelphia, 1885).

[2] "It is generally believed that, according to observations the larynx and air-tubes are far more frequently affected with the disease in the cold and dampness of winter than in the warm summer months" (Ziemssen, vol. i., pp. 583, 584).

"The statistics of Wibmer show a greater prevalence of the disease during the winter, especially from September to December, which period had afforded an especially high mortality in diphtheria, in comparison with the months from April to August, when the mortality from diphtheria was at its minimum, 1864–69" (Ziemssen, vol. i., p. 583).

"Variable climates and cold wet weather favor the onset of laryngeal symptoms" (Royal Medico-Ch. Tr., 1879, vol. xxii., p. 10).

"It (croup) has been found to be most prevalent during moist, cold, changeable weather, and in many cases the attack seems to be immediately due to exposure to sudden changes of temperature or to cutting north and northeast winds" (Steiner in Ziemssen, vol. iv., pp. 236, 237).

"Out of 467 epidemics of croup, collected by A. Hirsch, 159 belonged to winter (December, 56; January, 48; February, 33); 130 to spring (March, 51; April, 42; May, 37); 72 to summer (June, 21; July, 23; August 38); and 106 to autumn (September, 22; October, 41; November, 42)" (Steiner, in Ziemssen, vol. iv., p. 237).

"The deleterious influence of moisture is shown by Crawford's observation, that in Scotland croup, which had hitherto been a common disease, became rarer after the drying of marshy districts" (Ibid., p. 237).

[3] "The male sex is more frequently affected than the female; in my own cases, out of 101 children, 77 were boys and only 24 girls. In Bohn's 70 cases, 43 were boys and 27 girls. Ruehle gives the proportion of boys to girls as 3 to 2" (Steiner, in Ziemssen, vol. iv., p. 235).

[4] "There is ground for the belief that that form of the disease which issues in membranous laryngitis is less common in cities than in damp or bleak country districts, or in exposed situations on hill-sides, and thus probably because such localities are favorable to the occurrence of catarrhal ailments" (West, 7th ed., 1884, p. 415).

[1] Op. cit., p. 121.

and "a young man was found dressed and walking about on the ninth day of illness, with a surface temperature of 102° F. On being kept in bed the temperature fell two degrees in two days; the exudation then ceased to extend."

"The peculiar features by which the eye of experience already recognizes a great and closely impending danger while the unbroken spirit of childhood is yet scarcely checked in its playfulness."[1]

Mackenzie[2] says: "Whenever there are signs of approaching cardiac failure, it is important to keep the patient in bed with his head low, and to interdict any movement whatever."

These quotations, from such wide sources, show that there is not the importance attached to prevention of exposure, to absolute rest, and to conservation of strength, which seem to be demanded in this malady. Frequently practitioners have said to me, "The child has not seemed to be very ill, and he has not been kept in bed, but the local process has steadily advanced."

In patients kept in bed there is rarely seen that extreme prostration so common in diphtheria, nor do we so frequently meet with the slow, feeble, and irregular or the very fast pulse. *If allowed to be up asthenia and the exudation advance together, the one increasing the other.*

Absolute rest in bed is demanded, then, in diphtheria, from the appearance of its first symptoms until convalescence is complete.

It preserves the failing strength, it lessens the spread of the exudation, it prevents exposure, and all these diminish the liability to laryngeal implication. With this management, if a child has been under observation and treatment for three or four days, and there is no involvement of the air-passages, it is not likely to occur, and the prognosis is good. Does cutaneous diphtheria, or diphtheria of an external wound, ever give rise to croup, without first appearing in the throat above the larynx? Although I have seen many cases of wound diphtheria, I have seen no tendency for it to give rise to croup without throat diphtheria.

Nasal diphtheria does not produce croup except by extension (see p. 626). While croup does not occur as a complication of wound diphtheria without having first involved the throat above, paralysis occurs as a sequela of cutaneous, wound, and nasal diphtheria, without the disease having appeared in its most usual site—the throat.

All the cases which have come under my care testify to the correctness of this view, that croup as a complication of diphtheria is usually accidental.

The treatment of diphtheria is far from having reached that unity which might have been expected from the attention which has been devoted to its consideration. The number of remedies to which physicians are continually having recourse proves the inefficacy of the greater number of them. Some remedies which have recently been highly recommended, if used as unsparingly as their advocates directed, would certainly be injurious, while others have been tried and proved to be useless. If we study the death-rate of this disease, we must confess that, up to the present time, we have not, on the whole, been very successful with any mode of treatment. It is easy to be deceived in regard to the usefulness of a remedy employed against diphtheria, for some cases will do well with very little treatment, provided they receive good care; on the other hand, where a case or a number of cases are not influenced, or at least not favorably affected by the treatment, we are too prone to tell the parents that it is a case of unusual virulency, or one of malignancy, instead of examining into our comprehension of the case, and our treatment of it, and admitting that the cause of failure to cure lay here. True, there are cases of diphtheria of great malignity, but if we were to adopt a system of rational therapeutics to meet the indications of each individual case, based on well-considered physiological and pathological data, we would hear less about malignant diphtheria.

We are too apt to be wedded to particular methods of treatment, and believe in their excellence, without giving due regard to the indications of cure furnished by the epidemic character of the disease, the constitution and diathesis of the patient, the character of the symptoms, the disordered functions of the important organs of secretion and excretion; the modes and paths of elimination of the virus of the disease; the disposition to certain complications; the prevalence of other epidemic diseases which might modify its course; and the season of the year Each and all of these conditions should be our chief guides, as in every case much depends on the precision with which the exact *nature* of the case, and the state of the vital powers are ascertained. The mode of treatment in vogue has for its object (according to its exponents) to attack the poison or germ of the disease, as an entity, and destroy it, leaving out of view every other consideration.

Physicians in search for such a specific are distracted from a rational treatment. These experiments have doubtless killed more patients than germs.

The enthusiasm with which all the mercurials are now recommended as a cure for diphtheria, would lead one to suppose that a true specific had at last been found—calomel, bichloride, biniodide, etc., internally, inunctions of mercury, and mercury by hypodermic injections. The calomel treatment introduced by Rush was used with considerable success by Bretonneau, Trousseau, Guersant, Blache, Bouchut, and many others, who derived much advantage from it; but they did not employ it indiscriminately, nor to the exclusion of other measures. In time, however, it came to be used to excess, and was finally abandoned as being injurious.

The distinguished Dr. Stokes said of it: "The mercurial treatment of croup is insufficient and unnecessary."

Dr. Rush used calomel as a derivative in croup, and this use of it unquestionably is serviceable if we do not use it to the degree of depressing our patient. He says:[1] "Its good effects seem to depend upon its exciting a counteraction in the whole intestinal canal, and thereby lessening the disposition of the tracheal blood-vessels to discharge the mucus or form the membranes which have been described." Recently this treatment has been revived, and there is evidence already that instead of using it with a cautious, discriminating judgment, it is being again abused.

We read of calomel being administered in forty-grain doses in serious cases of diphtheria, and one hundred grains in twenty-four hours.[2]

It almost constitutes malpractice to give such a dose to a young child depressed by the poison of diphtheria.

Again we are told:[3] "If ever mercury is expected to do any good in cases of suffocation by membrane, it must be made to act promptly. . . . I recommend the oleate, of which ten or twelve drops may be rubbed into the skin along the inside of the forearms or thighs every hour or two hours, . . . or hypodermic injections of corrosive sublimate in one-half or one per cent. solution in distilled water, four or five drops from four to six times a day or more, either by itself or in combination with the extensive use of the oleate, or with calomel internally." On p. 706 of the same it is said: "A baby a year old may take one-half grain (of corrosive sublimate) every day for many days in succession, with very little, if any, intestinal disorder, and with no stomatitis."

And in THE MEDICAL RECORD, May 24, 1884, p. 576: "I do also know that when the constitutional effect of mercury can be obtained speedily, cases of fibrinous tracheobronchitis get well in an unexpected manner. To ac-

[1] Charles Wilson, in Edinburgh Medical Journal, 1856, vol. i., p. 5.
[2] Mackenzie on Diphtheria, p. 63.

[1] Benjamin Rush: Medical Inquiries and Observations, p. 173. Philadelphia, 1805.
[2] Dr. Brouse: Medical News, June 27, 1885, pp. 720, 721. Philadelphia.
[3] Dr. A. Jacobi, in A System of Practical Medicine. By American Authors. Vol. i., p. 705.

complish that it is necessary to give small doses very frequently. Calomel gr. viij. to xij., divided into thirty or forty doses, of which one is taken every half hour, is apt to yield a constitutional effect very soon." He continues: "The actual benefit derived therefrom cannot have been very great, for the mortality from croup has nowhere been encouraging." Treatment short of blood-letting could not be more depressing than this. These enthusiasts need a little calm reflection to lessen their zeal.

The explanation of such wholesale use of mercury is that it is said to be an antifermentative or a germicide.

It is not worth while to reason against the fallacy of mercuric chloride being an antifermentative. When introduced into four pounds of blood, for example, in doses of one-fiftieth of a grain every two hours, providing all is absorbed, it is being constantly eliminated, or, if elimination is interrupted, it acts as an irritant to the alimentary canal, inducing purging or vomiting, often both at the same time. Recently it has been demonstrated by E. Klein and Blythe that corrosive sublimate possesses no more power as a germicide than pure water. Although prostration is one of the great dangers to be dreaded in diphtheria, and the testimony of physicians is a unit against the employment of depressants in the disease, mercury, a powerful depressant, is being used by many prominent physicians with as much fervor as they would use a known specific. Many infer, because salivation does not appear, that if the repeated small doses do no good, they can at least do no harm. Doubtless the fact that it is exceedingly difficult to excite salivation in a young child has led many to believe that mercury can be given to children of all ages in unlimited doses without causing harm. A. Jacobi says:[1] "A baby a year old may take one-half grain of corrosive sublimate every day for many days in succession, with very little, if any intestinal disorder, and with no stomatitis."

Although it does not cause either intestinal disturbance or stomatitis, it does produce great depression and debility.

"The fact that mercury may prostrate and destroy a young child, even though it does not cause salivation, it is to be feared is not sufficiently appreciated, at least by some."[2]

Mr. Colles, of Dublin, says:[3] "No man in the present day requires to be told that mercury never does produce ptyalism or swelling and ulceration of the gums in infants."

Dr. Evanson and Maunsell say:[4] "Mercury does not seem capable of salivating an infant. We have never seen it do so, nor are we aware of any such case being on record. . . . We have never succeeded in salivating a child under three years of age."

Dr. Warren, of Boston, observes:[5] "I have never known an infant to be salivated, notwithstanding I have given, in some instances, large quantities with this view."

Dr. Percival, of Manchester, remarks,[6] that he "repeatedly observed that very large quantities of the unguentum cœruleum may be used in infancy and childhood without affecting the gums, notwithstanding the predisposition to a flux of saliva at a period of life incident to dentition."

It is significant that where mercurial treatment has been pursued throughout in diphtheria, convalescence is always more tedious, and the anæmia of the disease is more persistent; and that where death occurs it is almost always from exhaustion. Even where the larynx has been implicated, the inevitable exhaustion resulting from the mercurial treatment hastens death, even if it has diminished the symptoms of obstruction.

Large doses of mercury, often repeated, powerfully depress the system of the adult, and naturally this depression is more profound in the child. This is shown by the fact that when ptyalism does occur in infants it is more disastrous in its effects on the delicate organism than on that of the adult. In the use of mercury with the small child great caution is necessary, as we have not the symptoms usually so readily induced in the adult, but which do not appear in the infant until so marked that they prove disastrous by throwing the child into excessive prostration, thus giving us a condition to treat quite as serious as the disease itself. I have seen several such cases, and I know that, as a result of the inconsiderate use of mercurials in the treatment of diphtheria, physicians are often called upon to treat the consequence of their want of caution; while they have blindly ascribed the rapidly progressive anæmia, prostration, marasmus and death to the disease alone.

I have seen, in consultation, several cases of diphtheria in which death resulted, and was to be imputed to, the excessive use of mercury rather than to the effects of the disease; yet the instructions I have just quoted had not in any instance been exceeded, nor even equalled.

Let those who believe in the vigorous use of mercury in the treatment of diphtheria read in volume ix. of the "Medico-Chirurg. Trans.," 1818, p. 220, and in Marshall Hall's "Principles of Medicine,"[1] how the illustrious Dr. T. Bateman fell a victim to mercurialization, the symptoms appearing on the ninth day of the mercurial inunction, one drachm of mercurial ointment, by friction, having been used every night.

The report of the Committee of the British Medical Association on the action of mercury on the biliary secretion was that it caused its diminution through its general depressing action on the entire organism. Recently it has been shown that mercury has a powerful destroying action upon the hæmocytes.[2] Yet this drug is now used as a curative agent in diphtheria, without any rational or philosophic explanation of its *modus operandi*.

Dr. F. R. Sturgis, who is an authority on this subject, says:[3] "The chlorides and the iodides are more apt to produce toxic symptoms than other forms." Notwithstanding this, these are the forms used in the treatment of diphtheria. When used with discretion, calomel is undoubtedly a valuable medicine in diphtheria. It probably acts as a derivative and eliminant by its purgative action, by its increasing the activity of many of the secreting and excreting glandular structures of the body, particularly the intestines, and it will be observed everywhere in the writings of the older physicians that calomel only did good in croup when it produced purging, and it stands to reason that in suitable cases occasional purgative doses may be beneficial, while to continue its use so as to induce its constitutional effect is injurious. Children suffering from diphtheria, who have had syphilis, are greatly benefited by the addition of a mercuric salt to the usual remedies found to be useful in diphtheria.

Children with scrofulous enlargement of the lymphatic glands, laboring under diphtheria, do better when a mercurial is judiciously added to the treatment. This is because both of these disorders are benefited by the careful use of mercury. But because such cases are found to do better where mercury is added to the treatment for diphtheria, to rush to the conclusion that all cases will be cured of diphtheria by it is a ridiculous fallacy. Neither bichloride of mercury nor any other mercurial being, in any sense of the word, a specific, and having no possible germicide or antifermentative action, the unsparing and injudicious administration of it,

[1] A System of Practical Medicine. By American Authors. Vol. i., p. 706. 1885.
[2] John Beck, M.D.: Infant Therapeutics, p. 56. New York, 1855.
[3] Abraham Colles, M.D.: Practical Observations on the Venereal Disease and on the Use of Mercury, p. 171, Amer. edit.
[4] Treatise on the Management and Diseases of Children, p. 114, Library Pract. Med., Trans. Mass. Med. Soc., 1848.
[5] View of the Mercurial Practice in Febrile Diseases. Communications by John Warren, M.D., p. 404, Trans. Mass. Med. Soc., 1813, vol. ii.
[6] Thomas Percival, M.D.: Essays, Medical and Philosophical, vol. ii., p. 318.

[1] Marshall Hall: Principles of Medicine, p. 91. London, 1837.
[2] British Medical Journal, July 28, 1885, p. 152.
[3] New York Medical Journal, August 1, 1885, p. 121.

without due comprehension of the indications furnished by the individual case, is only a blind and dangerous empiricism. I have unequivocal and direct evidence of the injurious effects of bichloride of mercury from two intelligent physicians who have had diphtheria, and who both experienced the depressing effects of the drug. They told me that they felt depressed as soon as the mercurial began to have an appreciable action on the intestinal tract, and that there was a feeling of nausea and sinking even preceding this. I may add, that after the discontinuance of the bichloride both patients felt within three hours the strengthening effect of the tincture of iron in full doses, given hourly. As no practitioner would persist in the use of bichloride or any other mercurial salt on himself or another physician after the depressing effect began to be felt, it should not be used thoughtlessly on children who cannot intelligently communicate their sensations, nor even on adults who would not be likely to notice the approaching depression and weakness as soon as a professional patient might, and so ward off a crisis.

That the mercurial treatment is insufficient to control the diphtheritic process is shown by a case recorded[1] of a girl, aged twelve, under treatment for pain and swelling of the joints (rheumatism), with calomel (among other drugs) until salivation occurred. While under this treatment the girl developed "croup," from which she died. Post-mortem examination revealed a layer of fibrine in the larynx, which was continued down the trachea and the lesser ramifications of the bronchial tubes. If it is true that mercurials cure croup, their action in this case should have prevented its development, in a patient under mercurial treatment, to its constitutional effect, when the disease attacked the system. Salivation, in fact, favors the extension of diphtheria; so the depression of the treatment promotes its spread when there is no local indication of its constitutional effect.

In diphtheria life is endangered by the great weakness induced by the malady itself, and I most seriously deprecate the employment of measures which depress the system, and especially of those by whose means we voluntarily bring on a secondary diseased condition, which may prove quite as dangerous as the original malady. These are sufficient reasons for the discontinuance of that free use of the mercurials, which is too often had recourse to without either thought or caution. The too universal extolment of them at the present time has caused an indiscriminate use of them, which brings harm to our patients, and will in the end cause the abandonment of a drug which is of undoubted utility if used as an auxiliary to our treatment, and will bring just opprobrium on our profession for using a remedy which has been over-zealously recommended on no sufficient foundation, and without any criterion to guide us.

At the present, more than at any other time, an accurate knowledge of remedies is obscured by false prophets, who cry, "A cure is found for diphtheria!"—thus setting a fashion, as it were, and the new idea is received and followed blindly.

If every practitioner would think for himself, weigh the results of experience, examine again and again old remedies and new applications of them, but at the same time be searching for new and more efficacious ones, it would be the means of our therapeutics growing in simplicity and precision.

In the absence of a specific for diphtheria we are reduced to the elimination of the poison of the disease; the counteraction, so far as possible, of its effects on the blood and system generally; to limiting the spread of the local morbid process, the prevention of complications, the amelioration of symptoms, the conservation and supporting of the forces of the system, the maintenance of nutrition, sustaining the heart, and, if need be, of stimulating into activity the latent vital forces. It is evident that no one remedy could meet these varied indications of cure; we must therefore depend wholly upon a judicious combination and sequence of means, adapted with judgment to particular cases. Can we eliminate the poison? Before answering this question, we must first know which are the natural channels of elimination of the specific poison of diphtheria? Without doubt these are the mucous membrane of the throat and air-passages, and probably by the intestines, kidneys, skin, and all the emunctories of the body. Prof. Loomis says:[1] "Clinical facts indicate that the infectious element is present in the exhalations and in the excretions, as well as in the exudation itself." Sir Wm. Jenner recommends that the treatment of diphtheria should begin with a purgative, believing that the elimination of the poison is thus made to take place by the intestinal canal.[2] I have noticed when the symptoms of diphtheria have been active from the outset, with considerable soreness of the throat, and with early and marked membranous formation, that if the patient has at once been placed in bed, diaphoresis induced, the bowels gently acted upon, the neck counter-irritated and poultices applied, there is a marked improvement; and that such cases, if judiciously managed, do well, and in nearly every instance make a good recovery; and presumably by rapid elimination of the poison. When, however, the outset of the disease is insidious, the process slow in developing, generally the treatment is less active, the poison is not so early nor so rapidly eliminated, the course is indolent with frequent relapses, and sequelæ are apt to remain.

From carefully weighing these facts, I have come to regard elimination of the poison as the first indication of cure in diphtheria. By this management we promote the expulsion of the morbific matter, and we are able to use, with decided benefit, drugs directed against the disease, such as iron, quinine, etc.; but the use of these drugs from the outset in cases of marked febrile disturbance, without preparatory treatment, seems to aggravate the symptoms and to less thoroughly control the disease. For the purpose of eliminating the poison so far as possible by the throat, intestines, skin, and kidneys, have recourse to mild purgation, simply sufficient to excite the activity of the glands of the intestinal tract, triturated calomel in small doses being the best for this; hot poultices to the neck to excite the activity of the mucous glands of the throat; powdered ipecacuanha co., as a sedative, diaphoretic, diuretic, or the hot foot-bath, according to indications. Of course this plan is not to be adopted indiscriminately, but our treatment must be modelled in accordance with the degree and acuteness of onset of the inflammation, and an accurate estimate of the vital individuality of the patient.

If we study the therapeutic indications from the standpoint of the lesions in the throat, the unaided reparative process of nature, the *modus operandi* of local treatment which may be adopted, and the effect of these on the morbid process, we are led to feel that we can control or at least modify the local manifestations of the disorder. Where several members of a family are successively attacked with diphtheria, and we daily examine the throat, thus inspecting it before the appearance of the exudate, we will observe its mucous membrane become reddened, its secretion diminish, and its surface dry. Besides these changes there is moderate swelling of a part of the mucous membrane, while the rest may appear normal. After the lapse of a few hours, small grayish- or yellowish-white specks appear. If the diphtheritic process progresses uninterruptedly, these spots of membrane coalesce and may more or less completely cover the inflamed surface.

The evidences of advancement of the process, and of its *diphtheritic character*, are to be found in the edges of the patches being thinner than the centre, and shading off imperceptibly into the inflamed mucous membrane,

[1] London Lancet, vol. i, p. 726, 1838–39.

[1] Practical Medicine, p. 672. Wm. Wood & Co., New York, 1884.
[2] W. H. Day: Diseases of Children, p. 351. Philadelphia, 1881.

in being surrounded by a zone of angry-looking inflammation, and in their appearing on the pillars of the fauces.

If now, a reparative process is established, the vascular injection at the immediate edges of the diphtheritic membrane lessens, the patches thicken at their edges, and separate, usually in small portions. This process of repair is due to the effusion of serum, the exudation of mucus, the immigration of pus-corpuscles, and the loosening of the pseudo-membrane by ulceration. The object of local treatment, then, must be to allay inflammation, to re-establish secretion from the glands of the mucous membrane, and to excite suppuration. Counter-irritation to the neck, moist heat externally and internally, by diminishing congestion, re-establishing the natural secretion, and promoting suppuration, closely imitate the unaided method of nature.

Rubefacients are important remedies in the treatment of diphtheria. Turpentine is a rubefacient which acts with great promptitude, which is no small consideration in a disease like diphtheria; this, together with the fact that its use may be continued over a long period, makes it the best of the rubefacients. By producing irritation and congestion of the skin, turpentine lessens the congestion and inflammation of the throat; and the swelling and soreness of the cervical lymphatics are rapidly diminished. Moist heat in the form of *hot* flaxseed-meal poultices, allay the inflammatory process at the margin of the pseudo-membrane, stimulate secretion, promote suppuration, and check the formation of false membrane. Where this has occurred the patches of pseudo-membrane already formed will be seen to be raised from the mucous membrane, and their surface to become wrinkled and uneven, and finally they become detached.

When moist heat is thoroughly used, the secretion in the throat and pharynx is less tenacious, it is more readily removed, either by expectoration or by being washed away by swallowing, and by medicine; there is therefore less need for spraying, etc.

Moist heat promotes resolution of the inflammation in the cervical lymphatics, softening these, lessening the soreness, and thereby giving great comfort.

In faucial, tonsillar, and pharyngeal diphtheria the whole neck, from the episternal notch to the lobes of the ears, is enveloped in a hot poultice. This must be covered with two thicknesses of flannel, and an outer covering of oiled silk. The poultice should be renewed every half hour or every hour. Where poultices are objectionable or are too troublesome, a much neater and very effectual mode of applying moist heat, consists in the use of spongio-piline frequently wrung out of hot water, tied around the neck, and covered with flannel and oiled silk.

To be convinced of the beneficial effects of poultices, very hot and frequently renewed, witness their value in wound diphtheria, where the process has resisted every other mode of treatment. There is nothing that promotes exfoliation of the membrane and checks spreading of the inflammation as a poultice does. Were it possible to apply a poultice to the tonsils and pharynx, we would quickly see a subsidence of the diphtheritic inflammation and a separation of the exudate. We imitate the action of poultices when we use steam inhalations; the physiological action and the beneficial therapeutic effect being much the same. It is the steam, and *not* the medicament used, that benefits the patient. A fluid in which diphtheritic membrane is soluble does not possess the power of dissolving that membrane when it remains attached to the vital tissues; hence trypsin and other agents recommended for this purpose are valueless as a solvent of the diphtheritic exudate *in the throat and air-passages*. For vaporization, nothing is more satisfactory in my experience than lime-water, two parts, to alcohol one part. The most convenient and safest apparatus for producing steam, and the one least likely to alarm a child, is the ordinary iron or tin croup-kettle with an alcohol flame, and a piece of stiff rubber-tubing extending from the spout of the kettle to the patient. At first the kettle should be kept at some distance from the child, and gradually brought nearer as it becomes accustomed to it. If fear and dread of this treatment cannot be overcome by tact, it may be resorted to only during sleep; in which case great care should be taken to have the apparatus removed if the child begins to awaken, that it may not be frightened, and thus interfere with future rest and management.

During the use of the steam the neck and chest of the child, should be covered with oiled-silk, lined with canton-flannel, so that its clothing may not be dampened. Steam should be used only for ten or fifteen minutes at a time, and at frequent intervals, shortened when the inflammatory process is excessive. Continuous use of steam would weaken the child, make him restless and cause him to dread it, but if used at intervals it is grateful to him, does not depress him, and is soothing in its effects.

Mild purgatives, diaphoretics, diuretics, counter-irritants, with moist heat externally and internally, if used judiciously and with discrimination, are beneficial at the very outset of the disease, as eliminants of the poison, as derivatives from the seat of disease, as evacuants of morbid secretions and excessive tissue waste, in checking the spread of the specific inflammation, in lessening the formation of false membrane, in exciting the activity of the secreting glands at the seat of the disease, and in lessening the tendency to involvement of the larynx.

During this disease more nitrogenous food should be taken and absorbed, and the vicariously-eliminating urea structures, as the skin and intestinal canal, should be maintained moderately active; but profuse sweating and purging, like every other excessive evacuation, is harmful. If the throat is much inflamed, the exudation firmly adherent, showing no tendency to exfoliate, even after the use of the above means, pilocarpine may be given. If there is undue exhaustion, pilocarpine must be used with caution.

If the child is very young, has recently had pneumonia, measles, or bronchial catarrh, if it is rachitic or has valvular disease of the heart, pilocarpine is almost an unsafe drug.

After the use of pilocarpine, the vascularity of the throat is reduced, the normal secretion is re-established, and the membranous exudate appears less tenacious; its extension seems to be arrested by the circumference of the patches presenting a less livid appearance and terminating more abruptly in the healthy mucous membrane, the patches at their edges begin to give evidence of commencing separation. In addition to its action on the throat, pilocarpine promotes the elimination of the poison.

The next indication is to counteract the effects of the poison on the blood, toward which purpose pure air, sunlight, and quinine play active parts.

The only known agent that is inimical to germ life, that is a perfect disinfectant, and is not only harmless to the patient, but is beneficial both in health and in disease, is sunlight. No disease-germ can long retain its vitality when exposed to the sun's rays. An important requisite in diphtheria, therefore, is to have the patient in a southeast room, no hangings at the windows, and the bed so placed as to receive the unobstructed rays of the sun from morning to night. Where this is done, the intense and persistent anæmia so common after diphtheria is not so marked, and convalescence is more satisfactory and progresses without interruption.

The sick-room should be further purified by having roll-sulphur burned in it at least three times in the twenty-four hours. The sulphurous acid gas thus liberated and inhaled by the patient has a decidedly beneficial local effect.

Another accessory is fresh air, which must be obtained at intervals during the day, moving the bed of the patient, if necessary, to keep him from the currents of air.

If full health and richness of the vital fluid render a person less liable to contract diphtheria during its prevalence, it is natural that iron, quinine, and other potent tonics, render the blood of the patient less favorable to the action of the morbific agent.

If the tendency to death is by asthenia, a stimulant-tonic treatment is urgently demanded, and depressants, except to meet definite indications, are to be avoided.

Dr. Thomas Heslop, of Birmingham, in 1858 introduced the tincture of iron as a remedy for diphtheria, and his words of caution should be considered at the present time: "My great fear is, that this method of treatment will be extravagantly lauded, that it will be called by the ignorant specific, and that on the occurrence of fatal cases under its use, as is inevitable in so virulent a disorder, it will be consigned to the limbo where so many other therapeutical abortions have been thrown."[1]

Dr. Heslop's fear was realized, and it was said because patients died that iron as a remedy against diphtheria had been overestimated. Death was the result of neglecting other indications, and from giving too small and too infrequent doses of iron.

Herr Aubrun, of Paris, in 1860, administered to a child twenty-one months old, fifteen drops of tincture of the chloride of iron every ten minutes during the day and every fifteen minutes at night. The child had diphtheritic laryngitis, with pulmonic consolidation. Tracheotomy was performed; the iron in these doses was continued, and ultimately recovery took place. Aubrun believes that recovery was largely due to the use of iron in such heroic doses.

Robert Druitt, in 1861, administered two drachms of tincture sesquichloride of iron every two hours for twenty-four hours, and three fluid ounces in five days. The record of the case shows that this quantity did good, and as Dr. Druitt remarks,[2] "it was evident that these doses did good, and it was probable that smaller ones might have failed."

One of the physicians of Middlesex Hospital gave one and a half ounces tincture of iron in twelve hours.[3]

Generally iron has not been given in sufficiently large doses to get the desired effect, nor have the doses been graduated by the form of the disease. Attendant upon the action of the diphtheritic virus is a decline in that nervous control which regulates the functions in health.

Tincture of the chloride of iron, in diphtheria as in erysipelas, increases the vital contractility of the blood-vessels, probably by its stimulant-tonic effect on the nerve and vascular systems, thereby preventing the spread of the disease-process.

To get the physiological effect of iron it must be given in full doses, in accordance with the type of the disease. Where there is marked sepsis and tendency to capillary hemorrhages, the dose should be larger than in a case of a less septic and more marked inflammatory character. If we are to obtain the decided effects of the drug in a case of septic diphtheria, at least one drachm of the tincture should be administered every hour, to a child two to five years old. We have given two drachms every half hour for forty-eight hours, or twelve ounces in two days, to a boy eight years old, with manifest good, and with no disturbance of the stomach. Indeed, there is no rule as to quantity. Instead of giving directions for definite doses, I should say be guided by the controlling influence of the drug on the disease-process. Give it *ad libitum* so long as the inflammatory and exudative process is spreading; as you would in erysipelas, until you see the dilated and dilating vessels contract, and the advancing redness brought to a pause. Iron is best given with an equal portion of glycerine. Chlorate of potass with the iron mixture enhances its efficacy. This combination was used in England almost immediately after the introduction of iron by Dr. Heslop.

[1] Thomas P. Heslop, M.D.: On Diphtheria, in Medical Times and Gazette, May 29, 1858, p. 554.
[2] British Medical Journal, February 23, 1861, p. 208.
[3] British Medical Journal, vol. i., 1861, p. 208.

The Report of the *Lancet* Sanitary Commission on Diphtheria,[1] in 1859, said: "Of the many internal remedies which have been advised, we do not know of any on which so much reliance can be placed as on the tincture of sesquichloride of iron in combination with the chlorate of potass." A valuable adjunct is quinine, which should be given in small tonic doses, where it does not irritate the stomach, and where it can be given without the child's tasting it. It can generally be administered in food or jelly to the youngest child in gelatin-coated pills of a fraction of a grain each. In many of the cases of diphtheria in New York alcoholic stimulants take first rank in the treatment. I do believe, however, from a very varied experience in dispensary, private, and consultation practice, that stimulants are too generally used at the *outset* of this disease. Unless there is marked sepsis, I do not find alcohol necessary during the first days of the disease, nor until the symptoms, particularly the pulse, give some indication of its need. As to quantity, we must be guided by the effect and the temperament of the patient. Some children with diphtheria bear surprising doses of whiskey or brandy with great benefit. Twenty or thirty drops every hour to a child one year old to begin with, increasing the quantity and the frequency according to the effect on the disease and the child. We must stimulate into activity the reserve nerve force whenever indicated by the failing strength, to preserve the powers of the system, and to maintain the functions of the important organs at an equable standard.

Nutrition must be carried to the highest point by means of concentrated nourishment, and, if need be, by rectal feeding. Bear in mind that the fever of sepsis indicates failing powers and excessive waste, and that it is relieved by maximum doses of iron with moderate doses of quinine, or, if very high, with antipyrin.

Local treatment.—This certainly is not curative in its effect, and the most that can be said for it is that by its local effect it may prevent the spread of the disease, and even this is questionable, and not so certain in its action as constitutional remedies intelligently and vigorously administered.

There is one insurmountable obstacle to the successful local application of a drug of known potency, even if we possessed one. It is only intelligent, older children who will submit to anything like thorough applications to the throat. Even with them, if well and frequently done, it will not long be borne without protests which end in a desperate struggle with every attempt. The exhaustion following such treatment has led me to abandon local applications, except in rare cases, and then only at long intervals.

When from the local anatomical changes, or from functional impairment of the larynx, we have reason to apprehend croup, the treatment should be modified accordingly. When we see bands of pseudo-membrane forming on the posterior wall of the pharynx, and descending down beyond our view, we have reason to dread invasion of the larynx. We know that a secretion on a mucous surface tends to macerate the false membrane of diphtheria, and promotes the resolution of the inflammatory action. The exudate which results in the formation of the false membrane is usually at first more fluid, less concrete than it is after its retention on the mucous surface, where it finally forms a distinct layer. For this reason an emetic should occasionally be administered when there is a disposition to extension into the air-passages, that it may be removed before it has become concrete. An emetic subdues the congestion in the larynx and stimulates the glandular activity, thus tending to prevent the formation and promote the removal of an inflammatory product. The employment of emetics is imperative in very young children who cannot expectorate, and in all cases where there is much accumulation

[1] London Lancet, February 12, 1859, p. 171.

of mucus, and children will not gargle—if there is a catarrh of the larynx, or much croup; if the voice is altered, or there is much inflammatory swelling in the fauces; if there is a snoring sound during sleep, even though there may be no other sign of laryngeal disturbance. Emetics must be used only occasionally, taking great care not to exhaust the child.

Ipecac, in the early stages of laryngeal invasion, is the best emetic, because it counteracts the inflammatory tendency better than any other of its class, and it is perfectly safe in judicious hands. At this stage steam should be frequently used. If it annoys the child, small doses of opiates may be given to allay irritability and induce sleep, so as to enable us to have recourse to steam. Restlessness, fretfulness, and loss of sleep exhaust the strength, lessen the appetite, promote the spread of the local lesion, and increase the danger of laryngeal invasion. In any nervous, restless, and fretful child opiates should be used, if necessary, to procure sufficient, uninterrupted sleep.

When a diphtheria is very persistent, or even after its entire disappearance from the throat it is constantly reappearing, the nasal passages should be examined. Many of the cases of sudden, unexpected death, after the complete disappearance of all evidence of the disease from the throat, are due to an unrecognized diphtheria lurking in the nasal passages, thus silently undermining the vital powers and ending in heart-failure—a sequence no less strange than it would be if the child were allowed to go about with an active faucial and tonsillar diphtheria. When recovery is protracted, or there are repeated relapses, even though the treatment is not suspended, always suspect and examine the nares. If there is slight illness, with injection of one eye, examine the corresponding side of the nose. When there is swelling on one side of the neck only, or the swelling on the two sides is unequal, being greater on the side where there is the least disease in the throat, you will be quite certain to find previously concealed patches in the nose or on the posterior pharyngeal wall behind the pillars of the fauces on the side corresponding to the greater swelling of the lymphatic glands.

When there is great swelling of the cervical lymphatics on both sides, with comparatively slight throat diphtheria, we have reason to investigate the nasal anfractuosities. When the pulse continues rapid, or unnaturally slow and irregular, if there is great prostration, anorexia, and nausea, examine the nares. In a word, then, it is always incumbent upon us, when diphtheria is prevalent, to examine with care the nasal mucous membrane of every sick child. Do not wait for visible manifestations, as the disease may develop here to a dangerous degree without warning and without symptoms, until the throat is invaded. I had a child brought to my office last summer from a summer hotel for what was supposed to be mumps, it proved to be a bad nasal diphtheria. Nasal diphtheria is almost always insidious in its outset, often for a long time remains indolent, then giving rise to excessive diphtheritic infection, the *recognized* disease being very sudden in its attack. The gradual extension of a nasal diphtheria to the throat sometimes causes but little soreness, and the first warning of its existence is from the occurrence of croup (see p. 621).

We are especially liable to find nasal diphtheria in children with diphtheritic patches about the lips, or who have cutaneous diphtheria.

Nasal diphtheria, if recognized in its beginning, in a child of average health is not very dangerous. With prompt, painstaking treatment, it can usually be kept in check and subdued without serious symptoms. In nursing infants, with much swelling of the mucous membrane, there is great danger, owing to their inability to nurse, that starvation or suffocation may take place. Management, however, on the part of an experienced and competent physician will triumph over these difficulties. Thorough and frequent disinfection is very necessary here. For this lime-water, equal parts of it and saturated solution of chlorate of potash; lime-water, with ten or fifteen drops of carbolic acid to the ounce; and salt water, with alcohol, are good. There is nothing better than the last. A weak solution of salt, with a little alcohol in it, increasing the strength gradually, taking care not to have it irritate, cleanses and disinfects thoroughly, *if thoroughly done*. After this, the application, with a feather or camel's-hair brush, of a ten per cent. ointment of iodoform is one of the best that I have used.

Prognosis.—If the outset of the disease is active, and it is recognized and treated early, the prognosis is good. With a sluggish inception, late recognition and treatment, the prognosis is questionable. In a child who has recently had measles or scarlet fever, or who is recovering from whooping-cough and has catarrh of the air-passages, there is danger of complications and of early exhaustion. If any other epidemic disease which the child has not had is prevalent at the time, and he has been or will be exposed to it, the prognosis is serious.

The existence of scrofula makes the prognosis more grave. All of these call for a stimulating and supporting treatment throughout the disease. When the patches of pseudo-membrane are thinner at the edges than at the centre, and are surrounded by a red border of angry-looking inflammation, we have more cause to dread the disease spreading than when the membranous patch is thick at its edges, with a tendency to become circumscribed. Loosening and signs of detachment of the patch at its edges, and puckering of the same, are indications of an arrest of the disease, and of a beginning reparative process.

When there is diphtheria in a family where there are several children, and they cannot be removed, every child should be daily submitted to an examination of the lymphatics in the submaxillary region and the fauces.

Children who are not feeling well will not complain, and even when questioned will say that they are not sick, from the fear of an examination of the throat and of treatment. They should be kept as much as possible in the open air, and given iron, quinine, and the most nourishing plain food. No case of diphtheria, however slight it apparently may be, even if it be limited to a single patch of membrane, can be neglected but at the risk of life. I know that in this statement I make myself liable to the imputation of being an alarmist, but a sufficient experience justifies the declaration.

Dr. A. Jacobi,[1] on "Prognosis of Diphtheria," says: "But the physician will often enough be deceived, and more frequently, too, in mild than in bad cases." The mild case, through inattention and want of conservation of strength, and from exposure and catarrhal complications, is allowed to become a severe one. There is nothing mysterious about sudden death in the majority of diphtheria patients, nor in the mild cases developing diphtheritic laryngitis. True, we will occasionally meet a case of diphtheria where, owing to scrofulous glands or other constitutional peculiarity, the poison, despite careful treatment, will remain a long time stowed away in the system, liable to be at any moment discharged into the blood; but the observant practitioner is rarely deceived by such a case.

If, after the disappearance of the local lesions, fever, cachexia, and glandular swelling persist, we have reason to fear the reappearance of the exudate; and the continuance of any one of these, or of a small thready pulse, should be sufficient to make us vigilant. Progressive loss of appetite during convalescence is a serious symptom, and when accompanied by vomiting we have reason to apprehend a lesion of the pneumogastric nerve. Morphia, hypodermatically, is one of our best remedies for controlling this vomiting. Sleep, at all times necessary, is, at the latter part of this disease, especially important, and it is now that opiates are well

[1] Jacobi: On Diphtheria, p. 149. New York: William Wood & Co., 1880.

borne. When there is nocturnal delirium, with considerable elevation of temperature, quinine and iron, the latter in maximum doses, are to be given, and they control both symptoms.

In nursing-children iron and quinine should be given to the mother as well as to the child. In bottle-fed children the saccharated oxide of iron may be given in the milk without danger of disgusting the child; twenty grains may be given in this way every two or three hours. Children with diminished appetite and digestive powers may be given pills of raw beef and pepsin. Pepsin should be freely used in every case where there is much prostration. Use peptonized food where there is much depression. When there is nausea give peptonized foods by the rectum. Every attention must be given to keep up the nutrition and strength, and to prevent any unnecessary further withdrawal of remaining vital power.

These methods of treatment lend mutual aid to one another; any one is insufficient without the other; and cases will be met with where a modification of this system-management will be necessary. No written plan of treatment should be allowed to supersede the physician's judgment. To know the natural history of diphtheria, to have a knowledge of indications, and a discriminating judgment, is to possess ourselves of the beacons by which we are to be guided in the treatment of this disease.

THE GALVANIC CURRENT IN CHRONIC PELVIC CELLULITIS.

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While electricity as a therapeutic agent undoubtedly finds its widest field in neurological cases, yet it is by no means to be restricted to these conditions. In every special department of medicine it must at times enter as an important factor, and if both general practitioner and specialist would keep abreast the current, they must recognize this fact. Ophthalmology, laryngology, dermatology, and obstetrics even, own its value, but it is in gynecology that its greatest efficacy lies.

I have for years held that it should occupy a far higher place in the armamentarium of the gynecologist than it has yet occupied, and have occasionally given such testimony as I could concerning its efficacy in the disorders of menstruation, in super- and sub-involution of the uterus, in uterine morbid growths, and in certain ovarian disorders. Until gynecological experts more generally, however, give the subject their personal attention, make themselves familiar with the physics and physiology of electricity, study the differential indications for its use, and finally supplement theoretical knowledge by practical work, the popularization of this invaluable remedy for the diseases of women will be slow.

In the sequelæ of pelvic cellulitis especially, the application of the galvanic current is not infrequently followed by the most satisfactory results. For the absorption of old exudations in other parts of the body, this form of electricity has long been known to be most efficacious, but only within a comparatively recent period has it been tested in the thickening and infiltration resulting from inflammation of the pelvic cellular tissue. The negative pole, consisting of a metal ball, or in some cases, better still, of a concave metal clasp, is to be used internally and directly to the part affected, while the positive is to be applied externally. If the metal electrode is applied without the intervention of a sponge or chamois covering, care should be taken not to use currents sufficiently strong to produce eschars. This mishap may occur even without the knowledge of the patient at the time, and in the beginning it is, perhaps, safer to use a covered electrode. I have seen this treatment, judiciously and persistently carried out, result not only in the absorption of large pelvic deposits, but in the cure of the most severe and obstinate sciatica and in the restoration of power to partially paralyzed limbs. In such cases both sciatica and paralysis are caused undoubtedly by pressure of the exudations upon the pelvic floor, and can be relieved only through the dissipation of the morbid products.

From among a number of cases I select the following as illustrative, in a very striking manner, of the foregoing remarks:

In October, 1884, Mrs. S——, aged thirty-three, came to me complaining of a multitude of symptoms. She could walk only with difficulty and for short distances. The appetite was poor and constipation excessive, associated with a constant pain in the basilar region as well as in the lower portion of the spine, while a constant "burning and pressure" in the uterine region contributed to make her life quite wretched. In addition to all this, she suffered from dysmenorrhœa and menorrhagia and very severely from sciatica.

Upon suggesting to her the probability that local causes prevailed, and that local treatment was called for in her case, she refused to entertain the idea, saying that she had for a long time submitted to local treatment, and, as she believed, with evil results rather than good.

At all events she was now suffering more than ever before. All that she wished for or would consent to receive were some general applications of electricity, in the hope that some of its constitutional tonic effects might become manifest in her case. She came to me irregularly, as suited her caprice, for a number of months, and was treated by both forms of dynamic as well as by static electricity. She received some benefit as to her appetite, and in lessened pain along the spine and back of the head. The objective evidences of improvement also were but slight, and were seen only in a somewhat easier movement of the limbs. Through the confidence begotten of these inconsiderable signs of improvement, she finally consented to an examination. I found the neck of the uterus crowded somewhat backward and to the left side, while the left half of the os uteri was almost completely obliterated.

The enlarged portion was harder than the surrounding tissue, but not acutely sensitive to moderate pressure. Pressure along the base of the swelling and posterior to the os caused greater pain. My idea in making this examination was, that it would be preliminary simply to directing her to some competent specialist in diseases of women, but when I discovered what seemed to me to be extensive exudation in the connective-tissue, I determined to submit her to persistent localized galvanization. For nearly a month the patient came every day, with the exception of Sundays, and subsequently visited me about every other day for three months. The applications were made directly to the diseased part, and when menstruation appeared some three weeks after the inauguration of the local treatment, the flow was not only markedly less in quantity, but attended by a very considerable decrease of pain. In a few weeks the distress along the sciatic nerve entirely disappeared, and the progression toward a fair condition of health was uninterrupted until she was discharged as cured, after having received fifty-six local applications of the galvanic current. Under the absorptive influence of the current the inflammatory exudation gradually disappeared, until in the end the finger could be swept entirely around the neck at its juncture with the body of the uterus. In the recital of a case of this character the question very naturally arises, What are the points aiding in the diagnosis aside from those already detailed? For if this were a case of chronic parametritic exudation, as there is every reason to believe, it must be of exceeding interest to every practitioner, general or special, who has to deal with female diseases. As obtained from the patient when I first discovered the character of the local trouble, her previous history is as follows: About two years before I saw her, she aborted at the third month, suffering considerable pain, but within a fortnight regarded herself as "quite

smart." At this time she took a ride of several miles over a rough country road, and when she reached home was very tired and chilly. During the night she had considerable fever, with sharp, local pains.

From that time onward she suffered almost constantly from dull pains high up in the vagina and through the lower part of the abdomen. Her menstrual flow had always been perfectly normal, but now it suddenly became profuse and painful, and continued so for two years or more until she began the local galvanic treatment. Especially suggestive was the readiness with which the sciatic neuralgia disappeared under applications directed to the enlargement, clearly indicating that the cause of the sciatica, as well as of the incomplete paraplegia, was the pressure of the parametritic exudation on the pelvic floor.

THE HEART—ITS POSITION AND MURMURS.[1]

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In order to obtain a clear conception of, and to readily recognize the various cardiac murmurs, a thorough knowledge both of the exact position of the organ and of the mechanico-physiological laws which govern it are indispensable. This is especially true in regard to those murmurs which are located at the mitral orifice when there is no organic lesion of the valve segments.

The etiology of murmurs of this class has been in doubt for a long time, and has given rise to an endless amount of discussion *pro et con.* It is the purpose of this paper to attempt to throw some light on this subject.

If, as usually is the case, the anatomical position of the heart is taken from frozen sections, it will appear upon a lower plane than that which it actually occupies during life, unless an allowance is made for the sinking which occurs with all the viscera, and especially of the thorax, after death. During life, too, the heart cavities and great vessels are distended with blood, which naturally causes the viscus to occupy a higher position in the chest than would be the case under other circumstances.

During life, therefore, the heart may be said to occupy a triple oblique position in the chest, or one corresponding to a line drawn from right to left, from above downward and from behind forward.

The base will correspond to a line drawn across the sternum from the first intercostal space of the left side to the second intercostal space of the right side, and its apex will be found at the fifth intercostal space of the left side, three and one-half inches from the median line.

The left side of the heart is the most posterior; this is especially true of the left auricle, which also is the most inferior portion of the organ, lying as it does adjacent to the eighth dorsal vertebra, or deep down between the diaphragm and the spinal column.

As a result of this posterior and inferior position of the left auricle, the current of blood passing from it into the left ventricle naturally flows from behind forward from right to left, and slightly from below upward. Or it corresponds to a line drawn from behind through the eighth dorsal vertebra, through the chest, and coming out in front at the junction of the fourth costal cartilage and its corresponding rib. This line for convenience is called the left auriculo-ventricular axis. From this description it is readily seen that the biscuspid valve is situated well behind on this axis.

All the murmurs, therefore, that occur at the left auriculo-ventricular orifice are produced and transmitted by the current of blood passing in one of the directions of this axis.

Organic lesions of the bicuspid orifice are pretty thoroughly understood, but that condition in which positive evidence of mitral insufficiency is obtained upon physical examination during life and the necropsy reveals a perfectly normal and competent valve, have not been so satisfactorily discussed.

Murmurs, the result of organic lesions, are divisible into two classes—those due to obstruction at the orifice and those due to an incompetency of the valve.

The causes of the organic obstructive murmur are acute endocarditis, with roughening of the valve by outgrowing vegetations, congenital malformations, chronic endocarditis, with or without calcareous depositions, which narrow the orifice, and all of which prevent a free egress of blood from the auricle.

The etiology of the regurgitant murmur at the mitral orifice from organic causes are acute and chronic endocarditis, with their resulting retraction of the valve segments; rupture of a segment of the valve, or rupture of a chordæ tendinæ, and acute and chronic dilatation of the left ventricle.

With organic narrowing of the bicuspid orifice a murmur is produced in the auriculo-ventricular axis by the obstruction to the normal current of blood. It is called a presystolic murmur. This is true so far as the ventricle is involved, but in reality it is a systolic murmur of the auricle, and occurs at the height of the auricular contraction. This murmur is heard with greatest intensity at the point where the auriculo-ventricular axis strikes the anterior surface of the chest-wall, or at the junction of the fourth costal cartilage with its rib. It is high-pitched, and is practically not transmitted, being heard only over the limited precordial area. It is usually of short duration, but may be somewhat prolonged if the obstruction be very great.

With an organic incompetency of the bicuspid valve a murmur is produced by the blood being forced back from the left ventricle into the auricle against the normal current. It is distinctly heard at the apex, is transmitted to the left, often lost at the axillary line, but is heard with equal intensity behind at the inferior border of the seventh dorsal vertebra, or between this point and the inferior angle of the left scapula.

According to the ordinary law of production and transmission of cardiac murmurs, this murmur should be heard behind only; but occurring as the result of the ventricular contraction, when the heart becomes as it were a solid body and strikes against the bony chest-wall, which is also a dense body; they, together, obey the general law of transmission of sound by dense bodies, and bring the sound distinctly to the anterior surface of the chest.

At one time we were taught that a systolic murmur at the apex, if transmitted to the left and heard behind, always indicated an organic lesion. This, however, does not always hold true at the mortuary, and still more infrequently at the bedside and in the clinic room.

A functional obstructive murmur of the mitral orifice is often heard in cases where there is considerable aortic regurgitation, the regurgitated blood fills the lower portion of the ventricular cavity, floats the inferior bicuspid segment too quickly up against the incoming blood from the auricle, and produces an obstruction which gives rise to a quick, sharp, and decided obstructive mitral murmur.

It is differentiated from an organic murmur at this valve by its disappearance when the heart is stimulated, and the aortic regurgitation is diminished, or in part compensated for by the prolonged systolic act and diminished diastolic pause.

The functional regurgitant murmur at the mitral orifice is the one of greatest importance, on account of its frequent occurrence, and because it is so often mistaken for a sound due to a positive organic change.

This has been explained by a powerful contraction of the left ventricular wall, causing an over-closure and a forcible sliding of the valve segments upon one another, and thus producing the sound; but while this might hold

[1] The substance of this paper was read at a meeting of the Clinical Society of the New York Post-Graduate Medical School and Hospital, March 7, 1885.

true in a few instances, it is not sustained, in the majority of cases, by the necropsy findings.

To have friction enough to produce so loud a sound would necessitate a roughening of the valve, and would lead to a positive thickening of the leaflets.

This, however, is not the case; for at the necropsy the valves are found perfectly smooth, thin, and absolutely free from any lesion.

The physical signs also disprove this theory. For a murmur produced by too tight closure would not give rise to any regurgitation of blood at this orifice, and consequently there would be no distinct murmur heard behind. A sound heard at the apex and after the first sound, not transmitted nor heard behind, might be attributable to such a condition.

Those cases in which a positive murmur is heard in front over the apex or mitral indirect area, transmitted to the left, and heard with equal intensity behind, near the seventh dorsal vertebra, or between it and the inferior angle of the left scapula, and where the necropsy reveals no organic lesion in the segments of the bicuspid valve, and no dilatation of the left ventricle, but in which the gross appearances of the valve and of the heart itself are normal, deserve special attention.

If we stop for a moment and consider the anatomico-physiological mechanism of the heart the explanation is easy. As is well known the ventricular wall is composed of seven distinct layers of muscle-fibres, or for simplicity they may be considered as four. We have, connected with these layers, two sets of papillary muscles, one springing from the anterior, and the other from the posterior wall of the ventricle, to which the bicuspid segments are guyed by the chordæ tendineæ. When everything works in unison the two segments of the valve float toward the auricular cavity, and their margins are brought together at a given point, and held there by the equal and synchronous contraction of the two sets of papillary muscles and the tension of their chordæ tendineæ. In this way the auriculo-ventricular orifice is perfectly closed and regurgitation absolutely prevented.

If for any reason the innervation of the heart is unequally distributed to the different layers of muscles, or the muscular layers become unequally nourished, their unity of contraction is disturbed, and instead of this perfection of action just described, one set or layer of muscles contracts more forcibly or more quickly than the other, and the papillary muscles shorten irregularly and unevenly. As a result, when the ventricle contracts, one segment or the other fails to stop at just the exact point to meet its opposite, but is forced on into the auricular cavity, while its opposing fellow-segment is drawn more completely into the ventricular cavity. Consequently, instead of a complete closure of the orifice, an actual gap or insufficiency occurs, just as perfectly as if a piece of the valve was wanting, a positive escape of blood from the ventricular to the auricular cavity takes place, which of necessity gives rise to all the physical signs of an organic insufficiency with regurgitation. The temporary results are the same as if there was a positive and irreparable defect. The rational signs also are the same in both instances.

Organic and functional insufficiency at this orifice can easily be differentiated during life, not by their rational or physical signs, however, but by an appropriate plan of treatment. If the cause of the former be a deficient innervation, by giving such remedies as will restore the nerve power the signs and symptoms will be found to quickly disappear, all regurgitation be prevented, and the patient freed from all the unpleasant symptoms. When due to deficient nutrition, with a lack of uneven, or an innervation and irregular muscular action, true cardiac stimulation will cause a like result.

If, on the other hand, the physical signs are due to positive defects in the valve, the same line of treatment will often decidedly improve the condition of the patient, but will not cause a disappearance of the physical signs. It may shorten the duration of the murmur, but the abnormal sound will be more intense and more easily and accurately recognized.

By a true cardiac stimulant is meant a remedy which prolongs and increases the force of the systolic act, and at the same time reduces the number of pulsations per minute and shortens the diastolic period. If, however, the heart is running very rapidly, slowing of its action will cause both the systolic and diastolic act to be lengthened, but the total diastolic pause will be shortened, and at the same time the inherent force of each contraction will be increased.

The medicinal agents which accomplish this result most effectually are opium and its alkaloids, ammonia and its salts, and alcohol, all of which have this tendency to prolong and increase the force of the systolic act and improve the effectiveness of the diastolic pause. At the same time they only contract the arterioles to a slight extent, which in turn permits the largest possible volume of blood to pass through the coronary arteries and cardiac capillaries in a given space of time, and in this way raises the nutrition of the organ to the highest degree attainable. To these may be added nux vomica and belladonna, or their alkaloids, on account of their stimulating effect upon the nervous mechanism of the heart.

Digitalis or its alkaloids is not a true cardiac stimulant in the physiological sense of the word, for it does not prolong the systolic act, nor is there sufficient proof yet advanced to sustain the theory that it increases the force of the systolic contraction. True it modifies the rapidity of the heart's action, which in all probability is due to the high arterial tension, which, in turn, necessarily calls for increased work on the part of the heart, and it slows down to try and overcome the increased resistance.

This high arterial tension and rapid circulatory current is what physiologists teach us retards nutrition, the very thing to be prevented if a compensatory hypertrophy or increased nutrition of the cardiac muscles is required.

The starvation of the heart by the high arterial tension, and the increased amount of work upon a deficient nutrition, appears to explain the true mechanism of the so-called accumulative action of the digitalis.

In mitral incompetency a little good would result from the shortened systolic act, but it is a question whether the good is not more than overbalanced by the decreased cardiac nutrition which is produced by this drug.

In lesions of the aortic orifice, and especially in aortic regurgitation, no one will question the inadvisability of digitalis.

Convallaria, like fox-glove, acts upon the heart indirectly through the vaso motor system, and its influence in relaxing the arterioles removes the pressure from the heart and apparently increases its force.

Whatever line of treatment is adopted, rest, abstinence from all excitement, and from alcohol, except in medicinal doses, should be the rule. The bitter tonics, and especially some iron preparation, should not be omitted.

102 East Thirty-first Street.

New Journals.—We have received the first number of *La Normandie Médicale*, a new bi-weekly medical journal published in Rouen, France. Its aim is to unite more closely the physicians of Normandy in a spirit of fellowship, and to advance their common interests, presenting them also with the opportunity to chronicle the cases of interest occurring in their daily practice. Another new periodical is the *Gazette de Gynécologie*, published monthly in Paris. In the second number the editor, Dr. P. Ménière, announces with pardonable pride that the success of his undertaking is already assured, and to judge from the contents of the first two numbers this success would seem not to be undeserved.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, December 5, 1885.

A NEW THEORY OF PYREXIA.

THE development and regulation of animal heat are among the most interesting of vital phenomena, and the perturbations of this process, as illustrated in fever and in the subnormal temperatures of the insane, are of the deepest import to the physician. While we do not yet know the intimate pathology of fever, our knowledge of its phenomena, of the conditions attending it, is vastly greater, and our conceptions of its nature much more clear and satisfactory than was the case even a decade ago. In fever there is relatively an increase in the production of heat, and an increase in its radiation. The amount of carbonic acid gas and of urea excreted is increased. This increase in heat has been thought to be due simply to an increase in the metabolism or disintegration of tissue, and some investigators have brought forward considerable evidence to show that such increase of chemical change is due to the nervous system letting go its hold on the metabolic process; that there is, in other words, paralysis of a certain inhibitory thermic centre. But it is not possible, according to some authorities, to explain the great production and loss of heat occurring in fever by the fact of an increased chemical activity.

Dr. W. M. Ord, in his presidential address before the London Medical Society, offers a further explanation, which is striking and ingenious. It is generally admitted that in the process of building up the complex tissues from the simpler food products there is a loss of heat, *i.e.*, it is rendered latent. This view is strengthened by certain experiments of Dr. Ord upon the growth of plants. In fever this constructive process is disturbed, heat is not locked up as it should be, but continues kinetic, and goes to join the heat produced by excessive tissue combustion. There is then in fever, through disturbed nervous influence, interference both in the constructive and destructive metabolic processes.

This theory is characterized by Dr. Broadbent as "one of those flashes of insight which at once lights up the whole subject, and needs no more proof than does a poem."

The theory would be much strengthened, in our opinion, if Dr. Ord could show that the increased amounts of urea and its allies excreted in fever came in disproportional amount from the food and "circulating albumin." For if there is excess of heat from deficiency in assimilation of food, evidence of this would appear in the excretions.

In this connection a letter from Dr. Charles A. Rayne to *The Lancet* is of interest: "One day last week, during an ascent of one of the lake mountains, nearly three thousand feet in height, I made the following observation. When half way up, and during the ascent of a very steep and rugged bit, I took my temperature in the mouth very carefully. It was 95.5°, though I was feeling very hot at the time, and respiration was largely increased. When nearing the top, and walking leisurely up a slighter incline, I again took it, and found it 97.5°. After resting at the top some time, and feeling chilly in a cold wind, it was 98.6°. These experiments are not new. I tried them some years ago with similar results, and I believe they were first made public in a letter from the pen of Dr. Tempest Anderson, published in *Nature* ten or fifteen years ago. Their bearing on the problem in question is evident. During the raising of the body to the height spoken of these experiments seem to me to point to the fact that there is largely increased constructive metabolism, probably in the muscular tissues, and a locking up of heat in consequence, resulting naturally in diminished temperature of the body as a whole. A similar explanation may not improbably explain the normal diurnal variation of temperature observed in health."

INIQUITOUS DECISIONS.

THE legal and medical professions are generally on very good terms with each other, in this country at least. But there are at times some most extraordinary and unjust decisions sent down from the bench upon us. One of the most glaring instances of this was the case of Dr. Bradley, in whose behalf the medical profession of England has shown so much sympathy and generous help.

Now we hear of a case in California quite as iniquitous, judging from the facts given in the *Pacific Medical and Surgical Journal.*

In April, 1884, Dr. Graves, of Petaluma, Cal., was called to see Mrs. Winters, the wife of a laborer whose family he had attended gratuitously for nearly sixteen years. He found that the woman, who was fifty-eight years of age, had fallen from a height and injured her ankle. The limb was very much swollen, so as to interfere with examination, but no crepitus could be elicited, neither was there any displacement or shortening; and, as the swelling continued, the limb was placed in position and wrapped loosely in cloths saturated with anodyne lotions. The patient, we are told, received every attention from Dr. Graves, but there was left finally some stiffening of the joint and a very slight inversion of the foot. No complaints were made until a new doctor arrived in the town, who told the patient that the limb had been badly treated, and advised her to sue for malpractice. "The case," continues the *Journal*, "was examined by ten of the chief surgeons in the State, including Drs. Lane, McLean, Morse, and Dennis, all of whom said that there might have been a sprain or an incomplete fracture of the external malleolus, but that the ends of the bone were in perfect apposition and never had been separated, and that the stiffening was probably due to inflammatory adhesions.

"Two other doctors, one of them being he who advised the suit, testified that there was shortening of the limb, and that the lower fragment of the tibia had been driven up and behind the fibula. One of these would-be surgeons, Dr. Wells, is nearly eighty years of age, and had not read a work upon surgery for thirty years; the other, Dr. Ivancovich, confessed that he had no special experience in surgery. Their incompetence may be judged from the way they measured the patient's limb *in court*. This was done by taking a carpenter's rigid rectangular rule, and measuring the limb as she maintained the upright position.

"The result was that in the opinion of nine jurymen the testimony of two unknown, inexperienced general practitioners outweighed that of ten specialists in surgery, all of whom are well known throughout the State, and some of whom possess a national reputation, so that a verdict was returned in favor of the plaintiff, awarding her $8,000 damages."

It appears to us, from the facts given, that this decision is so gross an outrage upon the profession, as well as so great a personal injustice and misfortune to Dr. Graves, that the physicians of California are in duty bound to help straighten out the matter. They should either get the decision reversed, or contribute to the needs of Dr. Graves.

THE ONE-IDEA SYSTEM IN THERAPEUTICS.

NOTHING is so striking in medicine as the occasional success of certain men of one therapeutical idea. Given a certain dietetic measure, or potent drug, or ingenious mechanical appliance, let its user apply it continuously, confidently, and with a certain reserve of mystery, and he will be almost sure soon to become overrun with patients.

The practising physician is continually running against these gentlemen, who are curing cases by methods which, when applied by himself, often fail. Who has not heard of meat and hot water, of prisms and tenotomy, of Clemen's solution and diabetes, of electrolysis and strictures, of Apostoli and his galvano-cautery, of spinal ice-bags and the ganglionic system.

It is one of the instructive though not very satisfactory features of the medical art, this success of these one-idea artists. We know that in many instances they not only draw great numbers of patients, but cure a good many of them. It is not safe, however, for any one to infer that he can go and do the same thing. We do not hear of the numerous therapeutical "cranks" who fail miserably with their hobbies. Besides, there is large room for the suspicion that these monotherapists are dishonest, and on the whole do more injury than good.

THE DANGERS OF SUBCUTANEOUS INJECTIONS OF ETHER.

THE practice of injecting ether under the skin in cases of collapse, in which prompt stimulation is demanded, is so common and, in the main, so satisfactory in its results, that we are apt to forget that serious consequences may ensue. Several cases of this nature have been collected by a recent writer in the *Gazette Médicale de Paris*, in which sensory or motor paralysis of a member was caused by the hypodermic injection of ether. And Barbier has related a case of perforating ulcer of the foot believed to be due to the same cause. The anæsthesia and paralysis were probably caused by the action of the ether, and not by injury with the needle, for Pirogoff has shown that ether exerts an injurious effect upon the nerve-structures, and further, paralysis has never, so far as we know, been caused by puncture of a nerve by the needle used in giving subcutaneous injections of solutions of morphine.

POST-MORTEM ALBUMINURIA.

IT has been found by MM. Vibert and Ogier, that the urine drawn from the bladder of a cadaver is almost invariably albuminous, even when there was no lesion discoverable in any part of the urogenital apparatus. It was noticed in their experiments, also, that the longer the time was since death had occurred, and the less urine there was in the bladder, the greater was the proportion of albumen contained in it. The source of the albumen in these cases was shown to be the mucous membrane of the bladder, for, when the bladder was removed from the cadaver, emptied of its contents and washed, and then filled with distilled water, this fluid was found in a short time to become markedly albuminous.

This is a point well worth bearing in mind in the examination of the bodies of those who have died suddenly. For the mere fact of there being albuminous urine in the bladder would be insufficient to base a diagnosis of renal disease upon, and should not be given great weight unless corroborative pathological changes were also found in the kidneys.

THE QUESTION OF OPERATION IN CARCINOMA OF THE BREAST.

IT is the opinion of most writers that carcinoma of the mammary gland is a condition that calls imperatively for operation, not only to relieve pain and free the patient from a disgusting sore after ulceration has occurred, but also to prolong life. As to the latter point, however, there is not perfect unanimity among authorities—rather less, indeed, than is generally supposed by those who have not studied closely the more recent literature of the subject. There are symptoms of a threatened reaction in the mind of the profession, and it is not beyond the range of possibilities that, not many years hence, operation in cancer of the breast will be as exceptional as non-interference is now.

In the article on Carcinoma in the "Reference Handbook of the Medical Sciences," edited by Dr. Buck, the author, Dr. Satterthwaite, says that the statistics in a small number of cases would indicate that life is prolonged by operation for an average of more than eleven months, an estimate which he regards as a low one; yet he states that in his cases the growth of the disease was more rapid after removal. Dr. Lemaître, in a short paper read before the Société de Médecine de la Haute-Vienne (*Journal d'Accouchements*, October 15, 1885), argued strongly against the advisability of an operation, and asserted that the subjects of mammary cancer lived longer when the policy of non-interference was followed than when the tumor was removed. Boyer says that the extirpation of a tumor of undoubted cancerous nature should never

be undertaken. Morris believes that the surgeon should consent to operate only upon the urgent solicitation of the patient, and after she has been told of the probable recurrence of the disease. Velpeau, who regards cancer as primarily a local affection, says that an operation is justifiable only at the very incipiency of the trouble. And, finally, Verneuil has expressed some doubts as to the advisability of amputation of the breast, having observed after operation many cases of pleurisy which he regarded as cancerous in their nature. Lemaître's plea is that, as long as the cancerous disease is allowed to concentrate itself in the breast, the internal organs are comparatively safe, but that removal of the mammary gland invites a metastasis to other more vital organs.

The question is one which has not yet resolved itself into an axiom, and the indications are that it is destined to be the subject of still further discussion before it can be regarded as settled.

A STRIKING INSTANCE OF MIND PROPHYLAXIS.

We have had this week one of the most striking experiments whereby has been proven not only the efficacy of the mind-cure, but what the mind, under favorable circumstances, is capable of as a means of prophylaxis. It is seldom that so perfect an exemplification of the utility of animals as a medium to gain correct pathological results is seen.

Two confectioners were placed on trial for selling candy made of decayed cocoa-nuts, and unfit to eat. Not to hale to justice men innocent of the serious offence alleged, Dr. Edson tried upon his horse a couple of the cakes. The animal was made frightfully sick. Upon this evidence the candy-makers were brought before a jury.

The judge, probably unaware of the recent discoveries of the influence of mind over disease, asked the plaintiffs if they would eat the candy, using this as a test of innocence. They were perfectly willing to do so, and ate the confection, when it was handed to them, with such apparent satisfaction, that the jury one and all felt that they must test it too. The tempting sweet did not make any of them sick, therefore the prisoners were acquitted, the argument, of course, being that that which would not make prisoners and jury, including the foreman, ill, could not be injurious to children, even though it made a horse sick. They left out of consideration, which sometimes happens with jurors, the influence of the mind. The horse, uninfluenced by external considerations, allowed his equine mind no play in the matter, therefore the candy acted as it would naturally be supposed to, were it of the nature the analysis showed it to be; while when eaten by the prisoners, the power of the mind was such that it inhibited the evil effects and psychologized the jury into eating it with childish gusto, and to believe that no ill-effects could possibly arise.

In this instance there is a novel and instructive exhibition of a new and most beneficent method of the mind-cure—that of mind prophylaxis. We forbear to enter into the legal aspect of the question, but one can see at a glance that it is very grave, and that it gives rise to a new complication in the already too tangled net of the law.

A NEW URINARY TEST.

There is often considerable difficulty in making a positive diagnosis in the early stages of typhoid fever. Malarial fevers, acute general tuberculosis, and other febrile conditions may resemble for a time the early stages of typhoid. For this reason the peculiar urinary reaction occurring in typhoid and typhus, to which attention was called by Dr. Dana at a recent meeting of the Practitioner's Society (see page 635), is of much interest. This test consists in adding to the urine an acidulated solution of sulfanilin acid. The mixture is then made alkaline by the addition of ammonia, and allowed to stand for twenty-four hours, when a greenish colored deposit of phosphates occurs. This reaction is scarcely ever seen in the urine of healthy or afebrile persons, and very rarely, indeed, in the urine of febrile cases, except those of typhus, typhoid fever, and measles. Consequently its appearance in the urine may have a strong and important confirmatory value in diagnosis.

Professor Ehrlich, to whom we are indebted for this test, believes also that it has a prognostic significance in certain cases of chronic phthisis and of pneumonia.

News of the Week.

Medical Mayors.—At the recent elections in England eleven cities elected medical men as mayors.

The International Sanitary Conference which was announced to be held in Rome in December will not reassemble. The *Opinione* says, in an inspired article, that "after the discussions of last summer, which demonstrated the deep divergences of opinion between the representatives of the various Powers, and the hopelessness of their coming to an agreement, the re-convocation of the Conference would be devoid of any practical aim."

An Indiscreet Doctor.—Dr. Haywood Smith, a well-known and highly esteemed London physician, was unwise and imprudent enough to allow himself to be inveigled into the Armstrong case by Mr. Stead. He chloroformed the girl, examined her, and certified to Mr. Stead that she was "pure." The English medical press naturally condemn his action, and the British Gynecological Society have accepted his resignation as Secretary, expressing their thanks, at the same time, for the distinguished services he has rendered to this Society, and affirming "their belief that in what he did in reference to the Armstrong case he was actuated by what he believed to be the highest motives, while committing a grave professional error."

Cocaine-poisoning from an Unusually Small Dose.—Dr. T. H. Burchard, of this city, sends us the following case: "A brief mention of the following case may serve to call the attention of the profession to the possible dangers incidental to the hypodermic injection of cocaine. I was recently called to remove a needle from the sole of the foot of a young man whose personal characteristics doubtless had much to do in precipitating a condition of things that were well-nigh fatal. He was a tall, 'white-livered' youth of twenty-two years, standing six feet two inches, and weighing one hundred and twenty-pounds. He was remarkably white—complexion,

eyes, hair, etc. To deaden sensibility, I injected beneath the skin, close to the needle, *ten drops* of a four-per-cent. solution hydrate of cocaine. In about four minutes my patient suddenly clutched his throat, exclaiming, 'I am dying,' and fell from his bed unconscious. Respiration ceased, his jaw dropped, his eyes rolled upward, and to all appearances he was dead. His heart was beating very faintly, although his radial pulse was imperceptible. Although startled at this unlooked-for state of affairs, I began artificial respiration at once, and injected, in the absence of anything better, several hypodermics of an aromatic smelling-salts that chanced to be in the room. Later I injected, in two doses, a twelfth of a grain of sulphate of atropia. In addition to a sinapism over the heart, hot bottles and alcoholics, etc., were employed. Fifteen minutes after the catastrophe his pulse was about forty-eight, very feeble; respirations seven to eight; pupils *contracted*. Unconsciousness continued about twenty minutes. Afterward he convalesced nicely. Inferences from the above are obvious."

The Law and Professional Evidence.—A daily paper announces that Dr. J. A. Milne, of Oswego, N. Y., was on November 25th fined $250, with the alternative of six months' imprisonment, for contempt of court in refusing to testify in a criminal case. Dr. Milne pleaded as a defence for his refusal that his testimony would involve the disclosure of professional secrets. The law in New York, as well as in Arkansas, California, Indiana, Michigan, Iowa, Missouri, Minnesota, Montana, Ohio, and Wisconsin, is, that communications between physicians and patients which may relate to the history of a transaction in which a wound has been received, or a particular disease communicated, whenever essential to the treatment of a patient's case, are privileged. In New York it is even expressly enacted that the physician shall not disclose any information which he may have acquired in attending any patient in a professional character, and which information was necessary to enable him to treat the patient.

Cholera in Spain.—The cholera is reported to have disappeared entirely from Spain. No new cases are reported since about November 1st. The secretary of the National Board of Health gives as the total result of the cholera epidemic in Spain, up to October 21st, 273,549 cases, and 101,346 deaths, being a mortality of thirty-seven+per cent. In Italy, up to October 19th, there had been 1,370 cases (mostly in Palermo), and 627 deaths, being a mortality of fifty per cent.

Results of the Continuation of Pasteur's Inoculations for Rabies.—The Paris correspondent of *The Lancet* writes that the young shepherd (Jupille) referred to as being still under observation, and upon whom M. Pasteur has since ceased his inoculations, has returned to his native village. His room is now occupied by another lad of fourteen, who is said to have been bitten by a mad dog at Bordeaux. Two other children, also bitten by a mad dog, have been forwarded to Paris by the Mayor of Roubaix, to be subjected to M. Pasteur's treatment for hydrophobia. The persevering and zealous experimenter will soon have his hands full, and the confidence in his remedy is such that people come from great distances to consult him, without even taking the trouble to find out whether the dogs that bit them were really rabid or not; so that M. Pasteur will, under the circumstances, have some difficulty in selecting his cases. Owing to the favorable results obtained by M. Pasteur, it is proposed to organize a special staff in different localities for the carrying out of his method, and that all medical men should be instructed as to the manner of its employment.

The Power of Health Boards in the Matter of Vaccination in the Schools.—There has been some controversy at Lockport, N. Y., between the Board of Health and the Board of Education, in the matter of the vaccination of school-children. The Board of Health has, as we learn, insisted on the revaccination of school-children who have not been vaccinated for five years. The Board of Education has claimed that the law only compels school-children to be vaccinated once, and does not confer authority upon local health boards to interfere with attendance at school of children not revaccinated. The State Superintendent, Mr. Ruggles, has decided that the Board of Education is right in its position by virtue of the law of 1860, which, he thinks, was not repealed by the law of 1885, conferring power on the local Health Boards.

The Dangers of the Cocaine Habit.—Our caution with regard to the dangers of the cocaine habit has received an early illustration. It is announced that Dr. Charles D. Bradley, a Chicago physician, has become insane from the excessive use of this drug and that of morphine. It is stated that he became a slave to the drug, and made the most absurd claims about its powers. He declared that he was going to revolutionize medicine generally, and become the world's benefactor. In pursuit of his wild imaginings he mortgaged all his property, and his sick wife and invalid children are in absolute poverty. While before the judge he acted in a most eccentric way, calling on God to convince the judge and physicians that his theory was right. Dr. Wadsworth and Dr. Brower, who attended him, testified that they believed him insane from the use of cocaine and morphine, and thought he should be confined in an institution.

The Annual Meeting of the National Conference of State Boards of Health will be held in Washington at the same time that the American Public Health Association meets there, December 8th to 11th.

Virchow on the International Medical Congress.—At the anniversary meeting of the Berlin Medical Society, to which we made reference last week, Professor Virchow, in his address, said: "The larger we grow the more influential will this Society become, so that, at least for Berlin, it will prove that it is representative. We do not desire to be recognized as the representatives of all Germany, we do not wish to go beyond our own locality, but we desire to set an example, and to furnish strong testimony of that which we represent in our own proceedings. Of what may result when these aims are lost sight of we have at this moment a mournful example in America. You know your delegates to the International Medical Congress, held last year at Copenhagen, were instructed to invite the Congress to hold its next session at Berlin. We were outvoted, I am sorry to say, by the

co-operation of our German colleagues. The Congress decided to go to America. What is the result? A situation which at this moment makes it extremely dubious whether an International Congress in America is possible. While the individual societies of that country, to some extent like ours, consider science their shield and their defence, and have endeavored to create an organization in which the eminent representatives of American medicine shall also appear as the representatives of the coming Congress, the American Medical Association, a vast society of practising physicians, extending throughout the land, usurps the control of the organization of the next session of the Congress, and creates such confusion that, I am informed, verbally and by letter, no one at present is able to see his way out of the difficulty. Now, how did this dilemma originate? In the fact that the American Medical Association has set up a Code of Ethics, so called, and that with this code of professional ethics the admission to the Association is so broadly extended that entrance is free to all manner of dubious individuals. Hence has it resulted that, instead of eminence, mediocrity has come to the front, and that this Association, where the code is concerned, concerns itself more with forms than with principles. May I not then say that we are proud of our organization, by virtue of the care which we exercise in electing new members, and that we have, in this way especially, guarded against the necessity of forming a code of ethics, which every upright physician should in fact carry in his own bosom, and if he transgresses it he should be restrained both by the example and admonition of his colleagues? This has been our conviction, thus have we regarded the Association, so do we regard the great associations of physicians. With us, no necessity has been found to establish special codes or protective measures to secure us against the actions of dishonorable associates."

Typhoid Fever in Brooklyn has been unusually prevalent this fall. As regards the cause, a correspondent of *The Times* writes: "If you want a solution of the question why typhoid fever is so prevalent in Brooklyn, examine the drinking-water. Six years ago the city had clear water; no heavy rains then affected its cleanliness. Now, after every storm, the water is brown with dirt." He suggests that this indicates excessive surface drainage, which may cause and spread disease. He also directs attention to the graveyards that "surround the source of our water-supply."

Death of an old Physician.—Dr. Ephraim Clark, one of the oldest residents of Richmond County, N. Y., died November 20th, at the age of eighty-nine. For the past thirty years he was the County Physician, and a leader in the Democratic party, in Richmond County. He was the oldest practitioner on Staten Island, and was one of the physicians who attended Aaron Burr when he died.

An Expense Account Not Allowed.—A protest appears in one of the daily papers against the decision of the Treasury Department in the case of Dr. J. S. Billings. This officer was ordered by the Surgeon-General to visit the International Medical Congress in Copenhagen last year. The order was obeyed with a becoming disregard of personal convenience and with due concern for financial expenditure. Now the Treasury Department refuses to allow the bill for expenses.

Social Purity.—An association has been formed in this city which has for one of its objects "maintenance of the law of purity as equally binding upon men and women." One of the speakers at a recent meeting said that it was a matter of record that this State has expended more than $1,300,000 in supporting four generations of the descendants of one prostitute.

A New Disease of Editors in Kentucky.—Our invaluable contemporary, *The Medical Herald*, thinks that we are suffering from "cerebral ramblissment," and wishes us to "acknowledge our wrongs and enter the ranks of the American Medical Association." We would cheerfully concede the "ramblissment" if we knew what it was, for we should expect to be quite proud of having what is evidently a Kentucky disease. As for our "wrongs," we shall not acknowledge them on any account, considering it unmanly; but we are much obliged to the *Herald* for allowing their existence, and in return we wish to ask if it really thinks it is doing itself wrong to advocate the Old Code on one page and advertise the *British Journal of Homœopathy* on the next. Alas for *fames auri!*

The Practical Introduction of Nitrous Oxide and Oxygen as an Anæsthetic in Labor.—Some months ago Professor Zweifel, of Erlangen, erected the necessary apparatus for the supply of the mixed gases (nitrous oxide 80 and oxygen 20) to the accouchement ward of his obstetric clinic. He found it best to administer the gases continuously during the latter part of labor, when the pains were most severe—not, as was practised by Klikovich, merely giving the gases when signs of an approaching pain appeared. Though this treatment has been adopted in sixty cases, no retardation of the process was ever observed. The patients were generally semi-conscious; so that, though they would answer if asked a question, they felt no pain, and were unaware when the child was born. In one case, where the woman screamed as a stitch was put in the perineum, she afterward declared she had felt nothing. We see no special advantage in the use of these gases over chloroform.

The Academy of Medicine of Lima.—The opening session of the Academia Libre de Medicina was held in Lima, Peru, on July 29, 1885. In his inaugural address the president, Dr. Odriozola, sketched briefly the history of the formation of the society, recounting the labors, often apparently hopeless, of those who had toiled for eight months to accomplish this work, and congratulating them and the profession of Peru that at last their efforts had been crowned with success. The Academy opens with five sections—on medicine, surgery, biological science, public medicine, and natural and physical science.

Pensions to Physicians' Families.—The authorities of Saragossa have voted to grant an annual pension of 1,500 pesetas (about $300) to the family of every physician who died of cholera while in the discharge of his professional duties; and the hope is expressed that the officials of other cities and provinces will imitate their example.

Reports of Societies.

PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, November 6, 1885.

BEVERLEY ROBINSON, M.D., PRESIDENT, IN THE CHAIR.

DR. C. L. DANA described

A NEW URINARY REACTION AND TEST,

first suggested by Professor Ehrlich, of Berlin, as of value in the diagnosis and prognosis of certain febrile diseases

In 1882 Professor Ehrlich (in *Zeitschrift für klinische Medicin*, 1882; *Charité Annalen*, 1883) published his experiments with the diazor-compounds, as tests for aromatic bodies in the urine. When aniline (C_6H_7N), which is a nitrogenous body resembling an alkaloid, is mixed with nitrous acid, a series of peculiar bodies result known as the "diazor-compounds." These compounds have the property of uniting with a large series of bodies, chiefly of the aromatic group, forming colored compounds. Ehrlich prepared a saturated solution of sulfaniein acid in an acidulated solution of water. To this he added a little nitrous acid. The result was the production of a mixture containing diazor-compounds.

This mixture is added to the urine and the whole neutralized with ammonia, causing certain peculiar color reactions, which are, as Ehrlich believes, of value in the diagnosis and prognosis of certain febrile diseases.

Over two years ago I obtained some of the sulfaniein acid through Mr. Wm. Metenheimer, druggist, Sixth Avenue and Forty-fifth Street, and have been making use of the test ever since. I have tried it over one hundred times in all forms of disease. Through the kindness of Dr. Kinnicutt, and of Dr. Sherwin, late house-physician at St. Luke's Hospital, I obtained trials of it in a number of cases there. Through the house-physician of the Nursery and Child's Hospital, and through several of the visiting physicians of the Northeastern Dispensary, I obtained specimens for which I must express my acknowledgments.

At first my results were quite negative, and I wrote to Professor Ehrlich asking for explicit directions. He kindly answered me, sending on his own formulæ, which I have since used. Further errors were made, from the fact that the solutions soon spoil. I believe, however, that I have finally obtained enough facts to enable me to speak definitely about the test, and I present it to the Society as one that is of much interest, and, I believe, of considerable practical value to the physician.

The character of the test is indicated by the following summary of the diseases in which the reaction appears: (1) Never in the urine of the healthy; (2) never in the urine of the afebrile, except in rare instances of progressive heart-failure, chronic hepatitis, carcinoma, leukæmia, malarial cachexia, senile marasmus, cold abscess; (3) very rarely, indeed, it appears in rheumatism, meningitis, erysipelas; oftener, but still very rarely, in bad cases of pneumonia, scarlatina, diphtheria; (4) almost constantly in measles, typhus, typhoid, and very often in rapidly progressing phthisis.

The test, therefore, is of especial value in diagnosticating typhus or typhoid from malarial, tubercular, or syphilitic fevers, or in recognizing the appearance of a relapse of typhoid, in diagnosticating measles from rotheln or other eruptive fevers.

Various criticisms have been made upon this test. Most of these are favorable, but some are not. This contrariety I can readily understand, since the test requires one to have fresh and pure materials, and fresh specimens of urine.

Ehrlich repeated his tests about seven thousand times, as he states.

Fischer, of Berlin ("Dissertation," Berlin, 1883), repeated the test. He found in forty-eight cases of pneumonia that the reaction was present only nine times. In these cases there was some complication, and he concludes that the presence of the red coloring is a bad omen. He found the reaction in the eight cases of measles and three of typhus which he examined.

Brecht, of Berlin ("Dissertation," Berlin, 1883), applied the test in a large number of cases of diseases of various kinds, and his results confirm those of Ehrlich and Fischer.

J. Georgiewsky, of St. Petersburg (*Deutsche Medicinische Wochenschrift*, No. 48, 1883), applied the test in fifty healthy cases with no result. He also tested in a large number of cases of various forms of afebrile disease, and obtained the reaction only once, in a case of bronchitis and emphysema with slight fever. He found the reaction in all cases in typhoid fever, in one complicated case of pneumonia, and one fatal case of pneumonia with gangrene. He tested it in one hundred cases of phthisis, and found that there was some relation between the progress of the disease and the presence of the red reaction, as Ehrlich claimed.

F. Penzoldt, of Erlangen (*Berlin. klinische Woch.*, 1883, No. 14), denies the value of the test, as a result of one hundred and thirty trials. To a statement by Ehrlich that he did not use the test correctly, Penzoldt has replied (*Berlin. klin. Woch.*, 1883, No. 49).

Escherich, of Wurzburg (*Deutsch. Med. Wochenschr.*, 1883, No. 45), has repeated Ehrlich's experiments, and confirms his results.

The subject was discussed before the Berlin Society of Internal Medicine, June 16, 1884, the views expressed being generally antagonistic to those of Ehrlich.

Finally, Ehrlich reiterates his views, and presents his latest conclusions in the *Deutsch. Med. Woch.*, 1884, No. 27.

The method of applying the test is as follows:

Three solutions are made.

SOLUTION A.

℞. Aquæ	100.
Acid. muriat. conc.	5.
Sulfanilin acid,[1] q. s. ad saturation.	
M. Sig.—Sol. A.	

SOLUTION B.

℞. Sodii nitrit	0.1
Aquæ	20.0
M. Sig.—Sol. B.	

SOLUTION C.

℞. Sol. A	50.
Sol. B	1.2
M. Sig.—Mixture for use.	

Solutions A and B keep for some time in cold weather; solution C, or the mixture, does not keep well, and should be made fresh every time it is to be used. It is safer, I find, to have solutions A and B fresh also. The nitrite solution at least appears to decompose very quickly.

To make the test, take a test-tube one-third full of the suspected urine, add an equal amount of the mixture C. This causes a slight yellow discoloration. Then add a little stronger aqua ammonia sufficient to alkalinize the solution (℥ j.–℥ ij.). This causes in normal and afebrile urine a beautiful reddish color, in which, after standing twenty four hours a deposit (of phosphates) is seen which is of a natural light-gray color.

If *the urine presents the diazor-benzol* reaction as in the class of cases indicated, then, after adding the mixture C, the color is a darker one having a purplish tinge. After standing twenty-four hours, there is a deposit of phosphates *colored a dark olive-green*. This colored deposit I have only seen in typhoid fever, measles, and once in a badly complicated case of pneumonia. I have never found it in scarlatina, phthisis, or any afebrile urine. The presence of albumen or sugar does not affect the

[1] This can probably be obtained through Mr. Metenheimer, Sixth Avenue and Forty-fifth Street, New York City.

test. The test is a simple one, and can be applied in a very short time when the materials are at hand.

THE LOCAL TREATMENT OF CHRONIC DYSENTERY.

The discussion was opened by DR. CHARLES S. WARD, who said: Briefly, as a text, I wish to bring more prominently before the Society the treatment of chronic dysentery, locally, as proposed by Dr. Maury, of Memphis. Starting with the clinical fact that such cases as we recognize as chronic dysentery are due to lesions which exhibit themselves predominantly in the lowest part of the large intestine, we are enabled to treat them efficiently, and for the most part effectually, by local applications.

The method, so well known and practised, consists in first thoroughly emptying the bowel by a saline, then anæsthetizing the patient, preferably by nitrous oxide gas, the patient being in the Sims position; the sphincter ani is thoroughly paralyzed after the manner of Metcalfe, a Sims speculum introduced, which, if properly used will allow a view of the entire rectum, exposing every point of ulceration, to which applications of nitric acid may freely be made by a rod with its end wrapped with cotton and dipped into the acid. It is essential that the acid be freely used, and any excess afterward neutralized by a solution of bicarbonate of soda brushed over the rectum before withdrawing the speculum. My uniform experience in a large number of cases leads me to expect that there will be no action of the bowel for twelve or fifteen, and even thirty-six hours after the application, and whereas it may be argued that applications to the rectum alone cannot possibly reach ulcerations which almost invariably exist above, I must answer that either the anæsthesia produced by the application allows time to heal them, or the relief following the subsidence of tenesmus permits the bowel above to regain, in some measure, and to maintain, a normal peristalsis, thus favoring a return to a healthy action and normal state of the bowel as a result.

My experience leads me to expect, during the exfoliation resulting from the caustic application, which occurs from the second to the fifth day, that there will be a number of actions of the bowel, which, however, will be more natural in character. At the end of ten days it may be necessary to repeat the application of the nitric acid. There are cases, not many, however, which require more applications. Of course, the diet should be rigidly a milk diet.

I have spoken only of nitric acid, for I believe it far excels all other applications; in my experience it is far superior to solutions of the argentic nitrate, being less painful and more efficient. Properly applied, no slough should result, rather an exfoliation, followed by a normal development of epithelium over the entire mucous membrane.

To sum up: Astringent and narcotic remedies by the mouth avail but little.

Proper cleansing of the rectal mucous membrane and direct applications to the entire rectal wall, as well as to the ulcerations, tends to rapid and permanent cure.

Opiates are of service for a few hours after the applications; they should be given by the mouth or hypodermatically, as the rectum after such applications fails to absorb.

DR. JAMES B. HUNTER said he had but little to add to what Dr. Ward had already said. He assisted in the first case in which Dr. Thomas made use of this method of treatment, and it was when Dr. Maury was present, probably eight or nine years ago. The patient had been suffering for several years, and the examination, after dilating the sphincter, showed numerous ulcers, which were touched with nitric acid. No other treatment was adopted and the patient was quickly cured. After that he assisted Dr. Thomas in treating several cases, and had also treated several cases of his own. He had regarded the method as applicable to those cases in which ulcers were within reach.

He had used nitrate of silver, but the effects were not so satisfactory, and it gave the patient a good deal of pain. After the use of nitric acid the pain had been, in the cases in which he had seen it applied, only very slight.

The ulcers, in the cases in which he had seen it used, had apparently been within three or four inches of the verge of the anus. There may have been ulcers high up, but they were chiefly confined to the lower part of the bowel.

DR. PEABODY said the method was important, but he thought it was one for treating ulcers of the rectum rather than chronic dysentery. It had been claimed that the application of caustics to the lower ulcers had a tendency to heal the upper ones. If that could be substantiated it would be a matter of very great interest.

DR. G. F. SHRADY said he was unable, in the first place, to see how it could be proved that ulcers existed higher up, when necessarily out of sight, and, in the second place, that they were cured. Neither of these possibilities could be demonstrated except by an autopsy.

DR. A. A. SMITH said the subject was one of special interest to him, because in the autumn of 1872 he spent two months with the late Dr. Lente at Cold Spring, where he had opportunity to test this method of treatment with the most marked success. Dr. Lente's plan was to dilate the sphincter, introduce the speculum, wash out the rectum, find every spot of ulceration and touch it with nitric acid, and immediately apply a strong solution of bicarbonate of soda. For that reason it was a matter of considerable interest to know the exact time when Dr. Maury began this method of treatment. It seemed to Dr. Smith a matter of a great deal of importance that the effect of the nitric acid should be neutralized very quickly, because of the liability to produce a condition which might be followed by stricture. The plan which he had followed had been to touch the ulcer with nitric acid, and then as quickly as possible to syringe upon the part a strong solution of an alkali, usually bicarbonate of soda.

DR. HUNTER said that when he first began to use this treatment he was very much afraid of the occurrence of stricture; but he had taken pains to inquire of the patients several years afterward, and had learned that no such result had followed.

DR. SMITH said that latterly he had applied the acid to only one or two ulcers at the same time.

DR. PEABODY said there was no question but that ulcers existed above ordinary reach—indeed, very high up—with chronic dysentery. It was also unquestionably true that the ulcers which produced the most marked symptoms were situated low down. Ulcers of the intestines as such, whether large or small, produced no symptoms, as extensive ulceration of the small intestine might occur without any symptoms whatever being produced by it. The same thing might be true of ulcers in the *upper part* of the large intestine, but with regard to ulcers in the *lower part* of the large intestine it did not hold good.

DR. W. M. POLK said that when Dr. Thomas published his pamphlet, giving an account of this method of treatment—which, by the way, was an old one—the observations had been made in those cases of chronic dysentery where the difficulty was located in the rectum, and could be reached, and for that class of cases he regarded it as the best method which could be adopted; but in the large proportion of cases the ulcers extended above, and could not be reached. The method of applying the acid was to dilate the sphincter, and introduce a Sims speculum.

In connection with this subject, he would make mention of the local application of cocaine, to which his attention had been directed by Dr. Joseph E. Winters, who had used a four per cent. solution in a case of acute dysentery occurring in a child, and with very satisfactory results. The application was made through a speculum, and in a case in which all other remedies for the relief of tenesmus had failed.

DR. KINNICUTT had used a four per cent. solution of

cocaine in one case of dysentery with moderate tenesmus, making applications with a camel's-hair brush just within the rectum; the relief of the pain was very great.

Dr. Hunter recalled a case in which he used the Paquelin cautery in the treatment of ulcers of the rectum, but the result was not at all satisfactory, and afterward he cured the same patient by the local application of nitric acid.

Dr. C. L. Dana directed attention to the internal use of naphthalin, which he had used in one case only, but with a good result. He began with five-grain doses, quickly increasing it to fifteen-grain doses. A single full dose of the remedy would disinfect the fæces for twenty-four hours, and he thought it possible it might prove to be of service in the treatment of chronic diarrhœa and dysentery.

Dr. Gibney had given bismuth in drachm doses every two hours for twelve hours, with permanent relief, in at least half a dozen cases which had resisted other treatment.

Dr. Smith suggested that naphthalin be combined with the bismuth in order to correct the intolerable odor following the use of the latter remedy.

Dr. Cleveland referred to three cases of chronic diarrhœa which got well under the use of castor-oil, a drachm night and morning, administered preferably in capsule. These cases had resisted other forms of treatment. The use of the oil was persisted in for several weeks. The effect was, for the first three or four days to make the passages more frequent, but afterward the passages were almost normal.

The President read statistics gathered for him by Dr. E. B. Dench, Jun. Asst. in St. Luke's Hospital. From 1875 to 1885, the total number of cases of diarrhœa and dysentery, treated by local applications of different kinds, was *twenty-five;* acute dysentery, *nine*—four cured, two temporarily improved, and three unimproved; chronic diarrhœa, *nine*—five cured, four unimproved, one dying of pulmonary disease, three cured by internal medication; chronic dysentery, *seven*—two cured, three improved, one temporarily improved (died of perforating ulcer), one improved (improved by internal medication).

The Society then adjourned.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN OBSTETRICS AND THE DISEASES OF CHILDREN.

Stated Meeting, November 25, 1885.

Alexander S. Hunter, M.D., Chairman.

Dr. Joseph E. Winters read a paper on diphtheria (see page 617).

DISCUSSION ON THE TREATMENT OF DIPHTHERIA.

Dr. W. H. Thomson was requested to open the discussion, and said he had been very much interested in the paper, as every practitioner must be who had seen much of this exceedingly formidable disease. As each speaker had but ten minutes in which to express his opinions, he would beg to differ from Dr. Winters in some points at the outset. The author might comfort himself, in not having convinced all of his auditors of the correctness of his views, with the fact that, regarding diphtheria and croup, there were scarcely two physicians who thought alike. First, he should differ from him *in toto* on the subject of the elimination of the poison of diphtheria. We should not expect, for example, that a field would eliminate wheat which was growing in its soil; we should expect, on the contrary, that it would give the wheat opportunity to grow. In any disease which is propagated in the following way, namely, by the introduction into the system of a small quantity of a morbific germ or agent, which is followed by a period of latency, during which time no one knows what is taking place; then by a period of development and reproduction corresponding to three great facts seen in nature, that is, germination, development, and reproduction; he could not see how in such a case the system was going to be liberated of the morbific agent by elimination through the skin, kidneys, or other excretory organs. The skin cannot be expected to eliminate the disease in the case of small-pox, for it is itself the seat of lesions occurring in the course of the disease; the kidneys cannot be expected to eliminate the poison of scarlet fever, as they themselves are often the soil in which the disease manifests itself; nor could he understand why we should expect in diphtheria, which is an analogous affection, being a communicable disease, to eliminate the poison by means of the skin, kidneys, or alimentary canal. Therefore, in starting out to select measures for counteracting this formidable complaint, he freed his brain completely of all thought of a medicine which would have the power to eliminate the diphtheritic poison. But what we might do, if we saw the case early enough, and thus have time, was to eliminate or prevent the occurrence of some of the secondary results of the diphtheritic process. While he did not think the bowels, the kidneys, or the skin carried off anything of the diphtheritic poison, he would freely admit that in febrile diseases generally, diphtheria included, a formidable complication consisted in the arrest of gland secretion in all parts of the body. Whenever fever occurred, it at once caused suspension of the secretions of the alimentary canal, and of the excretions in various parts of the body, and wherever arrest of the natural excretions took place for twenty-four or forty-eight hours, the patient must suffer more or less from this accumulation of poisons in the system. Now the germ of diphtheria—meaning by the term germ a seed which reproduced itself—found a better soil for development in blood which was poisoned by retained excretions. He therefore always administered at the beginning of febrile diseases, notably scarlet fever and typhoid fever, a medicine which would keep the bowels in their usual state of activity, and not more.

Regarding other indications in the treatment of diphtheria, the first was, as far as possible, to prevent the depressing effects of the specific poison. Here he uses the term specific poison advisedly, meaning thereby the poison generated by the growth of the diphtheritic material. That poison had the same relation to the diphtheritic material that the poison of septicæmia has to the bacteria which occasions pyæmia. The bacteria which causes pyæmia is a living thing, which reproduces itself, and can be introduced on the lancet and made to affect the system. Septicæmia, on the other hand, is due to a poison generated by this, and can be separated from it. So in diphtheria we have a poison generated in the local necrotic process of diphtheria, which is very dangerous, which is paralyzing to the nervous system, and particularly to the muscular tissue of the heart. He believed, therefore, in the use of antiseptics, among which the muriate tincture of iron takes a high rank, as do other preparations of iron. The muriate tincture is an antiseptic for two reasons: first, because it carries chlorine, and, second, because it brings oxygen into the system. The disinfectant properties of chlorine may be further obtained by the use of Labarraque's solution and generating chlorine gas in the room.

Another feature in the treatment was the use of alcohol, which should be administered at the time of feeding, usually with milk. To wash out the throat with a solution of chlorate of potash would give the child much relief by softening the exudation and increasing the secretion of mucus, enabling the child to expectorate easily.

The Chairman thought the amount of the tincture of iron which the author of the paper had used was very great, and he asked Dr. Thomson in what doses he would recommend its use.

Dr. Thomson replied that the doses which had been mentioned by Dr. Winters were larger than he had ever administered, and larger than he would have considered

safe, but the author of the paper had presented facts, and facts must outweigh opinion.

Dr. John C. Peters agreed in the main with Dr. Thomson, but he had always looked upon diphtheria as a local affection. The starting-point was in the throat, and if the blood became affected it was secondary, and arose from the progress of the affection in the throat. Consequently he had always been exceedingly careful, before allowing the child to eat or drink, to have the throat well syringed with chlorate of potash or water. He had thus seen the throat kept clean and free from offensive odors. If it were not kept clean there would be danger of secondary infection. He agreed with Dr. Thomson on the point of elimination of the poison. He also believed in the administration of a laxative at the beginning of the disease, for in almost all acute diseases the last meal was not thoroughly digested. He believed in the use of bichloride of mercury as a disinfectant. A small quantity might be used for washing out the throat, and for internal administration the powder should be placed upon the tongue, thus getting its full benefit. His main treatment was local, and he did not believe in pouring medicines down into the stomach with the hope of curing the throat affection. He was opposed to removing the membrane or applying any harsh measures to the throat. As to poultices, he would object to their use decidedly, for once begun they must be continued, thus rendering the throat tender, and doing more mischief than good. A flannel covered with oiled silk would protect the throat, and cause enough sweating. He believed with Dr. Winters in the disinfecting properties of sulphur, but he had greater faith in turpentine, which he had sprinkled on the floor and furniture, and caused the vapor to fill the rooms. He agreed with Dr. Winters also in the opinion that in the large majority of cases the disease did not involve the lungs. By simple and proper management a large proportion of the cases would not end fatally.

Dr. Fowler said that from what he had seen of croup and diphtheria he regarded them as distinct diseases. If the case were one of croup, there being no apparent implication of the fauces, his treatment was calomel, small doses frequently repeated, and alcohol.

As to throat symptoms in diphtheria, if they were extreme, he would always apply ice, from which he had obtained great satisfaction. Ice locally, muriated tincture of iron, in thirty-drop doses every half-hour, and plenty of alcohol, even to the extent of intoxication if there were great exhaustion, seemed to be required.

Dr. W. E. Forest said that one practising medicine in the lower part of the city was apt to see a good deal of diphtheria, and probably would try almost every mode of treatment. According to his experience, the only successful way to manage diphtheria was to treat it vigorously as a local disease. If the case were seen early, and vigorous local treatment adopted, the disease could almost certainly be controlled. The local treatment should be astringent, for the purpose of preventing the development and absorption of the germs of the disease, and in addition to that, supporting measures. If the general system has become thoroughly affected before the child is seen, recovery will depend, in the first place, upon the natural strength of the child to resist the influence of the poison, and, secondly, upon the amount of support which can be given by iron and brandy, and then upon what benefit local treatment will give.

Dr. J. Blake White believed croup and diphtheria were two distinct diseases, the first-named being at the beginning sthenic, the second asthenic, in character. He believed in the use of large doses of iron in diphtheria, and of large doses of calomel, say two doses of ten grains, in croup. A gargle of turpentine and milk, fifteen to thirty drops of the spirits of turpentine in half an ounce of milk, every half hour to two hours, was of benefit in diphtheria. Some good came from the use of antipyrine as a febrifuge. With regard to the question of elimination of the poison, he was inclined to agree with Dr. Winters.

Dr. Billington said his views on this question were generally known, but he wished to thank Dr. Winters for the thorough manner in which he condemned the abuse of mercury. In dealing with a formidable disease, it was a most important duty on the part of the physician not to make himself a source of danger to the patient. He agreed with Dr. Peters that the disease primarily was local; it mattered not where it began, whether in the throat or on the abraded skin, and from that local point the poison was absorbed and carried into the general circulation. It made a great difference usually in the plan of treatment which one was likely to adopt as to whether he regarded diphtheria as primarily a local or a constitutional affection. Looking upon it as he did, he thought the proper treatment was to attack it locally. Several years ago he advocated local syringing with simple salt and water, frequently repeated.

Dr. L. E. Holt had seen three cases the past year in which the disease had extended down the larynx and caused death from obstruction. With regard to local treatment, it was a very easy thing to order that the throat be swabbed frequently with an antiseptic solution, but it was quite a difficult thing to do. It had been stated this evening that if we did no good we should do no harm. Dr. Holt thought that here we would do actual harm because of the resistance offered to the treatment, and the ineffectual manner in which it would be carried out. He thought that in children under four years of age we must rely almost entirely upon constitutional treatment. As to treatment by bichloride of mercury, he had employed it, but had not seen any good effects from it whatever. To be sure, the cases in which he used it were severe ones, but if the remedy was to prove of any benefit it should stand the test in severe cases. Dr. Holt favored the tincture of chloride of iron in large doses, above all other remedies. If given frequently, it acted as an astringent and antiseptic. He had never seen it used in so large doses as had been mentioned by Dr. Winters. He also used alcohol in large doses, and adopted supporting measures from the beginning.

Dr. S. W. Smith agreed with the author in the view that diphtheria and croup were one disease. He gave illustrative cases. As to treatment, it was necessary, in order to test a given course of treatment thoroughly, to carry it out strictly in a number of cases. Believing that the disease was a local affection with a constitutional expression, Dr. Smith had employed the tincture of the chloride of iron and chlorate of potash alternately, and syringed the throat with salt and biborate of soda. In thirty cases so treated he had not seen any indication for the use of alcohol, antipyrine, or any so-called antipyretic. The diet had consisted of milk.

ARE DIPHTHERIA AND CROUP DISTINCT DISEASES?

Dr. Delafield was requested to open the discussion on the above question, and said: In attempting to discuss this question we are met at the outset with difficulty in determining exactly what is meant by croup and diphtheria. All are pretty well agreed that diphtheria is an infectious disease, but when it comes to croup, we find that the word is used in rather an arbitrary way. I think some of you must have noticed this in listening to the speakers this evening. Sometimes the term membranous croup is used as if it meant a distinct disease; at other times as if it meant simply a local inflammation, and these are two different things. If when we say membranous croup we simply mean that a child or grown person has an inflammation of the larynx of a certain anatomical type, as a croupous laryngitis, I think we must all admit that it is perfectly possible to have such a croupous laryngitis without any diphtheria at all.

In the first place, with regard to the lesion of diphtheria. Is there anything specific in it, or have we any reason to expect that there should be anything specific about it?

To both of these questions I should unhesitatingly answer, No. The lesion of diphtheria is nothing but an inflammation of a special anatomical type, and inflammations of exactly the same anatomical type can be excited in mucous membranes by a variety of means. There is nothing specific about it. It is simply that this special disease, diphtheria, is regularly accompanied by a characteristic local lesion, and we can excite an identical inflammation at will by experimental means. So I think we can say without question that diphtheria has a characteristic local lesion, but it has not a specific lesion. Still further than this, I do not see why we should expect that it would have a specific lesion. I think we should expect the same thing in diphtheria as we do in other infectious diseases. We know that in epidemic cerebro-spinal meningitis, and in meningitis from fracture of the skull, the inflammatory lesion is the same, although the cause of the meningitis is different in the two cases. It seems to me a matter of some importance when we think of lesions of the larynx that we should also think of lesions of other mucous membranes throughout the body. The mouth, the throat, the larynx, the trachea, the bronchi, the stomach, the small and large intestines, and the bladder, comprise the more important tracts of mucous membrane. What do we find with regard to each one of these? We find that they are specially liable to become the seat of catarrhal inflammation, and that they are comparatively rarely the seat of croupous inflammation; and yet they are all capable of being the seat of croupous inflammation as well as of catarrhal inflammation. But when we come to the mucous membrane of the colon we find that it is more liable than any other to take on croupous inflammation. It is, then, simply in accordance with our ordinary experience that while in New York the great majority of cases of croupous laryngitis belong to diphtheria, and simply represent the characteristic lesion of diphtheria, yet it seems to me equally certain that we may have a croupous laryngitis which has nothing to do with diphtheria at all. Of course, no one doubts such traumatic croupous laryngitis from inhalation of hot steam or smoke, or the swallowing of boiling water; but I think we should admit that it is possible to have croupous laryngitis from what we call exposure to cold or atmospheric influences; in all cases the lesion being the same, but due to a different cause.

Dr. W. H. Thomson thought that the descriptions given of membranous croup by Cullen, and other English and American authors, pointed very distinctly to a disease which was much more common up to about 1826 than it has been since, and which was quite different from diphtheria, of which we see so much at present. It seemed to him that there was no mistaking the description of the disease as given by those acute observers. The impression which he had received from reading their works was that croup was of common occurrence, while diphtheria formerly was a rare affection in New York, visiting the city perhaps at intervals of thirty or forty years, just as now we have here and there an epidemic of cerebro-spinal meningitis. These facts had an important bearing upon the question as to whether diphtheria and croup were distinct diseases. At present we saw croupous laryngitis very seldom except as associated with diphtheria, but formerly diphtheria was a rare complaint, while croup occurred relatively frequently, and independent of diphtheria. Dr. Thomson mentioned one fact in which his experience differed from that of the author of the paper. He had seen at least three cases in which there was nasal diphtheria without involvement of the larynx, and he was inclined to think that nasal diphtheria occurred more frequently than was generally supposed, but it might be overlooked.

Dr. Henry R. Baldwin, of New Jersey, by invitation, said that in the course of many years' practice he had frequently seen membranous croup without any exudation upon the fauces. Again there was, about 1840, an epidemic called putrid sore throat, in which there was swelling of the tonsils with rapid septicæmia and death, but there was no mention of any exudation taking place in the trachea or larynx. There was an epidemic of diphtheria in Plainfield about 1864, during which no lesion occurred in the trachea, and there was no thought of the disease being croup. His experience agreed with the view entertained by Dr. Thomson, that formerly diphtheria occurred rarely, while croup was of frequent occurrence.

Some facts which seemed to him to have a bearing on the duality of croup and diphtheria were the following: First, according to his experience, the edge of the wound after tracheotomy did not become the seat of exudation; second, that in diphtheritic inflammation the mucous membranes were prone to hemorrhage, while there was no such tendency in croup; third, that in membranous croup death took place not from toxæmia, save from want of oxidation in the blood, while in diphtheria the toxic effect of the disease was liable to prove fatal. One's view with regard to the question as to whether diphtheria and croup were distinct diseases, would also be likely to have an important bearing upon the treatment; those who supposed diphtheria to be a distinct disease of an asthenic nature would be likely to adopt a supporting treatment and employ alcohol, etc.

As to antiseptic treatment, he found benefit from a mixture of salicylic acid and glycerine, painted over the fauces.

Dr. Winters, in closing the discussion, said that Dr. Thomson, in comparing the elimination of the diphtheritic poison to the elimination of a mineral poison, as arsenic, went contrary to his teachings in the University Medical College, where he always made a distinction between the nature of poisons, according to whether they were mineral, a form of plant, or animal, etc.

Dr. Thomson explained that it was not his intention to make such a comparison between the action of the poison of diphtheria and a mineral poison. He had said that he would as soon expect a field to eliminate the wheat which grew upon it, as that the human system should eliminate a poison which was capable of reproducing itself, like that of diphtheria, scarlet fever, etc.

Dr. Winters replied that there was no analogy between the action of the poison of a specific disease in the human system, and the growth of wheat in a field, and no comparison could be made in the matter of elimination in the two cases; for, in the one, the process was one of growth, while in the other, it was one of decay. Now, in scarlet fever, the poison was evidently being eliminated with the excretions, as they were capable of conveying the disease to the unaffected. With regard to the large doses of the tincture of the chloride of iron, they were in the habit, at the dispensary, of giving half-drachm doses hourly, and frequently two-drachm doses hourly, and in some instances two drachms half hourly, and there were several gentlemen who had seen the cases who could testify to the remarkably good results of the treatment adopted.

With regard to croup having prevailed here in past years, according to his reading, the cases which had been described corresponded clearly to diphtheria, and did not at all go to show the duality of the diseases.

With regard to the remarks made by Dr. Delafield, Dr. Winters asked whether we could compare an inflammatory process, excited in a mucous membrane by a cold, and which might extend over months, but which never terminated in the formation of a pseudo-membrane, to what is commonly understood by a croupous laryngitis? Again, there was no case on record in which a membranous inflammation of the larynx, produced by the action of steam or chemical irritants, extended down the air-passages.

Dr. Delafield—I have a specimen now.

Dr. Winters said he had examined the records thoroughly and had not found any such case, and it is stated in one of the volumes of the *British Medical*

Journal that no such case is on record. Dr. Winters also replied to some other points raised in the discussion, but which had received attention in the paper.

The Section then adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

MEDICAL SOCIETY OF LONDON—DISCUSSION ON THE DEEP REFLEXES AND THEIR CLINICAL SIGNIFICANCE—THE OPERATIVE TREATMENT OF TOTAL SUPPRESSION OF URINE—THE DEAD-LOCK AT THE COLLEGE OF SURGEONS—SCARLATINAL ALBUMINURIA AND THE SO-CALLED PREALBUMINURIC STAGE—THE WORKING OF THE CONJOINT SCHEME—A NEW UNIVERSITY FOR LONDON—THE LATE DR. W. B. CARPENTER.

LONDON, November 7, 1885.

AN important discussion on the deep reflexes and their clinical significance took place recently at the Medical Society of London. The discussion was opened by Dr. Gowers, physician to University College Hospital, who is well known as an ardent inquirer in the domains of neurology.

It has been recognized that tension on a muscle is an essential condition for the production of the phenomena in question. Dr. Gowers believes that this tension stimulates the afferent nerve fibres, and that this stimulation so influences the centres in the cord as to induce in the muscular fibres a state of slight contraction, probably the same as the physiological "tonus." In this condition local mechanical stimulation causes a sudden brief contraction. A tap on the tendon causes a sudden increase of tension, and the latter is one form of mechanical stimulation. If increased tension be maintained, the muscle, when relaxing from the first contraction, is excited to another, and so a clonus occurs. The contraction is local. The irritability is reflex, and, as it is excited by tension, Dr. Gowers prefers to call it "myotatic irritability." The muscle-reflex centres, he thinks, overact from a loss of the normal control, probably exerted by structures in the gray matter of the cord at the same level. Dr. Gowers maintains that this hypothesis enables us to explain the condition of the deep reflexes in ether- and chloroform-narcosis, and after epileptic fits. Coming next to the practical application of these phenomena, Dr. Gowers spoke first of locomotor ataxia. He believes that most instances of the alleged absence of the knee-jerk in health have been due to imperfect observation, and that its absence is of great significance as an indication of impending ataxia. The presence of the knee-jerk, though, does not, he remarked, exclude true tabes. Diphtheritic paralysis is another condition in which it is absent, and Dr. Gowers quoted Bernhardt's observation, that the loss may follow diphtheria when there has been no paralysis. If incoördination be also present, an erroneous diagnosis of tabes may be formed. In pseudo-hypertrophic paralysis the knee-jerk is ultimately lost (probably, said Dr. Gowers, from the morbid process occupying the interstitial tissue in which the afferent nerves of muscle end), a symptom of great diagnostic importance, as it distinguishes the disease from slight congenital spastic paraplegia, in which latter affection the knee-jerk is always increased. The condition of the deep reflexes in hysterical paraplegia was discussed at some length. While not denying that a true uniform clonus, such as occurs in spastic paraplegia, may occur in hysterical paraplegia, Dr. Gowers is of opinion that it is so rare that it does not lessen the value of this sign of organic disease. He believes that some cases which have been cited as cases of hysterical paraplegia have really been cases of organic disease. We must not forget, he said, that true spastic paraplegia may be recovered from. The wide use of the term "functional disease" was then referred to. Dr. Gowers thinks that in many cases so described there is a change in the nutrition of the nerve elements, and this, springing perhaps from functional derangement, maintains and increases that derangement. "Functional diseases" he considers better described as "nutritional diseases." In cases of hysterical paraplegia in which there is a persistent change in myotatic irrita, bility, there must be a change in the nutrition of the cord, and Dr. Gowers remarked that a case recorded by Charcot seems clearly to prove that a paraplegia, purely hysterical at first, may pass on into lateral sclerosis.

Dr. Hughlings Jackson then spoke. He referred to his own hypothesis that increased knee-jerk and foot-clonus, in cases of hemiplegia from destructive cerebral lesion, were owing to loss of cerebral control. He seemed disposed to accept, in addition, Dr. Gowers' theory of local spinal inhibitory centres. The current hypothesis, said Dr. Jackson, will not account for increased knee-jerk and foot-clonus in some cases of post-epileptiform paralysis. Dr. Jackson said the condition of the deep reflexes after epileptic fits was a matter of serious import in the analysis of the wide symptomatology of epilepsy. Foot-clonus after epileptic fits was, he thought, an illustration of the principle of "loss of control" enunciated some years ago by the late Dr. Anstie.

Dr. Buzzard expressed his concurrence with Dr. Gowers in considering absence of the knee-jerk as being always pathological. Its apparent absence in many cases he considered explicable by imperfect methods of examination, and referred to some more exact methods of determination brought forward by himself and others. Absence of knee-jerk, occurring in the course of acute or subacute disease, may, he said, be due to anterior poliomyelitis, diffuse myelitis, neuritis, or spinal meningitis involving the anterior or posterior roots, or both. He had never known it lost as the result of hysteria. It was very commonly absent in the form of multiple neuritis which was apt to follow diphtheria. The knee-jerk was often lost for many hours in severe cases of cerebral hemorrhage, and perhaps also in thrombosis. Its loss pointed to the case being grave. The return of a lost knee-jerk in cases of poliomyelitis, diffuse myelitis, neuritis, and spinal meningitis was of favorable import. Dr. Buzzard said that the knee-reflex when lost in tabes dorsalis was not, in his experience, regained. Bouchard found it absent in nineteen out of sixty-six cases of diabetes mellitus, and Dr. Buzzard has found it absent in three cases of that disease. Excess of deep reflexes signifies that the inhibitory influence of the higher centres is no longer being normally excited. In Dr. Buzzard's experience, the greatest excess is to be found in cases of compressive lesion of the cord, as from Pott's disease. Caries of the lower dorsal vertebræ, however, would probably lead to total absence of knee-jerk from disorganization of the cord in the lumbar enlargement. Excess of reflex and ankle-clonus occurring in the course of spastic paraplegia of apparently protopathic origin was permanent, and the prognosis of such cases extremely bad. But if secondary to a localized lesion in the cord they might disappear, and the power of the limbs return. Ankle-clonus and, at the same time, total absence of knee-jerk in a limb often pointed to disseminated sclerosis. Dr. Buzzard said that, in his experience, the occurrence of true ankle-clonus, while always suggestive of organic disease, was not a proof of it. He had seen ankle-clonus (indistinguishable from that of lateral sclerosis) in many cases of hysterical paraplegia in which, on recovery, it disappeared. Exaggerated supinator reflex occurring a month or two after a hemiplegic seizure was, he remarked, of very bad prognosis as regards recovery of power; occurring in the course of epileptiform seizures, it had by no means the same importance.

Dr. Althaus referred to the frequency and importance of the absence of the light reflex in locomotor ataxia as an additional diagnostic feature of that affection, and de-

scribed two cases at some length. In these Dr. Althaus maintained that the pupillary symptoms showed that locomotor ataxia was not simply a disease of the posterior columns of the cord. He then went on to speak of the exaggeration of the deep reflexes in tetany. This consisted of a succession of attacks of tonic spasm or rigidity invading certain groups of muscles, especially the flexors of the hands and arms, followed by free intervals, and unaccompanied by loss of consciousness. The diagnosis of this affection was not always easy. In general, Trousseau's symptom (the production of spasm by compression of the limbs) was relied on, but a readier test was the behavior of the deep reflexes—more especially of the portio dura. A slight tap in the neighborhood of the stylo-mastoid foramen would cause all the facial muscles on that side to contract. Dr. Althaus said he distinguished three types of exaggerated reflexes, viz.: the cerebral, the spinal, and the muscular. In the cerebral type the response was quick and very extensive, so that the leg was thrown forward a considerable way. This type occurred in various lesions of the brain, particularly softening and tumor; also in some cases of epilepsy, and in most cases of hemiplegia from hemorrhage into the corpus striatum, or embolism of the middle cerebral artery. The spinal type was distinguished by an exceedingly quick and jerky motion of the leg, not nearly so extensive as in the cerebral type. Exaggerated reflexes of this type were seen in some forms of spastic spinal paralysis, of insular sclerosis, in certain combined system diseases of the spinal cord, and also in persons injured in railway accidents. Dr. Althaus remarked, in conclusion, that an excessive exaggeration of the deep reflexes in the palsied limbs in hemiplegia, with normal reflexes on the other side, pointed to a syphilitic origin of the affection.

The discussion then terminated, Dr. Angel Money's paper being taken as read, owing to the lateness of the hour.

A case of total suppression of urine has lately been successfully treated by operation at Guy's Hospital. The patient was a woman, from whom Mr. Clement Lucas successfully removed the right kidney about four months ago. The secreting structure of the organ removed was found to be totally destroyed by large calculi and hydronephrosis. After a complete recovery she was suddenly seized, about a fortnight ago, with pain in the region of the left kidney, which was quickly followed by suppression of urine, headache, and vomiting. She was brought to London, and again admitted into Guy's Hospital. After diuretics had been tried without benefit, the patient becoming more weak and drowsy, Mr. Lucas cut down on the kidney and removed a conical stone from its pelvis. A free flow of urine took place through the wound, the vomiting and drowsiness ceased, and by the last accounts the patient is doing well.

London, November 13, 1885.

The controversy between the Members and Fellows of the College of Surgeons and the Council of that institution has reached another stage. At the general meeting of Members and Fellows held on October 29th, resolutions in favor of reform and of the representation of Members were carried by a large majority. The Council have since (yesterday) held a meeting to consider these resolutions. As only one member was absent the meeting may be regarded as practically representing the whole body. The result of their deliberations may be summed up in two words — *non possumus*. They deliberately refuse what is asked from them. "It is not," they say, "desirable to diminish the privileges of the Fellowship of the College by depriving Fellows of the exclusive rights of electing to the Council," and they consider that it is "quite impracticable" to act upon the second resolution passed at the meeting of Fellows and Members, which was to the effect that no alteration in the constitution, by-laws, etc., of the College should be effected without the consent of the Fellows and Members convened to discuss the same. On these two points, be it observed, the Council were yesterday unanimous. It speaks badly for the good faith of those who were elected to the Council pledged to support the cause of reform, that they should now be as active in opposing it as those who were known as firm supporters of the *status quo*. Were the term of office of Members of the Council limited to three instead of eight years, probably some of these gentlemen would not proceed to eat their own words with such unblushing eagerness. There is, however, no probability of the matter being allowed to rest now. The Fellows and Members are not likely to accept the decision of the Council. Their case, too, is much stronger than it was, inasmuch as many of the Fellows are now disposed to make common cause with the Members. At the adjourned meeting of Fellows and Members, which is to take place next week, a further development of the controversy will probably take place.

At the last meeting of the Royal Medical and Chirurgical Society, Dr. Stevenson Thomson read an interesting paper on "Scarlatinal Albuminuria and the Pre-albuminuric Stage." Dr. Thomson had observed one hundred and eighty cases during a year, and tested 35,000 specimens of urine. As the result of his investigations, he accepts the view that nephritis is almost as essential a feature of scarlatina as the eruption or the sore throat. As regards the pre-albuminuric stage, his opinions differ somewhat from those which have hitherto prevailed, and which have been based chiefly on the investigations of the late Dr. Mahomed. Dr. Thomson has demonstrated the presence of albumen in this stage. In the subsequent discussion, one of the speakers objected to picric acid as a test, and also to potassio-mercuric iodide, both of which, he thought, might be misleading in their delicacy. Dr. Thomson, however, explained that he based his views mainly on the results given with heat and nitric acid in concentrated specimens of urine, and did not rely solely on the picric acid test. He had found both albumen and hæmoglobin in the pre-albuminuric stage, and had also found both of them in the post-albuminuric stage. He had also demonstrated the presence (in both stages) of blood-corpuscles and of casts. He considered the guiacum test a more delicate test for blood than the spectroscope, an expression of opinion in which Dr. Dickinson concurred.

Mr. Owen Fowler remarked that he had seen nearly 2,000 cases of scarlet fever at the London Fever Hospital. Dr. Dickinson considered cold to be an occasional cause of albuminuria, but at the London Fever Hospital they had more albuminuria in summer than in winter. He had found much albuminuria due to high temperature in the disease.

The new "Conjoint Scheme" has scarcely got into working order before there is a cry that it is impracticable. At the October examination it is reported that four-fifths of the candidates were rejected, and loud has been the outcry among the teachers in consequence. The new scheme will probably lead to what will virtually be a lengthening of the curriculum, viz., students will be required to pass the examination in science before commencing their medical course of four years.

The course taken by the two colleges, with reference to the "degree" question, points to the near establishment of a new university in London in close connection with the teachers in the various London colleges. The medical colleges will probably form its nucleus, and will probably give their active support to the promoters of the new Teaching University. The present London University has, in convocation assembled, deliberately refused to meddle with teaching, but to continue to be simply a State Examining Board.

I have to record the death (through an accident) of Dr. W. B. Carpenter, well known as a physiologist, both as a writer and investigator. He was perhaps equally

well known to a wider circle as the indefatigable Registrar, for twenty-two years, of the University of London. Dr. Carpenter took a deep interest in the working of the University, and any word he heard said against it he resented almost as if it were a personal offence. He was strongly opposed to the admission of women to degrees, and resigned his appointment as Registrar in the same year (1878) in which the new charter was granted to admit them. He subsequently, however, consented to serve on the Senate.

OUR PARIS LETTER.

(From our Special Correspondent.)

CONCERNING M. PASTEUR'S INOCULATIONS FOR HYDROPHOBIA—THE EFFECTS OF COLCHICIN—DEATH OF BAILLIÈRE, THE MEDICAL BOOK PUBLISHER.

PARIS, November 13, 1885.

THE debates on cholera have been quite eclipsed, and the so-called Ferranization has been thrown in the shade and greatly distanced, by M. Pasteur's inoculations for hydrophobia. You will have seen and heard, from the medical and lay press, of the discussions that have been going on on the latter subject, so that it will not be necessary for me to repeat them here. I may, however, observe that, notwithstanding the great enthusiasm that has been caused by this would-be discovery, I do not think that M. Pasteur's reputation will be thereby greatly enhanced. The intrepid experimenter seems to have had it much his own way both at the Academy of Sciences and at the Academy of Medicine, though at the latter M. Jules Guérin, the veteran member, questioned the significance of M. Pasteur's experiments and suggested that the pretended cures effected by M. Pasteur's method were no cure at all, as indeed there was nothing to cure, inasmuch as neither the animal that bit nor the subject that was bitten has ever proved to be rabid. At the last meeting of the Sanitary Congress, and in the Section of the Veterinary Surgeons of France, of which M. Pasteur was elected honorary president, the theories of the learned biologist were not received with much favor. The debate on hydrophobia was opened by M. Pasteur, but it cannot be said that much light was thrown on the subject. To begin with, the diagnosis of this terrible affection seems to have been rendered more obscure than ever, for no member present, not even excepting M. Pasteur, was able to furnish positive signs or symptons of the disease, whether in the living or dead subject, and M. Pasteur's response to a question on this point is worth noting. He stated that till now rabies could not be diagnosed with any scientific certainty in the dead or living animal, and that the fact alone of the presence of substances in the stomach of a dog other than those he had taken for his food, will not authorize one to conclude that he was mad. One single experiment would be decisive, and that is inoculation! This is certainly a sorry admission to make, and yet in the face of this uncertainty M. Pasteur goes on inoculating all subjects brought to him and reputed to have been bitten by a mad dog.

The inoculation consists in taking a fragment of the medulla oblongata or of the cerebral substance of an animal suspected to be rabid, and injecting this hypodermatically into another animal. If in the space of a few days the inoculated animal dies, this would be evident proof that the animal which furnished the product of inoculation was mad. It is not, added M. Pasteur, in the saliva, as is generally believed, that the rabid virus in its purity must be sought for, the saliva contains too many impurities for this. Moreover, it has been experimentally shown that rabies is developed not in the blood or lymph, but it is exclusively in the nervous system that the rabic virus is localized and concentrated; therefore the animal should not be killed prematurely, but allowed to die naturally, in order to make sure that the rabic virus had time to reach the spinal marrow and medulla oblongata, and there to localize itself. M. Pasteur concluded his discourse with the remark that it was not only because foreign substances were found in the stomach of the dog that bit the boy Meister—M. Pasteur's first human subject, and who it will be remembered was inoculated by him in July last—that the latter inferred the existence of rabies, but it was because the medulla oblongata of this dog, inoculated into other animals, transmitted the disease. In the present stage of our knowledge of this supposed cure for hydrophobia, I think it would be premature to practise these inoculations, particularly as it is known that, of a hundred persons bitten by dogs known to be really rabid, ninety have escaped the disease. Moreover, the stage of incubation is so variable, extending as it does from about a fortnight to several months and even years, it would be often difficult, if not impossible, to trace the connection between the time of infection and the outbreak of the symptoms. Under these circumstances it would be advisable not to trust to these anti-rabic inoculations, but to resort without delay to the time-honored remedy, the actual cautery, as again recently advocated by the Council of Hygiene of Paris.

The law of July, 1881, prescribes that all dogs even suspected of being mad shall be destroyed. One of the members present protested against this law as being too arbitrary, and went so far as to say that, if carried out, it might be compared to the massacre of the innocents (?) M. Nocard, a veterinarian of some note, as if to give some satisfaction to the scruples of the speaker, proposed to make over all edible animals—such as oxen, cows, sheep, &c.—that might have been bitten by a rabid dog to the butcher for sale, declaring that there is no danger whatever in handling or consuming meat contaminated by rabic virus. This proposition raised a storm among the audience by way of protesting against it, when one of the members, as soon as silence was restored, put the question as to who would dare to affirm that meat contaminated by rabies could be consumed without danger. At this question another member stepped forward and declared that such meat was absolutely inoffensive, and added that he spoke from personal experience, having eaten not only once but a hundred times, cooked or raw, of the flesh of rabid cows and farcinous horses. This caused a murmur of horror among the audience, and one of the members exclaimed that fortunately the public are protected by an article of law which formally interdicted the sale for consumption of the flesh of animals killed on account of some contamination or other.

The recent trial of a florist, accused on suspicion of having poisoned his wife with colchicin, but who was acquitted, as no positive proof could be brought against him, has induced experimenters to discover some means by which the presence of this alkaloid may be detected in the system. M. Laborde lately presented a note at the Société de Biologie on the physiological effects of colchicin that he observed in guinea-pigs, dogs, and rabbits. It is said that a dose of one centigramme determined a commencement of poisoning, characterized by nausea and vomiting. And yet it has been recorded that a patient had taken by mistake forty centigrammes of this alkaloid without having been poisoned, and without having felt any other inconvenience than a little diarrhœa, syncope, and headache. Another patient took as much as one gramme in a single dose, and only presented analogous symptoms. It is, however, worthy of remark that a gouty patient is relieved in his arthritic joints at about the fifth or sixth granule of one milligramme each, after slight vomiting and a little diarrhœa. There is a well-known patent medicine called "La Liqueur de Colchique de Laville," which is a popular remedy in this country for gout, and by the administration of which the same physiological and therapeutic effects have been noticed.

M. J. B. Baillière, the well-known medical bookseller in Paris, died on the 8th ult., in the eighty-ninth year of his age. From his age he was called the "doyen" of the medical booksellers of this country. He was a great favorite among the members of the profession, and although he became blind in the latter years of his life, he never quitted his business.

REPLY TO DR. DUGGAN.

To the Editor of The Medical Record.

Sir: Out of consideration for your readers and for my time I shall reply as briefly as possible to Dr. Duggan's remarkable communication, published in The Medical Record of September 12th. The facts are as stated in my letter of August 1st, and I leave the profession to judge of the value of Dr. Duggan's criticisms, and of the propriety of his publishing them under the circumstances mentioned.

Dr. Duggan says that he gave up work for the Committee on Disinfectants in January. It is true that at the end of January I informed him that the funds at my disposal would not permit me to continue to pay him for his services; but it is also true that he promised to make some additional experiments without compensation, and that I was in daily expectation that he would resume his experimental work for the committee up to the time that I decided to place the further testing of commercial disinfectants in the hands of Dr. Abbott.

In attempting to justify his action, Dr. Duggan says: "Perhaps my principal reason for not communicating directly with Dr. Sternberg was that I felt convinced that any criticism made in this way would not reach the profession. I know that this statement requires explanation, which I can only give by citing a past experience."

When the facts relating to this "past experience" are fairly considered, it will be seen that this attempt to impeach my scientific accuracy and honesty is simply ridiculous.

The criticism made by Dr. Bartholow, to which Dr. Duggan refers, arose from a misapprehension which was fully explained in my paper on potassium permanganate, published in the *Medical News* of January 10, 1885. This will be made apparent by the following quotation from this paper:

"Continuing to quote from Bartholow, we find the following:

"'We must acknowledge a certain sense of scepticism in examining these experiments of Dr. Sternberg, as able and well-considered as they unquestionably are. We find it difficult to understand why liquor zinci chloridi has no germicide action, whilst a two per cent. solution of the same is effective in the proportion of one part to fifty.'

"Dr. Bartholow's scepticism is well founded from his point of view, but it results from a misapprehension. I do not say that liquor zinci chloridi has no germicide action, but I record its failure to destroy the micrococcus used as a test-organism in the following experiments: Commencing at one per cent.—the time of exposure being, as in all of these experiments, two hours—and meeting with a failure, the following experiments were made, two per cent., four per cent., eight per cent. Meeting with a failure in every case, I proceeded to test the pure salt—zinc chloride. This failed in the proportion of 0.5 per cent. and of one per cent., but was successful in the proportion of two per cent. (Experiment in duplicate, see Table No. I.). In my Table No. II. this result is stated as follows:

"'Zinc chloride (two per cent.) one part in fifty.'

"The misapprehension has arisen from the fact that Professor Bartholow has taken this to mean that one part in fifty of a two per cent. solution is efficient, whereas it means that one part in fifty of the pure salt is efficient, and the two per cent. in parenthesis is simply introduced from the previous table as the equivalent of one part in fifty.

"According to the National Dispensatory, the liquor zinci chloridi should contain about fifty per cent. of the pure salt. If the specimen tested was of this strength, it should have been efficient in the proportion of four per cent., or 1:25; but it failed in two experiments in this proportion, and in one in the proportion of eight per cent. The biological test is sufficiently accurate to make it appear probable that this particular specimen did not come up to the standard."

My inference that *this particular specimen* was below the standard of strength is fully justified by a comparative test made at the same time, by the same method, and upon the same organism—a micrococcus—with a solution made from the pure salt. Dr. Duggan testing a different sample of the solution two years later, and upon different test organisms—the bacteria of putrefaction in broken-down beef-tea—and finding by chemical analysis that this sample contained fifty per cent. of zinc chloride, assumes that the sample tested by me in 1883 also contained the same amount, and has the presumption to say that having informed me of the fact he has "waited in vain" for me to "publicly correct" my error. This, as already stated, is simply ridiculous. I know nothing of the history of the sample tested by me which I found upon the shelves of the Post Hospital Dispensary at Fort Mason, Cal., and in recording my results in a table in my paper referred to, I had no intention of reflecting upon the fair fame of Dr. Squibb, whose label was upon the bottle. I simply recorded the results which I had obtained. In the same way I have recorded Dr. Duggan's results, in testing another sample, in the paper on commercial disinfectants. I do not doubt that Dr. Duggan's sample contained fifty per cent of zinc chloride, for he determined this by chemical analysis. I do not doubt that the sample examined by me contained less than fifty per cent. of zinc chloride, because in carefully conducted experiments I found that it failed to kill micrococci in eight per cent. solution, while the same organism was destroyed by a two per cent. solution of the pure salt.

Dr. Duggan's second specification is as preposterous as the first. In my letter of August 1st I make the statement that Dr. Duggan's experiments were made at the expense of the Committee on Disinfectants and by my method. This simple mention of my method leads Dr. Duggan to say that "Dr. Sternberg speaks of his method as though he had a proprietary right in it," and to suggest that I should "take out a patent." As a matter of fact I have frequently demonstrated my method of testing disinfectants to visitors to the laboratory in Dr Duggan's presence, and have published a full account of it in my paper already referred to (*American Journal of the Medical Sciences*, April, 1883).

Dr. Duggan further says: "If better proof is needed to show that he considers his method of the cultivation of bacteria private property, it lies in the fact that during this work he required a 'trusted assistant' to promise that if his services were asked for by a certain distinguished investigator he would not give them, as that gentleman was anxious to secure some one acquainted with his methods of work, and thus do work for which he (Dr. Sternberg) ought to have the credit."

This statement is based upon what Dr. Duggan overheard of a confidential conversation in the laboratory, in which I asked Dr. Abbott to promise not to leave me in less than a year, in case he had an offer which was more advantageous in a pecuniary point of view. This request was in no way based, as suggested by Duggan, upon a desire to prevent others from using my methods, but was founded simply upon my desire to retain the services of a gentleman who had proved himself especially apt at mastering technical details. As Dr. Abbott was receiving compensation for his services while still a beginner in bacteriological work, I thought it not unreasonable

to ask that he should give me, for a certain time, at the same compensation, the benefit of the technical skill he was acquiring in work carried on under my direction, and that he should agree not to leave me on short notice in case he was offered a more remunerative position in another laboratory.

This reasonable desire to retain the services of a skilled assistant induced me to ask Dr. Abbott to give me the promise referred to by Dr. Duggan, who happened to be in the laboratory at the time of my confidential conversation with Dr. Abbott.

Dr. Duggan's statement that one of the members of the Committee on Disinfectants intimated to him that a contribution to the funds of the committee by the firm of manufacturing chemists, in whose employ he was, would be acceptable, I believe to be without foundation. Certainly I never made such a suggestion to him or to any one else.

Dr. Duggan persists in misinterpreting the plain directions given in regard to the disinfection of privy vaults and says: "Any one having read the report of the committee will see that there is no intimation that mercuric chloride should be dissolved before it is placed in vaults; and, in fact, this looks very much like an after-thought on the part of the chairman of the committee." The members of the committee can all testify that this is not true, as any one who can understand plain English may see for himself in the following quotation from the preliminary report: "Disinfection may be accomplished either with corrosive sublimate, or with chloride of lime. The amount used must be proportioned to the amount of material to be disinfected.

"Use one pound of corrosive sublimate for every five hundred pounds—estimated—of fecal matter contained in the vault, or one pound of chloride of lime in every thirty pounds.

"Standard Solution No. 4, diluted with three parts of water, may be used. It should be applied—the diluted solution—in the proportion of one gallon to every four gallons—estimated—of the contents of the vault.

"If chloride of lime is to be used, one gallon of Standard Solution No. 1 will be required for every gallon—estimated—of the material to be disinfected.

"All exposed portions of the vault, and the woodwork above it, should be thoroughly washed down with the disinfecting solution."

As the final report of the Committee on Disinfectants is now ready for presentation at the next meeting of the American Public Health Association (in December), I must decline to give any more time to the discussion of the recommendations made in the preliminary report, which was made by special request of the Sanitary Council of the Mississippi Valley, in anticipation of a possible epidemic of cholera.

GEORGE M. STERNBERG,
Major and Surgeon, U.S.A.

BERLIN, October 27, 1885.

TINCTURE OF COBWEB.—Dr. W. G. Macdonald, of this city, sends us the following formula for the preparation of tincture of cobweb, as desired by a correspondent. "A bunch of spider-web collected from a dark cellar, about the size of a large walnut, is put in about four ounces of whiskey and allowed to macerate forty-eight hours, and then filtered. A teaspoonful is taken about four hours before the expected chill, and at hourly intervals, until four doses are taken, and then a dose before each meal and at bedtime, until all is taken." The web of a species of spider which inhabits dark places is supposed to possess the best medicinal properties.

A NEW PROTECTION FOR VACCINATION SCABS.—Bunion shields are said to be in great demand for the protection of vaccination scabs. Happily this novel use of the shield is calculated to afford relief to the dealer's pocket as well as the purchaser's arm.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from November 15, 1885, *to November* 28, 1885.

HEGER, ANTHONY, Major and Surgeon. Member of the Army Medical Examining Board now in session in New York City, is relieved from the additional duty of Attending Surgeon in that city, to take effect when Lieutenant-Colonel Joseph R. Smith, Surgeon, shall have arrived in New York and entered upon that duty. S. O. 267, A. G. O., November 19, 1885.

ELBERRY, F. W., Captain and Assistant Surgeon. Sick leave of absence further extended six months on surgeon's certificate of disability. S. O. 263, A. G. O., November 14, 1885.

STRONG, NORTON, Captain and Assistant Surgeon. Relieved from duty at Fort Union, N. M., and ordered for duty as Attending Surgeon, Headquarters District of New Mexico, and Post Surgeon, Fort Marcy, N. M. S. O. 171, Department of Missouri, November 16, 1885.

EWING, C. B., First Lieutenant and Assistant Surgeon. Now at Fort Leavenworth, Kan., ordered to proceed to Fort Reno, Ind. T., and report to Commanding Officer for temporary duty in the field. S. O. 170, Department of Missouri, November 13, 1885.

WINNE, C. K., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon, Benicia Barracks, and Attending Surgeon at Benicia Arsenal, Cal. S. O. 109, Department of California, November 20, 1885.

REED, WALTER, Captain and Assistant Surgeon. Granted leave of absence for one month, with permission to apply for one month extension, to take effect about December 1, 1885. S. O. 114, Department of the Platte, November 18, 1885.

TAYLOR, ARTHUR W., Captain and Assistant Surgeon. Granted leave of absence for one month, to take effect December 5, 1885. S. O. 116, Department of the Platte, November 20, 1885.

CHAPIN, A. R., First Lieutenant and Assistant Surgeon. Ordered for temporary duty at Fort Robinson, Neb. S. O. 115, Department of the Platte, November 18, 1885.

SIMONS, JAMES, Lieutenant-Colonel, U. S. A., retired, died November 11, 1885, at Baltimore, Md.

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 28, 1885.

DRENNAN, M. C., Surgeon. Ordered to Training Ship New Hampshire.

NICK, H. A., Surgeon. Detached from Training Ship New Hampshire and wait orders.

FITTS, H. H., Assistant Surgeon. Ordered to appear before Examining Board preliminary to promotion.

RUSH, C. W., Passed Assistant Surgeon. Granted sick leave for three months from November 20, 1885.

MARMION, R. A., Surgeon. Detached from Marine Barracks, Washington, D. C., December 7th, and wait orders.

MOORE, A. M., Surgeon. Ordered to Marine Barracks, Washington, D. C., December 7, 1885.

THE FIRST CONGRESS OF SWEDISH PHYSICIANS was held in Jönköping on September 3, 4, and 5, 1885. Among the subjects discussed were the best means of preventing the introduction of epidemics into cities and rural districts, and the treatment of diphtheria by cyanide of mercury. Among the papers read were one by Dr. Westermark on Salpingitis, by Dr. Ivar Svensson on the Radical Operation for Hernia, by Dr. Warfuinge on Antipyresis, and by Dr. Sven Bayer on Bacteriological Studies in Relation to Cholera.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 24 NEW YORK, DECEMBER 12, 1885 Whole No. 788

Original Articles.

A SUCCESSFUL CASE OF NEPHRECTOMY FOR CALCULOUS PYELITIS.[1]

BY FRANCIS J. SHEPHERD, M.D.,

PROFESSOR OF ANATOMY IN M'GILL UNIVERSITY, SURGEON TO THE MONTREAL GENERAL HOSPITAL.

EXTIRPATION of the kidney, though now an operation of comparative frequency, is of such recent origin that surgeons are not yet agreed, either as to the cases in which it is justifiable or as to the proper method of its performance. Most of the advocates of the abdominal operation are specialists in abdominal surgery, while the verdict of the general surgeons is largely in favor of the lumbar operation. As, in the large majority of cases, the surgeon is unable to say till the kidney is reached, whether nephrotomy or nephrectomy should be performed, and even abdominal surgeons admit that the lumbar incision is the most suitable for nephrotomy, it seems to me that this reason alone should strongly influence us as to the choice of operation. The lumbar operation is, without doubt, the safest operation in the hands of surgeons who are not specialists in abdominal surgery, notwithstanding all that is now said about the "traditional fear" of opening the peritoneal cavity, being a ghost of the dark ages of surgery which has been effectually slain.

Extirpation of the kidney for calculous pyelitis has been a particularly fatal operation, especially when undertaken in advanced cases of the disease. The mortality has been so great that it has been advised by many that a preliminary nephrotomy should, in all cases, be performed; others, again, strongly recommend drainage of the kidney alone, in cases where the organ is in an advanced stage of suppuration, and when it is surrounded by such an amount of cicatricial tissue as would render its removal a hazardous procedure.

The following case of nephrectomy for advanced calculous disease is, I trust, not without interest, and adds one more case to the list from which the rules governing renal surgery will, in the future, be formulated.

I am indebted to Dr. Gustin, my house-surgeon, for the history of the case.

Eliza T——, aged twenty-four, married, was admitted into the General Hospital under Dr. Wilkins, on August 10, 1885, suffering from a painful swelling in the left side of the abdomen. Family history throws no light on the case; no consumption. Has had two children and one miscarriage. She recovered rapidly from her first confinement, but convalescence was tedious after the second. Up to two years ago was always a very healthy woman. She dates the commencement of her illness from nine months ago, when she began to lose flesh and to suffer pain in the left lumbar region, pain occasionally reached as far as the thigh. She attributed these pains to the pressure of the pregnant uterus. She first noticed a "lump" in the left side of her abdomen two years ago, after the birth of the first child; it was movable, tender on pressure, but not painful. It gradually increased in size, and became painful. Five months ago she noticed that her urine was milky, and that if it stood for a short time a considerable deposit appeared. Occasionally the urine would be quite clear for two or three days, and then there would be a large amount of deposit. She never had anything resembling blood in the urine, nor had she ever had any attack at all like renal colic; never had had any chills or sweatings.

On admission into hospital, the following note was made concerning her condition: "Patient extremely emaciated and anæmic, with an anxious expression of countenance; skin dry, of a sallow hue, and hangs loosely over the tissues; tongue red and flabby; bowels regular; no cough; lungs on examination are found perfectly healthy. Patient is very weak; has a pulse of 14c, and temperature, 101° F.

"Has painful and frequent micturition, and complains of pain in the lumbar region which shoots occasionally down as far as the thigh.

"*Abdomen.*—On examining the abdomen, the superficial veins are seen to be much enlarged on both sides, as if there were some deep-seated obstruction. A distinct fulness is seen in left lumbar and iliac regions. Palpation reveals a large tumor extending across to within an inch of the umbilicus, continuous with the splenic dulness above, and below reaching as far as the brim of the true pelvis. By bimanual palpation the tumor can be grasped between the hands and moved slightly. No fluctuation made out, but tumor feels very elastic, and on pressure it is very tender. Urine has a specific gravity of 1.020, is slightly acid, and after standing a few minutes deposits a large amount of pus. On microscopic examination no casts are found, but pus-globules and oxalate and phosphate crystals are seen in abundance."

In the last week of August, Dr. Wilkins transferred the patient to the surgical wards, where she came under my care. At that time her condition was somewhat improved, she had gained flesh, but was still greatly emaciated. Her pulse, however, was still rapid (140), and her temperature ranged from 99° to 101.5°. The tumor had not increased in size since her entrance.

The diagnosis of the case rested between tuberculous and calculous pyelitis. The history of the case pointed, however, rather to the latter affection, on account of the pain, occasional absence of pus in urine, and the absence of any phthisical history; on the other hand, there had never been any blood in the urine.

The condition of the patient not improving, the pulse remaining at 140, and the temperature sometimes running up as high as 103° at night, after consultation with my colleagues I decided to explore the left kidney through a lumbar incision, and to perform nephrotomy or nephrectomy, as would be determined by the condition of affairs found on reaching the kidney.

Operation.—On September 17, 1885, the patient having been etherized, the right kidney was first examined by palpation, and easily made out to be normal in size and apparently healthy. It was freely movable. The woman was now placed on her right side, in the colotomy position, with a pillow under her right loin. An incision was made, a little nearer the rib than the iliac crest, from the edge of the erector spinal muscle, downward and forward for nearly six inches. There was plenty of room between the last rib and crest of the ilium, the distance being somewhat greater than usual.

After dividing the various structures, the quadratus lumborum muscle was reached, and its most external fibres were divided transversely, so as to give more

[1] Read before the Montreal Medico-Chirurgical Society, October 23, 1885.

posteriorly. During the dissection there was pretty free venous hemorrhage, owing to the distended state of the veins.

The kidney tumor now came into view; it was distinctly fluctuating, and on aspirating it, stinking pus was drawn off; passing the hand around the kidney in the direction of the pelvis, a hard substance was felt, which by needle exploration was found to be a calculus. An incision was now made into the most prominent part of the tumor, and nearly a pint of very fetid pus evacuated. Through this incision the kidney was explored with the finger, and a large calculus was felt filling up the pelvis and calyces of the kidney and extending down into the ureter. The kidney was converted into a large sacculated pus-containing bag as large as a fœtal head, with numerous outlying cysts with thin walls. Seeing the extent of the disease and the impossibility of removing the calculus, I forthwith decided to remove the kidney. The incision already made was found too small to satisfactorily free the kidney from the surrounding structures, so it was enlarged by incisions at right angles to the original one, about its middle. In this way plenty of room was obtained, and the whole hand could be introduced for the purpose of freeing the kidney.

The upper end was freed without difficulty from the capsule and suprarenal body, which was left behind. The lower and posterior part was not so easily separated, as there were many adhesions—in fact almost a cicatricial condition of the surrounding structures. To give still more room many of the projecting cysts were punctured and the contained pus let out; in one of these cysts a stone, the size and shape of a marble, was found.

The posterior surface of the lower end of the tumor, which extended deep down in the iliac fossa, was the most troublesome part to clear, and some hemorrhage from the engorged veins occurred during the process. The peritoneum, however, escaped uninjured. The vessels entering the hilus were now tied with a strong carbolized silk ligature, which was cut short. The vessels were then divided, and the kidney delivered through the wound with ease. The ureter was also tied, cut, and brought out as near as possible to the edge of the wound. It was of normal size, except near the kidney, and was apparently healthy. After dividing a few bands of cellular tissue about the hilus, the kidney was removed.

During the freeing of the kidney there was considerable venous hemorrhage, and much oozing continued after the removal of the organ; several bleeding points were secured and tied with catgut, and the oozing arrested by sponge-pressure. The cavity left by the removal of the tumor was almost immediately filled up by the intestines, which pushed forward the peritoneum. The wound was now irrigated with bichloride 1 to 2,000, and then brought together with catgut sutures, dusted with iodoform, covered with a pad of sublimate jute, and over all a broad gauze bandage. A large drainage-tube, I omitted to mention, was inserted into the lower end of the wound.

The patient, although suffering considerably from shock, rallied well. She had a little vomiting, which was controlled by champagne, and, for the first four-and-twenty hours, she was fed per rectum by brandy and beef-tea enemata.

During the night after the operation there was considerable oozing, and the dressings had to be changed on the second day; at this dressing the drainage-tube was much shortened. About thirty ounces of urine was passed in the twenty-four hours following the operation; it contained some blood and a small amount of pus; after the third day neither blood nor pus were found in the urine. Her pulse, which before the operation was 140, soon fell to 115, and the temperature after the first day never reached 100° F. The patient made an uninterrupted recovery, the wound healing by first intention everywhere except at the point of drainage. In two weeks she was sitting up, and in three wheeling herself about the ward in a chair. Her appetite was now enormous, and she rapidly gained flesh. By October 17th she was walking about, and looking quite healthy and strong. The daily amount of urine passed was from forty-five to fifty ounces, of a specific gravity of 1.020.

The calculus on examination proved to be composed chiefly of oxalates.

There are several points of interest in this case:

First.—The ease with which, in the patient's emaciated condition, the right kidney could be felt and recognized to be of normal size.

Second.—The large amount of room obtained by the crucial method of incision.

Third.—The satisfactory way in which, notwithstanding the advanced state of the disease and the number of adhesions, the kidney was removed without wounding the peritoneum or other important structure.

Fourth.—The rapidity with which the large cavity, caused by the removal of the tumor, was obliterated by the intestines pushing forward the peritoneum.

I feel certain that, in this case at least, the lumbar operation was the more suitable; had an attempt been made to remove the organ by abdominal section, it would have been impossible to avoid breaking the thin-walled cysts, and so allowing some of the fetid pus to get into the peritoneal cavity.

P. S., November 23d.—When last seen, a day or two ago, the patient was attending to her household duties, and feeling strong and well. There was still a sinus, large enough to admit a small probe, where the drainage-tube had been. There was very little discharge from the sinus.

MONTREAL, November 24, 1885.

OPERATION FOR CONGENITAL EXTROVERSION OF THE BLADDER OF AN INFANT FIVE DAYS OLD.

BY HAL C. WYMAN, M.D.,

SURGEON WEST END DISPENSARY, DETROIT, MICH.

IN November, 1884, I was summoned to see an infant, born of German parents, in this city. The child was four days old, and appeared in every respect healthy excepting a malformation of the genito-urinary tract. From the umbilicus down to the triangular ligament there was a want of development which caused an extroversion of the posterior wall of the bladder, showing the orifices of the ureters, also an absence of the dorsal portion of the penis from the crus to the glans. Through this large opening the posterior wall and base of the bladder with the prostate gland protruded, making a most unsightly deformity. The urine constantly dribbled away from the ureters, soiling the limbs and body of the child. The parents were unusually intelligent, and appreciated fully the nature of the deformity, and begged of me to make some effort to improve it. I decided to operate, and on the day following, the child being five days old, with the assistance of Drs. Chuney and Clark, of this city, the child was given chloroform and the mucous membrane removed in a strip one-half inch wide, running around the margin of the vesical wall, where it blended with the integument of the abdomen, excepting a small area which corresponded to the inferior wall of the urethra. Then an incision was made in each side through the integument and superficial fascia arising from Poupart's ligament, just forward of the anterior superior spine of the ilium, upward, a distance of two inches, for the purpose of securing sufficient relaxation of tissue to let the opposite pared surfaces come together and unite. The pared surfaces were then transfixed with three hare-lip pins, and a figure-of-eight ligature was passed about them, bringing the margins of the abdominal cleft in contact; additional sutures were passed between the pins

and on either side of them, securing perfect apposition of opposing surfaces. The line of union was now dusted with oxide of zinc and covered with absorbent cotton. The perpendicular incisions stretched out under the tension due to closure of the abdominal cleft, making wounds an inch in width. They were dressed with lint and cosmoline, no effort being made to close them. A small drainage-tube was left in the bladder and served to constantly drain away the urine, so that it did not come in contact with the wound. No effort was made to restore the dorsal portion of the penis or urethra, owing to the severe hemorrhage which resulted from the denudation of such a large amount of tissue as was involved in the bladder. Then the making of a useful urethra out of the redundant integument of the scrotum and penis would be a comparatively easy matter after the large abdominal cleft had been closed.

The amount of blood lost was all that the appearance of the infant would warrant us in taking. From a healthy red color it had changed during the operation to a death-like white, and this not due to simple blanching of the surface, as shown by feeble pulse, etc. After cessation of the anæsthesia the little patient revived, looked bright, and took the breast vigorously. No anodynes were necessary to control pain, and little distress seemed to follow the operation. On the third day the normal color of the child had returned, showing that out of mother's milk and fresh air sufficient red blood had been manufactured to compensate for the large amount lost during the operation. The child progressed rapidly to recovery and a perfect union of the surfaces apposed by sutures. It was my intention to make a second operation for the restoration of the urethra and dorsal portion of the penis, when, two months later, the child was attacked with convulsions, which terminated fatally, but had no apparent cause in the conditions leading to or growing out of the operation for cure of the extroverted bladder.

There are two points in this case which the writer deems especially worthy of the attention of the profession. One is the early age at which the operation was performed, and the second is the facility with which the child rallied from shock and hemorrhage. The good results which have followed the early performance of hare-lip operations in the writer's hands (in several instances the third day after birth), and the excellent union and relief of deformity in the present case, lead him to advocate early resort to operative measures in all cases of congenital extroversion of the bladder.

THE SEPARATION OF MATERIA MEDICA AND THERAPEUTICS.—Professor Horatio C. Wood, of Philadelphia, writes: "In your issue of November 21st is a letter from Dr. Mary Putnam-Jacobi, in which attention is called to the separation of the materia-medica course from that of therapeutics in the Woman's Medical College of New York, and the assertion made that such separation 'is an entirely original one and entirely peculiar to our school.' The first impulse of gallantry was to leave Mrs. Jacobi and her self-congratulations undisturbed; but justice seems to require the statement that in the University of Pennsylvania such separation was made as long ago as 1878, and has been fully carried out ever since. The first year of the student is occupied in part by a course of laboratory instruction in practical pharmacy and in the study of pure materia medica, and he is required to pass an examination—including the putting up of a prescription—on each of these subjects before entering the second year. During the second and third years the physiological action of drugs and practical therapeutics receive the student's undivided attention.

Dr. J. M. Baldy, of Scranton, Penn., a graduate of the University of Pennsylvania, sends us a communication to the same effect.

A CASE OF PHTHIRIASIS PALPEBRARUM.

REPORTED BY FRANK W. RING, M.D.,

ASSISTANT SURGEON MANHATTAN EYE AND EAR HOSPITAL, NEW YORK.

MASTER J. K——, ten years of age, came to the Manhattan Eye and Ear Hospital, October 10, 1885, and was admitted to Dr. Roosa's clinic. Upon a hasty examination he diagnosed a case of phthiriasis palpebrarum, and kindly turned the patient over to me for a more thorough examination.

Upon the left upper lid I found three rows of cilia, and upon the right two, making a most acceptable place for a prolific reproduction of the parasite. The lids had a dirty, disgusting-looking appearance, and upon close inspection each cilium was found to be the recipient of a nit, so closely adherent that it could not be removed without pulling the lash from the lid.

The lids were thoroughly washed with a solution of soda and water, and then, by stirring up the closely adherent excrement and dirt at the roots of the lashes, two or three insects were removed which were supposedly recognized as pediculi pubis, commonly known as the crab-louse. It was quite difficult to dislodge them, as they were deeply fastened into the tissue of the lid. An application of the ointment of the red oxide of mercury was smeared over the lids, the cilia being cut close, to dispose of the nits.

In two days the patient returned with the lids looking better; but upon close inspection I found evidences of the parasite, and with a little patience removed eight insects with the cilia forceps; then, with a cotton-pointed probe I applied some heated blue ointment thoroughly to the upper and lower lids, sending the boy home with the caution not to wash the eyes for three or four hours.

In three days the patient returned to the hospital, and a thorough examination was made with no apparent signs of any insect remaining; he was dismissed as cured, only to make his appearance a fortnight later, with several nits glued to the stubs of the cilia, and three insects at their roots; they were removed, a fresh application of ointment made, and the lad has not returned, so that we naturally infer he is no longer afflicted.

Dr. W. H. Fox kindly mounted some of the specimens, and I put them under the microscope to make sure of their identity. They were compared with the cuts accompanying an article in "The Royal London Ophthalmic Hospital Reports" (vol. ii., p. 125), by Mr. W. W. Harkness, and found to be of the same variety.

I also found in the same reports (vol. v., p. 239) a case of pediculi palpebrarum in a child three years of age, reported by Dr. Steffen, who had never heard of a like case before. There is no record of phthiriasis palpebrarum in Knapp's *Archives*, "Trans. Amer. Ophthal. Society," or *The Ophthalmic Review*, all of which I searched in their entirety; also portions of *The American Journal of Ophthalmology*, and "Trans. British Ophthal. Society." The records of the Manhattan Eye and Ear Hospital show a ratio of one to fifty-seven thousand.

Dr. David Webster had been looking for a case of pediculi palpebrarum for thirteen years, during which time he has probably treated over fifty thousand patients. Dr. Roosa kindly furnished the patient referred to. I infer from the foregoing facts that such cases are exceedingly rare, which is my apology for reporting this one.

How the child became affected I do not know. The mother said the boy had come from Staten Island, where he had passed the summer; also that he spent considerable time in the hen-house. The lad informed me he slept with two brothers, seventeen and eighteen years of age, which habit I stopped.

I am aware that the hen-louse is not of the pediculi pubis variety; if it was, I should attribute the infection to his familiarity with the hens.

Dr. Kipp, of Newark, had a patient who came from the country every fall with lice in his lashes.

101 PARK AVENUE.

SOME OBSERVATIONS ON THE OPERATION OF TRACHEOTOMY IN CROUP, AND ITS AFTER-TREATMENT.

By SAMUEL KOHN, M.D.,

NEW YORK.

It is significant that, after all that has been said and written in favor of the operation of tracheotomy in the croup of children, there should still be a number of physicians of large experience who deny its beneficence.

It is the aim of the writer to look into some of the causes for this skepticism; to describe some of the dangers which, in his experience, have beset the unfortunate little patient after the operation has been performed, and the steps he has taken to avoid or palliate them.

It is not to my purpose to quote statistics, to discuss the merits of canulas, or to cite the literature of the subject. Exhaustive articles on tracheotomy in croup are to be found in the files of the medical journals of every language for the last decade, and in text-books.

The mention of the names of König, Krönlein, Kuster, Meigs and Pepper, Jacobi, and Ripley, calls to mind only a few of the excellent contributions to our knowledge of the subject.

Having performed the operation in ten cases, I desire to present the result of my observations, and possibly to gain a convert or two from the ranks of the non-believers.

Much has been said of the "early" and "late" operations in croup, and many a patient has died asphyxiated, because his physician, under the influence perhaps of the last article on the subject he has read, advocating only "early" operation, thought the disease too far advanced for any operative procedure to be of benefit. To such prevaricators Krönlein and Jacobi say, in effect, "it is never too late to operate, no matter how deep the carbonic acid intoxication, how severe the disease, or how young the child; that humanity compels the physician to perform that operation which will cause oxygen to reach the lungs; that, in short, when it becomes evident that the *principal danger* from which the child is suffering is *laryngeal obstruction*, no consideration whatever should prevent the performance of the operation."

The writer has among his cases two in which tracheotomy was deferred until the cyanosis had reached apparently the highest possible degree, and both of these patients recovered.

The first of these, a boy, two years and three months old, when seen for the first time, August 30, 1883, at eight o'clock in the evening, with Dr. Althaus, of this city, presented all the symptoms of membranous croup: a temperature of 103° F., retraction of the soft parts of the chest on inspiration, hoarse and at times aphonic cough, noisy laryngeal respiration. Immediate tracheotomy was advised, but the mother of the child, who was here on a visit from Cincinnati, begged that it might be postponed until she could communicate with her family. It was told her that we might wait and try the ordinary remedies. In spite of all our efforts, the cyanosis grew deeper, until on the early morning of September 1st the operation was performed, with the kind assistance of Drs. Bell and Althaus. We told the mother that the chance of saving the child's life was minimal, that there was mild diphtheritic intoxication present, but she asked us to do anything that would give air to the child, and relieve its terrible sufferings. Although this patient was in a state of complete muscular relaxation and deep cyanosis, he was restored to health by the operation.

The second case, very similar to the one just described, was in a girl of about four years, who was *in extremis* when the operation was performed. It was a case of diphtheritic croup in the practice of Dr. Ludwig Weiss, of this city, the late Dr. C. Krog, of this city, and myself being in consultation. The patient was as limp from muscular relaxation as though inanimate; inspiration and expiration both very short from almost complete glottic occlusion; the operation was beset with such difficulties that each of the three physicians successively attempted to find the trachea, it finally falling to my lot to reach it. Notwithstanding her precarious condition at the time of operating, this patient also recovered. These cases are instanced to show that "lateness" of operation or the presence of complications does not of necessity make a fatal result inevitable. Many cases of the same kind are to be found in the literature. On the other hand, recoveries have been reported in apparently serious cases without tracheotomy; such cases only prove that the operation should not be performed until, after carefully watching the progress of the case, it becomes evident that no other resource is left.

To the "too early," or, to use slang, "too previous," operator these reported cases of recovery without operation must be a terrible reproach when his operation terminates fatally. If the croup membrane be so disposed in the larynx that, although both vocal cords be covered and the glottis narrowed, the rima still admits sufficient air to sustain life, the child can recover; and to expose it to the additional dangers of tracheotomy unnecessarily is, in my opinion, unjustifiable. A little judgment is, of course, necessary to distinguish between these cases. It has been my rule not to operate until, notwithstanding the application of appropriate remedies, the barking cough, the sawing inspiration, the hoarseness, gave place to aphonic cough, to marked interference with both respiratory acts, and to aphonia, the general symptoms becoming correspondingly marked. The physician who views tracheotomy in croup with disfavor finds himself, when confronted by a case of this disease, on the horns of a dilemma—shall he perform an early operation, to be followed possibly by the death of the patient, attributable to the tracheotomy perhaps, or shall he inflict additional suffering on the already over-tortured patient by operating "late," with the certainty, according to some writers, of a fatal result? If he will remember that at no time, until death occurs, is it actually too late to tracheotomize, he will be enabled to easily come to a decision, and to carry it into effect without trepidation.

In regard to after-treatment, the *trained nurse* is an *all-important* factor; the constant watchfulness of the nurse who thoroughly understands the methods of combatting the ever-recurring emergencies in these cases will serve to relieve the physician of much anxiety, and will materially contribute to the patient's recovery. In all of my cases have I insisted on the *absolute necessity* of having a competent nurse, preferably a male, in charge of the after-treatment, and, where the family could not afford it, I have defrayed the expense, rather than run the risk of losing my patient through the over-zealous but faulty nursing of the parents and relatives.

The trachea having been opened, and the canula introduced, a mass of mucus, blood, and occasionally shreds of membrane, are expelled by a tumultuous aphonic cough, absence of which at this time is considered a bad prognostic sign, as indicating the abolition of sensibility in the tracheal mucous membrane. The introduction of a soft gum catheter through the canula into the trachea usually was successful in bringing about a spell of coughing, with expulsion of the tracheal contents.

The desiccation of the tracheal and bronchial secretions in the canula, and around its internal opening, the danger to which the patient is now constantly exposed, was sought to be prevented by those means which have again and again been described: a warm, moist atmosphere in the apartment; frequent brushing out of the canula with fine pigeons' feathers; a woollen comforter saturated with bichloride or carbolic acid solution around the neck; instillations into the canula of a few drops of a two per cent. boracic acid solution or of chlorine water solution (1 to 8) every few hours, according as the canular respiration appeared obstructed or not; and the steam

atomizer. In spite of all these precautions, and although when the inner canula was removed, cleansed, and returned to its place, the suffocative attacks returned with increasing severity, it was found that the inner extremity of the canula had induced such an irritation of the mucous membrane of the trachea as to cause an annular crust to be formed, which could only be dislodged after removing the entire canula and entering the windpipe with a soft catheter.

There is, of course, nothing new about all this, and it is adduced only for the purpose of showing how necessary it is to have a man about the patient who will dare to remove the canula at once, in case there should appear to be imminent danger of suffocation from so simple a matter as occlusion by dried mucus.

Many cases will be found on record in which death occurred under these circumstances before the physician could reach the patient.

The rule in our cases was to wait, if possible, with the removal of the canula, until the physician could be present, because its reintroduction is not always a simple affair.

The diet was semi-solid, consisting of custards, gruels, etc.; and when even these gained entrance into the larynx, nutritive enemata of Leube-Rosenthal meat solution, eggs, and brandy were given, in order to avoid all danger of "Verschluckung's pneumonie." When the patient could swallow easily, Tokay wine was given in comparatively large quantity.

In two of the cases which I saw with the late Dr. G. Mandelbaum, of this city, the prostration for a few days following the operation was so great that inhalations of pure oxygen gas were resorted to with apparent benefit.

In from three to six days after the operation, when the child showed signs of returning health, attempts were at once instituted to restore the functional activity of the larynx by closing for a brief time the outer opening of the canula with the finger, or by partially corking it, and gradually increasing the size of the cork until it completely closed the outer aperture. This was not easy in every case, on account of the granulations around and in the fenestra, and in the trachea surrounding the inner opening of the canula; in such a case small semicircular or crescent-shaped pieces of granulation tissue were spontaneously expelled, and the obstruction removed.

When, with the canula completely closed, the child was able to take a fairly deep inspiration, to speak audibly, and to blow out a lighted candle held at a distance of four inches from the mouth, we removed the canula and applied adhesive strips over the wound.

The shortest time after the operation that the canula was removed was six days; the longest, twenty-eight days.

Granulations in the trachea, forming polypoid growths, and softening of the tracheal rings from too long a retention of the same canula, are dangers not to be overlooked at this period, and the canula should either be changed or its removal attempted at the earliest possible time. To describe the symptoms and course of each one of my cases would unduly lengthen this article. Of the ten cases that I have tracheotomized, three terminated fatally. One died on the fourth day after the operation from heartf-ailure, while turning around in bed; the second from clogging of the trachea and bronchi with diphtheritic membrane on the fifth day; and the third from septic intoxication twenty-four hours after the operation. The remaining seven are still living. The youngest patient operated upon was two years and three months; the oldest, seven years old.

In conclusion I would say that, in my opinion, too much stress cannot be laid upon the importance of skilful and painstaking nursing in the after-treatment, and that when this will be more generally carried into effect we shall hear of a greater percentage of successes after this operation.

THE TREATMENT OF HYDROCELE AND VARICOSE VEINS BY CARBOLIC-ACID INJECTIONS, ETC.[1]

By LEONARD WEBER, M.D.,

NEW YORK.

For many years I followed the routine of using Lugol's solution for the purpose of obliterating hydrocele. The procedure is often efficient, but always painful, followed by considerable local, and sometimes general, reaction. The folds of the testicle, and a good part of the scrotum, may slough away, if the fluid be forced between the membranes and not into the sac; but I have also seen some cases of moderate sloughing in consequence of the intensity of inflammatory reaction, although the operation was skilfully performed.

With injections of chloroform or alcohol for the above purpose I have had no experience; but as we became acquainted with the various uses of carbolic acid, it was natural enough that we should also test its power and convenience in setting up that degree of adhesive inflammation which would be sufficient to obliterate a serous sac or a varicose vein.

Case I.—In 1878 E. V——, aged twenty-six, came to me with a single hydrocele of probably traumatic origin that had been tapped a year before. The sac had refilled, and the patient was now ready to be operated upon. Having previously made up my mind that a solution of equal parts of carbolic acid and alcohol and water ought to be of sufficient strength to destroy the epithelial lining of the sac and obliterate the latter, I injected about three ounces of such a mixture, agitating the fluid for nearly three minutes before withdrawing it. The operation was done at my office, the patient experienced as good as no pain, and having replaced his suspensory bandage he rode home. Within the next forty-eight hours the hydrocele resumed nearly the size it had before the operation, but there was no pain, nor any other local or general disturbance. From about the fifth day on it began to grow smaller, and at the end of two weeeks had disappeared. It has not returned.

Case II. was that of I. B——, now seventy-two years of age. A large hydrocele developed in 1874; I tapped him five times up to 1879, the membranes of the sac remaining thin and soft. In March, 1879, I operated on him in the same way as above, and with the same satisfactory results.

Case III.—A. T——, aged forty-four, a liquor-dealer. I had relieved him of hydrocele of one side by injecting Lugol's solution some years ago. He came to me in April, 1881, with a hydrocele on the other side, and desired to have it tapped simply, as he was afraid to again undergo the pain and discomfort he had suffered after the first operation. He yielded to my persuasion as to the comparative painlessness and safety of the new method, and the result was in every respect as gratifying as in the other cases.

Case IV.—C. R——, aged forty-five, a mechanic. I cured him of a large and often-tapped hydrocele on his right side in 1868, by the radical operation. He has been troubled with hydrocele, of moderate size, on left side for a year or so. Evacuation of cystic fluid and injection of the above carbolic solution were made in May, 1883. In puncturing the sac a subcutaneous vein was cut by the trocar, causing considerable extravasation in the areolar tissue, swelling of the parts, and some pain and fever. Ice had to be applied for a few days to subdue inflammation, but no suppuration took place, and the final result was as good as in the other cases.

It stands to reason that carbolic acid, in common with all other means for injection, will not answer in hydrocele where the sac is hypertrophied to any considerable extent. The cyst in that case has the feel of a

[1] Read before the German Medico-Chirurgical Society.

stout rubber bag, is of oval shape when unilocular, and of more or less irregular shape when multilocular, by the formation of false bands in its cavity. Such cases need not always be old ones, as is shown by the history of the following: A young and otherwise healthy man came to me with hydrocele in 1880. It was of dumb-bell shape, of moderate size, tense, not transparent, and had developed after gonorrhœal orchitis fifteen months before. It had been tapped once. After making a free incision and evacuating about three ounces of yellowish and somewhat turbid fluid, the walls of the sac appeared to be one-third of an inch in thickness. A stout fibrous band drew the cyst walls together about the middle of the tumor. I broke down all the adhesions, scraped and washed the cavity thoroughly with sponges dipped in a ten per cent. solution of carbolic acid, and stuffed it with a pledget of lint smeared with unguentum iodoformi. The iodoform dressings were removed three times during the first ten days. Ungt. basilic. to stimulate granulations was substituted after that, and at the end of three weeks the cure was completed. The patient had some fever on the second and third days after the operation, but no more after that. In such and similar cases I have found the radical operation and antiseptic dressings the best and safest mode of treatment.

For the purpose of coagulating the blood in varicose veins and obliterating them by adhesive inflammation carbolic acid has proved to be a safe and efficient remedy in many cases. The first case in which I used subcutaneous injections of pure carbolic acid was that of L. S——, aged thirty-eight, a merchant, who came to me in 1878 with a markedly varicose condition of the entire territory of the saphena major of the right lower extremity. He was otherwise a strong and active man, but the pain and discomfort in walking caused by the increasing distention and pressure of the enlarged veins of the neighboring parts made it hard for him to attend to his business. Elastic stockings had given him no relief. I found four large sinuses beneath and to the inner side of the patella and at the popliteal space, which were exquisitely tender. I thought if I but succeeded in obliterating these the patient might be made comfortable otherwise by the judicious use of massage and elastic bandages. I tried Vidal's method by acute pressure. It failed to do what I wanted, but caused the patient some sleepless nights and much pain. I then injected four drops of carbolic acid into each sinus, entering the needle sideways and making compression at the proximal and distal end of the sinus until I felt that a soft coagulum had formed. Two sinuses were operated upon the first, and two on the next day, wet compresses and a bandage gently tied around the knee, and the patient kept in bed for a week. No unpleasant reaction took place. In the course of the second week the thrombi were flat and firm, and the sinuses became obliterated. With the help of a long elastic stocking Mr. S—— was soon able to be about all day long, without experiencing more than slight discomfort. I met him again in 1880, and learned that his leg gave him no trouble, but the stocking he had to have on when going about.

In treating hemorrhoids we must, of course, distinguish between external and internal ones. External hemorrhoids of small size may be obliterated by injecting a minim or two of pure carbolic acid, or, with less risk of sloughing, four or five minims of a fifty per cent solution of the acid.

A careful selection of cases of hemorrhoids suitable for the obliterating treatment by carbolic-acid injections is highly commendable. With small, tense, and moderately bulging tumors of this kind I have had barely good success; but the procedure was often painful, and not infrequently followed by inflammation. In a few cases gangrene of the injected hemorrhoid supervened, and the dead mass came away under antiseptic dressings without any unpleasant local or general consequences.

Phlegmon, abscess, and subsequent fistula in ano, in consequence of injections either too strong or applied in cases in which this mode of treatment was not advisable, have been seen, and I have personal knowledge of such a case which occurred not long ago in this city. The possibility of ascending thrombosis and pyæmia under similar circumstances cannot be denied. Altogether, the cure of hemorrhoids by carbolic-acid injections is a method which I believe to be neither as generally applicable nor so free from danger as it has been represented by some practitioners.

In operating it will be best to insert the needle about one-fourth of an inch from the base of the tumor, and push it through the sound skin directly forward into its central portion, taking good care not to spill any of the liquid along the track of the needle or at the point of entrance. This precaution I have found to be essential if we want to get obliteration of the pile by adhesive inflammation instead of seeing it slough away. The large and pendulous external hemorrhoids may be ligatured after incising their cutaneous parts, cut off, and the wound dressed with iodoform until the ligature comes away. Many such I have also clamped and cauterized with the Paquelin cautery to prevent hemorrhage and insure prompt and satisfactory healing of the wounds. In my experience this procedure has given invariably good and lasting results in all cases in which it was admissible.

Whether we employ the ligature or thermo-cautery in external or internal hemorrhoids, it is good practice to stretch the sphincter ani in a moderate degree before proceeding to operate. Such distention not only facilitates the operation, but also prevents subsequent pain and discomfort, and promotes the healing of the wound.

Carbolic-acid injections will not do for internal piles; they must be treated by the ligature, or the clamp and cautery, as described above.

I have the records of four severe cases of external and internal hemorrhoids, three in males and one in a female, every one of which had between five and eight hemorrhoidal tumors within and without the sphincters. They all showed the symptoms of anæmia to a considerable degree. Three of them were operated upon with the clamp and cautery, one with the ligature, and they all got well without secondary hemorrhage or other unpleasant symptoms.

25 West Forty-sixth Street.

An Improved Method of Operating for Cleft Palate.—A correspondent writes to *The Lancet*, November 7, 1885, concerning what he considers a great improvement in the operation for cleft palate. Hitherto great difficulty and not a little danger have arisen from hemorrhage during the operation, necessitating frequent and very skilful assistance, periodical discontinuation of the anæsthetic, and distinct intervals in the performance of the operation. In addition to these, other and minor troubles are experienced. All these difficulties may be avoided, and the operation rendered perfectly safe and easy, by the simple process of inversion as applied to the head only. This can easily be attained by bringing the patient's shoulders well up to the end of the operating table, and allowing the head to hang over the edge in the fully extended position. In this position the roof of the mouth would be horizontal or slightly inclined downward toward the operator, who should stand at the head of his patient. The anæsthetic is given through the nose by a small tube, and is quite out of the way of the surgeon. Only one assistant is required, who should stand to the left of the operator. In paring the edges no change of hands is required, but the corresponding hand should be used in elevating the tissues of the hard palate and in passing the sutures. Under these circumstances no blood can enter the larynx or œsophagus, the palate remains unobscured by blood, and whatever hemorrhage occurs finds its way into the nasal cavities, and at the conclusion of the operation may be emptied by simply turning the patient's head to one side.

Clinical Department

PROBABLY A DERMOID CYST.

The following curious case is reported by Dr. F. L. Santway, of Theresa, N. Y.: A farmer, twenty-one years of age, weighing about two hundred pounds, while driving an empty hay-wagon one day in July, 1881, was thrown down, by a sudden start of the horses, to the bottom of the wagon. He fell on his back, his hips striking one of the bed-pieces of the rack, and, the horses becoming unmanageable, he was carried about a quarter of a mile in this position, with his back jolting against the piece of timber. From that time to the present he has suffered severely from pain over the region of the sacrum and coccyx. In July of this year he discovered a slight discharge from a small opening three and one-half inches above the anus, directly over the spine. Examination showed three small openings, the size of a pin-head, from which there was a thin, sanious, ichorous discharge. The openings were about three-quarters of an inch apart and were found to lead to a single cavity one and three-quarters of an inch below the surface. Thinking that there might be a detached spicula of bone, Dr. Santway incised the integument between the three apertures, when, to his surprise, instead of finding diseased bone, he discovered the cavity half filled with hair. There were about one hundred and fifty of these hairs, ranging in length from one-half to one inch. These were removed with the dressing-forceps, and the cavity was syringed out with carbolized water. The wound is now nearly healed, and the pain across the hips, from which the patient had suffered for four years, is rapidly diminishing. [It is not improbable that this patient had a congenital dermoid cyst, which is sometimes found in the sacral region, in which inflammation was excited by the injury.—Ed.]

WHAT WAS IT?

Dr. Leonard White, of Uxbridge, Mass., sends us a report under the above caption of two cases occurring recently in his practice. The first case was that of Robbie H——, eight years of age, who, when first seen, had been unconscious for eighteen hours and had passed no water for thirty-six hours. He had been complaining of headache and general malaise for two weeks. He had been vaccinated shortly before. The temperature was 104° F., pulse 120, rising to 136 in a short time, pupils contracted, breathing stertorous, abdomen somewhat tympanitic. Three pints of water were drawn from the bladder. The vaccinated arm was red and ulcerated, but there was no glandular swelling in the axilla. An enema of twenty grains of quinine in milk was ordered, and hypodermic injections of digitalis and brandy were given. This treatment, with carbonate of ammonia internally and cold applications to the head, was continued until the patient died, four days later. The abdomen became retracted, the pulse grew more rapid and feeble, and respiration was more and more labored and hurried. There was complete unconsciousness during all this time, and the prick of the hypodermic needle caused no wincing. A certificate of death from malignant typhoid fever was reluctantly given. The second case was that of Charles H——, twelve years old, who had been vaccinated two and one-half weeks previously. He felt well up to the day before being seen, when he complained of headache. At the time of Dr. White's visit the boy was unconscious, with a temperature of 104°, pulse 120, respiration very shallow and rapid. From the bladder was drawn a large quantity of urine heavily loaded with urates, but containing no albumen. The pupils were contracted, and the abdomen was only slightly tympanitic. Stimulants were given hypodermatically and by enema, and sinapisms applied to the neck and spine. Urine in large quantity was drawn every six hours. The patient did not rally, however, and died the following day. The consulting physician gave a certificate of death from septicæmia following vaccination, to which Dr. White would not agree, although he had not vaccinated either of the children. An autopsy could not be obtained. The writer would be glad to have an explanation from others who may have met with similar cases in their practice.

COCAINE IN DENTAL SURGERY.

Dr. J. H. Martindale, of Minneapolis, Minn., writes that he has had very satisfactory results with cocaine in his dental practice. Before proceeding to the extraction of incisors or bicuspids or their roots, he dries the adjacent portions of the gums and rubs them with a five per cent. oleate; then he introduces a hypodermic needle at the free edge, passing it for a distance of half an inch parallel to the roots of the tooth to be extracted, and injects two or three minims of a four per cent. aqueous solution. The tooth may then be pulled with little or no pain. In chronic alveolar abscess with fistula, the carious bone may be gouged away without exciting pain by introducing the hypodermic needle as far as possible into the sinus and injecting three or four minims of a four per cent. solution. The sensitiveness of the mucous membrane investing the parts near the soft palate, causing the patient to retch during manipulations about the back teeth, may be overcome by bathing the parts with the four per cent. solution. Dr. Carl Tuttle, of Berlin Heights, O., writes upon the same subject. He thinks that failure is often due to a too sparing use of the anæsthetic. He inserts the point of the hypodermic needle one-quarter of an inch from the free margin of the gum and passes it well down to the roots between the gum, and the alveolar process. He injects in this way seven minims of the four per cent. solution on each side of the tooth to be extracted, and allows eight minutes to elapse before using the instruments. He says that he has had very satisfactory results in dental practice from cocaine employed in this way.

CONCEPTION WHILE THE UTERUS CONTAINED A PLACENTA.

Dr. W. M. Trow, of Northampton, Mass., gives an account of the following case: "Mrs. ——, a fleshy woman, and the mother of three children, regular in her periodicals except during pregnancy, passed her period in February, 1885. In March she was normally unwell, and was regular till August, which she passed. In September she again menstruated. In October she was taken with considerable flow and severe pain, which continued for twenty-four hours, when I was called to see her. On my arrival I found a three months' fœtus, which she expelled just before my entering the house. The placenta was partially detached, and occupied the mouth of the uterus. Under the influence of ergot it came away in a short time in a normal condition. The following day she was feeling well; the flow as usual in such cases. Four days after I was again called, and found that she had been flowing for twenty-four hours, and suffering severe pain most of that time. An examination revealed the mouth of the uterus open enough to admit two fingers, and occupied by a fleshy mass which was firmly attached to its fundus. I gave chloroform and introduced my hand into the vagina, when I was able to detach the mass, which was at once expelled. It proved to be a placenta as large as is usually found in a conception of four or five months. Pain and flowing at once ceased, and she made a fair recovery. This was a unique case with me in an experience of some thirty years."

Progress of Medical Science.

Hydrastis in Dyspepsia.—In *The Lancet*, November 7, 1885, Mr. Auld directs attention to the value of hydrastis in small doses in certain forms of dyspepsia. Given in drop doses of the tincture (made with proof spirit) three or four times daily, between meals, is the mode of administration he would recommend. Larger doses often produce aggravation of the symptoms and diarrhœa. In his experience there are three kinds of dyspepsia to which it is applicable. The first is the dyspepsia of females, characterized mainly by pain and sinking at the epigastrium, nausea, and constipation, and associated with general debility, nervousness, wandering pains, and possibly leucorrhœa. The subjects of this variety are often intolerant of large doses of bismuth and other orthodox remedies; but, unless marked anæmia exists, they will speedily regain health and strength under the influence of hydrastis, which acts like a specific. The second form of dyspepsia which is often greatly relieved by this drug is that associated with certain constitutional diseases, particularly phthisis and malignant disease. Lastly, it is of signal benefit in the dyspepsia resulting from the abuse of drugs and alcoholic stimulants.

Cocaine in the Treatment of Hydrocele.—A correspondent of *The London Lancet* writes as follows concerning the above: "We all admit the great and frequently agonizing pain usually produced by the injection of tincture or solution of iodine, diluted or undiluted, in the radical cure of hydrocele of the tunica vaginalis; and many methods are employed to alleviate this pain, from simple compression of the cord to the production of general anæsthesia. To the flood of literature concerning the applications of cocaine and its salts I beg to add a note as to the use of the hydrochlorate in alleviating what is more than a discomfort in the treatment of the common affection under discussion. After withdrawal of the fluid from the hydrocele sac, it is easy to inject thereinto a drachm, more or less, of a five per cent. solution of the salt named, allow it to flow over the interior, and after five to ten minutes inject the selected iodine preparation, which will not give rise to any pain until an hour or more has elapsed, which pain, usually not severe, if necessary, can be controlled by the exhibition of a morphia suppository, or by some similar means. The use of the cocaine salt in this manner further allows kneading of the sac after the iodine injection, which kneading Davy and others have strongly insisted on; and while, on the one hand, paralysis of the sensory nerves of the serous membrane can, as Cohnheim showed, have practically no retarding influence on the development of the inflammation, on the other, no evil effects can follow the absorption of a quantity of cocaine so far below a toxic dose. Cases thus treated progress, with the exception of the pain, precisely as those in which no cocaine is employed."

The Etiology of Dupuytren's Contraction.—Dr. Lange reports the case of a woman who had for years had a contraction of the palmar fascia of both hands, so that the tip of the ring-finger of either side was drawn into the palm. This woman had an apoplectic seizure, and from the moment that paralysis of the left side appeared, the ring finger became fully extended and so remained, the corresponding digit on the right side still being firmly flexed. The deep folds of skin in the palm of the left hand became smoothed out, leaving scarcely any traces to show where the creases had been. The author regards this case as an evidence that Dupuytren's contraction has its origin in the central nervous system, a theory rendered more probable also by the fact that the affection is usually symmetrical. If the contraction in this instance had been due to disease of the muscles, fascia, or terminal nerve-filaments, it would hardly have been so suddenly relaxed upon the appearance of central paralysis. He thinks also that it points to nerve-stretching or resection as the proper mode of treatment. —*Allgemeine Medicinische Central Zeitung*, October 21, 1885.

Copper in the Treatment of Scrofula.—From the results obtained in a large number of trials, Dr. Du Moulin is led to recommend the salts of copper in the treatment of various scrofulous manifestations. He asserts that they are efficacious in the cure of indurated and suppurating glands, in cutaneous affections, and in ophthalmia and keratitis due to scrofula. For a child from one to four years of age he orders a solution of from four and a half to six grains of sulphate of copper in three ounces of syrup, of which four teaspoonfuls are given daily.—*Rivista Clinica*, No. 9, 1885.

Inhalations of Defibrinated Blood.—Regarding on the one side, the possible dangers of transfusion, and on the other, the tolerance of liquids by, and their rapid absorption through, the respiratory mucous membrane, Dr. Fubini was led to test the value of inhalations of defibrinated blood (*Rivista Clinica*, No. 9, 1885). He caused healthy individuals to inhale, by means of an ordinary atomizer, about three ounces of a mixture of twenty parts of defibrinated blood in eighty parts of a strong solution of common salt. The inhalations were well borne by the larynx, and caused no change in the pulse, temperature, or respiration. In anæmic individuals, after repeated inhalations, the author noted a marked improvement in the general condition, and also a relative increase in the number of red blood-corpuscles.

Borated Vaseline in Erysipelas.—Dr. Romit speaks very highly of boracic acid in vaseline, one part to twenty, as an application to the inflamed skin in traumatic erysipelas. It has an advantage over certain other applications in that it causes no discoloration, and does not mask the redness of the skin, so that the progress of the disease toward recovery can be readily observed. The redness and tumefaction rapidly disappear, the pain is quieted, and a cure is obtained within three or four days. The application is made over the affected part, and for some distance around over the healthy integument, and is repeated morning and evening.—*Rivista Clinica*, No. 9, 1885.

Malarial Amaurosis.—Dr. Rombro reports in the *Russkaya Meditsina*, No. 20, 1885, the case of a peasant, who became suddenly blind without any apparent cause. On admission to hospital two days later, no ocular lesions were discoverable, but the man was found to be suffering from malarial fever and to have hypertrophy of the spleen. He was given quinine daily, and at the end of a week the sight began to return, becoming normal a few days later. Dr. O. Petersen reports in the *Deutsche Medicinal-Zeitung*, No. 77, 1885, a precisely similar case which came under his observation during the Turko-Russian war, in which vision was restored in a few days by means of large doses of quinine.

Vomiting of Pregnancy treated by Artifical Feeding.—Dr. Brünniche reports in the *Hospitals-Tidende*, No. 29, 1885, the case of a pregnant woman who suffered from uncontrollable vomiting. After trying many things without success, the author obtained a cure by feeding his patient through a tube introduced into the œsophagus, but not into the stomach. Milk, broth, powdered beef, and other materials were introduced in this way and retained on the stomach, but as soon as the patient attempted to swallow the vomiting began again. At the end of three weeks, however, the vomiting was permanently controlled and the patient was able to take food in the ordinary way.

Syphilis, Ataxy, Cardiopathy.—The clinical and pathological labors of many authors attest the not infrequent association of heart disease with locomotor ataxy. Charcot and Vulpian some years ago pointed out the association; but Berger and Rosenbach. in 1879, gave more precise information on the subject. In seven cases of ataxy observed by them an insufficiency of the aortic valves was observed. MM. Grasset, Jaubert, Teissier, Weber, and others have written on the significance of this combination of diseases. A *résumé* of the subject is published in the *Lyon Médical*, in an article contributed by M. Bouveret. The chief question that occupies his attention is the relation of syphilis to locomotor ataxy and to cardiopathy. In some cases the cardiac disease can only be regarded as the result of rheumatism or atheroma, and its coexistence with locomotor ataxy must be looked upon as a coincidence. On the other hand, disturbances in the nervous system may originate derangement of the heart. Lastly, there is the possibility of the dependence of the aortic disease on syphilitic processes, which have also been operative in the causation of tabes dorsalis.

General Softening and Facial Ecchymosis.—Dr. Klippel describes an interesting combination of cerebral disease with facial extravasations of blood. The patient was a woman sixty seven years of age, whose previous history was very imperfect, owing to her abnormal mental condition as well as to her lack of friends. Although there was no actual paralysis, and no rigidity of the legs, yet walking was impossible for her. All the limbs were wasted, and the fronts of the legs exhibited a pigmentary marking. The knee-jerks were absent, and there was incontinence both of urine and fæces. The arteries of the limbs were markedly atheromatous, and though the heart-sounds were altered from the normal there was nothing pointing to gross valvular lesion. While the patient was in this condition of dementia, and at the end of two months after her admission to the hospital, ecchymosis of the face supervened. It was certain that she had sustained neither a fall out of bed nor any sort of injury. The sanguineous extravasation began at the inner canthus of the left eye, and gradually spread thence. Some hours later a like condition came on in the inner canthus of the right eye. At the end of two days the whole of the upper half of the face became infiltrated with blood; very slowly this ecchymosis passed through the various stages of a fading bruise, and finally disappeared, with the exception of two symmetrical ecchymotic spots on the anterior part of each thigh. There were no other signs of purpura, either cutaneous or mucous. Signs of scurvy were wanting, and there was no fever. The reporter discusses the possibility of the ecchymosis being due to the influence of the nervous system, but inclines to the view that the causes were several, though chiefly vascular and nervous. Many cases are now on record of blood-extravasations occurring in the course of diseases of the nervous system, and this clinical experience, together with the facts of experimental pathology, seems to place beyond doubt the potency of the nervous system to rupture vessels.—*The Lancet*, October 31, 1885.

Scarlatinal Rheumatism.—The nature of the so-called scarlatinal rheumatism has long been a matter upon which there has been a considerable variance of opinion. On the one hand, it has been contended that the poison of scarlet fever, working in a subject prone to rheumatism, may be the exciting cause of an attack; in other words, that scarlatinal synovitis only occurs in the rheumatic. On the other hand, it is affirmed that this so-called rheumatism is only a manifestation of the scarlet-fever poison localized in the joints, or that it is in reality a form of mild septicæmia. Different writers have advocated various views; thus, Trousseau, Betz, and Huttenbrenner speak of this affection as indistinguishable from acute rheumatism, and most of the English text-books, including Bristowe, take the same view. There is, however, much to be said in favor of the opposite side, for it must be admitted that scarlatinal synovitis presents a picture which differs in many ways from acute rheumatism. One of the difficulties in settling the question arises from our want of knowledge of the pathology and etiology of the rheumatic state. The term is applied in an exceedingly comprehensive way, and covers an extensive ground. Thus, we have a "fibrous," a "muscular," a "gonorrhœal," a "gouty," as well as "scarlatinal rheumatism," all more or less differing in their chief symptoms, and perhaps also in their pathology, from acute or chronic rheumatism. In typical attacks of the scarlatinal variety, the joint pain is first complained of at the end of the first week, when the rash has nearly disappeared and desquamation commenced. The temperature, which has perhaps nearly reached normal, again rises when the joint-pain is complained of. The synovitis is especially apt to affect the finger-joints and wrists, then perhaps the knees and shoulders. It is not uncommon for the joints of the cervical vertebræ to be attacked, and also the synovial membranes lining the extensor and flexor tendons of the fingers, the palms or backs of the hands being swollen and tender. There is pain on movement, the joints are often red, swollen, less often distended with fluid. As a rule, the pain and tenderness quickly disappear in the affected joints, other joints becoming attacked, but the attack is fugitive, and in three or four days the attack is over and the patient free from pain, which rarely returns. As Trousseau has well reminded us in his lectures, "It is a singular eccentricity of scarlatinal rheumatism that it rarely assumes a formidable character; it is more localized, but less likely to return than ordinary rheumatism. When it has once left a joint it seldom comes back to it—generally it goes away quickly and spontaneously, without requiring any treatment." Another important point must be borne in mind, that while pericarditis occasionally occurs, endocarditis is very rare. It is, then, to this disease that Henoch, Jaccoud, Bokai, and many, especially German writers, refuse the name of rheumatism and prefer that of scarlatinal synovitis. There are unquestionably some facts which strongly support their objections. In the first place, this complication is far more common in some epidemics than in others, a fact which would point to the synovitis as being connected with the scarlatinal poison, rather than to the rheumatic diathesis of the patient. Then the attacks are fugitive and are rarely followed by a relapse, while in true rheumatism, as is well known, relapses are very common. Further, affections of the heart are rare, occurring very much less frequently than in acute rheumatism, at least when it affects children. Suppuration occasionally occurs in or about the joints, and purulent pericarditis is sometimes present in the fatal cases. In considering the question it is important to remember that synovitis occurs in other diseases, more especially those where some inflammation of a mucous membrane or a purulent discharge exists—such, for instance, as in puerperal fever, diphtheria, gonorrhœa, and also in ulcerative endocarditis. There is but little doubt, however, that true rheumatism does sometimes occur during convalescence from scarlet fever or diphtheria. These attacks supervene at various periods after the fever, are often severe, are accompanied by cardiac complications, effusion into the joints, acid sweats, and a tendency to relapse. Whether these attacks are simply coincidents, or the result of the accumulation in the system of waste products during scarlet fever, it is not easy to say. It seems very probable that some, at least, of those who have written on this question have been, in reality, observing different kinds of attacks, the one observing the synovitis, which complicates the fever the other, true rheumatism, supervening during convalescence. The whole series of joint-affections, complicating other diseases, deserve the most attentive study on the part of every practitioner, inasmuch as out of such study light might be thrown on the etiology of acute

rheumatism, which, in spite of many investigations and hypotheses, still forms a dark corner of clinical medicine. With regard to the suppurations which occur in or about the joints during the course of scarlatina, there can be little doubt that they form part of a general pyæmia, and on the post-mortem table abscesses may be found in the lungs and kidneys, due, doubtless, to septic embolia, derived from suppurating cervical glands or a sloughing throat. Some, however, of these cases which seem to suffer from a milder form of septicæmia recover after the evacuation of pus from the joints.—The *Provincial Medical Journal*, November 2, 1885.

The Treatment of Burns.—Dr. Meurisse speaks very highly of goldbeaters' skin as an application to burns. He says that it never becomes adherent to the skin as other forms of dressing do, the pain and inflammation are much less marked, and the wounds heal much more rapidly. The goldbeaters' skin may be washed with cold water at each dressing and can be used again and again. The liniment or other applications may be made directly to the skin and covered with the tissue. The same substance may be used in dressing blisters after the application of a vesicatory.—*Revue Médicale*, October 3, 1885.

Pathogeny of Pulmonary Emphysema.—Most diseases and degenerations have at one time or another been attributed to trophic changes, the result of disturbed innervation. Dr. Brown-Séquard believes that nervous disturbances in the pneumogastric play a part in the production of pulmonary emphysema (*The Lancet*, October 17, 1885). He does not deny the agency of mechanical forces, but he thinks they have been overrated. Neither forced inspiration nor energetic expiration during closure of the glottis has a preponderating influence in the genesis of emphysema. On the contrary, it is sufficient to excite the vagi as soon after death as possible in order to produce emphysema. The same result is obtained whether the post-mortem excitation be made at the medulla oblongata, at the cervical pneumogastric, or along its terminal branches. In opposition to Serres, it is asserted that stimulation and disease of the pons Varolii only exceptionally induce emphysema, though they are much more effective as causes of pulmonary apoplexy. The nearer the excited area of the pneumogastric is to the lung, the more marked is the emphysema. As of clinical bearing on the experimental question, Dr. Brown-Séquard refers to the development of emphysema with the first attack of genuine nervous asthma. It is impossible, he argues, that a few short hours of dyspnœa could develop so much emphysema. M. Laborde remarked, in the discussion on Brown-Séquard's paper, that among the decapitated emphysema was frequent. This circumstance is regarded as confirmatory of the opinions held by Brown-Séquard.

Fatal Cystitis Apparently Due to Phimosis.—Dr. Sadler, in *The Lancet*, October 17, 1885, reports the following case: A man aged seventy-seven was admitted to a hospital, suffering from partial retention of urine. His story was that he had had a very long prepuce all his life, but it had given him no inconvenience. Though for some years subject to frequent micturition by day and night, he had never been aware of any difficulty in expelling urine. He had been in failing health some months, and for several weeks his foreskin had been swollen and he had been unable to pass more than a few drops of urine at a time. He was a very feeble old man, and was very much collapsed on admission. On his hands and feet were numerous small, dry, brown fissures, as if from commencing dry gangrene. The prepuce was very long, œdematous, hard, and inflamed. It barely admitted a small probe. Bladder much distended. A fine curette was passed into the prepuce, and it was divided to its base. Then a No. 12 English silver catheter was passed without any obstruction into the bladder, and several pints of intensely fetid purulent urine withdrawn, with some decomposed clots. The bladder was washed out. The washing was repeated several times during the next twenty-four hours, but he never rallied from his collapse, and died quietly next day. No autopsy was permitted. There were no calculi in the perpuce, nor could any be felt with a sound in the bladder.

The Cause of the First Sound of the Heart.—An interesting note on the cause of the first cardiac sound, by Dr. Gerald Yeo, and Dr. J. W. Barrett, has appeared in the *Journal of Physiology*. Opinions, as is well known, have varied considerably on this point. Some observers, as Halford and Billing, looking at the relative size of the auriculo-ventricular and semilunar valves, have held that the sudden tension of the former is sufficient to produce the first sound of the heart. These observers point to the fact that just as the act of hooking back one semilunar valve abolishes the second sound, so the same act of hooking back one auricular valve, or the incompetence of the valve as a whole, impairs or abolishes the first sound; and they also point to the fact that the tracing of a cardiac contraction is a single contraction, and not a tetanus of the muscular tissue. Many careful experimenters, however, maintain that the muscular sound must be regarded as an element in its causation, and insist on the greatly increased volume of the sound in cases of cardiac hypertrophy. Drs. Yeo and Barrett's experiments originated in a difference of opinion between them on this point, each being desirous of persuading the other of the soundness of his views. To determine the question, a large cat and an active mongrel bull-terrier were chloroformed and subjected to artificial aspiration, and the cardiac sounds were then carefully listened for by each disputant, as well as by some independent observers, after the thorax had been opened by an extensive medial incision without injury to the pericardium. The veins were then compressed, and all noted that the sound became gradually slightly diminished, but did not become inaudible, the tone remaining distinct as long as the heart continued to beat. In the case of the dog, the same phenomenon was observed even after the heart was removed from the body, and the same was noted in the ventricle when removed below the valves. The authors therefore arrived at the conclusion that a definite aud characteristic tone, similar in quality to the first sound, is produced by the heart-muscle, under circumstances that render it impossible for any tension of the valves to contribute to its production.—*The Lancet*, October 31, 1885.

Obstruction of the Right Auricle by a Hydatid Cyst.—A curious case has been recorded by M. Ignatieff. He operated on a young peasant for hydatid of the liver. An incision six centimetres long was made in the linea alba. The peritoneum was divided and stitched to the integuments by points of suture. The operator was drawing the cyst forward to the abdominal wall before puncturing, when the heart of the patient suddenly ceased to beat; this was followed by stoppage of respiration, leading to asphyxia and death, despite tracheotomy and faradization about the diaphragm. At the autopsy an echinococcus, doubled up on itself, was found to obstruct the last part of the vena cava inferior; it projected into the right auricle. The bladder, when unrolled, measured ten centimetres across, and had a thickness of from three to four centimetres. Neither the auricle nor the ventricle contained any blood. The vena cava near the liver was perforated with a round opening about one centimetre in diameter; this aperture had obviously been caused by the erosion of the wall from the neighboring hydatid cyst. According to M. Ignatieff, the rupture was effected at the operation, and a hydatid vesicle, becoming engaged in the torn vessel, was carried upward, and so caused arrest of the heart.—*The Lancet*, October 17, 1885.

ADONIS VERNALIS.—Dr. Gaetano Traversa has made a most exhaustive study, both clinical and experimental, of the physiological and therapeutical action af adonis vernalis, the results of which he has published in detail in the *Giornale Internazionale delle Scienze Mediche*, Nos. 8, 9, and 10, 1885. He says that he has been led by these trials to regard the drug as one of the greatest value, and he does not hesitate to call it the best cardiac tonic which we possess, and one which may render the greatest service in the treatment of chronic heart disease. He thinks it more certain in its action than digitalis, and preferable to the latter drug also from the fact that it is rapidly eliminated from the system and never exhibits a cumulative action, and, furthermore, does not disturb the cardiac function when given in large doses. Adonis unites to rapidity of action and certainty of effect the most excellent and desirable quality of innocuousness. It possesses, also, marked diuretic properties.

ACUTE NEPHRITIS COMPLICATING PULMONARY TUBERCULOSIS.—Dr. E. Marchiafava describes a case of acute nephritis, occurring in a young man affected with phthisis, with a cavity in the lung, which appeared two weeks before death without any apparent cause. The kidneys were found to be increased in volume, softened, with subcapsular hemorrhages and dilated glomeruli. Microscopical examination showed similar lesions to those present in the graver forms of post-scarlatinal nephritis. Numerous sections of the kidneys were made in the search for micro-organisms, but although various kinds of staining were employed, neither tubercle bacilli nor other forms of microbes were found. This case would add weight to the belief that grave forms of acute nephritis may occur in the course of pulmonary tuberculosis which are not due to the presence of the tubercle bacillus or of any other species of micro organisms. It is simply a toxic nephritis, caused by certain products elaborated in the pulmonary cavity and carried by the circulation to the kidneys, setting up there inflammatory action.—*Gazetta Medica di Roma*, October 15, 1885.

FRAGILITAS OSSIUM IN SYPHILIS.—Many writers have referred to brittleness of the bones as of peculiar frequency in syphilis, but the cause of this change in their structure has not been satisfactorily explained. With a view of elucidating the subject M. Charpy has recently made a careful examination of the bones of several cadavers which presented evidences of syphilitic disease. He found that he was able, with a very slight degree of force, to snap the fibulæ, although to outward appearances their structure was unchanged. The bones were of normal thickness, and microscopical examination gave no evidence of change. Chemical analysis showed the normal relation between the organic and inorganic constituents, but of the latter there was a diminished percentage of fluoride of calcium (1.99 instead of 2.43 per cent.). Dr. Charpy regarded it, therefore, as possible that the abnormal fragility might depend upon a deficiency in the bones of fluoride of calcium.—*Deutsche Medicinal Zeitung*, November 2, 1885.

THE TREATMENT OF CHOLERA INFANTUM.—In an interesting paper upon "The Disproportion between the Calibre and Contents of the Vessels in its Relation to Etiology and Therapeutics," read at the Fourth Congress of German Physicians, Dr. E. Meinert, of Dresden, endeavors to show that the great danger to life in cholera infantum and other similar affections is in paralysis of the heart. A reduction in the contents of the blood-vessels, and a consequent disturbance of relation between the calibre of the vessels and the amount of blood contained in them is brought about, he says, not only by hæmorrhage but also by a rapid and extreme loss of watery fluids, such as occurs in several diseases. To these affections belong sunstroke, Asiatic cholera, cholera nostras, and cholera infantum, all of which are accompanied by a more or less rapid excretion of fluids. Death in these diseases, Dr. Meinert states, is due to cardiac paralysis induced by incomplete filling of the vascular system. His treatment, therefore, consists in the exhibition of as much water as the patient is able to swallow. He opposes strenuously the teachings of those who advocate withholding all food and drink for a period of six to ten hours, and says he can regard the recovery of a child with cholera infantum so treated as nothing short of a miracle. But fortunately the mothers of these little patients seldom have the heart to refuse their plaintive prayers for drink, and it is because they disobey the physician's orders, he thinks, that the children do sometimes recover. He gives clear water, tea, or very diluted milk, in repeated doses, and if the child throw it up he gives him some more to swallow, maintaining that in this way the tissues get a little water, and the stomach seems to acquire a tolerance. In a very short time, he affirms, this mode of treatment brings about recovery. The vessels become filled again, the vomiting and diarrhœa cease, and the life of the infant is saved.

KAVA IN GONORRHŒA.—This drug is recommended by Dupony and Gubler as almost a specific in the treatment of gonorrhœa and leucorrhœa. The active principles of the plant are a resin and a crystalline substance called by Gubler kavaïne. The administration of kava in gonorrhœa increases the urinary secretion, reduces inflammation, and quiets pain. It has the advantage over balsam of copaiba in that it has a pleasant taste, and does not affect the stomach unpleasantly. The plant, as is known, is a native of the islands of the Pacific.—*Deutsche Medicinal Zeitung*, November 2, 1885.

ALBUMINURIA IN ACUTE ARTICULAR RHEUMATISM.—In a recent thesis Dr. Chéron details the results of certain investigations which he has been making concerning the condition of the kidneys in acute articular rheumatism. He found albumin in the urine in about forty per cent. of the cases examined. Its presence is due, he thinks, to a passing renal congestion, an ordinary mild form of nephritis, or, occasionally, to renal embolism. The existence of albuminuria, he says, offers no contra-indication to the continued exhibition of sodium salicylate.—*Archives Générales de Médecine*, November, 1885.

OVARIAN HERNIA.—Professor Andrea Ceccherelli relates the case of a woman, thirty-eight years of age, who entered the hospital on account of a swelling which had appeared the evening before in the right inguinal region at the same time that the menses appeared. Examination showed a small tumor, a little larger than a walnut, movable, and but slightly painful on pressure. Herniotomy being performed, the body was found to be an ovary. The organ was returned with some difficulty, but the patient made a good recovery, and was discharged at the expiration of a fortnight. Boinet has collected the statistics of nine cases of this sort in which ablation of the ovary was practised, with the result of a cure in eight of them. But Dr. Ceccherelli advises oöphorectomy only in those cases of ovarian hernia in which there are plain indications of disease in the organ at the time of the operation. And such evidence of pathological changes is present, he says, only in exceptional cases, so that, as a rule, an endeavor should be made to return the ovary intact into the abdominal cavity.—*L'Union Médicale*, October 20, 1885.

THE DANGER OF SUBMUCOUS INJECTIONS OF CHLOROFORM.—Dop and Guillot have advised the injection of five or six drops of chloroform beneath the mucous membrane of the gums for the relief of toothache. But Blocq asserts that this procedure is not free from danger, and relates a case in which it was followed by extensive and painful swelling of the face, with necrosis of the mucous membrane of the upper lip and gum, resulting in prolonged suppuration and superficial necrosis of the jaw.—*Centralblatt für Chirurgie*, October 31, 1885.

The Foveola Coccygea.—This is the name given by Eckert to a depression in the skin sometimes found in the region of the coccyx. In an article in the *Centralblatt für Chirurgie* for October 31, 1885, Dr. O. Madelung says that his attention was first called to the existence of such a depression in the case of a boy with a pelvic abscess, in whom the foveola at first suggested the cicatrix of an old sinus. He learned, however, that there had never been any suppuration from this part, and further investigations showed that such depressions were by no means of great rarity. This depression indicates the position of the *glabella coccygea*, a small spot on the skin, near the junction of the last sacral and first coccygeal vertebræ, which becomes visible about the middle of fœtal life. The spot is uncovered with hair, and the skin is thinner than that of the neighboring parts. It is difficult to distinguish the glabella in the infant, but in the new-born it is often very distinct, as it is hairless, while the surrounding parts may be thickly covered with lanugo. This part is not infrequently also found as a crescentic or funnel-shaped dimple, and in such cases the depression or foveola remains after the glabella is no longer distinguishable. A knowledge of the possible existence of this anomaly may be of practical value. The author mentions the case of a man who had noticed pus-stains on his linen, and whose physician, on examination, discovered what seemed to be a sinus in the region of the coccyx. A probe failed to detect dead bone, but nevertheless this was supposed to be the cause of the discharge, and an operation was proposed. Madelung found, however, that the supposed fistula was merely a deep foveola, and the formation of pus was occasioned by an eczematous inflammation of the skin. Appropriate treatment was followed by a cure of the eczema. In a case of breech presentation the accoucheur felt a foveola and supposed it was the anus, while the anus he mistook for the vulva, and accordingly prophesied the birth of a female infant. He was somewhat chagrined to find a boy.

Quadruple Pregnancy.—Dr. Castañeda y Campos reports in the *Gazette de Gynécologie* for November, 1885, the case of a woman, twenty-eight years of age, who was delivered at the sixth month of four children. Three were males and one female; one was still-born, while the others lived from one to thirteen hours after birth. There were three distinct placentas, one being common to two fœtuses, and these were the most feeble and shortest-lived of the four, although they were the largest. The children died in the order in which they were born, the first being still born, while the fourth lived for thirteen hours. It would thus seem as though the few extra minutes of intra-uterine life had given the later ones a greater degree of vitality, enabling them to survive by several hours the first-comers. The mother suffered from phlegmasia alba dolens, but recovered promptly under appropriate treatment.

The Kidney in Diabetes.—In a recent work upon "The Kidney in its Relations to Diabetes," Dr. Inglessis states that functional hypertrophy of this organ is the most common lesion found associated with glycosuria. The kidney is increased in volume, and the cells of the convoluted tubules are markedly hypertrophied. True inflammation supervenes only after the disease has existed for a considerable period, and when present it usually assumes the form of parenchymatous nephritis. *Le Progrès Médical*, October 3, 1885.

Cocaine in Sea sickness.—Dr. W. Otto, surgeon of the steamship Ems, of the New York and Bremen Line, publishes in the *Berliner Klinische Wochenschrift*, of October 20, 1885, the results of his experience with cocaine hydrochlorate in the treatment of sea-sickness for the five months, from May to September, inclusive. The drug was given by the mouth in aqueous solution in doses of $\frac{1}{4}$ to $\frac{1}{3}$ grain, not oftener than three times a day. It was given only to adults and never hypodermatically. By means of this the vomiting was controlled, and nausea quieted; usually, also, a quiet and refreshing sleep followed, so that some of the patients supposed that they had taken morphine. In some cases, however, the drug failed to give relief, and the patients remained sea-sick until the end of the voyage.

The Number of Bacilli in the Sputa of Phthisical Patients.—Dr. Zenkevich, of Kieff, formulates the following conclusions from the study of a large number of observations: 1. The quantity and quality of the expectorated matters have no influence upon the number of bacilli therein contained. 2. The assertions of Balmer and Fraentzel and of Pfeiffer that the bacilli are most numerous during the last days of the patient's life are far from being correct. 3. The quantity of bacilli in the sputa is not proportional to the extent of pulmonary tissue involved. 4. It bears a direct relation to the degree of fever, and this depends upon the destructive rapidity of the disease. 5. The bacilli do not grow primarily in the purulent secretion and penetrate thence into the lung tissue, but the opposite is the case. The assertion which has been made that they develop better in the sputum than in the pulmonary parenchyma is, to say the least, very doubtful.—*Journal de Médicine de Paris*, November 1, 1885.

The Action of Nitroglycerine in Nephritis.—Dr. Burginski formulates the following conclusions from a series of investigations which he has made concerning the treatment especially of parenchymatous nephritis (*Brach*, No. 21, 1885). 1. Nitroglycerine in small doses reduces the amount of albumin in the urine. 2. It increases the total quantity of urine excreted, and this effect is observed for some time after the administration of the drug has been discontinued. 3. The amount of albumin is still further reduced when the drug is given in gradually increasing doses. 4. Nitroglycerine appears to have no influence upon the specific gravity of the urine, nor upon the weight of the individual. 5. The only unpleasant effect of the drug, when given in Bright's disease, is a slight and transitory headache, observed sometimes at the commencement of treatment.

Chicken-pox and Small-pox.—M. d'Heilly, of Paris, during an epidemic in his wards of chicken-pox, made several inoculations, which succeeded three times in ten. Trousseau attempted, but was always unsuccessful; Steiner succeeded in eighty per cent. After successful inoculations, chicken-pox is not preceded by prodromata. The period of incubation is from three to seventeen days, an average of from fourteen to seventeen. Chicken-pox always resulted, and never small-pox. One of the children had been previously attacked by small-pox; the subsequent attack of chicken-pox ran its usual course. In children previously vaccinated and then inoculated with small-pox, the vaccination-pustule dried on the eighth day; chicken-pox appeared on the twelfth, and followed its ordinary evolutions. In one case, a small-pox eruption appeared two days after the chicken-pox eruption, and went on through all the stages. M. d'Heilly considers that these facts demonstrate that chicken-pox and small-pox are two distinct diseases. The period of incubation can be co-existent or follow closely one after the other. Chicken-pox vaccination did not leave any marks, and the eruption was not near the area of vaccination. M. d'Heilly vaccinated from chicken-pox vesicles on the second day. M. Dumontpallier observed that M. d'Heilly's experiments were not conclusive, because the children vaccinated for small-pox remained in the ward among the children suffering from this disease. The experiments of the same kind he had made with Trousseau all failed, the children were removed from contact with chicken-pox patients.—*Brit. Med. Journal.*

Not a "Complication of Diseases."—Medical Examiner: What did your father die of? Applicant: Oh, just *plain* death.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, December 12, 1885.

THE FINAL REPORT ON THE CHOLERA BACILLUS.

THE full text of the report made by Drs. E. Klein and Heneage Gibbs, on the subject of the relations of the comma-bacillus of Koch to cholera, has been published. With it is a report of a Committee appointed by the Secretary of State for India to pass upon the report of the Cholera Commission. This Committee was composed of Dr. Burdon-Sanderson, Sir J. Fayrer, Sir William Gull, Sir W. Guy Hunter, Sir W. Jenner, Dr. Timothy Lewis, and several others.

The full report of the Commission contains in effect no new facts, but only a more elaborate discussion of results of the investigations of Klein and Gibbs. These gentlemen reiterate their statements: 1. That the comma-bacilli, though occurring ordinarily in cholera, do also occur in other diseases. 2. That these bacilli do not always occur (as claimed by Koch) in vast numbers in the intestine, and that they are not always found in the intestinal tissue, but only in the mucous flakes. 3. That the comma-bacilli, when cultivated and injected into the system of lower animals, do not produce genuine Asiatic cholera; and, finally, that the comma-bacilli were not always found in water-tanks in the vicinity of places infected with cholera, while they were found in some tanks in neighborhoods not infected.

The conclusions of the Committee are summed up as follows:

"1. Comma-shaped organisms are ordinarily present in the dejections of persons suffering from cholera, but not in the blood, the intestinal mucous membrane, or any other tissue. 2. Comma-shaped organisms of closely allied morphological appearances are ordinarily present in different parts of the alimentary canal in health, and are developed to an unusual extent in certain diseases in which there is copious intestinal secretion; the predominant form in any given case depending in a great measure on the nature of such secretion. 3. The comma-shaped bacilli ordinarily found in cholera do not induce that disease in the lower animals, and there are no real grounds for assuming that they do so in man. 4. The committee expressed its 'conviction that sanitary measures in their true sense, and sanitary measures alone, are the only trustworthy means to prevent outbreaks of the disease, and to restrain its spread and mitigate its severity when it is prevalent.'"

The conclusion of the whole matter is that the causal relation of Koch's comma-bacillus to Asiatic cholera is "not proven."

Of the scientific value of the English Commission's report we have already expressed an opinion. While exhibiting much technical skill and labor it was not a thorough piece of work, and showed both a bias against Koch, and a lack of appreciation of some of the most essential points made by Koch. Though the report has been "tinkered" considerably since its substance was first communicated there is no reason to change the above expressed opinion of it.

As for the conclusions of the Committee they are utterly inane and valueless. A number of the members were gentlemen already committed irrevocably to special views of cholera, while others were gentlemen distinguished mainly as general consultants, and having not the slightest expert knowledge of bacteriology.

Since Klein and Gibbs made their investigations several most careful experimenters have corroborated Koch by studies much more exhaustive and exact. While the comma-bacillus may yet be regarded as of doubtful specific character, its claims for such character are much stronger than would be supposed from the conclusions of the English Commission and the English Committee.

THE PRACTICAL WORKING OF LAWS REGULATING MEDICAL PRACTICE IN THE UNITED STATES.

UNDER the above title Dr. Richard J. Dunglison makes a report to the American Academy of Medicine of the results of an inquiry into the working of the various medical laws in the United States.

The report is valuable as giving the opinions of prominent physicians who reside in the different States, and who have some direct and personal knowledge of the question at issue. It has to be confessed that a perusal of Dr. Dunglison's paper does not leave one in a particularly encouraged state of mind. It is true that nearly all the correspondents write hopefully, and nearly all believe that in time some medical legislation will be accomplished which will benefit both the public and the profession. The main complaint everywhere is, that it is difficult to obtain a law, and still more difficult to execute it, because the people or their legislators believe that it is "class legislation," and intended for the benefit of the doctor.

A few of Dr. Dunglison's correspondents express the view that all attempts at regulating medical education and practice by law are unwise and not in harmony with the spirit of our institutions. The matter has been often argued, and we do not propose to revive it again now. We believe that the opinion of most of those who have thought seriously upon the matter is in favor of some form of State regulation of medical practice. Unlike the clergyman, or lawyer, the doctor is, in his professional capacity, an officer of the State. He renders his services to it in his reports of deaths, births, and contagious diseases, and as a medical witness in courts. The State has a right, therefore, to see that its officers are competent. Beyond all this, the physician who is uneducated and incompetent is a source of danger to the public health, and here again the State has a right to protect itself.

With the greater maturity of our country we believe that public sentiment will sustain efficient laws to these ends. Nor does it seem possible that it can take a very long time for the public to learn and admit that a community supplied with well-trained medical men will be in a safer and healthier condition than if supplied simply on the supply and demand principle.

THE BLOT UPON THE BRAIN.[1]

Psychological studies are among the most fascinating in literature. There is implanted within the human breast a liking for oddities, and when these concern that most mysterious of human organs, the brain, there comes to each individual who reads a sort of personal appeal unlike anything else in *belles-lettres* or scientific writing. The possibility of your gray cells or your neighbor's gray cells escaping their task-master, and performing freaks which, since they occur in others, is manifestly inherent within them, adds a curiosity half pleasurable, half painful, a piquant mingling which one would not forego.

Dr. Ireland has brought together a baker's dozen of such papers, under the sensational title of "The Blot upon the Brain." In his book he makes a bid for a wider circle of readers than those interested in medical psychology alone. To prepare these, he presents in his opening paper, on "Hallucinations especially of Sight and Hearing," a cursory glance at the nervous system; at the same time he desires to place all his readers in a proper frame of mind to receive his historical sketches, which follow. These form the most interesting and entertaining portions of his book. Exceedingly well written and carefully worked up, they focus an intellectual light upon the individuals who for many centuries have been, because of their strange and unaccountable acts, colossal statues in history, which have dwarfed all others and have made their names adjectives, by which is condensed in one word their distinguishing peculiarities. Among such are Joan of Arc, Mohammed, Nero, and others of royal blood.

The author justly remarks: "In psychology speculation has long done its best, and it is to observation that we must look for more light; but let us not run away with the notion that we understand the nature of hallucinations when we have indicated their anatomical seat. There is a mystery about the relations of sensation and perception of nerve tissues which cannot be explained."

With this idea paramount, the writer turns his attention to the historical personages just spoken of. The hallucinations of Mohammed, Luther, and Swedenborg are considered, which are familiar to readers of history; but the interest in these papers and those following resides in the fact that the author has brought them together and shown their relation to concurrent events. For delicacy of handling, and nicety of portrayal, the paper on "The Character and Hallucinations of Joan of Arc" takes the precedence. The portraiture of the inspired peasant girl, drawn in its psychological aspect, is so finely done that it is like some picture painted by an artist who has had a fresh inspiration with reference to an oft-considered subject, which far removes his creation from the every-day hackneyed conception.

The third historical study is entitled "The Insanity of Power." With this may be included "The History of the Hereditary Neurosis of the Royal Family of Spain." In all of these is shown the descent, from one generation to another, of the functional nervous disturbance which appeared as epilepsy in some, as flagrant insanity in others, giving to the world such monsters of iniquity as Nero and Caligula, of Rome; Mohammed Toghlak, the Sultan of India, whose cruelties are too horrible to be mentioned; the atrocities of Ivan the Terrible and his descendants. About the throne of Spain, for three hundred and fifty years, lurked an hereditary neurosis, which, to quote our author, "passing over a generation, and appearing in various forms and intensities as epilepsy, hypochondria, melancholia, mania, and imbecility, at length extinguished the direct royal line of Spain. The baneful tendency in the blood was re-enforced by close intermarriages with families of the same stock." In concluding his paper, the writer answers the question, "Who is well born?" and, in answering, points the moral of his tale:

"Whoever attends closely to history must know that there is a great deal in birth, but not birth as fixed by laws and traced by heralds. A man who is well made, strong, mentally gifted, and able to do much work and stand much strain must be well born; and a race sodden with epilepsy, insanity, and scrofula, whatever its fictitious rank, is necessarily low born, and in reality not worth preserving. The royal families of Europe have shown a tendency to segregate themselves, as if the possession of political power conferred some peculiar virtues on the stock, and this leads them to seek alliances which sound notions would teach them to avoid, and to brand as morganatic, or left-handed, marriages which would purify the blood. If the people they rule over had any voice in such matters, as they have so deep an interest, they would forbid two royal families, each tainted with insanity, from intermarrying with one another, as fraught with great dangers, not only to the family, but to the nation placed under its rule, and which must suffer for the extravagance of its members."

The concluding papers, "Fixed Ideas," "*Folie à Deux*," "Unconscious Cerebration," "Relation of Words to Thought," "Left-Handedness," "Mirror Writing," and "The Dual Functions of the Brain," are often very suggestive and interesting; at other times there is superficiality in the treatment and a lack of breadth in striking contrast to what one is led to expect from the consideration of some of the other subjects.

Space does not now permit us to enter into a detailed exposition of these statements, nor can we dwell longer on much that is worthy of the attention.

A marked detraction from the scientific aspect of the book are the sensational headings of the pages, drawn from some incident related. To illustrate, one page is entitled "Is She Pretty, or Not?" another, "Suspicious of Shrewd People;" still another, "Our Idea of a Solid Body," etc. When he considers some of the deep problems of psycho-philosophy his style is somewhat rambling and ambiguous, and the reader trying to follow the argument is further distracted by these captions which head the page, which, if not as sensational as those quoted,

[1] The Blot upon the Brain: Studies in History and Psychology. By William W. Ireland, M.D., Edinburgh. Published by G. P. Putnam's Sons. New York: 1886.

are often wide of the mark. These defects, however, are pardonable, since in the main the book is readable, entertaining, and instructive far beyond the average.

ALLEGED HYDROPHOBIA AND ITS ALLEGED METHOD OF PREVENTION.

The history of hydrophobia in Newark, N. J., during the past two weeks, is full of dramatic and scientific interest. An alleged mad dog ran through the streets of the city and bit a large number of other dogs, as well as six previously healthy children. The quantitative development of the hydrophobic virus (and this furnishes the first point of interest) was certainly very large, for, besides six children and six dogs known to have been bitten, a number of other dogs were believed to have suffered, and were in consequence promptly shot by the intelligent police. The spinal cord of the original alleged mad dog has been preserved for experiment, the six bitten dogs have been corralled by the Board of Health for the purpose of observation, and four of the bitten children have been sent to Paris for purposes of "Pasteurization."

At date of writing it is still uncertain whether the dog was mad, and it is rather more than certain that Pasteur's preventive inoculations are of no value whatever, except to relieve mental distress. Therefore, we are as yet unable to say whether the hydrophobia fright in Newark is to turn out a comedy or tragedy.

It is gratifying, however, to see the ready sympathy so practically displayed toward the bitten children, and the prompt appreciation by our community of the possibilities of a novel preventive measure.

WISHING TO BE LET ALONE.

By an extraordinary process of reasoning, the *Journal of the American Medical Association* attempts to show that there is now no longer any reason for criticism, protest, or discussion regarding the management of the International Medical Congress. Having turned a masterly somersault in defending as parliamentary a procedure that it at one time was at extraordinary pains to condemn, it now believes that every one should cease complaining, and let its affronts and inconsistencies alone. We are strikingly reminded of a once popular poem concerning an "old cove" who sat at an advantageous spot and shied stones at the passers-by. He, too, only wished "to be let alone."

It is, however, not reasonable to expect that a policy which excludes so many leading men from all honorable connection with the Congress, shall not continue to be criticised.

OCCUPATION AND MORTALITY.

In an introduction to the supplement to the Forty-fifth Annual Report of the Registrar-General, Dr. William Ogle has given some instructive facts regarding the mortality-rate of different occupations. His figures are based on the British census for 1881 and the recorded deaths in the Registrar-General's office for the years 1880, 1881, and 1882. They cover only deaths occurring in males above the age of fifteen (of whom there are 8,000,000 in England and Wales) and indicate the comparative mortality-rate in seventy-three different industries.

Dr. Ogle shows, first of all, that the mortality-rate for persons between the ages of twenty-five and forty-five has decreased, while that for persons between forty-five and sixty-five has increased.

In order to indicate the comparative mortality of different occupations, he takes as an average mortality figure for all males in England, 1,000. He then finds that to every 1,000 deaths among male adults of all classes, there are only 556 among clergymen and priests. Next to this class, in healthfulness, come the gardener and nurseryman with 599 deaths, the farmer and grazier with 631, and the farm laborer with 701

The figures for the other occupations, or groups of occupations, increase rapidly, and at the bottom of the list appear the following: Plumber, painter, and glazier, 1,202; cutler and scissors-maker, 1,309; musician and music-master, 1,314; hairdresser, 1,327; cab and omnibus service, 1,482; chimney-sweep, 1,519; innkeeper and publican, and wine and spirit dealer, 1,521; messenger, porter, and watchman, 1,565; file-maker, 1,667; earthenware manufacturer, 1,742; Cornish miner, 1,839; costermonger, hawker, and street-seller, 1,879; general laborer in London, 2,020; and inn and hotel servants, 2,205. Compared with the clerical, the legal and medical professions appear in a far less favorable light: the mortality figures for barristers and solicitors is 842, and for physicians, surgeons, and general practitioners, so high as 1,122, against 556 only in the clerical profession.

It thus appears that in England two doctors die for every clergyman.

Some light is thrown upon the causes of the excessive death-rate in some occupations. Thus among inn-keepers and saloon-keepers, who have the high comparative figure, 1,521, the deaths from alcoholism and liver-disease are five times greater than the average among males. Among file-makers, plumbers, and painters there is an excessive death-rate from diseases of the urinary system. The mortality-rate for phthisis is very low among farmers, fishermen, and gardeners, while it is very high among file-makers, printers, earthenware manufacturers, and is highest of all among Cornish miners. On the other hand, it is very low among coal-miners.

Dr. Ogle's statistics are interesting, but they are vitiated in a measure, as he himself, we believe, admits, by the fact that it is not alone occupation, but the home and domestic environment that have to do with mortality. In this country, also, the element of climate would have to be considered.

THE HEALTHFULNESS OF HEATED STREET-CARS.

Considerable discussion has been going on as to whether it is better, from a hygienic point of view, to have street-cars heated. It requires but little observation to see that, as some cars are heated, it is undoubtedly unhealthful and unsafe. Ill-tended fires in hot and dirty stoves simply develop smells, intensify contagion, and render travelling unsafe by reason of the sudden changes from pure cool air to that which is hot and foul. It is, we believe, conceded that the conductors on these cars

suffer more frequently from colds and bronchial disorders than those on the unheated cars.

It is perfectly safe, however, and much more comfortable to have cars moderately heated, provided they are also kept clean, and, provided also, that some attention is paid to ventilation, so that the car is not an almost air-tight box, except when the doors are opened.

SNEAK-THIEVES AND DOCTORS' OFFICES.

It is quite time that our police authorities showed some capacity for dealing with sneak-thieves. In this city the class in question have been making constant depredations upon doctors especially, until matters have reached such a pitch that it is more than simply a question of overcoats and mantel-clocks that is involved. We are hardly aware of a single physician in this city who has not had some disagreeable experience with sneak-thieves, and the result now is that many medical men refuse to go to any new address when summoned professionally by strangers. Over and over again we hear the story of a man calling and saying that medical help is needed at a certain address. If the doctor is out, "he thinks he will wait;" and if the servant is unwary, he absconds with whatever he can lay his hands upon.

The results of all this, as we have said, are now reaching beyond those of petty loss of personal property. It is sometimes difficult for a sick man to get a reputable physician in an emergency. His own medical attendant may be away, and another is hurriedly summoned; but, warned by experience, the doctor refuses to go without some assurance of good faith.

We can readily understand that serious harm may happen through this state of affairs.

When physicians call upon the police for protection, some stupid political detective saunters around and listens politely to the story. He thinks it over, and that ends it. Can we not have something more done than this?

THE PRESENT ASPECT OF THE TREATMENT OF TYPHOID FEVER.

In *Schmidt's Jahrbücher* for October last Dr. Arthur Geissler reviews the contributions to the literature of typhoid fever made in the past three years. In the direction of therapeutics these contributions have been quite numerous. A study of them shows in a striking manner the two main tendencies in which efforts to find helps in the treatment of typhoid have been directed, viz., toward antipyretics and antizymotics. On the one hand is a numerous school which advocates the use of cold baths, or of quinine, salicin, antipyrin, and its allies; on the other, an almost equally large constituency which commends carbolic acid, or carbolic acid and iodine, calomel, naphthaline, and similar drugs. It is difficult to say as yet which has the preponderance of support.

It is certain, however, that the cold-water treatment has received a decided set-back both in Germany and in France. The discussions which took place in 1883–84 at the Académie de Médécine on typhoid fever, elicited opinions which, on the whole, were decidedly unfavorable to the systematic use of hydrotherapy. A recent discussion at the Berlin Medical Society, in which Senator introduced the subject of the treatment of typhoid fever, brought out also a large amount of evidence against the systematic use of this measure. Very significant are the statistics of Dr. Gläsel who, in two divisions of the Hamburg hospital, treated one set of patients with antipyresis, the other with antizymotics. In both wards there was a mortality of about seven per cent.

Of antipyretic drugs, quinine still holds a firm place. Herard, Gee, and Jaccoud are among those who still express their preference for it. On the other hand, Unverricht, Legouest, Blot, Hardy, and Dujardin-Beaumetz either dislike its effects or prefer some other antipyretic. Desplats, Dujardin-Beaumetz, and Vulpian decidedly favor the use of salicylic acid, or one of the salicylates; but Dr. James Fergusson has expressed the opinion that they increase the tendency to intestinal hemorrhage. As regards the pure antithermics, such as antipyrin and thallin, Professor Jaccoud has recently asserted, in a paper read before the Académie de Médécine, that they have absolutely no effect upon the course of the febrile disease, and are no real acquisitions to therapeutics. In this opinion he is beginning to find many supporters.

The use of disinfectants or germicides in typhoid fever is not a new one, but it has of late had some very enthusiastic advocates.

Among these are Remonet, who began the treatment in 1880, and who advocates the use of large doses of phenol (gr. xv., once to thrice daily given in enemata). Other believers in this drug are Dr. Amet, Professor Cantani, who claims that it will abort the fever in many cases, and Pécholier. On the other hand, many prominent therapeutists have expressed themselves decidedly against it, and certainly the use of large doses has not gained any foothold with the profession. The administration of carbolic acid and iodine in moderate doses, however, has numerous advocates in Germany and elsewhere. The formula of Rothe, which was published in The Medical Record a few years ago, has become popular. In this country, Drs. Bartholow and James Wilson recommend the use of the two drugs, and Geissler mentions reports in its favor by Klammann, Raymond, Kurz, and Sansom.

The latest addition to drugs of this class is naphthaline, which has been reintroduced into therapeutics by Professor Rossbach. This cautious observer believes that it will have the effect of shortening or even aborting attacks of typhoid fever in some cases. Dr. Götze, of Jena, gives some facts in corroboration of such a view.

One cannot but be struck with the large amount of evidence that has gradually been collected in favor of such germicidal drugs as phenol, phenol and iodine, naphthaline, and perhaps we might put in this category salicylic acid and calomel. For three of them, viz., salicylic acid, phenol, and naphthaline, effects abortive to the fever have been claimed. It is safe to conclude, at any rate, that only agents of this disinfectant class affect the course of typhoid, and that all forms of antipyretics seem only to lessen the severity of the symptoms. From the present evidence it would appear that fresh air, careful employment of nourishment and stimulants, the rational occasional use of antipyresis, and the *systematic* use of some disinfectant constitute the best treatment now known for typhoid fever.

THE LADIES' TIPPLE.

That popular abomination known as "Beef, Iron, and Wine," which is now sold so extensively, not only by druggists, but by tradesmen of various kinds, deserves a little special attention from the medical profession. It is an agreeable mixture to the sight and taste; its name is a triple combination of seductive mononyms; while, taken into the stomach, it acts as a gentle "pick-up" to the worn and over-sensitive nerves of the ladies. It has in consequence become a popular, if not a fashionable, tipple, and is indiscriminately used to an extent that is, we believe, not entirely free from danger. Every medical man knows that the amount of actual beef or food in these various preparations is insignificant, and that it is the wine, after all, that makes them liked, and that leads so many persons to purchase their second bottle.

There is no good reason why this mixture is allowed to be sold by those unlicensed to sell wines, and if the law supports the practice it is the duty of physicians at least to try and lessen it. Inebriety can result from these tipples.

A STORY WITH A MORAL.

The wicked do not always prosper, and it is not always safe to visit a patient whom you have never seen before, and criticise the treatment of the family physician. The following tale, which we find related in the *Journal de Médecine de Paris*, is illustrative of this fact.

A young cavalry officer had sustained a severe compound comminuted fracture of the leg some years ago, and although he was able to attend to his duties, suffered at times from the passage of little spiculæ of bone from the wound. One evening he was taken with fever and sore throat, and Dr. Danet, the family physician, saw him and prescribed for an acute pharyngitis. The following day the patient felt well, but in the evening had a fresh attack of fever, the pain, however, being at the seat of the old fracture and not in the throat. The part was red and hot, and the patient complained bitterly of the pain. A surgeon was now called, without the knowledge of the family physician, and gave as his opinion that the trouble was due to the presence of a loose splinter of bone, and ordered poultices. Dr. Danet was now summoned, and knowing the patient well, and being aware that he was of a rheumatic diathesis, was reserved in his diagnosis, and prescribed anti-rheumatic remedies.

As the man did not recover at once, the family became somewhat anxious, and called a well-known professor, who saw the patient in the absence of Dr. Danet. He said at once that there was nothing to do but to cut down and resect a portion of the tibia. The family physician called, as usual, soon after, and was not pleased when he heard of what had happened. He removed the poultices, told the patient to continue his quinine and salicylate, and assured him that the trouble was rheumatic. In two days the young officer mounted his saddle as well as ever.

Moral: Don't be unkind to the general practitioner.

The Physicians of Philadelphia number 2,500. New York has about 2,900.

News of the Week.

The Club System of Medical Attendance in Berlin.—The statement is made in an exchange that a club of 4,800 members, in Berlin, recently advertised for six medical officers to attend them at a salary of $375 per annum each. This would make the contribution from each member of the club about seventy-five cents a year for medical attendance. More than four hundred doctors applied for the places.

The Late Dr. Carpenter died by accident in connection with the use of a hot-air bath at home. The safety-lamp of his bath being out of order, he extemporized a lamp with common spirit in a gallipot.

One of Pasteur's Patients Dies.—A cablegram of the 6th inst., from Paris, says: A girl who was bitten by a mad dog, and subsequently inoculated by Dr. Pasteur, has died of rabies. Dr. Pasteur explains that thirty-six days having elapsed before she was inoculated, the period of incubation had expired, and the treatment was therefore too late.

Hydrophobic Inoculation.—The daily papers telegraph the criticisms upon Pasteur's preventive inoculations for rabies made by female writers of fiction, like Ouida, and female writers of anti-vivisection nonsense, like Dr. Anna Kingsbury, whoever she may be. All the points, and more, made by these critics were made with scientific precision by Dr. Jules Guérin at the time Pasteur first announced his discovery; and they have also been made in the columns of The Record. The Associated Press bows somewhat too profoundly to lovely woman.

The Late William H. Vanderbilt.—The medical profession will remember with gratitude that the late Mr. Vanderbilt's largest known gift, half a million of dollars, was to a medical institution—the New York College of Physicians and Surgeons.

The New Crematory near this city was first used last week for the incineration of a human body. It did not work perfectly, but it is expected to do so.

Intubation of the Larynx in Membranous Croup.—Dr. F. E. Waxham, of Chicago, reports six cases of croup in which intubation of the larynx was practised according to the method suggested by Dr. O'Dwyer. Two of the patients recovered.

Medical and Surgical History of the War.—The manuscript of the third medical volume of the "Medical and Surgical History of the War," and the last of the series, is now well advanced toward completion; its earlier chapters are in the hands of the printer. The work will probably be ready for issue during the coming winter.

The Cleveland Medical Gazette is the title of a new medical monthly edited by Drs. A. R. Baker and S. W. Kelley, and published in Cleveland, O. There are, we are told, four hundred physicians in Cleveland, and the *Gazette* intends to be a "live local journal."

The next Series of Cartwright Lectures will be delivered by Dr. William Osler, of Philadelphia. So far no practising New York physician has delivered this course.

The U. S. Army Medical Library now contains 72,219 bound volumes and 95,923 theses and pamphlets.

The First Session of the American Public Health Association.—The American Public Health Association met in its Thirteenth Annual Convention in Washington, D. C., December 8, 1885, with Dr. James E. Reeves, of Wheeling, W. Va., President of the Association, in the chair. When the Convention had been called to order by the President, Dr. Townshend stated briefly the arrangement made by the local committee for the meeting and for the entertainment of members. About one hundred and twenty-five new members were then elected. The first paper read was on "Sanitary and Statistical Nomenclature," by Dr. E. M. Hunt, Secretary of the State Board of Health, Trenton, N. J. It contained suggestions as to restrictions to be placed upon the meaning of various terms used in sanitary reports. The next paper presented was by Dr. J. S. Billings, U.S.A., in which he suggested changes and improvements in, forms of tables for vital statistics. Dr. Henry B. Baker, Secretary of the State Board of Health of Lansing Mich., read a paper on "The Relations of Rainfall and Water-supply to Cholera." Dr. Baker's paper was illustrated by several statistical tables and diagrams based upon the statistics of cholera in Calcutta from 1865 to 1884, inclusive, and the meteorological reports for the same period. These tables showed that cholera and rainfall bore a statistical relation, the mortality being greater in seasons of little rain and *vice versa*. The tables showed also that the mortality was greatly reduced upon the introduction in late years of a good water-supply. Dr. D. E. Salmon then read a paper on "The Virus of Hog Cholera," in which were given in detail the experiments made by the Bureau of Animal Industry. The Hon. Erastus Brooks, of New York, said this was a commercial as well as a sanitary question. He referred to the action of the French and German authorities in prohibiting the importation of American pork. He heartily urged that the subject should be further discussed. Dr. T. S. Verdi, of Washington, a homœopath, said the assumption that our animals arrived in Europe in a diseased condition was only an excuse to keep out the American cattle. Mr. Brooks said that while this was probably true, it was not the whole truth. The alleged improper packing of pork, rendering it unfit for use when it arrived in France, was the avowed cause of the prohibition in France. He referred to the tariff duties imposed here as tending naturally to retaliatory measures. He thought it was our duty to see that food sent abroad was properly packed. Dr. Reed, of New York, offered a resolution recommending legislation, national, State, and municipal, to provide protection for the people against the sale of diseased meat.

The Question of Quackery in England.—We read in the *Medical Press and Circular* the following from a correspondent of that journal: "Sir—I am not aware of any subject of such vital importance to qualified and registered practitioners as the large and ever-increasing number of quacks in the United Kingdom, but particularly in England." Yet we are told by an Anglo-Californian that quackery is almost unknown in England, and that the *Medical Register* settles the status of every one at once. Concerning this, the correspondent adds later: "Few lay persons, of whatever social position, are aware of the existence of that legal publication, the *Medical Register*, nor does the General Council apparently care whether they are or not."

A Collective Investigation of Yellow Fever in Peru has been set on foot by the Lima Academy of Medicine.

Death in a Dentist's Chair from Nitrous Oxide.—A French dentist, named Duchesne, has got into serious trouble owing to the death of a patient while under the influence of laughing-gas.

Lady Medicals and the Drama.—The Parisians, says the *Hospital Gazette*, have been enjoying a good laugh lately at the expense of the ladies, or rather at the medical portion of the gentler sex. The occasion for the mirth is a most humorous comedy which has been produced recently at the Gymnase Theatre, entitled, "The Female Doctor," and which deals with this modern excrescence of social life in a most amusing and ridiculous manner.

A New Hypnotic.—M. Dujardin-Beaumetz having tried it in only nine cases comes forward with the announcement that phenyl-methyl-acetone is an excellent hypnotic, and in alcoholism superior to chloral. It is given in doses of five to fifteen centigrammes.

The Cause of the Poison of the Cholera Bacilli.—MM. Nicati and Rietsch have discovered toxic ptomaines to result from the growth and activity of the cholera bacilla when cultivated in broths and peptones. These toxic products when injected into mice killed them. Nicati and Rietsch support Koch in his views of the specific character of these bacilli.

About the Truth of It.—Client (to Lawyer)—I am afraid the physician's testimony will convict me. Lawyer (reassuringly)—Don't be alarmed about that. I'll read up a little about poison in the stomach, and in ten minutes I'll have that doctor in a cold sweat, and make the judge and jury think he is a hired perjurer.—*New York Sun.*

A Much-bitten Anti-vivisectionist.—The lady secretary of the Anti-vivisection League of England argues, in a letter to M. Pasteur, that cauterization removes all danger of hydrophobia. Her son once, and she herself five or six times, have thus escaped the malady, and both offer to be bitten by any mad animal in M. Pasteur's laboratory on condition of being allowed to treat the wounds themselves.

The Amenities of the Profession in Texas.—This professional item appears in the Texas *Courier-Record of Medicine:* "Dr. Palmer, who, in a fight with Dr. Calloway at Blooming Grove, had the end of his finger bitten off by the latter, is in a critical condition owing to blood-poisoning having set in. The finger was amputated, but it is thought this will not save his life."

Defence of an Anti-vaccinator.—Dr. M. M. Mitivier, of Montreal, sends us a long communication defending the character and scientific attainments of Dr. Emery Coderre, who has acquired some notoriety in the anti-vaccination cause. Our correspondent informs us

that Professor Coderre is a gentleman of profound and extensive knowledge, and of an admirable personal character. All of which we are pleased to learn and record. None the less can we doubt that he has not a judicious mind, and that, if reports are true, he has been a source of discord and mischief in Montreal.

Protests from Anti-vaccinationists.—We have received several communications from indignant anti-vaccinationists protesting against our position in assuming that the utility of vaccination is established and need not now be discussed. One esteemed correspondent writes: "I am a reader and a hearty admirer of The Record, but I must say if there is anything contemptible and high-handed treason in this world, it is the way in which you treat the subject of vaccination. You 'hold the fort' to suit yourself, at the head of a popular journal, and do not allow both sides to be fairly presented." To this we can only say that, to all persons who are capable of weighing evidence the utility of vaccination is perfectly demonstrated, and it is a waste of time and space to open our columns to its discussion.

A German View of the International Medical Congress.—The German medical profession is much exercised about the International Medical Congress to be held in 1887 in America. The original Central Committee had for its president Professor Austin Flint, and for its secretary Dr. Billings, and numbered the best-known names in America. Unfortunately, the difference between the Old Code and the New Code of medical ethics have made themselves felt anew. The chief difference lies in the relationship of the profession to homœopaths and irregular practitioners. Besides, a desire was expressed to have separate representatives of each State—a geographical representation. Thus, although the original Committee was nominated by the American Medical Association, a new Committee has been formed, with Dr. Shoemaker at its head. Every one of importance on the older Committee has declined to belong to the new one. Germany has been appealed to to support the old Committee, which it does unhesitatingly. The *Berliner Klinische Wochenschrift*, No. 43, pleads that there is yet time to mend matters, for the American Medical Association meets again next spring.—*Brit. Med. Journal.*

A Country with Few Doctors.—The number of legally qualified practitioners in Finland is, at the present time, 187. From 1640 to 1750 there was only one legally qualified man, a medical professor at Abo (without counting naturalized military surgeons). In 1750 the number increased to three or four, but at the close of the last century there were about twenty practitioners.

Cocaine in Sea-sickness.—A good deal of evidence is coming in as to the value of cocaine in sea-sickness. It is given in doses of gr. ¼ to gr. ¾ in solution, or in capsules.

Virchow on Specialties.—In his recent address at the anniversary of the Berlin Medical Society, Professor Virchow said: "Since that time [twenty-five years ago], the great host of specialties has developed in Germany, and it would be in vain, anyhow fruitless, to oppose this tendency; but I think I ought to mention it here, and hope I shall be certain of the approval of all of those present, when I say that no specialty can flourish which separates itself entirely from the common source of science; that no specialty can develop fruitfully and beneficially, if it do not ever and anon draw from the common fountain, if it do not take the other specialties into account, and if all the specialties do not mutually assist one another; thereby, a fact which is perhaps not always considered necessary for practice, receiving knowledge through that unity on which our position internally, and I can also say externally, rests. For, gentlemen, it would be the most foolish and most dangerous development, if the system of specialties should ever come to such a pitch that special schools were founded in which special branches were taught without any knowledge of other things offered us by the science of medicine."

The International Medical Congress of 1887.—A meeting of members of the medical profession interested in the International Medical Congress in 1887, to which prominent medical men from a number of cities were invited, was held at the Hall of the College of Physicians, Philadelphia, December 4, 1885, Dr. D. Hayes Agnew in the Chair. It was stated that official notice had been given of the election, as members of the present Executive Committee of the Congress, of Drs. J. S. Billings and J. M. Browne, of Washington, D. C.; Christopher Johnston, of Baltimore; George J. Englemann, of St. Louis; and J. M. Da Costa and William Pepper, of Philadelphia. Sincere regret was expressed that hasty action on the part of the Association, and the introduction of false issues, had imperilled the success of the Congress. It was made entirely evident, however, that the acceptances of the above elections would not be regarded as affording any adequate guarantee for the future scientific conduct of the Congress, and consequently would not be followed by any co-operation on the part of the leading members of the profession now unwilling to join in that work. As to the reorganization of the Congress, it was the sense of the meeting, unanimously expressed, that if the present Executive Committee should unite with them the Original Enlarged General Committee, and recommence the organization *de novo*, this course would insure the desired result. This is little better than a forlorn hope.

The Use of Carbonate of Ammonia in Cerebral Hemorrhage, Embolism, and Thrombosis.—Dr. R. C. Van Wyck, of Hopewell Junction, N. Y., writes: "In your journal of Nov. 21, page 568, on the 'Use of Carbonate of Ammonia in Cerebral Hemorrhage, Thrombosis, and Embolism,' the dose used by me is given as five grs. in ʒ ss. (half drachm) of solution liquor ammoniæ acetatis; it should be ℥ ss. (half an ounce) of liquor ammoniæ acetatis. In passing, permit me to say that since this article has appeared in *Gaillard's Medical Monthly*, I have treated successively two other cases in persons of advanced years, both females, aged eighty-two and ninety-three years respectively. Both of these cases are now able to dress themselves and go up and down stairs and around the house by the aid of canes—the older, using two canes, is quite lame; the younger one using only one, and then sometimes omits that. She has been to her son's house visiting, a distance of three miles over very rough mountain roads."

Reviews and Notices.

Transactions of the Medical Society of the State of New York for the Year 1885. 4to, pp. 400.

The usual arrangement of matter is followed in this volume. Of particular interest to New York City physicians are the memorial addresses on the late Drs. Willard Parker, James R. Wood, John Glover Adams, and Joel Foster. Among the papers published there is the usual variety of subjects. Dr. Vanderveer's paper on "Personal Observations on the Work of Mr. Lawson Tait," is very interesting reading. The discussion which followed this paper showed that many of the Society members were not ready to follow Mr. Tait in discarding antiseptics altogether, and relying on mere surgical cleanliness. Dr. Howe's paper on the "Effect of Cocaine upon the Healing of Wounds" states at its conclusion, that "in lesions of the conjunctiva perfect solutions of hydrochlorate of cocaine have no appreciable effect, beneficial or otherwise, in the healing process." In corneal lesions it is an inferior mydriatic to atropine. Its inferiority in wounds of the iris is also noticeable. The volume closes with a copy of the Laws of the State of interest to the medical profession enacted by the Legislature of 1885.

Manual of the Diseases of Women. Being a Concise and Systematic Exposition of the Theory and Practice of Gynecology. By Charles H. May, M.D. Pp. 349. Philadelphia: Lea Brothers & Co. 1885.

To judge from the number of condensations of the various branches pursued in medicine, the demand for this kind of literature, that is, "the concise and systematic," is very great. The present volume, viewed in the light in which it presents itself for consideration, is successful, and will commend itself to students cramming for examination, or preparing for quiz classes.

That it will win for itself a place among practitioners can scarcely be hoped, since the questions that arise among them are generally such as are not answered in text-books, or those volumes which take only a cursory view of the subject.

Diabetes Mellitus: A Synopsis of its Pathology, Physiology, Etiology, Incipient and Progressive Symptoms, Causes of Death, Sugar Tests, and Treatment. By Harvey J. Philpot. Pp. 112. London: Sampson Low, Marston, Searle & Rivington. 1884.

The title explains the contents of the monograph under consideration. It adds little that is new to the subject of which it treats. A careful perusal of its pages leads the reviewer to question why the author, who states that he does "not pretend to propound new theories of his own, nor herald any infallible remedy for this perplexing and harassing disease," ventures upon a work which has been so well done in the many books of general medicine.

Clinical Therapeutics — Lectures in Practical Medicine. Delivered in the Hospital St. Antoine, Paris, France, by Professor Dujardin-Beaumetz. Translated by E. P. Hurd, M.D. Pp. 491. Detroit, Mich.: George S. Davis. 1885.

This volume includes the clinical therapeutics of nervous diseases, of general diseases, and of fevers. It is introduced by an author's preface, in which he alludes with satisfaction to the success of the work, it having already run through four editions in France, and been successively translated into Spanish, Italian, and Greek, as well as into Russian. He thanks the translator, Dr. Hurd, for "the assiduity, painstaking, and accuracy" with which he has done his work. This is not an idle compliment, as those who put to it the severer test of a knowledge of the mother-tongue will say. The work of translating has evidently been done with an enthusiasm which can only be felt when the translator is in perfect *rapport* with the author.

In the translator's preface is a very pleasant and comprehensive *résumé* of the various publications of Dr. Dujardin Beaumetz, which number thirty-two. Among them are many important monographs embracing a wide range of subjects.

The "Leçons de Clinique Thérapeutique," published in Paris from 1879–85, is the most important of his works. The first volume treats of the therapeutics of the diseases of the heart and digestive tube; the second, of the diseases of the liver, kidneys, and lungs. The work under consideration is the third volume of the series.

The author has been extremely happy in the manner in which he has correlated physics, anatomy, histology, physiology, and pathology with the therapeutical aspect of the subject with which he is for the time dealing. He sketches these accessories with a bold and masterly hand, in order to throw into a greater prominence the treatment of the disease, which never loses its central place in the foreground.

These can be considered models of what therapeutical lectures should be, namely, a clear, succinct, and careful exposition of the remedies and measures found useful in the relief of the various diseases to which a physician is called to minister, with a sufficient consideration of the physiological facts to show that these remedies and measures are used in consonance with theories dictated by reason and intelligence.

Applied Medical Chemistry. A Manual for Students and Practitioners of Medicine. By Lawrence Wolff, M.D., Demonstrator of Chemistry, Jefferson Medical College; Member of the German Chemical Society, the Philadelphia County Medical Society, the Philadelphia College of Pharmacy, etc. Philadelphia: P. Blakiston, Son & Co. 1885.

The aim of this book is to set forth in a simple and concise manner the methods of chemical analysis, and to instruct the student in the practical application of the chemical principles set forth in the ordinary text-books. Only those subjects are treated of which have to do with medical chemistry, the object being to furnish to the student, in one small volume, the practical instruction suited to his wants, and which he would otherwise have to search for in voluminous treatises on general chemistry. The work is divided into five parts, dealing with Apparatus and Manipulations, the Chemistry of Poisons, Physiological Chemistry, Excretions and Concretions, and Sanitary Chemistry; there is also an Appendix containing a number of useful and labor-saving tables. The book is intended primarily for students, but it is one which the general practioner, who possesses only an average acquaintance with practical chemistry, cannot well afford to be without. The country practitioner, especially, who may at any time be called upon to analyze the tissues in cases of suspected poisoning, will find much to help him in the chapter on the chemistry of poisons. The fourth chapter, containing instructions on the analysis of the urine and fæces, is also one that will often be consulted with advantage.

Massage in Headache.—Nordström says that certain forms of hemicrania, accompanied by points of induration and tenderness on pressure, are of muscular origin, and are due to chronic inflammation. In such cases he recommends massage, asserting that it never fails to give relief.—*Rivista Clinica*, No. 9, 1885.

Subcutaneous Emphysema in Croup.—Dr. Franz Torday, reports in the *Orvosi Hetilass*, No. 35, 1885, a case of a child, three years old, who was suffering from laryngeal diphtheria. One morning, after the patient had had a number of very severe suffocative attacks, the writer noticed an elastic crackling tumor, the size of a hen's egg, between the scapula and the spinal column, on the right side. This gradually extended until the entire head, trunk, and upper extremities were involved in an emphysematous swelling. This gradually disappeared after the dyspnœa had subsided.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 11, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. WALDSTEIN, from the Committee on Microscopy, reported that he had examined the liver and mesenteric glands presented in behalf of a candidate at the last stated meeting, and that they were the seat of small, *round-celled sarcoma.*

THE PRESIDENT presented, in behalf of a candidate, a uterus removed from the body of a woman having *typhoid fever during the puerperal state.*

AN ENORMOUS DOUBLE HERNIA.

The President also presented a sac and a part of the genito-urinary apparatus, together with ten feet of the large and small intestine, which was in a double hernia measuring forty inches in its greatest diameter and weighing about five pounds. The patient was in the hospital two days. He was fifty-three years of age, German, married, and a cooper, and was admitted to Mount Sinai Hospital October 28, 1885. The patient stated that he had been ruptured on the left side for the last seven years, wore a truss for some time, and experienced no trouble from the hernia. During the last three years his scrotum had become distended and enlarged, and during the last six months he had experienced difficulty in passing urine. He said that he had been ruptured in the right side for three or four weeks. He had been unable to return the hernia on the left side during the last three years, and it had gradually increased in size. All operative interference was precluded on account of the general condition of the patient. The history was one of inflammation of the sac and rupture of the cæcum. Puncture of the sac and escape of gas gave considerable relief, and the patient was then kept under the influence of morphine to such an extent as to render him as comfortable as might be. The specimen was of interest anatomically on account of its enormous size, it being the largest which he had ever seen.

Dr. Wyeth had seen another case within a year, and in which the patient died in the same way with inflammation of the sac, death occurring from shock and sepsis due to rupture of the gut and extravasation of fæces into the sac. That patient was eighty-five years of age, and was a physician in active practice up to the beginning of his last sickness.

CHRONIC INTERSTITIAL MYOCARDITIS—CHRONIC INTERSTITIAL NEPHRITIS.

DR. JOHN C. PETERS presented microscopical slides and the history of a case which occurred in a man sixty-seven years of age, a bachelor, of slight figure, but who had always been in good health, was exceedingly careful of his clothing so as to protect himself against changes of weather, abstemious in his habits, but who always had a coated tongue and a great tendency to constipation. In early years he had suffered from fever and ague, and fancied that he had occasional returns of the difficulty.

About the 10th of May last he called to see Dr. Peters, who saw that he looked so sick that he forbade him going farther, as he had intended to do to transact some business, and sent him home. At that time the patient complained of distress, apparently in the stomach, which probably was due to the heart, and which he attributed to eating some salad that was slightly tainted. The patient soon had great difficulty in breathing, marked orthopnœa, but the temperature remained only slightly elevated, never rising higher than 102.5 F. Dr. Peters' first diagnosis was capillary bronchitis, with œdema of the lungs, more especially of the left lung. The patient quickly developed feebleness of the heart, which determined him to call counsel at once, and the conclusion was that the attack of bronchitis and œdema of the lungs had produced so much pressure upon the heart that dilatation of the right side had been produced suddenly. The consultants were Drs. Flint, Loomis, and Leaming. The urine was passed in large quantity, and it contained a few casts. Although his urine had been repeatedly examined every year, and examined a few months before the attack, nothing abnormal had been found. The patient slowly recovered, albumin entirely disappeared from the urine, breathing remained slightly impeded, always a little short of breath, and he was left with dulness on percussion and feebleness of respiration over the left side; and examining him from time to time, Dr. Peters thought he detected a friction murmur over the heart, and also over one pleural cavity, but these symptoms were not detected by either of the three consultants. In Saratoga, during the summer, he had another attack, from which he recovered and came home, and was able to walk about somewhat for a month or more. His urine was examined every day, but no trace of albumin could be detected. He then had another relapse, with great difficulty of breathing, with albumin in the urine, and died at the end of ten days.

At the autopsy the heart was found somewhat enlarged, with the pericardium adherent. From sixteen to twenty ounces of fluid were found in one pleural cavity, and a very small quantity in the other. There were no valvular lesions of the heart. There were some old pleuritic adhesions at the apex of the lung opposite the pleural cavity containing the largest quantity of fluid. Microscopical examination demonstrated the existence of chronic interstitial myocarditis, and also of chronic interstitial nephritis.

DR. PRUDDEN thought the fact that a person in this walk of life should have pleurisy and pericarditis without having given rise to symptoms was worthy of note, because such persons would be very likely to know whether or not they had been sick. Evidence of old and severe inflammations affecting the pericardium and the pleura, without any clinical history whatever, were very frequently found at autopsies on the bodies of persons from the lower classes of society, who were too poor to be able to stop work, and who went on without knowing that they were sick.

DR. VAN SANTVOORD asked concerning the specific gravity and the quantity of the urine.

DR. PETERS replied that the specific gravity of the urine was on an average about 1.020, and that at times the quantity was large. During the acute portion of some of his attacks the quantity was quite small.

DR. VAN SANTVOORD said he asked the question because not long since he made an autopsy in which he found pure fibroid change in the kidneys in a case in which the quantity of urine sank as low as ten ounces daily, and the amount of albumin was said to be merely a trace, thus showing how slight changes might exist in the urine even when the kidney lesions were exceedingly grave. There were also pleuritic adhesions, and the left ventricle of the heart was dilated and somewhat fatty. Death took place evidently from a large accumulation of fluid in the pleural cavity.

DR. WALDSTEIN said that those who had occasion to make many autopsies frequently found the condition of the kidneys described by Dr. Peters, without the clinical history of the disease. On the other hand, he would recall the discussion which occurred in the Society last year with regard to the quantity of albumin in the urine, and how often we had occasion to examine the urine of people who had not complained of feeling ill, and with negative results, and some day we are surprised to find an appreciable quantity of albumin in the urine. It would appear from that discussion, and from what was well known, that it was very important to examine the urine frequently before reaching any conclusion concerning the soundness of the kidneys.

The President said that in the discussion to which Dr. Waldstein referred, Dr. Janeway reported a case which came under his observation, one in which there was the most remarkable manifestation of albuminuria which he had ever witnessed. Dr. Janeway finally found that it depended upon mental effort of any kind, and so susceptible was the patient to the influence of mental work that albumin appeared in the urine after reading a page or two of something which engaged his attention.

Dr. Wesley M. Carpenter said he had had occasion to examine microscopical sections similar to those which Dr. Peters had presented, and had found that the fibroid degeneration of the heart extended from the endocardial surface, with the muscular tissue in a normal condition close up to the pericardium, which was thickened and adherent. The kidneys showed a marked increase of intertubular tissue, but the epithelia were in a remarkably good condition; for the most part the epithelial cells were in position, their nuclei were distinct, and the free borders of the cells had undergone only very slight disintegration. In general there was only a very slight amount of granular matter within the lumina of the tubules, what there was being due probably to the process of hardening.

Dr. Van Santvoord presented a specimen of

HYDROCELE

removed from the body of an infant two months of age and a foundling. It was brought into the asylum at the age of one month, with a hydrocele which extended as far upward as the external ring upon both sides.

Dr. Van Santvoord also presented a specimen of

LUPUS OF THE LARYNX,

taken from the body of a boy, fourteen years of age, who had been an inmate of Randall's Island Hospital for a number of years. He had lupus of the nose, which gradually progressed, and at the time of death it had destroyed entirely the nose, the upper lip, and the alveolar process between the canine teeth, the hard and soft palate, and the nasal septum, and the body of the sphenoid was entirely bare and rough. In the pharynx no lesion could be observed. In the larynx was found a general thickening of the mucous membrane, and that lining the ventricles and their immediate neighborhood was dotted over with a number of small, nipple-like elevations, the summits of which were about the size of a medium-sized pin-head. The immediate cause of death was a marked feature of interest in the case. The boy had lived until about three days of his death in comparative comfort, and then developed intense headache, which passed on to delirium, coma, and death. On removing the calvaria it was found that the base of the brain was coated with a thick, dense layer of lymph, the distribution of which was about the same as that seen in tubercular meningitis, although no tubercular lesions were observed. The dura mater over the cella turcica was dark, sloughy looking, and the body of the sphenoid was necrotic. The lungs were œdematous, and the heart was fatty; the liver, spleen, and kidneys were markedly waxy; the mucous membrane of the small intestine was somewhat thickened, but gave no distinct reaction to iodine, and the large intestine appeared normal.

The case was of some interest with regard to the alleged identity of lupus and tuberculosis. In view of the extent of the lesion and the absence of general tuberculosis, it seemed to Dr. Van Santvoord that the case might be accepted as one pointing toward the non-identity of the two affections.

Dr. Putnam-Jacobi remarked that the absence of general tuberculosis should not justify skepticism concerning the tubercular nature of lupus, for the absence of general tuberculosis was the rule in all cases of external local tuberculosis. Although Hueter had urged the excision of bone rendered carious through tubercle, as an important element of prophylaxis against general tuberculosis, saying that this was to be considered, even if only one case in twenty were really liable to become tuberculous. Yet König, in his monograph on osseous tuberculosis, has shown that out of one hundred and sixty-eight cases observed by himself, generalized infection occurred in only sixteen; and in all these it followed an operation for the relief of the local disease. The proportion of liability in König's statistics doubles that suggested by Hueter—1 to 10 instead of 1 to 20. But in both the proportion of cases is very large where a lesion, unquestionably tubercular, remained throughout limited to the locality at which it first manifested itself. There would be, therefore, nothing extraordinary in lupus, though a tubercular disease, following the same rule.

Dr. Van Santvoord said he did not wish to be skeptical with regard to the identity of the two affections, but he simply spoke of the case, from a clinical standpoint, as one which might throw some doubt on the supposed identity of the two affections. He was not permitted to remove the sphenoid bone, and therefore it could not be examined for bacilli. The other half of the larynx was in the hands of Dr. Biggs for examination.

The President said with reference to the question of propriety of operative interference in tuberculosis of bones, in order to prevent a general dissemination of the disease, it was one which was generally accepted among surgeons in New York, and that a bone suspected of being the seat of tubercular osteitis should be operated upon early for the purpose of removing the infective foci.

Dr. Van Santvoord said that the character of the process in the larynx and in the region of the ventricles was confirmed by the description given by Turck, and certainly was one which did not resemble what he had been accustomed to see in tubercular disease of the larynx. He did not know that that distinction was one which could be borne out by a large number of cases.

Dr. Prudden said the question was one to be decided by microscopical examination. It had been shown that tubercle bacilli were present in a large proportion of cases of lupus, and if it was understood that the tubercular lesion was caused by the presence of the tubercle bacillus it had been established that lupus was tuberculosis.

CANCER OF THE STOMACH—TUBERCULOSIS OF THE RETRO-PERITONEAL GLANDS.

Dr. Waldstein presented two microscopical slides illustrating two different diseases in the person of a man who, when he was sixteen years of age, had chronic pneumonia involving the left apex, and from which he recovered without its leaving any evidence of its existence. He remained well up to two years ago, when he suddenly showed signs of what he thought was intermittent fever, and for the last two years he had this fever appearing every other day, and was treated by all known antipyretics without the least effect on the course of the symptoms.

When he was examined first, two years ago, there was detected a tumor a little to the right of the median line, and the physician reached the conclusion that it was a case of cancer of the stomach without having developed any dyspeptic symptoms. In fact, his digestion was perfect, with the exception of these consecutive derangements which took place from time to time accompanied by fever. Many physicians saw the case in consultation, and the last one, to whom Dr. Waldstein was indebted for the notes of the case, thought he detected an enlargement in the abdomen which seemed to be continuous with the tumor in the epigastrium.

Here, then, was a case considered as one of cancer of the stomach, accompanied by a peculiar form of fever, and also there were tumors found in the abdomen. It was regarded as impossible to reach any positive conclusion concerning the exact character of the case.

At the autopsy a caseous focus was found in the apex

of the left lung, encysted and dry. The bronchial glands were enlarged, and contained many caseous spots. The stomach contained diffuse carcinoma which had no tendency to ulceration, but, on the contrary, the connective-tissue had proliferated more and more, and developed a scirrhous form of affection, and therefore it was easy to understand why the gastric symptoms were not marked.

The retro-peritoneal glands were very much enlarged and degenerated, and contained a great amount of cheesy matter.

This, therefore, was a case where cancer of the stomach existed, which by its nature gave rise to no clinical symptoms; besides, there was caseous degeneration in the retro-peritoneal glands, tubercular in character, without any sign at all of metastasis. It seemed, therefore, that the two diseases had run parallel with each other.

Dr. John C. Peters remarked that it was once regarded that the presence of one excluded the existence of the other.

The President said it had been stated that one retarded the progress of the other.

Dr. Putnam-Jacobi said that Beneke had attributed the predisposition to tuberculosis to the fact that the arteries of the body were all too small; while in the cancerous diathesis they were as much too large. Now it was evidently impossible that any one's arteries should be at once too large and too small, and hence the habitual antagonism of the two diatheses.

Dr. R. W. Wilcox said, therefore the danger in an individual having normal arteries was that he was liable to both diseases.

Dr. T. Mitchell Prudden presented a specimen with the following history:

NECROTIC CYSTITIS.

The specimen was taken from the body of a married woman, aged about thirty, who had a child about two years before her death, and who had been suffering for many months with necrosis of the bones of the left side of the face.

In the last months of life she had paralysis of the right side of the body; complained of pain very low in the back. At one time had difficulty in passing water, so that the catheter was used for some time. Latterly, however, she had urinated without difficulty. Examination of urine showed albumin. Microscopical examination was not made. With the exception of the difficult micturition there were no symptoms referable to the bladder.

At the autopsy were found a tumor involving nearly the entire left side of the pons Varolii, pachymeningitis purulenta over the petrous and posterior portion of the sphenoid bones, purulent meningitis at the base of brain. General peritonitis, with the production of a considerable amount of fibrin and little pus, and the condition of the bladder shown in the specimen, namely, *necrotic cystitis*.

The bladder was dilated and filled with turbid urine. The mucous membrane, in general, was moderately thickened and irregularly mottled with red patches.

Surrounding the urethral orifice was an irregular circular area, entirely denuded of epithelium, about three inches in diameter, which was covered with a delicate œdematous pellicle of connective-tissue, which was irregularly streaked and mottled with a yellowish-white material.

At the edges of this area the intact mucous membrane was thickened and infiltrated with pus, so that the above-described patch had a tolerably distinct, irregular, yellowish-green border.

In places the musculosa near this patch was infiltrated with pus, and beneath it was itself necrotic.

On microscopical examination the above-described patch was seen to consist of a small amount of fibrous tissue, with whose bands were intertwined numerous elastic fibres. Scattered in the meshes of this tissue were numerous crystals of urinary salts, and concentrically striated disks or globules of leucin. It was these latter substances which gave rise to the irregular yellowish streaks and patches described above. It will thus be seen that the abnormal patch of tissue at the neck of the bladder is a portion of œdematous submucous tissue, infiltrated with urinary salts, etc., and bordered with a narrow zone of purulent inflammation.

The specimen is an excellent example of localized necrotic inflammation of the bladder occurring in a paralytic, a form of lesion which is by no means uncommon.

It is of especial interest, however, because it shows the condition of affairs which precedes the casting off of the slough, a state of the lesion which we do not often see. This casting off of the slough, as is well known, may take place piecemeal, or a large patch may separate and come away as a single sheet of necrotic tissue, as was the case in an interesting specimen presented by Dr. Boldt at a recent meeting of the Society.

I present this specimen not only on account of its intrinsic interest, but also because it supplements, in a most instructive manner, Dr. Boldt's specimen, and confirms the truth of the conclusion arrived at by the Microscopical Committee, as reported at the last meeting.

The Society then went into executive session.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE BOWMAN LECTURE—THE DECENNIAL REPORT OF THE REGISTRAR-GENERAL—DR. WILKS ON THERAPEUTICS—COCAINE AND ITS DANGERS.

London, November 21, 1885.

The "Bowman Lecture" for this year at the Ophthalmological Society has just been delivered by Dr. Hughlings Jackson. Dr. Jackson commenced his lecture by referring to the question of the division of labor. Things, he said, became increasingly complex. There was no exception. Our profession was now very complex, and he instanced the various specialties. As to specialists, he said the specialty of each came out of, and was a differentiated part of, a wide general knowledge. Specialists, he remarked, had to justify themselves. According to Spencer, the factors in progressing evolution were (1) increasing differentiation, (2) increasing definiteness, (3) increasing integration, and (4) increasing co-operation. That the ophthalmic surgeon had justified himself in the second factor of evolution needed no proof. Then as to the third factor. Each different definite medical worker was working for the whole body medical. His work led to the greater integration of the knowledge of other workers. Each worker helped all the others. For instance, Argyll Robertson had given to neurologists, not merely a new symptom, but a means of investigation of several important diseases. This debt had been paid back by neurologists (Westphal and Erb) who, working in a different field, had shown the diagnostic value of loss of the knee-jerk. Going on to the fourth factor in evolution (increasing co-operation), Dr. Jackson then said each different worker, knowing one subject best, of necessity could not have the precise knowledge of other subjects which other different workers had. Division of labor rendered co-operation necessary. The whole of one disease was best understood by bringing to bear on its direct investigation and treatment different workers in different fields. To give an illustration—the neurologist ought to be able to suspect hypermetropia as a cause of head-troubles, but only the skilled ophthalmic surgeon could accurately estimate and correct it.

We were apt, said the lecturer, to underrate the complexity of some nervous diseases. As an illustration of this, he selected epileptic paroxysms and their after-conditions, and remarked that the symptomatology of

the paroxysm was probably a universal symptomatology. It might be said that insanity was more complex than epilepsy, but this was not so, since epileptic paroxysms were not unfrequently followed by temporary insanity. The study of epilepsy, therefore, involved the study of some cases of insanity.

The various symptoms of epilepsy were then discussed at some length, with frequent reference to the experimental results obtained by various investigators in the field of practical physiology. Coming back, then, to the point from which he started, Dr. Jackson observed that it was not possible for a neurologist to scientifically study this exceedingly complex disease without availing himself of the work done by different specialists. The neurologist needed the aid of the psychologist, of the physiologist, and of the ophthalmologist. After detailing the various ocular symptoms, Dr. Jackson advanced an hypothesis, as to the organ of mind, at once ingenious and elaborate, but to which I cannot hope to do justice within the compass of a few lines. He submitted that we should adopt the hypothesis of evolution, according to which the whole nervous system was a sensori-motor system, representing all parts of the body, and suggested that all parts of the body were represented in each of three levels of evolution—representative, re-representative, and re-re-representative. We ought strictly to speak of four levels. Representation increased in differentiation (complexity), definiteness (speciality), integration (intricacy), and in number of inter-connections (co-operation) from lowest centres to highest centres ("organ of mind"). The "organ of mind" was nothing else than a series of centres representing or co-ordinating all parts of the body.

Reverting, then, to epilepsy as a disease of the organ of mind, Dr. Jackson showed how every organ of the body might be affected and every department of the nervous system involved.

The Report of the Registrar-General for England for the decennial period, 1871–80, has just been issued. I cull from it a few notes which may be of interest. The mean annual death-rate has fallen to 21.27 per thousand, yet the gain from this has been very unequally distributed. The male death-rate has fallen more than four, and the female death-rate just over six per cent. since the preceding decennium. But the gain has been more in the earlier than in the later periods of life, which indeed show an increase in the death-rate. Dr. Ogle, in a letter accompanying the report, attributes both the lessened death-rate and its inequality at different ages to the various sanitary reforms which have been pushed on of late years.

The death-rate from zymotic diseases has decreased, except that from whooping-cough and small-pox, respectively. The former has remained stationary; the latter shows an increase due to the epidemic of 1871–72.

During the past decennium there has been eight districts in England and Wales (out of 647), in which the mean annual rate was under fifteen per thousand, and ninety-three in which it was between fifteen and seventeen.

Some interesting information is given as to the varying mortality of different occupations. The first place for longevity is given to ministers of religion. I regret to see that the mortality of our profession is much higher (as 11 to 5).

Dr. Wilks has lately been giving an address before the Midland Medical Society, and saying some wholesome truths in his own inimitable way. I am afraid some of his statements were calculated—at any rate when freshly heard—to shock some of our modern therapeutists. For his part, he said, he did not wish for any more drugs. Of what use would they be to us? What was the use of putting edged tools into the hands of children who did not know how to use them? After referring to some of the errors of past generations, Dr. Wilks proceeded to give some modern illustrations. "I see," said he, "a lad with pleuritic effusion which has pushed down his liver; the medical man had overlooked the presence of water in the chest, but had discovered the liver below the ribs. He considered this to be enlarged, and gave the boy mercury to reduce it. Now, is it not fortunate that mercury had not the wished-for power in reducing a healthy liver to half its size? Again, I see people with osteitis deformans, and other cases where the bones are enlarged, and iodide of potassium is almost universally given, but it never does any good. Again, I exclaim, how fortunate is this! Could iodide of potassium absorb bone, what a responsibility would rest on the medical men who prescribe it, and in what a condition would all the skeletons of civilized people be! Another example, the hypertrophied spleen. Nearly all patients with this affection are given quinine and iodide and bromide of potassium, in order to reduce it. How thankful I am that these attempts are ineffectual; for if these drugs could absorb healthy spleen-structure, what a mass of people would now be spleenless!"

After experiencing a long run of success, coupled with unqualified laudation, cocaine is now beginning to have some drawbacks and dangers in its use pointed out. At a recent meeting of the Ophthalmological Society, Mr. Nettleship, ophthalmic surgeon to St. Thomas' Hospital, said his suspicions had been roused by the occurrence of a serious run of cases of panophthalmitis at St. Thomas' Hospital, while, at the same time, his cases at "Moorfields" did well. He attributed it to the use of cocaine. Several other ophthalmic surgeons confirmed Mr. Nettleship's experience. Mr. Story, of Dublin, suggested that solutions of cocaine might be made up with saturated solutions of boracic acid. It subsequently transpired, in the course of the discussion, that the solutions of cocaine are actually thus made at "Moorfields" Hospital.

PAPAL AND TALMUDICAL OPINIONS ON CRANIOTOMY.

To the Editor of The Medical Record.

Sir: A few days ago the daily papers reported from New York that the Roman Catholic physicians in that city were in receipt of a circular containing a declaration by the Pope that the killing of an unborn infant is never right, even when the life of a mother can be saved in no other way.

It may be of interest to learn the rabbinical view on this question which bears upon the surgical operation known as craniotomy, that is generally practised by the profession in cases where a choice is forced between losing two lives, and saving one by hastening the end of the other.

The *Mishna*, which is the name of the earliest collection of rabbinical opinions and decisions, compiled by Rabbi Jehuda Hanasi in the second century C.E., contains in tract *Oholoth* VII., 6, the undisputed decisions that, "in case of a dangerous parturition it is justifiable to kill the unborn infant in order to save the mother, as her life precedes its life." Such operation is, however, not permitted after the infant has already been partially born, as in the latter case the maxim applies: "One human life must not be set aside on account of another."

Rashi, the commentator of the Talmud, explains in Sanhedrin, folio 72*b*, the reason of the distinction between these two cases in the following way: "The unborn infant is not yet a *distinct personality* with an *independent* life (*Nepheth*), hence the regard of saving the mother's life is to prevail; while in the second case its individuality is established, hence the legal principle must apply that one life must not be destroyed to save another." The authoritative Rabbinical Codes of Maimonides (twelfth century) and of R. Joseph Caro (sixteenth century) adopted the decisions of the Mishna as the rule of Jewish law.

It must be conceded that the rabbinical view on this subject is in full accordance with common sense and with the highest regard for the sanctity of human life.

Dr. M. Mielziner,
Professor in the Hebrew Union College.

Cincinnati, November 25, 1885.

A NEW FIELD FOR YOUNG DOCTORS.

To the Editor of The Medical Record.

Sir: In a recent number of The Medical Record I noticed an article under the above heading, having especial reference to the new Congo Free State. I wish to say a few things concerning the field in the East.

There are a few ports out here where a young man could build up a good paying practice. I know of two such, while there are three others which would now furnish a living, with the prospect of a good increase; but it would hardly do to count on these places, as they might be occupied before any person who reads this might reach them. The work for foreigners in these parts is mostly in the hands of British practitioners, who have done very well financially, and usually dispose of their places to others of their own people before retiring to live on their accumulated wealth.

Another branch of the Eastern work is, however, quite open. A small handful of physicians are at present ministering to the 350,000,000 Chinese. A few are engaged also in Siam and Burmah, and recently Corea has been occupied by three of our profession. These persons are connected with some one of the missionary societies, and are doing a more extended practice than they could ever hope to do at home.

To any who may be moved by a missionary spirit, coupled with a love for their profession and a desire to be foremost in imparting its blessings to those who have it not, my remarks will well apply. None without such motives need consider the work. The question as to proper spiritual qualifications must be decided by the individual to whom the especial rewards of such a life-work will present themselves. I wish especially to mention some of the more temporal inducements of such a work.

In the first place the need is very great, and the missionary doctor has the consciousness of filling a long-felt want, which is more than he would probably be conscious of in work at home. His opportunity for gaining a wide medical and surgical experience is unparalleled. He has unlimited opportunities for continuing his scientific studies in interesting and unexplored fields, and of becoming an authority in various lines of research.

Socially, he may occupy a higher position than in practice at home, for while it is true that foreigners and often natives in the East look down upon the missionary when he comes as a preacher, they receive the doctor quite warmly. Should he chance to reside in a capital he will, doubtless, be called upon to visit the palace and treat its royal occupants. He will be on friendly, and probably intimate, terms with the consular and diplomatic service, together with the naval and military representatives of his own and other lands, thus gaining a polish and breadth of understanding that he might fail to get even in extensive travels. Away from the ports and capitals, he would still have the association of missionaries of various nationalities, and as these persons are usually "gentlefolk" in every sense of the word, the effect of association with them would be much the same as in the other case, while the medical and scientific inducements would be even greater.

It might be an inducement to know that the missionary physician is expected to live as a gentleman. It would never do to have him badly housed, as he is too expensive an article to be lost after going to the expense of sending him abroad and supporting him while he gets the language. For the same reason he must not be badly fed or clothed. His position demands intelligence, therefore he must take papers and other publications and read them. Servants are so cheap and good, and his time is so precious, that it would be folly for him to waste it in menial service; his position among both foreigners and natives would not allow of this either.

It must also be borne in mind that the East is not out of the world as it once was. India is as much like England as they can make it, further around we find many select little communities as at Singapore, Amoy, Foochow, Ningpo, Tientsin, Nagasaki, Kahe, and others, with their stores, telegraph, and newspapers, while at Hong Kong, Yokohama, and Shanghai we find genuine foreign cities with a great deal of oriental elegance thrown in, and with their very complete stores of all kinds, extensive shipping, telegraph lines, daily papers, cathedrals and churches, beautiful drives, and all manner of places of amusement, the foreign residents come to feel so contented with their new homes as to often prefer them to those they have left. These places form depôts from which missionaries in the interior are continuously supplied with fresh news and stores.

The qualifications necessary for the medical missionary work are health of body and mind, a cheerful spirit, good common sense and judgment, a thorough education and considerable practical experience, together with earnest sympathy with the work and consecration to it. It is very unwise for a young man to come to the East, direct from school, without any real practical knowledge. He may be at once called to treat some important personage, where he will feel his defects most keenly and may do something rashly that will greatly injure himself and his associates. If this be not the case he will, in all probability, be crowded with patients of a lower order, and what can a young man, with no experience and a head full of confused ideas, do with twenty to one hundred patients a day? He will profit by it in time, but it is a hard experience both for himself and his patients. For this work a man should have at least a year's experience in a first-class hospital, or its equivalent of outside practice. To such the way is clear and the East will accommodate all who may come.

H. N. Allen, B.S., M.D.,
H. C. M. Customs Surgeon.

Seoul, Corea, October 8, 1885.

Aviarian Surgery. — Dr. Walter F. Morgan, of Leavenworth, Kan., writes: "*Apropos* of the interesting article in your issue of the 7th ult., allow me to add another instance, which may be called aviarian surgery, related to the writer, in 1876, by the late Joseph O'Brien, Esq., of Cleveland, O. On going into his barn Mr. O'Brien discovered a swallow's nest, and being a natural observer and lover of animals, he climbed to the nest and found in it two young swallows, one being smaller and less vigorous than the other, and having a slighter covering of feathers. Upon taking the young bird in his hand, he was astonished to find one of its legs very thoroughly bandaged with *horse-hairs*. Having carefully removed the hairs one by one, he was still more astonished to find that the nestling's leg was broken. Mr. O'Brien carefully replaced the bird in its nest, and resolved to await further developments. Upon visiting the 'patient' the next day, the leg was again found bandaged as before. The bird-surgeon was not again interfered with, and the case being kept under observation, in about two weeks it was found that the hairs were being cautiously removed, only a few each day, and finally, when all were taken off, the callus was distinctly felt, and the union of bone evidently perfect, as the bird was able to fly off with its mates. Such instances may seem incredible to those not yet prepared to fully accept the axiom of the scientists, viz., 'that the intelligence of animals differs from that of man only in degree, and not in kind'"

New Instruments.

A NEW PHARYNGEAL CURETTE.

By WILLIAM A. DAYTON, M.D.,

SURGEON TO THE EYE, EAR, AND THROAT DEPARTMENT, HARLEM DISPENSARY, ETC., NEW YORK.

No perfectly satisfactory instrument, so far as the writer is aware, has been devised for the removal of vegetations and adenoma of the pharyngeal vault.

The curette illustrated above has proved so useful an instrument in my practice that I am pleased to make it known.

The original instrument has been used by myself and friends for more than six months, and, in over thirty cases, it has effected all that could reasonably be expected.

The instrument is free from the objections to curettes, forceps, galvano-cautery, etc., used for the same purpose, in that *there is no danger of injuring the adjacent normal tissues.*

In contour the tip of this curette corresponds with the tip of a uterine curette, save that the former is more flattened on its convexity. It has one lateral (right) cutting edge, and is attached to a *flexible* shank, admitting of alterations in the curve to suit individual cases.

The shank should be so bent as to allow the tip to pass well up behind the soft palate; then the manipulation, which scarcely requires explanation, consists in rotating the instrument from left to right.

Upon withdrawing the curette, the diseased tissue removed will be held in the fenestra, and will not drop into the pharynx or larynx.

Except in the cases of nervous children, the operation can be performed without an anæsthetic. There is no pain whatever attending it. Again, the employment of a retractor is not necessary, as there is no danger of injury to the soft palate, etc.

The simplicity of the instrument forbids further description, and I commend it to the profession in the belief that it will meet the purpose for which it was designed.

As indicated in the drawing, Meyrowitz Bros., of this city, have made all of these curettes now in use.

121 WEST 125TH STREET.

THE GAIT OF NERVOUS PEOPLE.—MM. Gilles de la Tourette and A. Loude, in order to determine the difference between the manner of walking characteristic of healthy people and that of those suffering from nervous diseases, have adopted the following method: A large sheet of wall-paper is laid on the floor, and a longitudinal line is marked in the middle. The feet of the person experimented on are rubbed with rouge. After the necessary calculations the impressions are reduced in size and photographed. Before studying locomotion in its pathological aspect, the experimenters ascertained the character of progression in a normal state. In each case the length of the foot was taken, and the impression left by it. The width between the feet during the act of walking was also taken; the measurement of the angle formed by the opening of the feet, and its relation to the axial line, traced on the paper. The following conclusions were drawn from the study of patients with bilateral and unilateral lesions, from the onset of the affection until the end: The pathological step is more regular than that of a subject in a normal condition, both in length and the lateral separation of the feet; also the angle formed by the opening out of the feet.—*British Medical Journal.*

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from November 29, 1885, to December 5, 1885.

VICKERY, R. S., Major and Surgeon. Relieved from the assignment as Acting Medical Director, Department of Colorado, to date the 16th inst. S. O. 200, Department of Colorado, November 23, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 5, 1885.

AULICK, HAMPTON, Surgeon. Ordered to Alliance as relief of Surgeon G. P. Bradley.

BRADLEY, GEO. P., Surgeon. Ordered to Naval Hospital, Philadelphia.

SHAFER, JOSEPH, Assistant Surgeon. Detached from Naval Hospital, Philadelphia, and ordered to the Minnesota.

GAINES, J. H., Passed Assistant Surgeon. Detached from Naval Hospital, Washington, and ordered to the Dolphin.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 5, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
December 5, 1885	0	16	31	4	6	95	11	0
Deaths.								
December 5, 1885	0	7	9	4	1	38	2	0

GONORRHŒA IN THE YOUNG.—Dr. B. H. Phelps, of Corry, Pa., sends us the following item: "In the issue of THE MEDICAL RECORD of November 14th is an article on 'Gonorrhœa in the Young.' I was not aware that such cases were so unique. I had three such cases this fall in one family, the patients ranging from between three and four to between five and six years of age. The two older were girls, the younger a boy. The little boy and one of the girls were brother and sister; the other little girl was a cousin visiting in the family. The sister was the first attacked, and I cautioned the mother about letting the other children play and sleep with the diseased child, but the precautions were not carried out. I directed the mother to question the little girl, and learn, if she could, the source of the disease. This she told me she did, and satisfied herself where it came from, but she did not tell me."

REGARDING FRESH PAINT AS AN ABORTIVE AGENT.—Dr. James L. Gardner, of Voluntown, Conn., sends the following: "I notice that several of your correspondents are inquiring regarding the above matter. I am a strong believer in the affirmative, *i.e.*, that fresh paint, mixed with spirits or the oil of turpentine, will cause a pregnant woman, if the odor is inhaled, to abort. In January, 1883, I was called to see E. G——, aged thirty-eight, married, in New London, and an honest, intelligent lady. She had miscarried shortly before at four months. Had borne two living children; no other miscarriages. Dr. N—— had seen her at the time of her abortion, and, after administering to her needs, left, assuring her 'she would be all right.' I found the patient had been 'painting a

little, just to suit her fancy, with 'turpentine paint,' and no other cause could be ascribed for her aborting. She had ovaritis, pelvic peritonitis, and a great amount of pain in the uterus and along the right Fallopian tube. The uterus remained enlarged, although the fœtal contents were discharged, and there was a state of great inertia of the organ. I prescribed opiates, tincture of iodine externally, and hot carbolized vaginal douches twice daily, with an occasional aperient to move the bowels. The case recovered after a protracted siege of several months. The second case I refer to is of Mrs. G. H——, aged twenty-eight, married, but living alone. She became pregnant, and at about two months took, as she informed me, a good dose of oil of terebinth. I found the uterus in a state of inertia, considerably inflamed and swollen, with some pelvic peritonitis. It resulted favorably, but took nearly double the time of 'spontaneous' abortion. I consider the poisonous element in new paint to be *the turpentine it contains*. Should like very much to hear further on this subject from the profession. Old women are full of 'traditions' relating to this subject."

Thomas Latham, of this city, also writes on the same subject: "Respecting 'Fresh Paint and Abortion,' in your last 'Medical Items,' a little reflection upon the chemical nature of paint will perhaps elucidate the question. The odor which we commonly know as that of fresh paint is that due to the volatilizing oil of turpentine contained in the paint, and in some degree to the boiled linseed oil. I think Dr. Eliot in error when he speaks of 'colica pictonum' produced by this. Painters never suffer from the 'fresh paint,' but from direct absorption of lead, from getting it upon the skin, underneath the finger-nails, etc., and also directly into the stomach by eating their lunches with unwashed hands. Their 'colica pictonum,' I take it, is Nature's effort to get rid of intestinal obstruction due to cessation of peristaltic action. I need not remind medical gentlemen of the well-known abortefacient powers of the volatile oils. Many women are also aware of them. Oleum juniperis sabinæ is the favorite, and is frequently demanded in drug-stores. May it not be reasonable to infer that the inhalation of the vapors of these volatile oils has the same effect as taking them into the stomach. I last week produced an excellent 'fresh-paint' odor by making a decoction of the fresh tops of Thuja occidentalis, sent from Canada by a friend to a rheumatic customer."

Abnormal Mobility of the Tongue, with Ability to Project it into the Naso-Pharynx.—Dr. Phelps, of Corry, Pa., writes: "A man who lives about a mile from this city, who is about forty-five years of age, came to me about one year ago for the removal of a polypus from the nose. I saw him several times pass his tongue into the naso-pharynx with perfect ease. The tongue is slightly pointed, and the frænum linguæ is apparently absent for some distance under the tongue. There is nothing abnormal in the formation of his mouth. He says he has possessed this ability for twenty years."

Arrest of a Threatened Abortion.—Dr. R. C. MacDonald, of Chelsea, Mass., writes that in the summer of 1884 he was called upon to treat a lady for prolapse and anteversion of the uterus. Under suitable treatment the trouble was nearly removed. He was called again to see her in December, on account of a profuse hemorrhage. Although the patient had not nursed her last child since May, she had not menstruated, and as this was about her time Dr. MacDonald supposed at first that the menses had returned. But on examination he found the os open and an ovum so low down that it could be grasped by the two fingers. He inserted a light tampon of cotton wool, gave opium, and ordered absolute rest. He writes: "To my surprise the hemorrhage ceased in a short time and the ovum was retained. I watched the case with interest. The patient went on from that time with all the usual signs of pregnancy to full term, and, on the 10th of July, 1885, I delivered her of a healthy full-sized boy, who was, I feel certain, the very ovum I had held between my fingers."

A Fine Opening for Young Physicians.—It is stated that there are but five physicians in Belgrade at the present time, all the others having been sent off with the Servian army. Of these five one does not practise, and another is the court physician and does not attend ordinary mortals, so that the available force is reduced to three. The population of Belgrade is in the neighborhood of 30,000. There will hardly be a very extensive emigration from this country to Servia, however, for the language is one of the most difficult to learn in all Europe; but one would suppose that Vienna would gladly unload some of her surplus doctors on the Serbs. Physicians are also wanted for the Servian army. The pay averages about $650 per annum.

Vaccination.—Dr. Samuel W. Francis says that the only thing to fear from excessive vaccination with bovine virus is Cattlepsy!

Adjustable Forceps.—Dr. Henri Haman has devised a form of obstetrical forceps in which the extremity of the spoon is provided with a double joint, so that the bars may be approximated, thus reducing very considerably the width of the blades. After the instrument is introduced and the blades locked the bars may be separated by means of an attachment in the handle so as to restore the spoons to their usual shape. When closed the blades are but a little over an inch in thickness at their widest part.

"Yellow Fever and the Efficacy of Quarantine."—Dr. A. N. Bell, editor of *The Sanitarian*, writes: "Under this title, in The Record for November 21st, Dr. S. T. Armstrong sends you an excerpt from *The Sanitarian* for September last, with remarks wrongfully attributing to me an animus toward the Marine Hospital Service. I have no animus whatever against it or any one belonging to it, and it is both a subject of surprise and regret to me that any one, in either private or public life, but especially in the latter, should ever construe my remarks and criticisms upon subjects and practices which appear to me to be in conflict with health as having any other personal bearings than personal and public health. In the particular case referred to by Dr. Armstrong he attributes my remarks, when applied to the quarantine under the auspices of the Marine Hospital Service, as compared with remarks previously made when I was ignorant of the fact that the subject at issue had any relation whatever to the Marine Hospital Service, to an unfriendly bias. The case was, briefly: When I supposed the health officer of the Port of New York wholly responsible for admitting the infected vessel to *pratique* without disinfection, I pointedly inquired, 'Why, in the interest of life, the public health, and of commerce was not the ship disinfected within twenty-four hours from the time of her arrival, . . . instead of being detained nine days and then sent on her way *via* New York bearing disease and death?' To this animadversion on his service Health Officer Smith took exception, addressing me a note which I published in *The Sanitarian* for September, stating that the vessel in question arrived at the New York Quarantine with a *clean* bill of health from Dr. Wm. P. Orr, the quarantine officer of the Marine Hospital Service at the Delaware Breakwater, with written addition—'This bark, John Gibson, has been cleaned and fumigated.' My published remarks, after receiving this note, were, in part, as quoted by Dr. Armstrong, and in addition, 'It has at least demonstrated to the Health Officer of New York that such cleansing and fumigation should not again pass his scrutiny.' My opinion of the utter worthlessness—ay, more—the danger to the public of all such service is so well and so long known by frequent repetition as to leave no room whatever for any one to construe it as personal.

. The fault of Dr. Smith, as apparently recognized by himself, according to his note, was that he accepted the averment of Dr. Orr, that the vessel was *clean*. He did not take the same exception to such authority as he has learned the necessity of taking to 'clean' bills of health from abroad, and the result was as stated. But to the worthlessness of the kind of service rendered at the Delaware Breakwater, Dr. Armstrong furnishes additional evidence, for he states that, notwithstanding 'Health Officer Smith decided it would be safe to honor the bill of health, he took the precaution to fumigate the vessel again.' If, in the light of such evidence of their utter worthlessness and danger, such mere perfunctory 'fumigations' as those practised in the case of the John Gibson, no matter by whom, are persisted in, instead of disinfection and cleansing, it is sincerely to be hoped that the time is not far distant when those who practise them will be indicted for criminal incompetency."

Quinine in High Altitudes.—Dr. S. D. Bowker, of Kansas City, Mo., writes: "In a recent number of The Medical Record, Dr. Ralph M. Cole, of Idaho Springs, Col., in a report of a case in which quinine was used, says, 'it is necessary to observe great care in the use of this drug in high altitudes.' For the benefit of parties with a short experience in high altitudes I will say, that ten years in Colorado, four of which were spent in Central City, only four miles from Idaho Springs, taught me that Dr. Cole's conclusions will not do as a guide to practice. I went there in 1871 with a similar impression to his, without knowing just how I got the information. What was called 'mountain fever' was then raging with a heavy death-rate, and I found to my regret that small doses of quinine would not meet the emergency. I was informed by Dr. L. C. Tolles, who has practised in Central City nearly twenty-five years, that his first years there were spent under the false impression of Dr. Cole. He somehow got the notion that high altitudes contra-indicated the use of quinine, so that he almost discarded it, even in small doses. But, greatly to the benefit of his patients, he discovered that no climate in this country would tolerate, and even demand, as large doses as the high altitudes of Colorado. Ten grains every four or six hours, in a typical case of mountain fever, was not unusual in my practice, and Dr. D. W. King, who was in practice there, tells me he often gave a full ounce during twenty-four hours with the best results. Of course, this was in extreme cases, but, taken with facts known to the older men in practice in the mountains, proves that quinine is generally required in large doses in high altitudes, in any disease accompanied with fever, not only for its anti-periodic effect, but for its sedative action, so often needed to control nervous excitability caused by the unusual electrical conditions in all high altitudes."

Maggots in the Head.—Dr. R. H. White, of Angel Island, Cal., writes that he has found sulphate of quinine a most reliable agent for the expulsion of larvæ from the nasal and other sinuses of the head. Prompt relief to the patient was obtained by the exhibition of quinine in five-grain doses. The writer does not state whether the drug was also used externally in solution.

Giving Urine to a New-born Child and What Came of It.—Dr. E. J. Brown, of Minneapolis, Minn., communicates the following: "In the 'Dutch Account of Hottentot Pathology,' published in The Record of September 5th, mention is made of the custom among midwives of giving the new-born child some of its father's freshly drawn urine. Probably most practitioners are aware that this barbarity still prevails to some extent in parts of our own country. In this connection my father, Dr. I. Brown, recalls a reminiscence which he permits me to send you. Some thirty years since, he had under his care a brother physician who was a slave to the morphine habit. This gentleman related that a few years previous his wife had delighted him with the present of a son (his other offspring being all girls). The old women present demanded some of the father's urine for the babe. The demand was complied with, the infant was dosed, and was soon dead from morphia. The moral is obvious."

To Secure Primary Union after Amputation of the Breast.—In women who have much subcutaneous adipose tissue, Dr. B. Riedel advises the removal of the fat before closing the wound. The presence of much adipose tissue, he says, interferes seriously with union by first intention.

An Instrument for Measuring Albumin.—Esbach has devised an apparatus for the quantitative determination of albumin in the urine, which he calls an albumimeter. It consists of a small graduated tube, which is filled up to a certain mark with urine, to which is added a definite quantity of a solution of 10 grammes of picric acid and 20 grammes of citric acid in a litre of water. The test-tube is then closed with a rubber stopper, shaken so as to cause a thorough admixture of the two fluids, and left to stand for twenty-four hours. The amount of precipitated albumin is then read off from the scale, which is graduated so as to indicate the amount of albumin expressed in grammes contained in a litre of urine.

Tweedledum and Tweedledee.—One of the prominent out-of-town delegates to the meeting of Old Code adherents, recently held in this city, was heard to remark that he didn't observe any great difference between Old and New Code men as to their readiness to consult with the "-paths." He himself could not see any reason why a general practitioner should not consult with an irregular if specialists were allowed to do so; and if he were in a tight place he would rather seek the advice of a well-educated homœopath than of an ignorant member of the regular profession. Where is the consistency in fighting for principles on theory if they are not adhered to in practice?

The End of the Cholera—On October 18th a *Te Deum* was sung in the Cathedral of Valencia in thanksgiving that the cholera had subsided and that the city was entirely free from the disease. It was at first proposed to have a public festival as well, but better counsels prevailed, as it was deemed inappropriate to make merry while so many were mourning their losses, and accordingly the religious function was the only official sign of the termination of the epidemic.

Somewhat Behind the Times.—It is reported that Professor Cheine has decided to discontinue the use of the carbolic spray in the wards of the Edinburgh Royal Infirmary for six months, in order to test whether it has any real merit. He will be somewhat consoled to know that the spray has long since been discarded by most of the leading hospital surgeons in the metropolis.—*London Hospital Gazette.*

A Religious Medical Journal.—Once every year, within the octave of the feast of Sts. Cosmas and Damian, *El Sentido Católico en las Ciencias Médicas*, which, by the way, is one of the best of our Spanish exchanges, displays upon its first page the following invocation: "To the holy patrons of the medico-pharmaceutical profession, Cosmas and Damian, the editorship of the journal 'Catholic Thought in the Medical Sciences' renders its homage, and invokes their powerful intercession to obtain from the Giver of all health the necessary light to defend the doctrine of harmony between revelation and science."

To Increase the Adhesive Properties of Plaster.—Dr. H. R. Kelly, of Galion, O., writes that a sponge, saturated with stronger ether, passed lightly over the surface of adhesive plaster, will cause it to stick firmly to the skin. No heat is necessary, and the plaster will adhere closely over its whole extent. Spirits of turpentine will act in the same way.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 25 NEW YORK, DECEMBER 19, 1885 Whole No. 789

Original Articles.

THE TREATMENT OF FRACTURES OF THE UPPER EXTREMITIES.[1]

BY SAMUEL W. SMITH, M.D.,

NEW YORK.

IN presenting my paper, entitled "Original Deductions, based on a Study of One Hundred Cases of Fractures of the Upper Extremities, excluding the Hand," I claim no originality in my general plan of treatment of these cases except in the use of splints which I have invented, and which have, to my knowledge, never been used before. If, in the history of each case coming under my care during the past four years, I present any idea that may hereafter prove a new and substantial benefit to even one unfortunate laborer by shortening the term of enforced idleness resulting from accidental injury, and by bringing him or her out of such term with a useful instead of a crippled arm or joint, I shall consider my time well spent in reviewing my experiences in this line.

That fractures of the upper extremities are very common among children, as well as among older persons, is shown by the following tabulated list:

	6 years and under.	6 to 12 years.	12 to 50 years.	Over 50 years.	Total.
Scapula (3)—Acromion			2		2
Coracoid process				1	1
Clavicle (37)	20	5	8	4	37
Humerus (15)—Surgical neck		1			1
Shaft of	2			1	3
Condyles: T-fractures		1	1		2
Internal condyle	1	2			3
External condyle	1	2	1		4
Epicondyle		1	1		2
Ulna (11)—Olecranon			3		3
Shaft			1	1	2
Head of			4		4
Styloid process				2	2
Radius (34)—Neck of		1			1
Shaft of	4		2		6
Lower end of — Transverse or short oblique	1		9	2	12
Lower end of — Colles'			3	12	15
Total	29	13	35	23	100

Hence it becomes us as surgeons to employ our art in assisting nature's physiological laws of repair by placing the fragments in such a position as will most likely result in a complete union without deformity, and that such a position shall allow as much ease and comfort to the sufferer as possible. This has been my constant desire and aim, both in dispensary and private practice. The above table shows that nearly half of these fractures occurred to children under twelve years of age. Of these, twenty-five were fractures of the clavicle; eight were fractures of the condyles of the humerus, and but one a fracture of the lower end of the radius. In the cases over twelve years of age we have an altogether different state of affairs. But twelve were fractures of the clavicle, three fractures of the condyles of the humerus, and twenty-four fractures of the lower end of the radius. It seems to me important to give a minute description of the kind of fracture as well as of the location, otherwise, in recommending any particular splint or plan of treatment, we may easily mislead the more inexperienced of our profession and thus have a valuable aid in the treatment of those injuries deemed unworthy of a second trial; and therefor it is that I ask your indulgence while I refer to some of the peculiar characteristics of the more important fractures.

Fractures of the clavicle.—Of the twenty-five fractures of the clavicle of children under twelve years of age, twenty-two were transverse or short oblique, having the line of fracture near the outer edge of the middle third, with only slight displacement of the fragments. In some, there being no displacement, the periosteum evidently not having been torn through, the only evidence of fracture was a false point of motion and crepitus; while in the other three cases the fractures were near the middle of the bone, and long oblique in character, with considerable displacement and deformity. Of the eight fractures of persons between twelve and fifty years of age, three resulted from great violence to the upper and outer portion of the shoulder, the line of obliquity commencing near the inner edge of the middle third and running from above downward and inward, developing great displacement of the fragments with much deformity; the outer fragment being drawn downward and inward, so that it lay under and crossed the inner fragment like the letter x. [I think, when this particular kind of obliquity occurs, it is due to the clavicle being forced down across the first rib.] The other five fractures resulted either from a fall on the hand with the arm extended from the side, or a fall on the outer portion of the shoulder. Of these, three were long oblique, the line of obliquity running from the outer portion of the middle third backward and inward, having much less deformity and displacement than obtained in the three cases before mentioned. One was transverse or short oblique near the outer edge of the middle third, with very little deformity, the other being transverse outside the coraco-clavicular ligament, with considerable displacement and dropping of the shoulder. The remaining four cases of persons over fifty years of age, resulted from a fall on the hand while the arm was extended from the side, or from a fall on the outer portion of the shoulder; all were in the middle third, running obliquely backward and inward. In all of these cases, just as the fractures occurred within the attachment of the subclavius muscle, it became alike difficult to overcome its tendency to draw the outer fragment inward and forward.

Fractures of the humerus.—At present I will speak only of those at the lower end of this bone. In speaking of these fractures, please understand me as referring to the condyles or separation of the epiphysis. That such are not infrequent, especially between the ages of six and twelve, is shown by the above table. Of eleven fractures of the condyles of the humerus two occurred in children under six years of age, one of the external and one of the internal condyle: six occurred between the ages of six and twelve; of these one was of the epicondyle, two of the external condyle, two of the internal condyle, and one of both condyles, or the so-called T-fracture. Three occurred in persons between the ages of twelve and fifty years; of these, one was of the epicondyle, one of the external condyle, and one of both condyles, or the so-called T-fracture.

[1] Read before the New York Academy of Medicine, December 3, 1885.

Fractures of the lower end of the radius.—I will not occupy your time in reviewing the more simple fractures of the ulna and shaft of the radius, but will confine my remarks to the fracture of the lower end of the radius—the so-called "Colles fracture." And here a word explanatory of my understanding of a "Colles fracture," for I concede a marked difference between a "Colles fracture" and a transverse or short oblique fracture, which latter has not, under my observation, given rise to the characteristic deformity so particularly described by Mr. Colles, except when we have the fracture transverse through the more cancillated structure of the bone, with the lower fragment splintered and impaction of the upper fragment. All the text-books on surgery which I have consulted omit mention of the peculiar obliquity of this fracture. Mr. Colles' own description in the *Edinburgh Medical and Surgical Journal*, vol. x., p. 182, 1814, deals more particularly with its characteristic deformity and cause, without referring to the degree of obliquity. Prof. Alexander Gardner, of Queen's College, Belfast, in his treatise on "Fractures of the Lower End of the Radius and Clavicle," in 1875, says: "In justice to the man who first described this fracture, we should restrict ourselves to the form or variety which Mr. Colles described." He then asks, "Is the fracture transverse?" and says, "Of twenty-seven specimens examined, nineteen were oblique from before backward, and eight directly transverse," and again asks, "If the transverse fractures had been examined immediately after the accident, would they have been considered directly transverse?"

Erichsen, in his work on Surgery, vol. i., p. 420, says: "Colles' fracture is generally oblique from before backward;" and again, page 421, that a patient died in the hospital twelve days after receiving a "Colles fracture," the wrist presenting the characteristic deformity in a marked degree; and that he made a dissection of the limb and found the line of fracture transverse and about an inch above the articular surface, with impaction of the upper fragment, the lower fragment being somewhat comminuted.

Prof. E. M. Moore, of Rochester, in his very able paper read before the New York State Medical Society, and published in THE MEDICAL RECORD, vol. xvii., p. 305, 1880, says "the fracture is usually oblique." But he fails to describe the special character of the obliquity, and recommends the following treatment, viz.: A small roller or compress under the ulna, and over this and around the wrist, tightly drawn, a few turns of adhesive plaster, about two inches wide, and says that the best results are obtained thereby. This may be so in Dr. Moore's hands, but it utterly failed in mine, except in cases of the short oblique or transverse fracture, without impaction, when I obtained as good results as with any other splint. It was during a trial of Dr. Moore's splint in the treatment of these fractures that I recognized a marked distinction between long obliquity and short or transverse fracture. However, when we have a short oblique or transvere fracture within an inch of the carpal articulation, and a comminution of the lower fragment with impaction, then we have a shortening of the radius, the carpal end of the lower fragment with the carpal bones being drawn backward, the hand also drawn outward and presenting the characteristic deformity described by Mr. Colles. The kind of splint used and the after-management of the case should, therefore, depend largely upon the fact whether the obliquity of the fracture be long or short; and for this reason we have the action of the supinator longus with the extensors constantly drawing the lower fragment upward, and its carpal end with the carpal bones backward and the hand outward, which gives rise to the posterior deformity and appearance of dislocation of the ulna. Hence, as the obliquity is great, the difficulty of retaining the fragments in apposition after reduction is correspondingly great, and, by the drawing upward of the lower fragment, we have a shortening of the radius giving rise to the unnatural convexity over the head of the ulna so common after treatment of these fractures. Dr. Moore, however, claims that the inner deformity over the head of the ulna is due to the giving way of the internal lateral ligament and the triangular fibro-cartilage, the styloid process and sometimes the head of the ulna being thrust through the annular ligament. This may or may not be the case, and is difficult of demonstration. Through the kindness of Dr. Dennis, I was shown a remarkable specimen of so-called Colles' fracture, with dislocation of the ulna, the head of the bone tearing through the annular ligament. This specimen was taken from a woman who had thrown herself head foremost from a third-story window, striking upon her hands. The force of the blow was greater than is necessary to produce a Colles fracture, hence the driving of the head of the ulna through the annular ligament and the comminution of the lower fragment of the radius.

In speaking of these fractures I will use the term Colles' fracture only where the fracture was of the long oblique variety, and gave rise to the characteristic deformity as described by Mr. Colles, and use the words short oblique or transverse where the fracture occurred in the same location, with the deformity less marked, and after the fragments had been brought into apposition, were easily held in their natural position.

There are in my list twenty-five fractures of the lower end of the radius. Of these, two occurred to children under twelve years of age, one of which was transverse, and one a separation of the epiphysis with no deformity. Eleven cases were between the ages of twelve and fifty years. Of these, eight were short oblique or transverse with some deformity, and three were Colles' fractures, deformity well marked. Twelve occurred to patients over fifty years of age, and of these two were short oblique or transverse, with considerable of the characteristic deformity of Colles' fracture, but easily reduced and readily held in position. The remaining ten were Colles' fractures, the characteristic deformity being well marked in all of them.

Treatment.—I will not occupy your time in reviewing the various splints and devices for the treatment of these fractures. Professor F. H. Hamilton, in his treatise on "Fractures and Dislocations," page 194, says of the number of splints and devices for the treatment of the fractured clavicle: "A catalogue of the names only of the men who have upon this simple point exercised their ingenuity, would be formidable, nor would it present any mean array of talents and of practical skill." As much may be said relative to the number of splints and devices for the treatment of fractures of the condyles of the humerus and the lower end of the radius.

The main object to be obtained in the treatment of fracture of the clavicle is to lift the shoulder upward, outward, and backward, and to hold the fragments in apposition. The two splints most commonly used for this fracture are, on the Continent, Desault's, with the axillary wedge, and in this country Professor L. A. Sayre's adhesive plaster splint, and, to some extent, Professor E. M. Moore's shawl or elbow figure-of-eight splint. With these I will briefly compare my splint for fractured clavicle. In the use of Desault's splint for oblique fracture near the inner third of the clavicle, I have never been able to throw the shoulder sufficiently outward to overcome the deformity without seriously interfering with the circulation of the arm, though the forearm, from the fingers to the elbow, be bandaged. Cases are reported where paralysis was caused by the pressure of the wedge upon the brachial plexus. Professor Sayre's splint, properly applied, will overcome any of the ordinary results of an oblique fracture in the middle third, where the obliquity is from before backward; but where the bone is fractured in the great convexity and the obliquity is downward and inward, I have found it insufficient to overcome the deformity, and have also found it to interfere with the circulation of the arm. Its greatest objection, however, is the irritation of the skin by the

adhesive plaster, which in some cases, especially those of young children, excoriates and results in superficial ulceration to such a degree, that several times I have felt obliged to remove the splint in less than a week from its application.

Professor Moore's figure-of-eight splint was an advanced step, and answered the purpose only where the fracture

Fig. 1.

was near the outer edge of the middle third, and transverse or short oblique in character; but where the fracture is near the inner third and long oblique it does not answer its intended purpose, but does the very opposite, for, passing the end of the shawl backward over the shoulder, it presses the outer fragment downward, rather than hold it up in apposition with the inner fragment. Nor does it suffice to draw the elbow backward and inward enough to overcome the action of the subclavius muscle, which, in my opinion, is one of the main factors in drawing the outer fragment inward. This led me to carry Dr. Moore's idea a step farther, by making a clove hitch with a scarf around the forearm well up to the bend of the elbow, passing the loose ends across the back and over the uninjured shoulder. This enabled me to draw the elbow of the injured side farther backward, inward, and upward, and make the humerus a lever and the side of the chest a fulcrum by which I could lift the shoulder of the injured side upward, throw it out, and draw it backward. I then could completely overcome the action of the subclavius and other muscles of the shoulder, and also that of the sterno-cleido-mastoid by tension upon the pectoralis major, fixing the scapula and firmly holding the fragments in apposition without at any time interfering with local circulation. This is what is desired from any splint for this fracture.

Case II.—*Transverse or short oblique fracture of the clavicle, near the outer edge of middle third.*—Kate B——, aged eighteen months, on December 10, 1879, was sent to me from the eye class by Dr. Carey, of the Demilt Dispensary. She was suffering from fracture of the clavicle. The patient had fallen from the bed and struck upon the left shoulder. She cried somewhat, but as she had at the time a deep ulcer from vaccination upon the arm of the injured shoulder, the mother had thought nothing of the accident until she had noticed a black and blue spot over the clavicle. On examination I discovered a transverse or short oblique fracture near the outer third of the clavicle, upon the same side of the body as the ulcer from vaccination. To apply either the Sayre adhesive plaster splint or the axillary wedge splint was out of the question. Hence, as was suggested to me by the article of Dr. Moore, of Rochester, in relation to the use of a shawl for holding up the shoulder, I improvised a splint. I used a scarf of unbleached cotton, six inches wide by four yards long, and made a clove hitch around the forearm, near the elbow, which was well padded. I was enabled, by drawing the elbow backward, upward, and inward, to throw the shoulder outward and upward, and draw it backward. I passed the two ends of the scarf around the uninjured shoulder and fastened it with a safety pin, bringing the loose ends across the uninjured side of the shoulder, to form a hand-sling. I was thus enabled to completely readjust the fracture and keep the broken fragments in apposition. The patient wore the splint for three weeks without complaint or any evidence of injury to the arm. At the end of that time I removed it, and found the fragments firmly united, without deformity.

In some of the following cases I used Sayre's splint, in others my own. The results in every case of using my splint, whether for oblique or transverse fracture, were equally as good as where Professor Sayre's splint was used, and with no discomfort from confining the forearm across the chest, and without the excoriation and superficial ulceration so apt to follow the use of the adhesive plaster splint, to say nothing of its want of cleanliness and danger of slipping due to the perspiration.

After a fair trial of my scarf splint on the more severe fractures of the clavicle, where the obliquity was downward and inward through the great convexity of the bone, I abandoned all other splints and confined myself to the use of my scarf splint, until I had made one more satisfactory in obtaining a fixation of the fragments with the elbow in the same position.

Fig. 2.

It is for this fracture, oblique, downward, and inward, and through the great convexity of the bone, that I claim for my new splint for fracture of the clavicle all the advantages of any other, as well as some advantages that no other splints have.

This splint is very simple, easily made, and not expensive. It is a padded gauntlet-shaped piece of leather, laced to fit the forearm, running on either side back of the

bend of the elbow. To this part is attached a strap and buckle. A padded collar with strap, buckle, and ring is fitted to the uninjured shoulder. Through this ring the strap from the elbow piece passes, and by tightly drawing this strap the arm of the injured shoulder is under sufficient control to bring the fragments into perfect apposition. A sling is made to pass from the ring of the collar on the uninjured side of the neck for the hand of the injured side.

CASE LIX.—*Long oblique fracture of middle third of clavicle; treated by backward position of elbow, and cured without deformity.*—John M——, aged seven years, in April, 1884, was brought to the dispensary by his mother, who informed me that her little boy, while climbing over a fence the day before, fell eight or ten feet headlong to the ground. Since then he had been unable to use his left arm. It hung like a dead weight by his side, the shoulder having dropped downward, forward, and inward to a very remarkable degree. The arm rotated, as it were, around in front of the chest. Examination showed a long oblique fracture near the inner edge of the middle third of clavicle, the obliquity running from above downward, inward, and backward. The patient was thin in flesh, and the line of obliquity was readily mapped out. The application of my scarf bandage splint did not seem quite satisfactory for holding the fragments in perfect apposition, as the adjustment is not so easily made as with my gauntlet and collar splint. By the application of this splint the broken fragments were held in apposition for three weeks, when I removed the splint. I found the broken bone firmly united, without any deformity or perceptible shortening of the clavicle.

CASE LXXXIII.—*Long oblique fracture of clavicle at inner edge of the middle third; obliquity running from above downward and inward.*—John F——, aged thirty-nine years, in January, 1884, came to the dispensary for advice in relation to a fracture of his right collar-bone, received three or four days before. He informed me that, while at work in a lumber yard, he and another workman were carrying a long, heavy piece of lumber; that the other man, who was in front of him, fell, dropping his end to the ground. The force of the plank's fall was communicated to Mr. F.'s shoulder, upon which rested the other end of the plank. The arm of the injured shoulder dropped by his side, and his end of the plank fell to the ground. Two days after he went to a college clinic, where a Sayre adhesive plaster splint was applied, and over this was placed a Velpeau bandage. When he presented himself at the dispensary he also complained of numbness in his hand and arm, as well as pain. I removed the bandage and found the splint in proper position for fracture of the clavicle. On examining the injury I found it to be a long, oblique fracture of the middle of the clavicle, the obliquity running from above downward and inward. The fragments were over-riding each other, and their long axes crossing like the letter X. They presented sharp points to the skin at two different places, so that the fragments were far from being apposed in their natural position. I removed the Sayre splint and applied my splint, drawing the elbow backward and inward, as in Case LIX. With the elbow in this position I was able to entirely overcome the deformity of the fragments, bringing them into apposition and holding them there. At the end of three weeks firm union had taken place. The splint was worn for a week longer, and I removed it and discharged the patient cured, with little or no deformity.

CASE C.—*Long oblique fracture of the middle of the clavicle cured without deformity.*—Jesse F——, aged ten years, was brought to the Demilt Dispensary in September, 1885, by his mother, for treatment of an injury to the right shoulder. The patient informed me that while playing on the sidewalk, the day before, a boy pushed him down, the outer edge of his shoulder striking against a stone step, since which time he was unable to use his arm. The arm hung helpless by his side with the hand and forearm in a state of pronation in front, the shoulder considerably lower, and a shortening of the clavicular line as compared with the uninjured side. Examination showed that the injury sustained was that of a long oblique fracture near the inner edge of the middle third of the clavicle. The second day following the injury I applied my splint for fracture of the clavicle. With it I was enabled to bring the fragments in apposition and hold them firmly until consolidation took place. The splint was worn with little or no discomfort for three weeks. The result, a cure without deformity.

Fractures of the condyles of the humerus.—It is admitted that injury to, or fracture of, the elbow is a serious matter, and the result thereof is largely dependent upon appropriate local treatment and care. But when the line of fracture of either condyle of the humerus runs into the joint it is doubly serious, and has thoroughly tested the ingenuity and skill of our profession, not a few of whom have been prosecuted because of a resultant stiffened joint or the so-called gunstock deformity remaining after treatment was discontinued. This fracture is generally caused by direct violence with much injury to the soft parts; hence, it is of special importance in treating it to use means that will most effectually promote the absorption of the resulting inflammatory products in and around the joint, as well as the speedy coaptation of the fragments and the holding of them firmly in apposition.

My experience in treating injuries of the elbow-joint, whether fracture obtained or not, has taught me that prompt and vigorous treatment, to combat local inflammation with effusion in and around the joint, and appropriate treatment for its reabsorption, is our only safety from false anchylosis or stiffened joint, so commonly resulting from these injuries, and so annoying to the surgeon as well as painful to the patient.

The splints generally used are the posterior, anterior, and the internal lateral angular, with or without movable joints, and each one is recommended by equally good authorities. Each has advantages and disadvantages, but, as Dr. Alis, of Philadelphia, states, none can be firmly enough applied to fix the joint without interfering with the perfect coaptation of the fragments; hence the loss of the so-called carrying point, besides the interference with local applications, which are so important in the early as well as the later treatment of these injuries.

Dr. Alis recommends semi-extension of the arm with a simple splint of flour paste or strips of adhesive plaster. Here, again, local treatment is obstructed, and I consider flour paste or adhesive plaster insufficient to hold the fragments in apposition, especially where the line of fracture is through the external condyle into the joint. At least it has proved so in my hands.

In fractures of the external condyle I have preferred the internal lateral splint, with the forearm in a state of semi-extension and the hand in a state of supination.

In cases of separation of the epiphysis I have given preference to the long anterior leather splint, extending from the shoulder to the hand and applied with the forearm in extension, then flexed to a right angle. With all of these fractures, and especially the so-called T-fracture, none of the splints in common use gave me entire satisfaction in preserving the lateral angle of the arm, so essential in retaining the carrying point and preventing the gunstock deformity—a deformity that seriously lessens the ability to use the limb for any work, especially carrying a weight by the side, to say nothing of the special distress the deformity causes to women.

CASE XII.—*Fracture of the external condyle of the humerus; treated with the internal lateral angular splint, resulting in loss of the "carrying point" with gunstock deformity.*—Geo. H——, aged twenty-three years, in June, 1880, came to the dispensary complaining of a painful injury to his right elbow. Two days before he had been knocked down by a rapidly moving express wagon. He thought the horse had stepped on his arm. Examination showed that much injury had

been done to the soft parts. Swelling was very great, and the skin was blackened from extravasation of blood on the outside of the lower end of humerus. The fragment of the condyle was drawn down, so that the lateral angle of the arm was reversed. By flexing the forearm and restoring the external lateral angle crepitation was readily obtained. The patient was confined to his bed for the next two days, and evaporating lotions, alternated with hot poultices, continually applied. It was impossible to keep the patient in bed longer, the swelling having greatly subsided. The natural contour of the arm was restored, and the broken fragments were nicely coaptated. The forearm was flexed to nearly a right angle, causing but little pain, and dressed with an internal lateral splint, with an opening for internal condyle. The patient was seen every second day at the dispensary for the next ten days, when the splint was removed and re-applied, and passive motion commenced on the tenth day. Although but little movement of the forearm could be made without causing severe pain, by the daily application of hot poultices to the elbow, at the end of four weeks from the first removal of the splint, sufficient extension of the forearm could be made to show that the external later angle of the arm, as well as the "carrying point," was lost. Patient continued to visit the dispensary, irregularly, for five or six months, but was never able to fully extend the forearm.

Case XIII.—*Fracture of internal epicondyle; treated by position without a splint, and cured at the end of four weeks without any stiffness of the joint.*—John E——, aged fourteen years, in June, 1880, came to the dispensary for advice in relation to a severe injury he had received to his left elbow. He informed me that while leaving the school-room a few hours before, he was shoved by another boy and fell, striking his elbow against the edge of a stone step. Examination showed a swelling on the inside of the elbow-joint, with a slight abrasion under the epicondyle. By extension and supination of the forearm, with my fingers pressed against the condyle, crepitus was readily felt. A further examination showed that the epicondyle was broken off and slightly drawn downward; there was no other deformity, comparing the injured with the uninjured arm, and my diagnosis was a simple fracture of the epicondyle. I sent the patient home and had him confined to bed, the arm resting upon a pillow, flexed and pronated in the most comfortable position to him, and ordered cold applications to be kept to the elbow for forty-eight hours. On the third day following I called at the house of the patient, and although cold applications had been faithfully applied, I found the elbow and forearm enormously swollen, and a large spot over the internal condyle, red and hot to the touch. The patient complained of a good deal of pain whenever the arm was moved. Tongue furred; temperature in the axilla, 101.5 degrees. I prescribed a mild cathartic, to be followed by a few doses of liquor ammonia acetatis, and locally a lotion of lead and opium, over which hot poultices of flaxseed-meal to be changed every two hours. On the second day following I called to see the patient, and found him much improved. The swelling had noticeably subsided, and the redness had quite disappeared. I now ordered an evaporating lotion to be applied to the swollen joint, and alternated with hot poultices, the patient to be kept in bed.

This plan of treatment was followed up for ten days, when I commenced passive motion, moving the joint but little at first, and increasing the degree of flexion and extension each day, and continuing the local treatment as well, until, at the end of four weeks, I discharged the patient cured, with perfect use of the joint. There was no deformity, no swelling around the joint, and full extension and flexion existed without pain or stiffness of the joint.

Case LVI.—*Fracture of lower end of humerus; treated with a long anterior leather splint.*—Edward G——, aged six years, was brought by his mother to the dispensary, in March, 1882, for advice. She informed me that while the children were out playing upon a pile of boards the day before, her little boy was thrown off, some boards falling upon him. He was carried into the house, and when his left arm was moved he cried out with pain. The arm, at the elbow, was very much swollen and black and blue to a considerable extent. It hung by the side, with the forearm extended, and midway between pronation and supination. There was very little pain, except when attempt was made to flex or rotate the forearm, and then it was very great. I put the little patient under ether, and carefully made an examination. On manipulation of the elbow, crepitus was readily obtained. The fracture was through both condyles, extending into the joint. The lower fragments were pulled backward; otherwise the position of the arm appeared normal. I had the little sufferer confined to bed,

Fig. 3.

with the arm resting upon a pillow, and treated with evaporating lotions, alternated with hot applications, for the next three days. Four days after the injury, the swelling having very much subsided, the fragments were more easily made out, confirming my former diagnosis. I now applied a long anterior leather splint, extending from the shoulder to the wrist, and held in place by adhesive plaster; then gently flexing the forearm, I was able to bring the broken fragments into natural position. A roller bandage was now applied over the splint from hand to shoulder. The splint was worn for four weeks, but was removed every three or four days to permit examination of the position of the broken fragments. At the end of three weeks passive motion was commenced. The splint was left off, permanently, at the end of four weeks. Passive motion continued daily until the end of two months, when I discharged the patient cured, with full extension and flexion of the forearm, but with some gunstock deformity, the external fragment having been pulled downward by the application of the roller bandage, holding the splint in place with the forearm flexed.

A varied experience, full of disappointments, in the use of the known splints for the more severe fractures of

the condyles, set me to work to make a splint with the following requisites :

1st. To hold the fragments in apposition.

2d. To allow the forearm to be flexed or extended, pronated or supinated, with fixation at any point.

3d. To lengthen or lessen the external lateral angle of the arm with fixation.

4th. To leave the entire elbow-joint exposed for local treatment, during the whole time of wearing the splint, without disturbing it.

The result of this work was a splint that my practice has proved to most happily meet every requisite mentioned.

Fig. 4.

Case LXXI.—T-*fracture of both condyles of lower end of humerus ; treated by my elbow splint, and cured without deformity and with perfect use of elbow-joint.*—William M——, aged eight years, in January, 1883, was brought to the dispensary by his mother. He was suffering intense pain from an injury to his right elbow-joint received the day before. His mother informed me that he had been knocked down by a horse and express wagon, falling forward on his face. The wheel of the wagon passed over his elbow. When I first saw the patient at the dispensary there was very much swelling about the joint, and the pain was so great that it was impossible to make out the extent of the injury without administering ether, which I did. The examination showed that both condyles were broken through into the joint, and could be moved upon themselves as well as upon the shaft of the humerus. The deformity was not great, except in the reversing of the outer lateral angle of the arm. The elbow was drawn somewhat backward, with the fragments tilted forward, resembling a partial dislocation of the forearm backward. I applied my elbow splint, bringing the arm into semi-extension and restoring the natural lateral angle of the arm, with the hand midway between pronation and supination. By passing a roller bandage around the rods of my splint and under the lower part of the arm and elbow, I was enabled to form a cradle for resting this part of the arm and for holding the fragments more firmly in position. I now sent the patient home and had him confined to bed with his arm resting upon a pillow. Made local applications of hot poultices, alternating with evaporating lotions. There was a considerable elevation of temperature, with coated tongue, etc. Gave a mild calomel and jalap purge, and ordered a milk diet. On the second day following I visited the patient at his home and found him in a much improved condition. The swelling around the elbow-joint had greatly subsided, and the pain was much lessened. I could now ascertain the extent of the injury, which confirmed my former diagnosis. The same treatment was continued for three or four days longer, when I commenced flexion of the forearm. At the end of ten days I flexed the forearm to nearly a right angle with the arm, not, however, without causing some pain. With the forearm flexed and midway between pronation and supination, I fixed my splint, which was held with a sling from the neck, and allowed the patient to leave the bed and take exercise out of doors. At the end of two weeks passive motion was commenced and kept up daily. The arm was held alternately by my splint at the fullest point of extension and of flexion, as seemed most adapted to overcome the stiffness of the joint. Thus the splint was of much value in preserving the natural contour of the arm, as well as in holding the forearm fixed at the farthest point gained in either flexion or extension, until I again saw the patient. At the end of two months I removed the splint altogether. The forearm could be flexed and extended to a degree almost equal with the uninjured arm. Hot poultices were applied to the elbow at intervals of two or three days during this period, and I consider their application a great factor in the restoration of the mobility of the injured joint. I saw the patient for the last time at the dispensary three months after the injury. He had the power of full extension and flexion of the forearm, with no loss of the so-called "carrying point," and with no "gun-stock" deformity.

My splint is made with two rods of untempered steel, extending from the upper part of the arm to the wrist, with a ball and socket joint at the elbow, and screws for fixation ; the lower ends pass into a sheath-screw on either side of the wrist ; the upper ends pass through two iron posts set in tin and made fast to the arm by plaster-of-Paris bandages, the rods being made firm in the posts by thumb-screws. On each side of the wrist is a post through which the sheath-screw passes, and made fast to the wrist in the same manner as the upper parts, and fastened with fixation-screws. By moving the sheath-screws the lateral angle of the arm may be contracted or widened as needed, thus overcoming any tendency to loss of the carrying point (or gunstock deformity). A turn of the fixation-screws at the elbow and wrist will allow the forearm to be flexed, extended, pronated, supinated, and fixed at any desired point without other interference with the splint.

Passive Motion.—Recognized authorities, of like high standing, differ materially as to the time when passive motion should be commenced.

While some advise commencing passive motion within a week of the injury, others say that under no circumstances should it be commenced before three to five weeks. My opinion is that passive motion should be commenced in each case according to the extent of injury to the soft parts, and our ability to hold in check and reduce the inflammation following the injury. Thus, while passive motion might be wisely commenced within a week of the injury in one case, in another it would be better surgery not to commence for three or four weeks.

Colles' Fracture.—Not having as yet treated a sufficient number of Colles' fractures by my new extension splint to draw conclusions satisfactory to myself, I will leave the discussion of its application to these fractures for a future paper.

I will briefly say, however, that whether the fracture be transverse near the carpal articulation, with splintering of the lower fragment, or a long oblique higher up, the treatment is necessarily the same ; that is, we make extension of the hand, drawing it well toward the ulnar side, and the deformity is reduced. The application of any splint in common use is to retain the fragments in their natural position by forcible compression, and the daily removal of the splint to renew extension if we would secure repair of the fracture without deformity. I have undertaken to do this by making the hand and forearm the points of resistance to overcome the natural tendency to a shortening of the radius, which tendency is, in my opinion, so powerful, so constant and vigorous in action, that it is the cause, more than any other, of the unsightly convexity over the head of the ulna. I cannot close this paper without protesting against allowing any splint whatever being kept without removal on a Colles fracture for two or three weeks at a time, or even three days. My plan has been to remove the dressing for examination of the injury every second day, until consolida-

tion of the fragments is obtained. To support this protest I will read you Case XCIX.

CASE XCIX. "*Colles' fracture;" treated by permanent splint; deformity and a crippled hand resulting therefrom.*—Mrs. G——, aged sixty-nine years, called at my office in October, 1884, to consult me in relation to a stiffness of her left hand and wrist accompanied by extreme pain. Patient gave me the following history: Three months previous, while descending the stairs, and when within three or four steps of the bottom, her heel caught on the edge of the step, throwing her forward to the floor. She fell on her left hand outstretched in front of her. A physician was called in to attend her within an hour after the injury. He said it was a "Colles' fracture," applied temporary dressing, and called the following day in company with a surgeon. After examining the fracture together a splint was applied, and left in position for two weeks, then removed and a plaster-of-Paris splint was put on, leaving it in position for six weeks longer. The result of this treatment, in this case, is a deformed wrist and crippled hand.

But, after all, this cast (cast shown) not only makes a stronger and more eloquent protest than can any words of mine, but also makes an appeal to every surgeon faithful to his human work.

OF THE LIABILITY OF PHYSICIANS FOR REPORTING, OR FAILING TO REPORT, TO THE BOARD OF HEALTH CASES OF INFECTIOUS OR CONTAGIOUS DISEASE.

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ALL liability of a physician, in legal contemplation, must arise from a breach of duty owing either to the patient, toward whom he stands in a private contractual relation, or to the general public, which requires certain offices at his hands. Where the duty is founded in contract no cause of action will accrue from its breach in favor of any one not in some way connected with the contractual relation. But if the breach be of a duty existing independently of contract, then any one injured by it may have his action for damages.

No physician is under compulsion to establish this private relation by accepting any particular person as his patient; but, having established it, he owes to that patient the duty of treating his case with ordinary skill, knowledge, and care, even though the services be rendered gratuitously. What ordinary skill and knowledge are in any particular case is a question of fact for the jury. The rule of law seems fairly settled that, generally speaking, by ordinary skill, etc., is to be understood that degree of professional attainment possessed by the average practitioner in such communities as that in which defendant practises. A specialist is held to greater skill in his specialty than a general practitioner would be, the degree of experience, the facilities for study, and the pretensions of the physician are all factors determining what in his case is ordinary skill.

The first rule governing the liability of a physician to his patient for negligence being that he is expected to exercise ordinary skill and knowledge in the case, it is limited by a second principle, which is that there is no liability for any damages except those resulting probably and proximately from the breach of duty. Negligence alone will not create a cause of action, nor will an injury which is only remotely due to the negligence. "It were infinite," said Lord Bacon, "for the law to judge the cause of causes and their impulsion one of another, therefore it contenteth itself with the immediate cause and judgeth of acts by that without looking to any further degree." But simple as this rule may seem at first glance, it often becomes a question of "Scotch metapheesics" to tell whether or not the damages complained of are due directly to the breach of duty, or have been brought on or augmented by acts of the patient or other causes. In such cases, the evidence as to facts being conflicting, the question is left to the jury. But where there is no evidence going to show that the damages resulted from the negligence, the question is one of law for the court. In a late decision of the Supreme Court of the United States, since followed by our Court of Appeals, a more scientific test of legal causation was given than is usually found in the cases. It was there said:

"The question always is, Was there an unbroken connection between the wrongful act and the injury, a continuous operation? Did the facts constitute a continuous succession of events, so linked together as to make a natural whole, or was there some new and independent cause intervening between the wrong and the injury?" If any break occurs in the continuity of events, and a new factor, especially if it be an intelligent cause, comes in to determine the result, the first ceases to be the proximate cause of the event. Thus if A set B's leg negligently, yet direct him to keep his bed and not move the limb, and B, disobediently trying to use the leg, injures it so that the damage from the disobedience cannot be distinguished from that due to the negligence, B can have no action against A. So it has been held, that if I throw a lighted squib at A, who instinctively throws it toward B, I am liable to B for any damage from the explosion; for it is as if the squib had rebounded, A not having acted otherwise than mechanically. But if I sell to an infant gunpowder, which he gives his mother to care for, and she subsequently gives him some to play with, her interposition as an independent cause frees me from the liability for damages from an explosion, which I would have incurred had the explosion taken place while the powder was originally in the child's possession. And so in actions for slander, of which the gist is malice: if special damages be claimed, they must be shown to have resulted from the original utterance and not from the repetition by a third person of the slanderous words.

Having thus seen that toward the patient a physician is liable only for the proximate and probable results of his failure to use ordinary skill, knowledge, and care in the case, we come to the question of his liability where he is commanded by a statute to do, or forbear from doing, a particular thing; such, for instance, as the reporting of cases of contagious disease to the health authorities.

Here three principles are to be borne in mind. First, no one can be held liable in damages for strictly obeying the law. Second, the law does not excuse negligence; and, if its mandate be negligently carried out, an action will lie in favor of one suffering by its careless execution. Third, if a public statute be disobeyed, any one suffering injury from such disobedience as a proximate cause shall have his action for damages.

Suppose, now, the case in New York City of a physician, A, called in to see B, whom he suspects to be suffering from a contagious disease, *e.g.*, Asiatic cholera. A has a double duty. First, he owes to B, while under his charge, ordinary care and skill. Second, he owes to the public a statutory duty prescribed in Section 608 of the Consolidation Act, which provides that every practising physician in said city shall "report in writing to said board (*i.e.*, the Board of Health) every patient he shall have laboring under any pestilential, contagious, or infectious disease, and within twenty-four hours after he shall ascertain, or suspect the nature of the disease." He is required to report, not his beliefs, not his final diagnosis only, but his reasonable suspicion. Section 131 of the Sanitary Code, which was in force at the time of enactment, and was made binding by Section 557 of said act, ordains, "That every physician shall report to the Sanitary Bureau, in writing, every person having a contagious disease (and the state of his or her disease, and his or her place of dwelling, and name, if known) which such physician has prescribed for or attended for the first time since having such a contagious disease,

during any part of the preceding twenty-four hours; *but not more than two reports shall be required in one week concerning the same person;* but every attending or practising physician thereat must, at his peril, see that such report is or has been made by some attending physician." This, then, is A's public duty, to report in writing to the health officers cases of contagious diseases within twenty-four hours after he *suspects* their nature, and to see that semi-weekly reports are thereafter made. What is his liability for so doing? Section 559 of said act provides that, "No member, officer or agent of said Board of Health, and no person (but only the board itself) shall be sued or held to liability for any act done or omitted by either person aforesaid (in good faith and with ordinary discretion) on behalf of, or under said board, or pursuant to its regulations, ordinances, or health laws." A, therefore, being a person acting pursuant to the health laws is, by the statute, and even without the statute, by common law, exempt from any liability except such as is due to his own bad faith or lack of ordinary discretion. Let us now assume that through careless diagnosis A reports B, whom he finds suffering pain, to have the Asiatic cholera, whereas he in fact has gout. Here he has failed in ordinary discretion, has been negligent, and the jury are entitled to pass upon that fact. What is the measure of damages which B can recover? Evidently all the injury resulting proximately from A's report, that is to say, injury which has no independent cause other than that report; this proximate result can only be the visit of the health officer and such consequences as may flow from that visit, entirely distinct and apart from the acts of the officer, who is himself an independent cause so far as the results of whatever action he may take are concerned. Thus, if by reason of that visit B suffers inconvenience, and loses the custom of the neighbors who, perceiving the health officer entering his house, shun B's place of business, it would seem that this damage, which must always be nominal and difficult of proof, may be probably considered a proximate result of A's negligent report. But suppose the health officer, on his own examination and diagnosis, causes the removal of B to the hospital, for this act and its results A cannot be held liable, any more than the vendor of gunpowder abovementioned was held liable for the explosion. Such removal is not a proximate or probable result of the report. There is no statute or ordinance commanding that the infecters shall be taken from their homes, nor is it understood to be the custom of the health authorities in all cases to make such removal.

Certain contagious or pestilential diseases, such as Asiatic cholera, yellow fever, and that California bugbear, leprosy—if it be contagious—are so rare that many physicians in general practice may never have seen a case of any one of them; the same is true, to a less extent perhaps, of small-pox. Such practitioners may have the general knowledge of these diseases belonging to educated men of their profession, and yet be as unable to form a true diagnosis of them within twenty-four hours as a lawyer in general practice to give an off-hand opinion on a difficult question of patent law or criminal pleading. Therefore the statute contemplates that physicians may report their suspicions—which of course must be based on reasonable grounds—to the health authorities, who in such matters are—in legal contemplation at all events—experts. Those authorities decide what shall be done with the patient. The section of the Sanitary Code above italicized, and several provisions of the Consolidation Act, contemplate leaving the patient in the physician's charge with provision for semi-weekly reports of the case. To show how illogical is the assumption that A is liable for the health officer's act in removing B, it is only necessary to reverse the hypothesis. Suppose B's malady to be in fact yellow fever, but that the health officer, concluding it to be gout, leaves the patient undisturbed, and that A withdraws from the case, leaving another physician in charge. Is A to be held liable on account of his error in diagnosis for the act of the health officer in leaving a case of contagious disease unguarded, or for any acts of the physician in charge? Certainly not, and yet that is the logical outcome of the theory that he is responsible for the removal in the first hypothesis, which is thus refuted by a *reductio ad absurdum*.

Our argument so far, if its reasoning be cogent and its statements of law sound, demonstrates: First, that no physician who, in good faith and with ordinary discretion, reports in writing to the Sanitary Bureau that he suspects a particular patient to have a contagious disease, can be held to any liability in damages for so reporting. Second, that even if his diagnosis be negligent, or not made with the requisite skill, the measure of the damages for which he can be held liable will be whatever injury *may be proved* to have resulted from his report as a proximate cause; this, it seems, can only be the nominal damage incident to the fact that a visit has been made to the patient by a health officer, but not the damage incident to that officer's acts. It may be concluded safely, therefore, that the risk incurred by so reporting is practically too small to be much considered.

But assume that, rather than take this trifling risk of litigation, A should prefer to conceal the fact that his patient B has a contagious disease rather than to report it. In that event, having violated the statute, A is liable not only to its penalties, but in damages also to every one who may prove himself to have sustained injury directly from A's breach of duty. In short, the liability is increased in a tenfold, or even greater, degree.

No man is insured against vexatious litigation. The most innocent and the wisest may be proceeded against with little color of right. "There be three things," said the wise king, "which are too wonderful for me, yea, four which I know not. The way of an eagle in the air; the way of a serpent upon a rock; the way of a ship in the midst of the sea; and the way of a man with a maid." He would add, if he lived to-day, "the way of a petit jury with a verdict." But it would seem that if there is one man who is insured against litigation on account of his act, or is reasonably certain, if action be commenced, either to win his cause or at worst suffer a verdict for only nominal damages, it is the physician who reports cases of contagious disease according to law. Small verdicts to plaintiffs do not foster a desire to institute such actions. And as a practical illustration of this immunity it is to be remarked that although for fifty-seven years we have had a statute requiring such reports, there is not one case reported in the digests of an action brought for this cause.

THE HYPODERMIC INJECTION OF OIL.—A correspondent of the *British Medical Journal* writes: "It appears that some success has been met with in America, in injecting various oils for different purposes; and, among other applications of the method, it has been used in cases of gastric ulcer, in order to supply nourishment. In a case of this sort under my care, which has made very little progress for many weeks under ordinary treatment, and where emaciation is becoming alarming, I have tried hypodermic injection of oil; but the operation causes much pain, and is followed by very painful cutaneous inflammation, so that I have been forced to give up the attempt. I need not say that every step was taken to insure success, the oil used being the purest cod-liver oil, and the syringe previously cleaned in hot water. The oil was injected into the subcutaneous areolar tissue. I shall be glad to hear something of the experience of those who have tried this method of feeding, as it seems a matter of great importance. My patient is daily losing ground under careful rectal feeding, and her stomach can tolerate nothing but a few drops of milk at long intervals. If subcutaneous feeding can be carried out, her life, like that of many others, may be saved. Would deep injection involve danger of oil-embolism? Would it be likely to cause less pain?"

COINCIDENT FRACTURE AND DISLOCATION OF THE STERNUM BY INDIRECT FORCE.

By J. P. TUTTLE, A.M., M.D.,

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FRACTURE or dislocation of the sternum by indirect force is an injury of such rare occurrence as to render the following case, in which the two are coincident, almost, if not entirely, unique.

On September 20, 1884, J. B——, aged thirty-four, a stout, compactly-built man, dived from a post about six feet high into the surf, where the water was shallower than he thought. He struck forcibly against the sandy bottom, he says, on his head; but there was no proof of this—not even sand in his hair. He was shocked for the moment, but gained his footing, walked ashore, and to his house, about a hundred yards distant. I saw him shortly afterward, in company with Dr. C. Jay Seltzer, of Philadelphia, when he complained of pain in his "neck, breast, and shoulders." Movement of any kind in the arms or head was very painful, but no lesion of the spinal column could be found. An examination of the chest showed plainly a separation of the manubrium from the gladiolus, the latter overlapping the former.

In attempting to reduce the luxation, by placing a knee between the scapulæ and drawing the shoulders forcibly backward, at the same time pressing upon the upper end of the gladiolus, we observed distinct bony crepitus, and found it to proceed from a fracture of the gladiolus about one and three-quarter inches below the luxation.

Later, the patient was placed on his back with a large, hard pillow underneath the shoulders, with head and pelvis lower. By this means the location was completely reduced, and pressure on the upper end of the gladiolus showed both crepitus and slight deformity at point of fracture below, which Dr. Seltzer, and Dr. Phillips, of New York, both verified.

All that the patient complained of then was pains in the neck and breast. Those in the neck were evidently muscular, as they were not increased by pressure on the head or counter-strokes on the soles of the feet, and were increased by pressure or handling of the muscles of the neck.

The patient progressed with very few disturbances, the temperature rising at one time to 100.5°, and in four weeks was completely recovered, with very slight deformity at the point of dislocation, and a small amount of callus about the point of fracture.

The case is of interest on the following accounts:

First, there was concomitant fracture and dislocation of the two portions of the bone. Bony union had evidently not taken place between the manubrium and gladiolus.

Second, there was no other accompanying injury. The pains in the neck and shoulders were due to muscular strain, and, as will be shown further on, were produced by the same force that caused the main injury.

Dr. Hamilton reports a case, in his admirable work on fractures, in which this dual injury existed, but was accompanied by compound comminuted fracture of right leg, fracture of the necks of the first four ribs on each side, dislocation of sternum from cartilages of both second ribs, dislocation of left third cartilage from its rib, and paralysis of the bladder. The patient lived three days.[1] Dr. Watts, Jr., reports a somewhat similar case, with almost as many accompanying injuries, in which death occurred much sooner, and in which there was strong evidence of spinal concussion, at least.[2] Several cases of fracture of the sternum by indirect force are reported by Truehaart,[3] Levis,[4] Butterham,[5] and Lane,[6] but in none of them was the double injury found.

[1] Hamilton on Fractures, p. 183.
[2] American Medical Times, vol. iii., p. 55.
[3] Medical Herald, Louisville, March, 1880.
[4] Philadelphia Medical Times, December 29, 1883.
[5] Lancet, London, March, 1884.
[6] British Medical Journal, March, 1884.

Third, the injury was produced by indirect force, from a headlong fall. This is a point to which I would call special attention, as a satisfactory explanation of the production of such injuries has not yet been given. It is very evident how a patient falling across a bar or other object, on his back, may fracture or separate the bones of the sternum by forcible extension of the abdominal and sterno-cleido-mastoid muscles. Such cases are reported by various observers.[1] But how the force of a fall upon the head can be transmitted to the sternum without fracture, dislocation, or some injury to the cervical vertebræ, is incomprehensible to me.

Dr. Johnson reports a case of fracture of the sternum which the patient says was produced by falling on his head from a hay-cart.[2] In the cases of Hamilton and Watts mentioned above, the force is also supposed to have been exerted first on the head. But in none of these cases is there any injury of the head, not even a contusion, mentioned. It seems impossible for the injury to be thus produced without some such accompanying lesion, and either rupture of the spinous ligaments or, at least, concussion ofthe spinal cord.

The natural and well-known fact that men falling headforemost extend their hands unconsciously in order to catch the force on them, and thus save their heads, and the almost invariableness with which this position is assumed by divers, suggested that my own case, at least, and perhaps some others, might have been produced by falling upon the outstretched hands, and the transmission of the force thence through the clavicles and first ribs to the upper portion of the sternum.

The force thus expended upon the manubrium is a downward (with reference to the body) and backward force, while that exerted upon the gladiolus by the momentum of the body and abdominal viscera, through the diaphragm and lower ribs, is an upward and forward one. These two forces acting at variance, it is not difficult to see how fracture of the sternum may be produced; and if it occur below the juncture of the gladiolus and manubrium, which it does not in most instances, how a consequent dislocation of these two bones is likely to occur; for, after the fracture, the bending backward of the upper fragment furnishes an inclined plane of resistance to the lower end of the manubrium, off of which it easily slips and thus becomes dislocated, the third and fourth ribs still forcing the top fragment of the gladiolus upward and forward. The existence and direction of these forces can be demonstrated by observing the motions of the clavicles and sternum of an acrobat when he first rises to walk on his hands; or the first may also be seen in a well-articulated skeleton.

In view of these facts it is reasonable to suppose that the above case of my own, and perhaps that of Dr. Johnson, fell upon their hands first, and only struck their heads, if they struck them at all, after the force had been expended upon the sternum and it had given way. Of course, such an injury could only occur in this way in a person with large, strong clavicles.

As to the pains in the neck and shoulders, the strain upon the muscles thereabouts, especially the sterno-cleido mastoids, and the tension upon the shoulder-joints, would easily account for these, although I may mention that Dr. Gross considers pain in the back of the neck an almost constant symptom in dislocation or fracture with displacement of the sternum, whether by direct or indirect force.[3]

The fourth point of interest in this case, doubtless the first to the patient, is his recovery: truly, not from any superior treatment, but solely because the injury was uncomplicated by more serious ones, as were the cases of the distinguished observers mentioned. I have seen him frequently a year after the injury, and slight deformity at both points of injury exists.

[1] Hamilton, loc. cit., 181. Malgaigne on Fracture, Arch. de Med., 1827; Gaz. Med., 1842. Gross-System Surgery, 964.
[2] Med. and Chir. Rev., N. S., vol. xvii., 536.
[3] Loc. cit., 962.

It may be argued that the clavicle would give way before a fracture of the sternum could be produced. But Dr. Arbuthnot Lane has shown by experiment on the cadaver that heavy blows on a padded shoulder will produce fracture of the sternum. He claims, however, that the force is transmitted, not from the clavicle to the sternum direct, but "*only* through the first and second ribs." It is easy to see some influence of the first rib, at least, but to admit the "only" is very difficult, seeing that the clavicle and sternum are more closely connected than the clavicle and first rib. Maisonneuve attributes the fracture to force transmitted through the clavicle, as does also Levis, who remarks that the simple fracture is by no means so rare as the standard works on surgery would lead one to believe.

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CARDICENTESIS.

By A. H. P. LEUF, M.D.,

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A paper entitled "As to Cardiac Aspiration" appeared in The Medical Record of November 14, 1885. Dr. W. S. Cheesman is the author. The note calls for a reply. It is gratifying to see that the doctor's interest in the subject is unabated, for he has been in the field before opposed to the procedure. He mentions my paper on "Pulmonary Congestions and Cardiac Aspiration," that appeared in the *American Journal of the Medical Sciences* of January, 1885, and the editorial in The Medical Record of October 31, 1885, on Mr. Dacre's case of aortic aspiration, as the latest contributions to this subject. Another, however, appeared in the editorial columns of the *Journal of the American Medical Association* of April, 1885, in which the advisability of the operation is upheld in unmistakable terms.

Dr. Cheesman next reiterates his objection to cardicentesis on account of the danger of laceration of the auricular wall. To prove this he cites a case that came under his observation while interne at Bellevue. "A hypodermic needle was introduced into the space uncovered by lung" for the purpose of *pericardial* aspiration. "The syringe filled with blood, and was at once withdrawn. While being withdrawn, the needle was distinctly felt to be moved with or against the heart in its contraction." The patient died very gradually six hours after the aspiration. At the autopsy the heart was found enveloped with a blood-clot, and a quarter-inch rent was found on the right ventricular wall "in one spot between the columnæ." The heart was hypertrophied and fatty. Having seen such rents with similar after-effects in the same class of hearts and without any puncture, a doubt naturally arises in my mind whether the hæmopericardium in Dr. Cheesman's case was due to aspiration, or may not have been spontaneous. Nothing is said of a corresponding opening in the parietal pericardium, or of the site of the rent in the right ventricle with reference to the needle opening in the thoracic wall. The probability, however, is that the puncture was the cause.

It is not fair to offer this case in opposition to the operation. Surely neither Dr. Westbrook, Dr. Roberts, or myself would care to aspirate a *fatty* heart. That has never been advocated. Another important point is the fact that a hypodermic needle is a little too short to be used with safety. It should be long enough to sufficiently penetrate the heart cavity, so as to offer a minimum resistance to the cardiac movements at its point of entrance. A short needle is relatively more rigidly held in the thoracic wall, and its point more fixed and unyielding, than a long one. The normal elasticity and contractility of the heart-wall diminishes when it has undergone fatty changes. Even in Dr. Cheesman's case there probably would have been no outpouring of blood if the needle had not just happened to strike such an exceptionally thin part of the heart. Another case of accidental puncture is mentioned as having happened to a member of the visiting staff at Bellevue. No more is said about it, and so there can be no discussion on that.

Dr. Cheesman confesses himself "frightened" at a little hæmopericardium because "they mean leakage, hæmopericardium, which in some other cases may be sufficiently abundant to kill." That such may now and then occur is self-evident. But is there not a certain risk to life in almost any surgical interference? Even so simple and usually harmless a procedure as tooth-pulling has more than once resulted fatally. No one ever denied the danger of cardicentesis in all diseased conditions of the heart in which there was weakening of the walls. For these cases it is not intended, and I believe I am echoing the sentiment of all advocates of the operation in imploring the forbearance of experimenters in this class of cases. If Dr. Cheesman will limit his fears and objections to this unwarrantable, meddlesome interference, there will be unanimity.

In my former paper it is expressly stated that "the operation was designed for the relief of the heart laboring under physical difficulties, and especially without organic disease." Given a case of organic disease without weakening of the heart-walls, and we can only hope for temporary relief by aspiration, because it does not remove the cause. In a case of over-distention, however, of the right side, in an undiseased heart, with empty peripheral veins and a weak systole, permanent relief, cure, may be effected by the timely performance of this operation. I maintain that this operation, if done at all, should be performed as soon as its necessity seems assured.

The operation has recalled to consciousness and maintained in that condition a man, for a number of hours, who had been *in articulo mortis*, and was almost momentarily expected to die. The benefit of such restoration of the mind for so long a time, under innumerable readily-imagined circumstances, would be of incalculable value. The value might relate to the family, business, politics, war, science, art, etc.

I also desire to "actually" reassert that cardicentesis properly performed is simpler and less disheartening to the patient than the ordinary phlebotomy, and would maintain this assertion at length if worth so much space.

The last point in the paper under discussion is one that it would have been better not to raise. It is said, 'One other point has been made much of by Dr. Leuf (in his article above-referred to), viz., that the conception of this operation was original with Dr. Westbrook." Dr. Cheesman is guilty of rather a remarkable error in this instance. He really makes no distinction between mere sight, discovery, and device or invention. One man sees a thing, and may even handle it without putting it to any special use—he sees or experiences; another notices a special use for it—he discovers; still another, by reasoning, finds for it a special use, or, arguing from effect back to cause, detects the existence of the thing or body from the use to which it is to be applied—he devises, he invents, to discover and apply. Two men quarrel, one picks up a knife and introduces the point into the other's heart—he performs cardicentesis. This is being done now, was done centuries ago, and will be done as long hence. This is the man who merely sees or experiences. A number of professional brethren have accidentally penetrated the heart with hollow needles, much to their surprise and alarm. Of these Dr. Cheesman speaks. They are the men who simply discover, and without appreciating the value of what they observe. Dr. Benj. F. Westbrook saw certain conditions of the heart associated with others of the circulation, and reasoning from effect back to cause, devised for, invented for, and applied the unappreciated and undeveloped experience of others to this condition, and is the originator of the operation of cardicentesis. John Hunter devised a surgical method for the treatment of aneurism, and the procedure was ever after called his. So the chancre,

which he was the first to describe so well. Leverrier, of France, and Adams, of England, accomplished a similar end, but higher in degree, in the determination of a planet that must have been seen again and again by competent observers without its character being suspected. To these men justly belongs the credit they receive, and not to some other, who could, perhaps, prove that he happened to see this body before its discovery was announced. And, although Leverrier announced his discovery a couple of weeks before Adams did his, the latter deserves equal credit with the former because his methods were as independent and original. To Bunsen and Kirchoff, of Germany, also belongs the honor of having done the same class of work in painstaking search after the metallic elements rubidium and cæsium, the existence of which had been determined by *a priori* reasoning. Suppose others had handled these metals before them, could these latter dispute with Bunsen and Kirchoff the title of discoverers, when they had to learn from them that it was something hitherto unknown? Certainly not, and that is precisely the position of cardicentesis to-day, but of inferior degree, in reference to the claim I make for Dr. Westbrook, and that Dr. Cheesman makes for the other gentlemen. Dr. Cheesman has just as much right, in principle, to the credit of owning this operation as have either Roger or Hulke, for both the latter performed accidental puncture.

Dr. Westbrook was the first one to deliberately plan and perform cardicentesis. Dr. Cheesman is wrong to say I "made much" of this being "Westbrook's operation." I only desired to give full credit, and this I did. Only once in my whole paper is the expression "Westbrook's operation" to be found. It was put so inadvertently in that instance, as I am not in favor of naming operations after individuals. Cardicentesis, therefore, has been called "Westbrook's operation," because it is.

Concerning M. J. Dacre's case, in the *Bristol Medico-Chirurgical Journal*, it is proper to note that there was considerable fluid in the lungs previous to the operation, and that this was only performed when the patient was without pulse and with hardly a systolic sound. Dr. Westbrook's first case was also one with œdematous lungs. In such cases only transient relief can be hoped for. It is, however, another one added to the cases that prove cardicentesis a safe procedure when judiciously performed.

It also seems, according to Mr. Dacre's experience, that the right fourth intercostal space near the sternum is the proper place of entrance for puncture of the right auricle. This does not agree with numerous very careful and painstaking anatomical observations that were made by Dr. Westbrook, and others by myself for him, as they showed, with but two exceptions, I believe, that the right third intercostal space, close to the sternum, was the safest and most certain. The right auriculo-ventricular groove and the artery it contains usually cross the right fourth intercostal space obliquely downward and outward.

The needle should be long and made to penetrate deeply into the auricular or ventricular cavity. It should also be introduced very rapidly. The best way is for the surgeon to grasp the needle firmly at a point where, when it is in position, it would just be at the surface of the chest, and then it should be quickly plunged directly backward, so as to penetrate the auricular wall at the same time that it perforates the parietal pericardium.

There will soon appear in another journal the account of another case of cardicentesis by Dr. B. F. Westbrook. The criticism I wish to make upon it is that the malady had progressed so far that permanent reaction was hopeless. This leads me to again emphasize the necessity of operating early. Just so soon as we have a very reasonable excuse for supposing that a dangerous dilatation of the heart is inevitable, I believe it to be our duty to aspirate freely and without delay.

Another point worthy of reconsideration is the site of puncture in the chest and heart-wall. On account of the difference in thickness and contractility of the auricular and ventricular walls, it might appear safest to enter the ventricle. The base of the heart, though, is less movable than the apex, and on this account there is least strain upon the cardiac wall at the base. The question as to the relative proportion between the thickness of these walls and the mobility of the corresponding parts of the heart can only be settled by future experience.

In conclusion, I would say to Dr. Cheesman that I fear he misunderstood the tone of my call for a description of the cases he formerly alluded to, and which he tells us were those reported by Dr. Dana. No sarcasm was meant, but the questions were put honestly, and I trust the Doctor will so consider everything said in this paper. Personal feeling should be understood as excluded from all scientific discussions.

Clinical Department.

HYDROGEN PEROXIDE IN THE TREATMENT OF ULCERS AND SINUSES.

Dr. C. G. Roehr, of Milwaukee, Wis., writes that he has used peroxide of hydrogen, with excellent results, as a disinfectant and stimulant to old ulcers and sinuses. When injected into sinuses containing exuberant granulations it destroys these, leaving uninjured the healthy tissues. There is very little pain, and a rapid improvement ensues.

MELANCHOLIA.

Dr. S. A. Defoe, of Washington, N. J., writes that he has found the following to give excellent results in melancholia. ℞. Valerianates of zinc, quinine, and iron, each twenty grains, to be divided into twenty pills. One pill is to be taken three times a day before meals. The drugs should be absolutely pure. Dr. Defoe says he has tried this remedy thoroughly, and finds it a specific for the worry of nervous women and for incipient melancholia.

COCAINE IN SEA-SICKNESS.

Dr. J. B. Bissell, of this city, writes us as follows: "Cocaine has been recently recommended as a remedy in sea-sickness, particularly by a Russian physician, who claims to obtain speedy and certain relief by its use in this affection. In a voyage from New York to Charleston, S. C., made in November of this year, an excellent opportunity was afforded to ascertain the value of the drug in this regard. The time of passage was four days, the weather fair, and no storms, but a head wind lasted all the way. The experiments were made on twenty-seven persons of both sexes, and from four years of age to forty-eight. The hydrochlorate of cocaine, in doses of a twentieth and a twenty-fifth of a grain, in tablets, was given by mouth. In one set of cases the medicine was begun soon after leaving the wharf; in another set at the first symptom of nausea; in a third set not till vomiting had taken place. In the first set the dose was a twentieth of a grain, repeated every hour till two grains had been taken. In the other cases a twenty-fifth every fifteen minutes up to two grains, or, as happened in nearly every case, till the patients became so sick that they refused to continue the drug. This was usually after the fifth or sixth dose. The results from these three sets of cases were almost precisely similar. In twelve cases there was no improvement, if the treatment did not positively make the patients worse. In six cases there was certainly an increase in the severity of the symptoms. In only three of the twenty-seven cases was there apparent benefit, and this improvement was coincident with a temporary improvement of the weather. As the sea became rougher

all three relapsed, and in spite of the cocaine became very sick. The other six of the twenty-seven were at sea for the first time. One of these was not sick at all during the trip. The others, however, did not escape. I did not notice any special influence exerted by the age or sex of the person treated. Such results as the above ought to dispose of cocaine as a remedy in sea-sickness, but as these results don't advertise any one's special method of administering the drug, or any firm's special preparation, it is very likely it will continue to be used till a newer remedy comes into fashion."

WHAT WAS THE CAUSE OF DEATH?

Dr. John H. Sevier, of Brownsville, Tenn., sends us the following: "L. C——, a colored primipara, aged twenty-eight years, was admitted to the lying-in ward of the Medical College Hospital, Nashville, Tenn., in January, 1884, while I was house surgeon. She appeared to be perfectly healthy. Soon after her admission I was sent for, in the absence of the house physician, and found her in the first stage of labor. The case progressed nicely, when suddenly she became comatose, with stertorous breathing, and died in a few minutes. The visiting obstetrician was at once summoned, and he arrived promptly, but too late to save the child by Cæsarean section. There was no evidence of poison, or reason to suspect any, and it was thought that she had died of apoplexy. Post-mortem examination, however, revealed no clot in the brain, nor lesion of any organ whatever."

SCIATICA RELIEVED BY A SINGLE COCAINE INJECTION.

Dr. W. B. Menz, of Vidalia, La., writes that he was called to see a lady, fifty-five years of age, who had been a constant sufferer from sciatica for ten years. The pain was very severe, and extended along the entire length of the nerve. She had run the whole gamut of anti-neuralgic remedies, and had never obtained anything more than very transitory relief. Having with him a vial of a four per cent. solution of cocaine hydrochlorate, Dr. Menz determined to try the efficacy of a subcutaneous injection. The hypodermic needle was inserted deeply over the sciatic foramen, and about twenty drops of the solution were passed into the tissues. The pain ceased almost immediately, and during the six weeks that have since elapsed has not returned, although there has been no further treatment, and one injection only was practised. The relief given by other remedies had never been of more than from two to four hours' duration.

POPLITEAL ANEURISM—LIGATION OF THE FEMORAL ARTERY—RECOVERY.

Dr. J. B. Houston, of Malden, W. Va., reports the following case: A. H——, twenty-eight years of age, a miner, had suffered for a long time from pain in the thigh and popliteal region, most severe while he was at work and standing, and relieved only when lying down at night. After some months he noticed a small tumor in the popliteal space, about the size of a marble, soft and compressible, but does not remember that there was any pulsation perceptible in it at this time. While playing a game of base-ball one day, he felt as though "something had given way under the knee," and the pain was greater after this. The physician whom he had consulted from time to time, noticing the rapid increase in the size of the tumor, at length advised compression, using an instrument devised by himself for this purpose. The pain and œdema caused by the application of this compressor soon compelled its discontinuance. At this time the patient consulted Dr. Houston, who found an aneurism nearly filling the popliteal space and covered by tense skin, which seemed to be upon the point of ulcerating. An immediate operation was advised, and assented to by the patient. "Accordingly, on October 19th, assisted by Drs. Thomas and Tompkins, of Charleston, I proceeded to operate, exposing the artery near the entrance to Hunter's canal. After reaching the vessel without trouble, and direct pressure being found to stop all pulsation in the aneurism, I tied the artery tightly with a silk ligature, leaving one end out of the wound, which was closed by interrupted suture. The wound healed rapidly and pain in the leg ceased. Shortly after the vessel was tied I wrapped the leg in cotton batting and placed it, slightly flexed, on a pillow in the bed, and kept it at about the normal temperature with bottles of hot water under the bed-clothes, but not touching the limb. There was no œdema of the foot or leg, nor were there any symptoms of lowered vitality in the limb. The temperature of the skin was somewhat elevated for the first two days, due, I suppose, to the increased capillary circulation. On November 24th, just five weeks after operation, I pulled out the ligature, the wound having entirely closed except along the track of the ligature. My patient is walking, has no pain, and the aneurism is hard and reduced to half its size, having decreased more rapidly in the last three weeks than in the first two weeks after the operation."

CIRRHOSIS (?) OF THE LIVER IN A YOUNG CHILD.

Dr. E. Frank Marsh, of Oswego Falls, N. Y., writes: "On November 13, 1885, I was called to see a male child, aged two years and eight months. I found him suffering from marked ascites, with elevated temperature, respiration 56, and pulse 150. There was considerable jaundice, urine high colored and scanty, but no œdema of lower lids, or of feet. He took scarcely any nourishment, but drank eagerly. The mother said the child had been failing steadily for several months. Two days later, I introduced a trocar and drew off nearly two quarts of fluid. The opening did not heal for several days, and the serum continued to dribble away. The operation seemed to relieve the child, and after the removal of the effusion I could make out the liver considerably enlarged, and extremely hard. I pronounced it a case of cirrhosis of the liver. The father died of the same disease a little more than a year ago. The child continued failing till the 28th, when he died. There was no post-mortem examination. Upon investigation, I cannot find a case of cirrhosis recorded in so young a child as this, and in this case the abuse of spirituous liquors was certainly not the cause of the disease."

The Doctor's Peculiar Danger.—*The Medical Age* deals with a delicate subject in the following skilful manner: "The physician, especially if he has been favored by nature with physical attractions, is above all men subject to sexual temptations. His relations to his female *clientèle* are of that secret and confidential nature which tends to familiarity. Weak women, who are diffident and shy toward all other males, frequently conceive for their physician a passion which it would require but a slight response to convert into a crime. We apprehend there are few of our readers whom professional experience has not convinced of this frailty (which may, after all, be more or less physiological) on the part of the weaker vessel. In view of this fact it is very complimentary to the profession that there are so few scandals chargeable to it. As compared with even the clergy (the especial conservators of morals) physicians stand well in this respect. Doubtless, too, not a few of the scandals chargeable to medical men have no sufficient foundation, the peculiar relations of the doctor to his female patients laying him especially open to the schemes of the blackmailer."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, December 19, 1885.

TRAINING-SCHOOLS FOR ATTENDANTS IN ASYLUMS FOR THE INSANE.

THE Buffalo State Asylum for the Insane has recently taken a most important step in the direction of securing a higher grade of qualification of attendants upon its wards. The plan, prepared by the Superintendent, Dr. Judson B. Andrews, and the First Assistant Physician, Dr. William Granger, contemplates a regular system of training attendants for their duties by a course of special instruction, didactic and clinical. The result will be to improve and elevate the standard of service in the care of the insane, and to give to the institution under their charge the benefit of a corps of attendants skilled in this special work, and who may make it a permanent occupation.

The plan of instruction is the outgrowth of a system begun by the officers of the Asylum in October, 1883, among a limited number of attendants. The benefit derived both by them and the Asylum has been such as to induce the Board to offer to all the attendants, who are found qualified, the advantages of instruction in the care and nursing of the sick and insane. From the rules adopted by the managers we gather the following facts regarding the employment, training, and pay of attendants who avail themselves of the offered facilities for advancement in education. The most desirable age for attendants, both men and women, is from twenty-one to thirty. All applicants for the position of attendants are required to be in sound health, and to furnish testimonials of good moral character and of correct habits, from at least two responsible persons. They must be of pleasant and kindly disposition, and possess such mental and educational qualifications as give promise of fitness for the work. All applicants must pass the Civil Service Examination, as required by the law of the State. After a probationary period of two months, if found capable and satisfactory, they shall, before being permanently employed, sign the agreement required of all employees. All attendants are to be instructed in the rules and regulations of the Asylum, and in the duties of their several positions. The special training of the school will be given by the Assistant Physicians, under the direction of the Superintendent, in such studies and methods as will best fit those who receive the instruction for the special work of attendants upon the insane and for nursing the sick. The course will occupy two years, and will consist of lectures and clinical instruction. The lectures will be given on the fundamental principles of physiology, and of hygiene, including ventilation, clothing, bathing, etc., with the usual directions for the care of the person, the bed, and the room of the sick. Instruction will be given upon the most commonly used remedies and their effects, upon the use of the catheter, the taking of temperatures, the administration of food, the control of hemorrhage, and the application of minor dressings. Special attention will be given to teaching the best methods of caring for the various classes of the insane—the violent, destructive, suicidal, and epileptic, as also the quiet and convalescent—with directions as to exercise, occupation, amusement, and companionship. They will be taught to meet emergencies, how and what to observe, and to make written reports upon the physical and mental condition of patients. All who join the training-school must, at the end of the first year, pass a satisfactory examination before entering on the second year's instruction. At the close of the second year, after passing the required examination, and giving satisfactory service, they will receive a certificate from the institution as well-qualified nurses and attendants upon the insane. Those who take advantage of the instruction of the school will receive, after passing the examination at the end of the first year, the women at the rate of fifteen, and the men at the rate of twenty-five dollars per month, and two weeks' vacation, annually thereafter, without deduction of pay, at a time subject to the convenience of the Asylum. After passing the examination at the close of the second year, and receiving a certificate of qualification as trained nurses and attendants, they will be paid, the women at the rate of eighteen, and the men at the rate of twenty-eight dollars per month, respectively. The trained attendants who are placed in charge of wards will be paid, the women at the rate of twenty, and the men at the rate of thirty dollars per month, respectively. The acceptance of the advanced pay attached to these propositions shall carry with it the obligation to remain in each case at least one year longer in the service of the Asylum, subject to the provisions of the agreement. For long and faithful service an increase in the pay per month may be provided in special cases. In addition to the pay, attendants receive board, lodging, washing, and medical care during temporary illness.

The practicability of a training-school in an asylum has heretofore been in doubt, but the experience of the managers of the Buffalo Asylum has fully demonstrated not only that it is practicable, but that such a school is really necessary to the highest grade of care of the insane. The members of the Resident Medical Staff, who carry out the details of instruction, are united in their expressions of satisfaction with the results of teaching. The attendants enter into their studies with great interest, and find in the school a pleasant diversion from their monotonous duties, a new field for their improvement, and the preparation for a life's occupation. Several illustrations of the value of the instruction given can now be furnished from the records of the institution. A patient was recently found at night by a trained attendant suspended from his bedstead by a handkerchief about his neck. The attendant cut him down, and began to

apply Sylvester's method of resuscitation, while an assistant pulled the tongue forcibly out of the mouth. After a few minutes the patient began to breathe, and when the physician arrived the emergency had passed. In two other cases blood-vessels have been wounded under circumstances involving great risk to life had not the attendants, in both instances, been competent to apply accurate pressure to the proper vessels.

We must conclude that the Buffalo Asylum has set a most praiseworthy example in establishing a Training School for its attendants, and that it has begun a new era in providing thoroughly qualified persons for the immediate and personal care of the insane.

THE RESULTS OF LARYNGEAL SURGERY.

THE operation of excision of the larynx was, we believe, first performed by P. H. Watson in 1866. He was followed by Billroth in 1873, and later by a number of surgeons, including Heine and Gussenbauer, of Prague; Langenbeck, Caselli, of Milan; Schmidt, of Frankfort; Foulis, of Glasgow, and others. In 1884 Hahn (*Arch. f. klin. Chir.*, xxxi., p. 171) collected the statistics of 52 operations for total excision. In 24 of these death followed in consequence of the operation. On the other hand, in 12 operations for partial removal, death followed in only 1 case.

The name of Billroth has been particularly associated with operations upon the larynx, and recently Dr. F. Salzer has collected the histories of the cases occurring in his clinic from 1870 to 1884. These include 11 of laryngeal section, 7 of partial extirpation, and 5 of total extirpation. It appears to one reading these records that nothing could be much more discouraging than Billroth's laryngeal surgery; indeed, a less noted operator would hardly dare publish so unpromising a series of cases.

In his laryngofission cases 10 patients were operated upon 11 times. Of these the wound healed in 8 cases, but in 6 there was subsequently either death or relapse; 3 cases ended fatally within eight days. The result of 8 operations for carcinoma was very unfavorable, since, out of the 8, in only 1 case was there no relapse (two years and nine months after operation).

In 7 cases of partial extirpation death speedily occurred in 3 instances. Of the 6 cases operated upon for carcinoma laryngis, a relapse occurred, and generally very speedily, in all instances but 2. These, however, had, at the time of the report, been operated upon for only two and four months respectively. In 3 cases the functional result was favorable, the patient regaining a certain amount of voice.

The 5 cases of total extirpation of the larynx is an uninterrupted record of death. The patients all had carcinoma, and all died within from one day to seven months after the operation. One patient, to be sure, recovered from the operation, and died later from a relapse; and a second recovered also from the operation, but died in five weeks from purulent pericarditis.

Out of 22 patients operated upon by Billroth, mostly for carcinoma laryngis, 19 are dead, and 2 more are extremely liable to a relapse.

Billroth's cases are much worse than those collected by Foulis. Of 26 cases of total extirpation, 14 died in consequence of the operation. Of the remaining 12, 3 died in relapse.

Still more favorable are the results obtained by Professor Thiersch, of Leipzig, reported by Dr. A. Landerer (*Deutsche-Zeitschr. f. Chir.*, xvi., 1 u. 2, p. 149, 1882). Of 4 cases of total extirpation for carcinoma laryngis, 1 died in consequence of the operation, 1 died of a relapse three months later, and 2 recovered and had no relapse (seventeen to eighteen months).

ONOMATOMANIA.

PERSONS who suffer from agonizing mental distress in their desire to recall certain names are said by MM. Charcot and Magnan to have "onomatomania," or verbal mania. An excellent illustration of this trouble is given: A young man, aged sixteen, of neurotic antecedents was suddenly taken with the following symptoms:

"While walking in the Champs-Elysées he met a gentleman whose acquaintance he had made during a journey to Rome. The young man stopped and conversed with him for some time. After they had separated he tried in vain to recall his name. Not succeeding, he tried to drop the matter, and think of something else. But the inability to recall the stranger's name pressed upon him more and more. He could not rid himself of the effort to remember it; he became depressed in spirits, his face was covered with perspiration, his hands cold, and he reached his rooms in a state of the greatest agony. After this, he frequently became subject to similar attacks of acute mental distress. To obviate it, he carried with him a memorandum book, in which he put the names of all his acquaintances, and to which he could, when in need, refer. This procured him some relief for a time, but his malady soon took a wider range, and he became possessed with an irresistible desire to know the names of all persons who passed in carriages or whom he met in railway trains. The impossibility of learning their names mortified and exasperated him, until, finally, he would go about avoiding the sight of every one, and at last retired to the seclusion of a country house."

Such is a type of an onomatomaniac. The mental and physical distress may be brought on by a failure to recall the names of persons or of things. The crisis of anxiety and pain ceases when the name is found.

MM. Charcot and Magnan state that this peculiar mental symptom occurs only in persons who have a distinct hereditary psychopathic taint. Every one can see that the symptom is only a morbid exaggeration of the very slight mental discomfort which many persons feel when they cannot recall a name which is tolerably familiar.

The disorder belongs undoubtedly among the milder types of the degenerative psychoses, and is closely allied with the disturbances known as agoraphobia, mysophobia, and *folie du doute*.

URÆMIC PARALYSIS IN THE AGED.

M. MAURICE RAYMOND in his service at the Ivry Asylum, has observed and studied a peculiar class of paralytic accidents occurring in the aged. These consist of more or less sudden attacks of hemiplegia, which may

involve the face and extremities, or only the extremities, and in which the paralysis is sometimes flaccid, sometimes accompanied with contractures. In those cases which end in death autopsy reveals no lesion in the brain, but the kidneys are uniformly found to be markedly diseased. M. Raymond divides the cases into three groups. In the first the patients are suddenly, without prodromal symptoms, attacked with hemiplegia, they become comatose, and die either immediately or after a lingering illness. Autopsy reveals neither clot nor softening. In a second class of cases the patients are suddenly taken with a hemiplegia more or less complete. If death ensues, the brain shows only evidences of œdema and some ventricular effusion.

The third class includes patients who have previously had a cerebral hemorrhage and hemiplegia. Upon this supervenes a new attack of hemiplegia, which, however, does not indicate a new hemorrhage, but rather a partial cerebral œdema and anæmia.

M. Raymond believes that these paralytic attacks in the aged are due primarily to renal disease and uræmia. Œdema and "anoxæmia," are produced by the uræmic poisoning, and M. Raymond quotes an experiment upon a dog to show that the production of partial cerebral œdema and anæmia will cause paralysis.

THE MAN WITH INTERESTING CASES.

THE young medical man who launches his (largely Peruvian) bark upon the unhealthful seas of medical practice has many discomforts, obstacles, and dangers to encounter. Not the least among the minor ills—to drop our meritorious but ancient simile—is that of the man who always has a case to describe.

Some distinguished medical philosopher has remarked that he would rather be knocked on the head at once, than be stopped on the street and told about a case. This gentleman evidently had had some painful experiences, which perhaps warped his judgment a little; for, after all, to be knocked on the head is not only disagreeable but serious, while the man with the case is a depressive force rather than a destructive one.

Every one knows him, however, this man of many cases; he meets one at the street corner, at societies, he drops in at the office. He greets his victims with a pleasant "Good-day-how-is-practice-last-night-I-was-called-to-see-a-" etc., manner, and in a moment he is in the midst of bedside details of anguishing minuteness. One listens in a dazed way, catching now and then something about "injections," "temperature," "bowels," "bladder," and similar expressions; while perhaps the speaker ends temporarily with an explanation of why he called some other gentleman in consultation.

The case-fiend penetrates every stratum of society. To tell the story of his experiences with unhealthiness, is to him a kind of erotic joy. His cook, his wife, his druggist, the poor, the rich, the sick, the well, all get a share of his case-book. He drops into a case-recital as easily as Joseffy into a sonata, or a *première danseuse* into a pirouette; his intellectual life is in the verbal revival of his pathological experiences; of these he is a word-painter, pre-Raphaelitic in detail, persistent in purpose, and exhaustless in resources.

He is seen at societies, and here he acts as a dispersive force of singular potency upon members; and respectable gentlemen of our medical profession of high standing and large practice will steal on tip-toe out of side-doors, like thieves in the night.

But it is, after all, in his private relations that the man of cases is at his best; and the question of what shall be done with him is a medico-social problem of deep interest.

For our part, we urge upon these gentlemen a prompt reform. We would assure them that in many departments of medical knowledge clinical recitals can add nothing, and that in some directions the end of clinical research has been nearly reached. This should make these more than Roman viaducts of bed-side studies very careful. They should reserve these exercises of their memories, and cultivate somewhat more their logical faculty and the powers of interpreting the meanings of things. This bedside tattle of "cases" is too often the same kind of stuff as the gossip of a ladies' dressing-room.

A DISPENSARY THAT IS NOT WANTED.

AT the recent anniversary meeting of the Presbyterian Hospital, it was announced that an Out-patient Department was contemplated "to meet the wants of the rapidly increasing population of the neighborhood."

The immediate "neighborhood" in question is mostly built up with brown-stone private residences. Farther east, in the tenement-house district, is the North-Eastern Dispensary, which treats 24,000 patients annually; and only six blocks away from the Presbyterian Hospital is the Mt. Sinai Dispensary, which gives 40,000 consultations annually. Besides these, is the Harlem Dispensary at 126th Street, and two special dispensaries on 59th and 125th Streets. There is already a total of eleven dispensaries in the Ward.

No new dispensaries are needed in this neighborhood, and, considering the present deplorable state of our medical charities, it is to be hoped that the project will be abandoned. We have already heard protests against it by physicians practising in the neighborhood.

THE NEW YORK ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR.

SOME of the objects of this Association, as set forth in its Annual Report, are: To aid in carrying out the laws relating to the health and cleanliness of the city, to elevate the health and home-life of the poor, and to secure for the tenement-house population improved conditions of living.

In carrying out these objects we find that the Society has been very active in seeing that the Board of Health exercise its powers in abating the nuisances and sanitary dangers to which the poorer classes are especially liable. During ten months 956 complaints regarding these nuisances were received. Of these seventy-five per cent. were found to be well-fonnded, and action upon them was urged. A good work is thus being done here by the Association, since in many cases no relief would have been obtained without its interference.

We would suggest for the consideration of the Society a study of the question of the best methods of dealing

with the acutely sick or bed-ridden poor. There are thousands of poor families whose members dread the hospitals, and suffer great privations rather than go to these institutions. Methods of furnishing nurses, food, and medical aid to these persons might be devised. It is certainly better to cultivate among the poor a spirit of independence of charitable institutions of all kinds. When the poorer classes learn to think that they can send to a hospital any relation or dependent who becomes a little ill, it will be an unfortunate evidence of lack of independence as well as of sympathy and of the strength of domestic affection.

A LIFE THROWN AWAY.

Under the name of verruga, a peculiar eruptive disease, endemic in Peru, has been long known, but it would appear to have only recently excited the curiosity of the medical profession in that country. After an indefinite period of incubation, extending in certain cases during an entire twelvemonth, a peculiar warty or papular eruption makes its appearance, and is accompanied by severe and long-continued muscular and articular pains. The disease has never been much studied until within a few years past, and its nature and mode of origin are even yet involved in mystery.

Last August, Dr. Daniel Carrion, a resident of Lima, inoculated himself with the blood of a patient suffering from verruga, in order if possible to communicate the disease to himself, so that he might study its evolution. He was only too successful. After a period of incubation lasting twenty-two days he was seized with a grave fever, and despite energetic treatment, died seventeen days later. The symptoms of his disease were precisely those of another affection which had puzzled the physicians of Peru. This was a fever, differing in its symptoms from any recognized form of pyrexia, which had appeared among the laborers engaged in building a railroad in Oroya. It was called Oroya fever, and also anæmic fever, from the fact that excessive anæmia was one of the most prominent symptoms of the affection. It was supposed by some to be a form of malarial infection, while others, noting the fact that it was in Oroya that verruga was most prevalent, believed that there was an intimate relation between the latter disease and anæmic fever. The result of Carrion's costly experiment would seem to add weight to this latter theory. It is, however, not easy to discover any intimate relation between the two diseases, one an acute pyrexia, accompanied with profound changes in the blood, the other a chronic disease, requiring months for its development and characterized by a cutaneous eruption. But the descriptions of the diseases which we have seen are so meagre in details that it is impossible to form any intelligent opinion as yet concerning their supposed relationship. It is proposed to erect a monument to the memory of Dr. Carrion, and *El Monitor Médico* of Lima, has headed a subscription list for this purpose. While we think it right to honor the memory of one who has sacrificed himself in the cause of medical science, we cannot but hope that Dr. Carrion will have few imitators. Human life is too precious to be thrown away in mere experimentation, and the man who inoculates himself with the virus of an unknown disease, or who doses himself with a new drug in order to observe its toxic effects, without having previously ascertained its strength, is a fool, albeit a noble one. We have the lower animals to experiment upon, and we have no right to trifle with human life, whether it be our own or that of our neighbor.

MEASURE FOR RECONCILIATION.

It is beginning to be felt on all sides that, unless some immediate steps be taken to change the present aspect of matters, the Ninth International Medical Congress must fail, to the serious and lasting discredit of American medicine. The present Executive Committee, realizing this, recently made a slight effort at conciliation by tendering appointments on the Committee to several prominent gentlemen who had previously openly withdrawn from the organization of the Congress. These appointments, we are informed, have been declined; and matters are thus left in a worse state than before. *The Medical News*, in its last issue, makes an earnest and in some respects effective plea for mutual concession and reconciliation; and it suggests, finally, that harmony can yet be restored by the present Executive Committee adding to its membership the Original Enlarged Committee on Organization, and then beginning the work of organization *de novo*. Our contemporary's efforts are well meant. It is unfortunate that they should be marred by an exploiting of Philadelphia's services to the American Medical Association and its principles, which, to say the least, is irrelevant and not in the best taste. There is also a little of an anti-climax in presenting, as its scheme for securing harmony, a plea that restores its esteemed and able editor to office.

For all this, we feel safe in saying that the plan proposed will receive the support of The Medical Record, if it at the same time means that New York will receive recognition in the organization on a basis purely of the scientific attainments and honorable standing of its medical men. No more than this has been desired at any time, and for its self-respect the profession of this city and State can hardly ask less.

So far, indeed, as The Medical Record, voicing the feeling of the great body of its readers, is concerned, it asks no more than a just measure of recognition for New York physicians. It may be expedient to reappoint the Original Enlarged Committee. The profession at large, however, is indifferent to this point, since it feels that this Committee would have no right or inclination to oppose the Congress simply on account of personal disappointment. But the question of equitable representation, on a basis that introduces no side issues, involves a principle and is vital.

If the present Executive Committee will now officer its sections on this basis, it will have the full and enthusiastic support of the great mass of the profession and of the medical press.

Vaseline as a Food.—Dr. R. Dubois, of Paris, contends that vaseline is not a toxic substance, but, on the contrary, is digested in considerable amount, and acts as a food. Dubois' views are mainly based on experiments with dogs.

News of the Week.

Blisters do not draw well in warm weather, in this respect resembling some of our city churches. The reason in the case of the blister is that the skin is too moist, and water prevents the action of the cantharides.

Coca Leaves cost about fifty cents a pound, and contain from 0.4 to 0.6 per cent. of cocaine.

The Charity Organization Society of New York.—The Third Annual Report of this most useful Society has just been published. We are told that out of 55,000 dependent cases recorded it is safe to say that sixty-five per cent. have an able-bodied bread-winner, that is to say, 35,750 persons should be self-supporting, although now a burden on the community. As to medical charities, we are told that the applicants for relief at two leading hospitals and dispensaries are being investigated.

The International Congress of 1887.—The action of the Committee of the American Medical Association in its relation to the International Medical Congress of 1887 has already been sufficiently condemned in these columns. On all sides it appears that the prospect of a successful meeting under the auspices of the existing committee are *nil*, and we once more repeat our prophecy that the Congress of 1887, meeting in America, must be totally given up.—*Medical Press and Circular*, November 4th.

Childbirth Under Mesmerism. — Dr. Edward Pritzel, of Vienna, reports the case (*Wiener Medizin Woch.*) of a young woman, aged twenty-six years, who entered the maternity hospital of Professor Braun. It was found that she was very susceptible to hypnotic influence, and when her labor came on, as it was slow and painful, she was hypnotized. While in this state of artificial anæsthesia the child was born, with no pain and with but slight loss of blood.

The Support of Quackery.—"Charlatanism," says Dr. Holmes, "always hobbles on two crutches—the tattle of women and the certificates of clergymen."

Hospital Sunday.—The time is near at hand when the annual contributions for the hospitals will be solicited. Each private sectarian institution will be ready with its claim, and will strive to show how much it has done for the deserving poor. Offsetting this, it would be well on the part of prospective benefactors to ask for something beyond general statements. It would be worth while to inquire how economically these institutions are managed, how many of the deserving poor are treated, how many endowed beds there are, and how much medical charity is abused. Some of these institutions, which are too poor to attend to those patients they already have, are asking for increased accommodations.

The American Journal of Obstetrics and Diseases of Women and Children.—With the beginning of the next year this journal discontinues the Department of Diseases of Children as a distinct feature of the *Journal*. Dr. George B. Fowler, who has edited this department with marked ability and success, ceases his connection with the *Journal*.

Another Resignation from the International Medical Congress.—Another of the Vice-Presidents of the Congress, Dr. R. Palmer Howard, Dean of the McGill Medical Faculty, has resigned.

Some Good Advice.—"We looked hopefully to the action of the committee that met in Washington early in September for a harmonious and satisfactory solution of the honest differences between parties, but that committee was guilty of the most injudicious act that we would have supposed a body of intelligent gentlemen, intent on peace-making, could have planned. In its resolution to permit no change of a plan which was known to be unsatisfactory in its working, the committee exhibited a judgment that was "childish weak." The proper course to pursue—now that there seems to be so little reasonable hope of a successful settlement of differences between existing parties in time to inaugurate proper measures for the assembling of the Congress—seems to us to be the calling of a meeting of the American Medical Association in extraordinary session, rescind all resolutions relating to the Congress, except the one of invitation to meet in the United States in 1887, dismiss all committees that have been appointed, and declare as null and void all of their acts having reference to the Congress and then proceed *de novo*."—*Virginia Medical Traveller*

The Two-Thousand-Dollar Prize for a Cure for Epilepsy.—The prize of eight thousand francs offered by the Belgian Academy of Medicine for an elucidation by clinical facts of the "pathogenesis and treatment of diseases of the nervous centres, and principally of epilepsy," has not been awarded; but a sum of five hundred francs is offered by way of encouragement to the author of the essay bearing the motto, "Traditionem pondero, doctrinam respicio, sequor veritatem," on condition that he allow his essay to be printed in an abridged form with the criticisms of the Commission.

Monument in Bulgaria to Russian Medical Officers.—The last number of the *Ruskaya Meditsina*, says the *Lancet*, gives an engraving of a handsome monument recently erected in Sofia, Bulgaria, to the memory of 531 medical officers who fell in the Russo-Turkish War, 1877-78. It was planned by an Italian architect, and consists of a pyramid of rough blocks, on each of which are engraved the names of three or four of the deceased. The whole is surmounted by a capital of hewn stone, on the four sides of which are engraved the names of the chief battles in the campaign. A similar monument is to be erected in the Caucasus.

Medical Missionaries.—There was a medical students' missionary conference in the hall of the Young Men's Christian Association Building last Sunday, under the auspices of the Medical Students' Committee of the Association. Mr. L. D. Wishard, the American College Secretary, presided. Its object was to exhibit the field of labor for medical missionaries, as distinct from that for clerical missionaries, in heathen lands, especially China, India, and Western Asia. The Rev. Dr. Hopper, of Canton, China, said that the scheme was not a new one, as there are now eighteen hospitals and twenty-four dispensaries in China, which have been founded by medical missionaries, the oldest of which was established in

Canton in 1835. He gave instances of excellent work done by missionary physicians which had opened the way for the labors of their clerical associates. A number of addresses were made by other clergymen, and by Drs. C. R. Agnew and Wm. H. Thomson, and by Dr. E. A. Sturges, a medical missionary of Siam.

The Medical Age is one of the best exponents of American medical journalism, and we read its columns with interest and profit. Something, however, has of late gone wrong with its Latin editor. Perhaps the overstudy of medical cases has made him careless of his genitives; at any rate, we would respectfully correct his statement that "*Salus populus* may be *suprema lax*," and would suggest the dropping of a vowel in his announcement that college rivalry in Buffalo is a "*causus belli*" Our esteemed contemporary writes capital English, and after all it may be only the spirit of evil at the printing-office that spoils its Latin.

The Shady Side of Medical Education in California.—"A medical graduate" writes to a contemporary complaining of an article which recently appeared in the *News Letter* in regard to the methods of manufacturing medicos which prevails in this State. We pointed out that there were "five so-called medical colleges in San Francisco and Oakland that we knew of, besides others that work in the dark that we were not acquainted with, that sell diplomas for coin." It was a monstrous system of quack-manufacturing which the *News Letter* hammered away at for two years before it could get the righteousness of its criticisms admitted. We insisted that students should evidence, by a matriculation examination, that they possessed sufficient scholastic education to read the language of medical science understandingly. We furthermore pointed out that the period of study should be at least doubled. Four years is the least time in which a medical student can be expected to attain to even mediocrity in the knowledge of his profession. California lacks hospital facilities necessary to the thorough education of skilful physicians; it also lacks experienced teachers with spare time to enable them to do full justice to their classes. A Californian medical diploma is not at present an evidence of professional attainments that inspires confidence in the public, or causes its holder to feel proud of its possession. We regret to say these things, but it is our respect for the noble art of healing which makes us say them. We regard the medical profession as the grandest on earth, and it is our sincere desire to exalt it which impels us to protest against local methods of manufacturing quacks. —*San Francisco News Letter.*

As it looks at St. Petersburg.—Some complaints have been made that the real condition of the affairs of the next International Medical Congress has not been correctly apprehended abroad. The following editorial note from the *St. Petersburg Medicinische Wochenschrift* of November 21st shows that matters are a little mixed in Russia, in this respect comparing favorably with Chicago. "The prospects of the next (Ninth) International Medical Congress, which was to meet in 1887 at Washington, have lately, in an unusual manner, been put in jeopardy. The original Organizing Committee, of which, as announced by us in previous communications, the well-known Surgeon-General of the U. S. Army was secretary-general, and to which the most distinguished American physicians belonged, has been retired. This was accomplished through the intrigues and hostility which developed at the last Annual Meeting in New Orleans. At this time, a new committee was appointed under the presidency of a Dr. Shoemaker (Philadelphia). This new organization committee contains but a few of the members of the previous committee, and is composed mostly of unknown and insignificant physicians, who inspire no confidence in their capacity for conducting the Congress. Under such circumstances, any co-operation from foreign countries can hardly be expected."

A Canadian View of the International Congress. —The prospects of the Washington Congress of 1887 do not appear to grow brighter, and the tone of the great medical weeklies of the eastern cities shows very plainly that there is still war between the adherents of the old and the new committees. It is a great misfortune that there does not seem to be any central executive of the Congress which could step in and say: Stop this unseemly quarrelling at once, or we shall go elsewhere! But apparently the meeting must take place in Washington or not at all. The latter alternative would be preferable if a reconciliation is not effected; for, if matters remain as they are, it will be impossible to organize the sections with men of sufficient reputation to command success. To attract the workers of other countries the sections must be controlled by the men most eminent in their respective departments, but the present officers of sections, with few exceptions, do not reach beyond a respectable mediocrity, and are men that we cannot regard as representative. If the executive cannot secure the return of the leaders in thought and work, and fails to engage their hearty co-operation, but one thing remains to be done, and in the interests of the profession of the United States, it should be done soon—give it up. Better no Congress than a prolongation of this unseemly strife.—*Canada Medical and Surgical Journal.*

Some Recent Malpractice Suits.—Another suit of a blackmailing character has been brought against Dr. E. Williams and partners, of Cincinnati, O. According to the *Cincinnati Medical News* the charge was that they had permitted a small scale of iron that had entered the eye of a boy to remain, by which he eventually became blind—the sound eye becoming affected through sympathy with the injured one, and losing the power of vision. It was proven on the trial that the boy had visited the office of Dr. Williams but twice, and then had ceased calling because he was informed that to preserve the sound eye and be saved from blindness he must consent to have the eye that had been destroyed removed from its socket, to which his parents would not consent. For several months, after declining the services of Dr. Williams and associates he spent his time in going the rounds of the specialists of diseases of the eye, putting his case in charge, at different times, of both regular and homœopathic physicians. Every ophthalmologist by whom he was treated informed him that the only way by which he could avoid becoming blind was to have the injured eye removed. Finally, after losing sight in both eyes, he brought suit. The medical testimony, we are

told, was uniformly in favor of Dr. Williams, but the jury disagreed.—The Boston correspondent of *The Northwestern Lancet* writes: "Dr. A., a reputable practitioner living in a New England city, attended Mr. B. for a fractured thigh. The case did well, and the patient recovered without deformity. No measurements were recorded by the attending surgeon, but he was able to swear that the result was to him perfectly satisfactory. A year or two later the patient entered suit against Dr. A. for malpractice, and exhibited a leg considerably shortened and deformed. A jury at once found a verdict for the plaintiff, and awarded damages in some $6,000 or $7,000, a sum which seriously crippled the physician. He devoted his energies thereafter to discovering what he believed to be a fraud, and finally obtained evidence that B. had, subsequently to his recovery under A.'s attendance, again fractured the same thigh while in the Adirondack wilderness, and had on that occasion had no surgical attendance whatever. The physician was able to recover his money, but was at the expense of his detectives' and lawyers' fees, to say nothing of years of anxiety and of damage to his professional reputation."—A suit is just now in progress against a prominent gynecologist of Boston, connected with a free hospital for women. The plaintiff charges that she was entered into the hospital under invitation of the physician, who "met her somewhere," and told her he could cure her if she would come into the hospital. She did so, she says, not dreaming of an operation, until one day she overheard the nurses talking in a way which excited her suspicion. She was told that no operation was contemplated, and was reassured. But one day she came to her consciousness from ether to find herself being sewed up. She further deposed to having been discharged from the hospital onto the sidewalk upon a winter's night when she had no place to go, a usual fashion of eleemosynary institutions. She claims from the physician who gave his time and skill, and the hospital which gave its bed, board, and nursing, all without expense to herself, $10,000 apiece.

New Polyclinic College Building in Philadelphia.—The new building for the Philadelphia Polyclinic College, on Broad Street, will soon be ready for its occupants. The attendance at the college by the students from all parts of the country has increased beyond the capacity of the present quarters at Thirteenth and Locust Streets. The new building will contain more hospital wards and private rooms for pay patients, and the dispensary service will be given more attention. The journal edited by the faculty will be doubled in size after the first of the year.

St. Louis Obstetrical Society.—At the annual meeting of the St. Louis Obstetrical and Gynecological Society, held on November 18th, the following officers were elected: President, Dr. W. M. McPheeters; Vice-President, Dr. Walter Coles; Recording Secretary, Dr. I. M. Scott; Corresponding Secretary, Dr. E. C. Gehrung; Treasurer, Dr. Chas. E. Briggs.

The late Mr. W. H. Vanderbilt.—At a special meeting of the Faculty of the College of Physicians and Surgeons, the Medical Department of Columbia College, in the City of New York, held on December 10, 1885, the following preamble and resolutions were unanimously adopted:

Whereas, By the death of William H. Vanderbilt there has been taken from the community a citizen from whose hands this college has received a splendid addition to its means of usefulness, be it

Resolved, That we offer hereby our tribute of mourning for the loss of a benefactor, whose services to the advancement of education has been great and enduring—as broad in scope as free in gift—and whose enlightened generosity will ever be held in grateful remembrance by ourselves and our successors.

Resolved, That we tender our heartfelt sympathy to the family of the deceased in their bereavement.

Resolved, That, as a token of respect, all exercises at this college be suspended on the day of the funeral, and that we attend the same in a body.

Resolved, That these resolutions be communicated to the family, and be duly published.

John G. Curtis, M.D.,
Secretary of the Faculty.

College of Physicians and Surgeons, Medical Department of Columbia College.—At a meeting of the Board of Trustees, held December 15, 1885, the following preamble and resolutions were unanimously adopted:

Whereas, By the death of Mr. William H. Vanderbilt the cause of medical education in this country has lost one of its first conspicuous benefactors; and, whereas it becomes the duty of the Trustees of the College of Physicians and Surgeons, which was the object of his sagacious benevolence, to express their deep sense of the debt due to his memory; therefore,

Resolved, That Mr. Vanderbilt's gift toward the advancement of medical knowledge reaches a higher mark in the intelligent disposition of wealth than has often been attained by public benefactors; for it recognizes science as the handmaid of humanity, and acknowledges the benefits of the healing art in controlling human misery and enhancing human happiness.

Resolved, That it is a source of profound regret to this board that Mr. Vanderbilt's life was not spared to witness the completion of the college building which his generous endowment projected, and which will become his most worthy and enduring monument.

Resolved, That these resolutions be inscribed upon the minutes of this board, and that a copy be sent to the family of the deceased, with the assurance of our respectful sympathy for them in their great affliction.

John C. Dalton, M.D., *President.*
George G. Wheelock, *Registrar.*

Another Cure for Cancer.—In a case of alleged epithelioma involving the facial bones, with extensive infiltration of the tissues, where an operation was not deemed desirable, Dr. Antonio, of Mazzara del Vallo Maggio, applied an ointment consisting of fifteen parts of resorcine to twenty parts of vaseline twice a day, with the result, it is said, of completely curing the disease; nothing remaining but a white scar a centimetre in diameter.—*British Medical Journal.*

Hydrastis in Dyspepsia.—Several correspondents in *The Lancet* have lauded hydrastis as a most useful drug in dyspepsia.

Reviews and Notices.

THE DISEASES OF SEDENTARY AND ADVANCED LIFE. A Work for Medical and Lay Readers. By J. MILNER FOTHERGILL, M.D., Physician to the City of London Hospital for Diseases of the Chest (Victoria Park), Late Assistant Physician to the West London Hospital; Hon. M.D., Rush College, Chicago; Foreign Associate Fellow of the Royal College of Physicians of Philadelphia. New York: D. Appleton & Co. 1885.

THIS work, as its sub-title indicates, is written in a popular style, and the employment of technical terms, not understood by the laity, is, as far as possible, avoided. But, unlike most books of its class, it contains much that even experienced practitioners will find of value, although they may not always be able to assent to all the author's conclusions. Many of the views here advanced will be found treated more fully in some of the writer's previous works, especially in his book on "Indigestion and Biliousness;" but there is also much that is new, and even what is old is presented in a new light, and will bear perusing a second time. The work is divided into three parts, treating respectively of early life, adult life, and advanced life. Part II., in which the troubles incident to enforced bodily inactivity during the period of adult life are discussed, is the one which possesses the greatest interest for the average reader. In it the clerk, the machinist, the governess, the invalid and her companion, the merchant, the accountant, the literary man, and schoolmasters and -mistresses, each have a chapter devoted to the peculiar mental and physical ailments which their occupation entails upon them, and containing suggestions as to how they can best avoid the dangers of their respective callings. There are other chapters on enforced idleness resulting from a broken leg, a sea voyage, weak heart, and the like, and on hemorrhoids, rheumatism, the change of life, and common ailments and abnormal conditions. Part III., deals with the aged and their infirmities, and contains many little hints and suggestions as to how the declining years of life may be rendered comfortable, and the diseases peculiar to this period may be made less burdensome. Those who are acquainted with Dr. Fothergill's pleasant manner of writing will need no assurance from us to believe that there is no task involved in reading this book. Its perusal will prove to be a pleasant recreation in an evening following a hard day of toil. The proof-reading does not seem to have been performed with any too great care, for in many places the punctuation marks are displaced in such a way as to mar the sense somewhat, and we have never before heard that there was a Royal College of Physicians of Philadelphia, as is stated on the title-page.

TRATADO PRÁCTICO DE LAS ENFERMEDADES DE LAS MUJERES, por el DOCTOR GAILLARD THOMAS. Segunda Edicion Española, corregida y aumentada con seis capítulos, ciento un grabados nuevos, multitud de notas de la última edicion inglesa, un prólogo y un apéndice terapéutico, por el DOCTOR JUAN GARCÍA PURON, ex-Médico-cirujano del Ejercito Mexicano. A Practical Treatise on the Diseases of Women, by Dr. Gaillard Thomas. Second Spanish Edition translated by Dr. Juan García Puron. New York: D. Appleton & Co. 1885.

THE first Spanish edition of this standard work of Thomas on the Diseases of Women was published in 1879, and it became at once so popular among the physicians of Central and South America that it was almost impossible to supply the demand for it. And even while the second edition was in press it was found necessary to send out a new impression of the first in response to the imperative orders for the book which would admit of no postponement. We need say nothing as to the work itself, for it is so well known and prized by all that any words of commendation would be superfluous. And it is a pleasure to find that the book has suffered little, if at all, by its change of dress. The translation is idiomatic, yet preserves, as far as is possible, the easy and pleasant style of the original, and the typographical execution leaves nothing to be desired. The notes of the translator are judicious and not too long, and add to the value of the book. In fine, our Spanish-American brethren are to be congratulated upon their good fortune in having had this invaluable work presented to them in their mother tongue.

THE PEDIGREE OF DISEASE; being Six Lectures on Temperament, Idiosyncrasy, and Diathesis, delivered in the Theatre of the Royal College of Surgeons in the Session of 1881. By JONATHAN HUTCHINSON, F.R.S., late Professor of Surgery and Pathology in the College; Emeritus Professor of Surgery in the London Hospital; President of the Ophthalmological Society, etc. New York: William Wood & Co. 1885.

MR. HUTCHINSON has given us in this book a really excellent *résumé* of all that is known of the subject, and presents it in such a way as to convince his readers that they have erred in their readiness to ignore the teachings of a past generation. Our fathers perhaps laid too great stress on temperament and diathesis, but we have been in danger of going too far in the opposite direction, and in our eager study of the pathology of diseases have in a measure lost sight of the individual peculiarities which modify their course. It was the desire to counteract this tendency that led the author to deliver these lectures, and afterward to publish them in book form. Apart from the importance of the subject, the easy style in which the lectures are written makes their perusal a pleasant recreation as well as a profitable employment, and we feel sure that no one who gets the book and reads it will regret having done so.

PRACTICAL HISTOLOGY AND PATHOLOGY. By HENEAGE GIBBES. Third Edition. Philadelphia: P. Blakiston, Son & Co. 1885.

THE directions in this manual for staining, preparing, and mounting tissues are given clearly and concisely, and the methods recommended are those which the author has found "the best, easiest, and cheapest." It is not evident, however, that these are presented in any better manner than has been done by American teachers of this subject. The directions relative to the kind of instruments, and the purchase of the same, with the exception of the microscope, relate to London dealers for the most part, and, therefore, are not useful to American students. This portion of the book might well have been revised with this in mind, and dealers in this country recommended.

POST-MORTEM EXAMINATIONS. With Special Reference to Medico-legal Practice. By PROFESSOR RUDOLPH VIRCHOW. Translated by T. P. SMITH, M.D. Philadelphia: P. Blakiston, Son & Co. 8vo, pp. 138. 1885.

THIS little book is written in a practical spirit, and contains a wealth of valuable information. No physician can afford to remain ignorant of the maxims pertaining to the technique of post-mortem examinations. In the first place, rare cases, presenting points of great interest from a pathological point of view, are liable to occur in the practice of any physician. It is an unfortunate fact that such valuable material often goes to waste, simply because the practitioner is unable to avail himself of the most approved methods of post-mortem research. Again, the practitioner is sometimes called to give legal testimony, the value of which is in part, or even wholly, contingent upon his ability to conduct a scientific autopsy. It will thus be seen that the *raison d'être*, of Dr. Virchow's book is well established both on theoretic and practical grounds.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 3, 1885.

ABRAHAM JACOBI, M.D., PRESIDENT, IN THE CHAIR.

DR. MORRIS H. HENRY read an interesting review of the life of

LOUIS ELSBERG, M.D.,

in which he also took a glance at the advancement of our knowledge on diseases of the throat during the last thirty years.

The subject of his memoir was born at Iserlohn, Prussia, April 2, 1836; he graduated in medicine at the Jefferson Medical College, Philadelphia, in 1857. In 1861 he delivered a course of lectures at the University Medical College. The following year he established the first public clinic for diseases of the throat.

Dr. Henry then mentioned the varied contributions to medical literature made by Dr. Elsberg, and said that he "was the first, beyond any question, to demonstrate and teach in public, in this country, the use and value of the laryngoscope in diagnosis and treatment. He leaves many disciples among his former pupils who will continue the same course of investigations. The best work of his life, however—the work that inures most to his fellow-men—was the diffusion of his knowledge and experience in such a way that all practitioners might render good special service to their clients.

"During that period of excitement pending the discussion of 'the code question' Elsberg could not be otherwise than thoughtful and liberal. He was gentle in the expression of his opinions. He was intense in his convictions. He never faltered in the discharge of an obligation or duty when once assured of its correctness and the probability of its serving a good purpose. While he was registered—if I may use the term—as a 'new-code man,' and I on the other side of the question, there was, in reality, no difference whatever in the substance of our views. A calm discussion of the questions at issue proved us in unison. Might not more forbearance have prevented the strife that disorganized associations and dissevered friendships of a lifetime? A calm, retrospective review of the field of battle tells again the sad tale of 'what might have been' had wiser counsels prevailed. Elsberg shared the common feeling of all educated, thoughtful, honorable practitioners of medicine, that there should be no necessity for a code beyond that unwritten code of ethics that should govern the conduct of gentlemen in every sphere of life. He knew of, and fully appreciated, the difficulties of any enforcement of a statutory enactment or a professional mandate against persons devoid of honor and unworthy of fellowship in a liberal profession. He knew also that the attainment of this boon—a difficult one—could only be reached by the imperative demand of the profession at large that the mills should be stopped, and that there should be no more enlistments of ill-formed, improper persons to the ranks of our sacred calling. He knew also that you can neither teach nor enforce virtue by resolutions or text-books. He knew, Mr. President, as you and I know—no one better than yourself—that the enlightened men of this country, the class that have shed most lustre, that have attained most honorable distinction, whether now rated (by irresponsible and illiberal factions) as new or old code adherents, are of one accord. The admission of the necessity of a special code—it is useless to deny it—is virtually an admission that the rank and file of the profession in this land is inferior in moral integrity to that of all other countries. I, sir, am unwilling to admit of any basis for any such conclusions.

"From one of his people—descended of those born on Latin soil, the same that gave birth to the Disraelis, Montefiore, Jessel, Aguilar, and Castelar, brilliant in art, literature, law, statesmanship, and humanity, not less dazzling to science—we are indebted for the first account, by the use of the laryngoscope, of the action of the vocal cords during inspiration and vocalization, important observations on the production of sound in the larynx, and valuable reflections on the formation of the chest. The story of the investigations of Manuel Garcia, who published, in the year 1855, in the proceedings of the Royal Society of England, his physiological observations on the human voice, is too well known to you to call for further reference on this occasion.

"If the utility and value of a life be measured by the advantages which accrue from the love, devotion, and labors of those ever ready to sacrifice self in ministering to the ills of poor suffering humanity, surely no one will now deny a worthy site to the memory of our late friend and Fellow of this Academy."

A paper was read on

ORIGINAL DEDUCTIONS BASED ON A STUDY OF ONE HUNDRED CASES OF FRACTURE OF THE UPPER EXTREMITY, EXCLUDING THE HAND,

by DR. SAMUEL W. SMITH. (See page 673.)

DR. JOSEPH D. BRYANT said the lateness of the hour would permit of only a few remarks, which he would make regarding fracture of the clavicle. The cause of the deformity which occurred in this fracture had given rise to a great deal of discussion, some claiming that it is due to muscular contraction, others to failure of the clavicle to hold the shoulder in position, others to contraction of this or that group of muscles. In Dr. Bryant's opinion the deformity depended upon the fracture of the clavicle, and not upon muscular contraction resulting from it. He believed that the function of the clavicle is to hold the shoulder backward, upward, and outward, and whenever the clavicle is broken in such a position that the fragments can override each other, the shoulder then falls downward, forward, and inward. If the fracture should occur at the inner or outer third there would be little deformity, but if at the insertion of the trapezius and deltoid muscles on the one side, and of the sterno-cleido-mastoid and pectoralis major on the other, there would always be marked deformity. He could not agree with the author of the paper that contraction of the subclavius muscle had particularly to do with the production of the deformity; that is, it had not a predominating influence.

As to treatment, any apparatus which would meet the indication, that is, confine the fragments in position, would secure as good results as any other. He had used the adhesive plaster of Dr. Sayre frequently, and it met the indication. Dr. Moore's method also met the indication. The apparatus which Dr. Smith presented also met the indication so far as he was able to judge from a casual examination, and if it did meet the indication he should think it had advantages over the other two methods mentioned—not that it would produce better results, perhaps, but because the results were obtained with less discomfort to the patient. He thought well of it.

DR. A. C. POST said, with regard to the portion of the clavicle in which fracture takes place, that the most important distinctions were in those occurring on the inner side of the coraco-clavicular ligaments, those occurring between the coronoid and trapezoid ligaments, and those occurring on the outer side of the trapezoid ligament. When fracture took place in the inner three-fourths of the clavicle, there was usually some deformity; the clavicle was shortened, the shoulder falling, so that the outer fragment fell below the inner. When fracture took place between the conoid and trapezoid ligaments, both fragments being tilted by the ligaments binding them to the coracoid process, there was almost no deformity, and it was very difficult to make a diagnosis. Very little treatment was required other than rest and support of the arm

in a sling. When fracture occurred at the outer side of the trapezoid ligament there was considerable deformity, but of entirely a different character from that which existed after fracture on the inner side of the conoid ligament; the shoulder is thrown forward, and the short fragment is placed at nearly a right angle with the long fragment, and on nearly the same level; there is no falling.

Dr. A. H. Goelet had improvised an apparatus from roller bandage, similar to that employed by Dr. Smith, in a case of fracture of the clavicle which was first treated after Dr. Sayre's method by adhesive plaster, which caused great annoyance. Dr. Smith's plan gave the patient complete comfort.

Dr. Smith, in closing the discussion, said he divided the clavicle into thirds, after the plan of Hamilton. If fracture should take place in the outer third the deformity would be less than in fracture at the inner third, but the former locality had been selected in only one of his cases.

Dr. C. R. Agnew offered the following resolution:

Resolved, That it is the opinion of the Academy of Medicine that any judicial action which in its effect discourages members of the medical profession in making early reports to the Board of Health of cases of supposed contagious or infectious disease is contrary to public policy and most detrimental to the interests of public health. Carried unanimously.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

ROYAL MEDICAL AND CHIRURGICAL SOCIETY—ANTHRAX AND THE DISTRIBUTION OF THE BACILLUS ANTHRACIS IN THE HUMAN SKIN—TUBERCLE OR ACTINOMYCOSIS—THE MEDICAL SOCIETY OF LONDON—ACUTE TRAUMATIC MALIGNANCY—THE COLLEGE OF SURGEONS—THE GENERAL ELECTION AND MEDICAL CANDIDATES—THE HOSPITAL SUNDAY FUND AND RELIGIOUS INTOLERANCE—GASTRIC ULCER AND ITS TREATMENT—GASTROSTOMY AND JEJUNOSTOMY—MEDICAL MEN IN PARLIAMENT—THE MOVEMENT FOR ESTABLISHING A TEACHING UNIVERSITY.

London, November 27, 1885.

The last meeting of the "Medical and Chirurgical" was more scientific than interesting. The subjects discussed were rather abstruse, and could only be expected to interest a small section of the Fellows. The papers read were, however, pretty fully discussed.

The first paper was by Mr. A. E. J. Barker, Assistant Surgeon to University College Hospital and well known as the translator of Frey's Histology. Mr. Barker narrated the history of a case of malignant pustule occurring in a young man. The growth, which was on the left side of the neck, was excised and the patient recovered. Mr. Barker had examined microscopically the parts removed, and had arrived at the conclusion that the organisms (bacilli anthracis) had a remarkable predisposition for the most superficial parts of the dermis and only penetrated into the deeper parts slowly and in relatively small numbers. He found enormous colonies spreading over the surface of the papillæ, causing vesiculation of the epidermis. He found only a few scattered baccilli in the bodies of the papillæ and in the deeper parts of the cutis. None were detected in the vessels of the skin. Under the eschar the active growth of the organisms appeared to have been arrested.

The next speaker was Mr. Davies-Colley, Surgeon to Guy's Hospital. Mr. Davies-Colley thought that Mr. Barker had exaggerated the local character of the disease. In his own experience, he said, the system rapidly became affected. He referred to the fact that bacilli had been found in the various secretions of the body, and within a short time of the development of the local disease. Mr. Davies-Colley subsequently stated, in reply to a question from Mr. Barker, that the only case in which the bacilli were detected in the various secretions recovered. This fact seems to throw some doubt on the accuracy of the diagnosis.

Dr. Turner, Assistant Physician to the London Hospital, followed, and to a large extent concurred with Mr. Barker as to the marked localization of the affection. A line, he said, could be distinguished across the section above which the bacilli were numerous, and the tissues in a state of necrosis. Below this line the bacilli were few in number and the tissues still living.

The next proceeding in the programme for the evening was the reading of a paper on a case of liver-disease by Dr. John Harley, Physician to St. Thomas' Hospital. An hepatic abscess had formed and had been incised. Small quantities of thick, creamy pus were constantly discharged, and the patient finally died of exhaustion. There was only slight pyrexia throughout. The patient presented the usual aspect of tubercle. At the post-mortem several morbid masses were found in the liver. From the morbid anatomy of these masses, Dr. Harley endeavored to show that the case in question was one of tubercle, although he admitted that they exhibited very distinctly the character of actinomycosis. His contention, in fact, was that most, if not all, of the cases which have been regarded as examples of actinomycosis have really been cases of tubercle.

Dr. Harley's paper was very elaborate, and was evidently intended to carry conviction to the minds of his hearers. Nevertheless it failed to do so, and when his paper was concluded a general onslaught was made upon him. The speakers were Dr. Seymour Sharkey, Dr. Theodore Acland, Mr. Shattock, Dr. Percy Kidd, and Mr. Watson Cheyne. The general opinion seemed to be in favor of the distinct existence of actinomycosis, and several of the speakers considered Dr. Harley's case to be really an example of that disease.

At the last meeting of the Medical Society of London the entire evening was devoted to the discussion of the subject of "Acute Traumatic Malignancy." The discussion was introduced by the reading of a paper by Mr. Pearce Gould, Assistant Surgeon to University College Hospital, and Surgeon to the London Temperance Hospital, on a case in which sarcomata rapidly followed injury, and in which he amputated at the hip-joint. A very lively and interesting discussion followed. Many of the speakers narrated cases bearing on the subject discussed, and the opinions expressed in the course of the discussion showed pretty plainly that the condition termed acute traumatic malignancy has now received wide and general recognition.

Since my last letter the Council of the Royal College of Surgeons have held another meeting, at which the minutes of the previous one were confirmed. The Council are determined to resist reform *à l'outrance*. Whether twenty-four men can in the end succeed in thwarting the declared wishes of nearly seventeen thousand remains to be seen. I trow not—at any rate not for long.

By the time this appears in your columns the general election will be over and its results known. Just now it is overshadowing in interest all other subjects—both professional and general. There are but few medical candidates for Parliament. Mr. Ernest Hart has just been defeated in East London. Mr. Erichsen is believed to stand a good chance for the Universities of Edinburgh and St. Andrews. The new House of Commons, however, is not expected to contain many new medical members. The profession will probably be represented by at most a dozen members. Politics, as such, does not have many charms for most of our profession. A political life necessitates retirement from practice—it might almost be said, retirement from the profession. Such is not the case with the law, and many successful barristers continue to practise their profession while retaining a seat in the House. Moreover, in the law there are some

very substantial rewards for the barrister who becomes a successful M.P. The law officers of the Crown are chosen from among them. No such prizes as these even—to say nothing of the post of Lord Chancellor—await the physician or surgeon who forsakes physic to embark on the troubled sea of politics.

London, December 5, 1885.

The dispute which has been going on in the Council of the Hospital Sunday Fund, with reference to the alleged religious intolerance as regards the nurses at University College Hospital, has suddenly terminated in an amicable manner. As already mentioned in a previous letter, the controversy originated in the refusal of the authorities of University College Hospital to admit a Nonconformist to be trained as a nurse in their institution. It transpired, on inquiry, that the nursing at University College Hospital is entirely entrusted to a nursing "sisterhood" of marked High-Church principles. Hence the refusal. The matter was brought before the Council of the Hospital Sunday Fund by a prominent Nonconformist minister (Dr. Allon) and threatened to have serious consequences, as it appeared not improbable that Nonconformists might decline to contribute in future to the fund. The result would, of course, have been a serious loss. The question was referred for consideration to the General Purposes Committee. They have just brought their report before the Council. They virtually state that they cannot interfere, on the ground that "matters relating to the internal administration of hospitals are beyond the jurisdiction of the Hospital Sunday Fund." The adoption of this report was moved, and Dr. Allon seconded the motion, thereby withdrawing his opposition. The motion was carried unanimously, and an incident which promised to lead to serious results has thus terminated peaceably. The publicity which the affair has caused will doubtless lead to a reform in the arrangements at University College Hospital. The Hospital Sunday Fund continues to prosper. The receipts for the present year exceed thirty-four thousand pounds. The working expenses have been between eleven and twelve hundred pounds.

The last meeting of the Medical Society of London was entirely devoted to the consideration of the subject of ulcer of the stomach. The discussion was introduced by the reading of a paper by Dr. Stephen Mackenzie. Numerous remedial agents were recommended by the various speakers. Mr. Edmund Owen made the apt remark that physicians might learn something from surgeons. In his opinion uninterrupted rest was as necessary for a gastric ulcer as for an inflamed joint. "Mashed potatoes and pills" he characterized as "bad treatment."

At the Clinical Society's last meeting several interesting cases of gastrostomy were brought forward. This operation has now been performed a considerable number of times by British surgeons, and the proportion of successful cases is growing larger.

Mr. Golding-Bird then narrated the history of a remarkable case in which he had performed jejunostomy. The patient was a man, aged forty-six, who was admitted into Guy's Hospital after having suffered from symptoms of pyloric obstruction for ten months. A tumor could be felt near the pylorus. There was extreme emaciation, due partly to actual inability to retain the food ingested, and partly to the patient voluntarily starving himself to escape the pain which ensued on eating. After three weeks of medical treatment he was transferred to the surgical wards.

The patient having consented to an operation, Mr. Golding-Bird cut down on the pylorus with the intention of performing pylorectomy in Billroth's manner, but was disappointed by finding the tumor adherent to the liver. He therefore resolved to abandon the radical operation he had projected, but to convert it into a palliative one by opening the jejunum. The jejunum was seized and attached to the edges of the wound. On the third day after the operation the bowel was opened, and from that date the patient was fed solely through the jejunal opening. All went well until the ninth day, when some food was unfortunately allowed to pass into the peritoneum, and the patient died in twelve hours. During the week he was fed *per jejunum* the curious observation was made that when the meal was as much as a pint it was followed by severe indigestion, while one of only ten ounces caused no inconvenience. From this Mr. Golding-Bird suggested that possibly some cases of indigestion are due to the pylorus allowing a too free passage of chyme rather than to disturbance of the gastric or pancreatic secretions.

Only a dozen medical men have found seats in the new Parliament, and of these quite one-third, although qualified medical men, are not such by profession, having engaged in other pursuits. For instance, Dr. Vanderbyl forsook medicine for banking twenty-seven years ago. A few elections still remain to be decided, but the representation of the profession is not likely to be much increased.

The Association for Promoting a Teaching University for London have just held a general meeting. No decided move has yet been made. The Association labors under the fatal mistake of not being able to make up its own mind. It is at present wavering between three alternatives, viz.: 1. To endeavor to procure the reconstruction of the present University. 2. To institute a Teaching University, which shall exist side by side with the present one, and be in close relation with it. 3. To found a new and totally independent University, with which existing teaching institutions will be associated. The relative favor apparently accorded to these several schemes by the Association is indicated by the order in which I have given them. The reverse order would, however, better indicate the *practicability* of each. It is largely believed that any great change in the present University is not to be expected. The second scheme is almost as chimerical. The last scheme would, however, command great support, both pecuniarily and otherwise.

ON THE REPORT OF THE COMMITTEE ON DISINFECTANTS OF THE PUBLIC HEALTH ASSOCIATION.

A Reply to Dr. Sternberg.

To the Editor of The Medical Record.

Sir: It is with considerable hesitancy, and contrary to my previous determination, that I prolong, even by a short note, the unfortunate discussion that I have been led into by Dr. Sternberg. I know very well that nothing is gained by bringing personal matters before the public, but it is not easy to treat with deserved contempt accusations that are, and can be shown to be, absolutely false. Without taking up space with further apologies, I wish to close the discussion (so far as I am concerned) with the following brief comments on Dr. Sternberg's last article:

1. No better evidence can be had that Dr. Sternberg's idea is to distract attention from the mistakes of the report by making the discussion purely personal, than that in his last reply he pays no attention whatever to the principal point under discussion, viz.: the use of potassium permanganate as a coloring agent, and his attempt to get it out of the solution by adding chloride of lime.

2. Although he now claims that my experiments made with him, on Squibb's liq. zinci chlor., had no bearing on his own, at the time he specially quoted them as sustaining his previous determination (*Medical News*, January 18, 1885, p. 33). Even if we take his own statement as correct, it strikes me that experiments on the unknown contents of stray bottles should not be published as a guide to the profession in sanitary matters.

3. In order to acquit myself of the charge of reporting

a private conversation that I overheard, I am compelled to give the following particulars, which otherwise I would much prefer to leave unnoticed. The agreement Dr. Sternberg requested Dr. Abbott to make was *not* that he should remain with him for a year, but "that he would not accept of a position from Dr. John S. Billings if it was offered him, as that gentleman was desirous of securing an assistant familiar with his methods of work." Moreover, I did not overhear the conversation, but Mr. Lee, of the Biological Laboratory of the Johns Hopkins University, and myself were present, and were asked by Dr. Sternberg to witness the verbal agreement.

Now, I do not simply place my own word in opposition to Dr. Sternberg's in this matter, but refer to Dr. Abbott and Mr. Lee for the confirmation of these facts. There is certainly no reason why these gentlemen should be prejudiced in my favor, and if they will say that I have in any way incorrectly reported the conversation, I am ready to forfeit the entire confidence and respect of the profession.

Dr. Sternberg has done too much good bacteriological work for me to say anything that affects his reputation, except in so far as he has made it necessary for me to preserve my own; and, to avoid further unpleasant complications of this kind, I will take no further notice of any statements except such as pertain solely to the points of the report mentioned in the article by Mr. McClintock and myself. J. R. DUGGAN, M.D.

JOHNS HOPKINS UNIVERSITY, December 12, 1885.

EQUINE SCARLATINAL VIRUS AS A PROPHYLACTIC AGAINST HUMAN SCARLATINA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Since the publication of my first article on the use of "Equine Scarlatinal Virus as a Prophylactic against Human Scarlatina" (MEDICAL RECORD, March 24, 1883), I have carefully considered the statements made at that time, and I am led to say they were untruthful, for I do not believe the injection of the equine virus into the subcutaneous tissue of the rabbits and dog, produced a "confluent eruption" similar to scarlatinal rash. I also believe that the "furfuraceous exfoliation" and the enlargement of the lymphatics could be accounted for by the slight traumatic inflammation.

The injection of the virus under the skin of the twelve patients reported produced a redness, but I am inclined to think, as a result of more recent trial, that it was not a scarlatinal eruption. With reference to the injection of the human scarlatinal blood I can only say that if it contained the active poison of scarlet fever it certainly failed to reproduce the disease, and that might be evidence in favor of the protective power of the equine virus, but I am disposed to believe that the blood was inert. I take it that in scientific investigations it is only honest and true to frankly acknowledge error in the interpretation of phenomena, carelessness as to detail, or mistakes in deductions. I am aware that conscience is just as certain to condemn or approve in the domain of science as to set up a tribunal within a man, by which his own actions are judged in any other field of labor.

I am continuing the investigations I began two years ago, and I have reason to believe that, notwithstanding the apparent failure thus far, a satisfactory solution of the problem will be arrived at in due time.

Yours respectfully,
J. W. STICKLER, M.D.

SPONTANEOUS ORIGIN OF TYPHOID FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: I noticed some time ago, in THE MEDICAL RECORD, the discussion of this question in the New York Academy of Medicine, and have been expecting to hear from a good many physicians situated in sparsely settled portions of the country on this subject. I think physicians so situated should contribute such testimony as they may have on this subject, as it is impossible for those in large cities with a dense population and all their surroundings ever to decide this question. I would like to hear the experience of country physicians, to see how many have arrived at the same conclusion. I see, in THE MEDICAL RECORD of November 21st, Dr. Ambrook produces valuable testimony as to its spontaneous origin on the mountains and plains of Western Texas and Colorado. I have no doubt there are numerous other physicians similarly situated, whose testimony would be the same. Then, there are a still larger number not quite so favorably situated, it is true, yet sufficiently so to produce valid testimony on this question. I have been doing a country practice for nearly twenty-nine years, and, although typhoid fever has not been very prevalent in my neighborhood, I have had one or more cases almost every year, widely separated from each other and no communication between them, no antecedent case in the neighborhood, and no other case in the family or neighborhood followed those cases. This looks like strong evidence in favor of its spontaneous origin. It prevails sometimes in certain localities as an epidemic, just as dysentery, cerebro-spinal meningitis, and other diseases do; then it will be absent from those localities for five, ten, or fifteen years before it appears again. Then, in other neighborhoods, we only have a few sporadic cases, widely separated from each other, in families who have remained at home, and have not seen any one who has even been with a case of typhoid fever.

J. G. KNOX, A.B., M.D.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from December 6, 1885, to December 12, 1885.

BIRMINGHAM, H. P., First Lieutenant and Assistant Surgeon. Ordered for duty at Camp Grant, Riverside Park, New York City. S. O. 256, Department of the East, December 4, 1885.

BUSHNELL, GEO. E., First Lieutenant and Assistant Surgeon. Ordered for duty as Post Surgeon, Fort Preble, Me. S. O. 256, Department of the East, December 4, 1885.

WILSON, WM. J., Captain and Assistant Surgeon. Ordered for duty as Post Surgeon, Plattsburg Barracks, N. Y. S. O. 256, Department of the East, December 4, 1885.

APPEL, D. M., Captain and Assistant Surgeon. Ordered for duty at Jackson Barracks, La. S. O. 256, Department of the East, December 4, 1885.

EVERTS, EDWARD, First Lieutenant and Assistant Surgeon. Ordered from Department of the Columbia to Department of Arizona. S. O. 279, A. G. O., December 5, 1885.

POLHEMUS, A. S., First Lieutenant and Assistant Surgeon. Relieved from duty at Presidio of San Francisco, Cal., and ordered for duty as Post Surgeon at Fort Halleck, Nev., relieving Acting Assistant Surgeon Loren N. Clark, United States Army. S. O. 113, Department of California, November 30, 1885.

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 12, 1885.

LIPPINCOTT, GEORGE C., Passed Assistant Surgeon. Detached from Navy Yard, Washington, and to wait orders.

DEANE, C. W., Passed Assistant Surgeon. Ordered to the United States Receiving Ship Dale, as relief of Passed Assistant Surgeon G. P. Lumsden.

LUMSDEN, G. P., Passed Assistant Surgeon. Ordered to Naval Hospital, Washington.

LOVERING, P. A., Passed Assistant Surgeon. Detached from United States Receiving Ship Wabash, and to wait orders.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 12, 1885 :

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
December 12, 1885	1	22	31	1	9	87	5	0
Deaths.								
December 12, 1885	0	5	3	1	3	44	1	0

BOWDICHIA MAJOR.—At a meeting of the Therapeutical Society of Paris M. Petit read a communication concerning a new alkaloid which he had abstracted from the bark of a shrub used in Brazil in the treatment of fevers and of rheumatic and gouty pains. This bark comes in hard, thick fragments of an ochre-yellow color, has a bitter taste, and resembles somewhat yellow cinchona bark. It is taken from a leguminous plant called Bowdichia major, and known by the natives under the name of sebipira guacu, or sucupira. The alkaloid is said to possess narcotic and mydriatic properties.—*Der Fortschritt.*

THE PRESERVATION OF SOLUTIONS FOR HYPODERMIC USE.—At the meeting of the French Association for the Advancement of Science, at Grenoble, M. Limousin explained the method used by him to prevent the decomposition of solutions intended for hypodermic use. He used little pearls of glass of a size sufficient to contain one dose, which were filled so as to exclude all air and then sealed by fusing the open end in the flame of a lamp. When the solution was wanted for use the end was broken with the fingers, and the needle of the syringe inserted through the opening thus made.

COLLECTIVE INVESTIGATION IN RUSSIA.—The Russian members of the Committee for Collective Investigation of Disease, appointed at the International Congress of Copenhagen, have begun their work. They publish a long circular in a recent number of the *Russkaya Medetsina*, setting forth the object of the Committee and explaining the method to be pursued. A list of questions is appended for the guidance of those willing to aid in the work. The first subject proposed for collective investigation is the etiology of rachitis. The members of the Committee are Rauchfuss, of St. Petersburg, and Runeberg, of Helsingfors.

FERRÁN'S LABORATORY.—A correspondent of the London *Times* writes that while Ferrán was in Valencia he used for his laboratory the kitchen of a new and as yet uninhabited house. In this kitchen there was a water-closet, placed against the inner wall as far as possible from the windows, and ventilated into the kitchen through an opening over the door. The house had just been built by a physician of Valencia, who apparently had as much sense of the fitness of things as he had knowledge of sanitary science. The writer adds that the closet was already so foul and choked up that he was unable to discover whether it trapped or not.

HOSPITALS AND THE GENERAL PRACTITIONER.—Speaking of the way in which hospitals take money from the profession, Dr. Hasket Derby says in the *Boston Medical and Surgical Journal:* "A case in point will show the practical working of this state of things, and I would call attention to the fact that what follows is a simple narrative of an actual occurrence. In a New England city, a surgeon eminent for his skill was consulted by a woman from the country, who had a tumor of the breast requiring removal. She was accompanied by her clergyman, who proceeded to make the necessary arrangements on her behalf for the operation. After some inquiry into the patient's circumstances, a fee was named that she declared herself quite able to pay. A boarding-house was engaged, and the day fixed upon. The two left the office, congratulating themselves on having obtained the desired professional skill on terms that met with no objection. Two days later the clergyman appeared alone. 'Doctor,' said he, 'I am come to tell you that we will not have you perform the operation. You are not, however, to infer that we doubt your skill, or are dissatisfied with your fee of $100 ; but Sister Blank has visited the So-and-So Hospital, and there learned that, by taking a room at $25 a week, she can have the operation performed for nothing. She can readily find other uses for the money she would have paid you, and feels it to be her duty to save the amount.'"

EFFECTIVE VACCINATION.—A London paper says that an apothecary of Thorndale had just received a fresh supply of vaccine points, and some of them happened to be exposed to view on his counter. A burly farmer from that neighborhood was in at the time and amused himself by using one of the points as a toothpick, pricking his gums in the operation. It "took" in the most approved style, and the man is now in possession of a mouth that is crowding all the other features of his face out of shape.

FOR SWEATING OF THE FEET.—Vieusse recommends frictions with subnitrate of bismuth in all forms of bromidrosis of the feet. In a few cases, he says, it seems to have no effect in diminishing the secretion, but it always removes the fetid odor.

THE CONTAGIOUSNESS OF TETANUS.—M. Laiger, in a paper read before the Société de Chirurgie of Paris, maintained that tetanus is contagious, and of an epidemic character. M. Ferrier considers that M. Laiger does not distinguish between veterinary and human medical science. Spontaneous tetanus among animals must be admitted. The facts in favor of the contagion of tetanus are often the outcome of careless clinical study. Rose and Billroth admit the contagion of tetanus, but all attempts to inoculate that disease, even those recently made by M. Nocard, have been unsuccessful.—*Brit. Med. Journal.*

THE VACCINE FROM REVACCINATED CHILDREN is of doubtful protective potency, according to the observations of M. Blot, recently reported to the *Academie de Médecine.*

CONNECTION BETWEEN AFFECTIONS OF THE EYE AND SPINAL CURVATURE.—A Polish physician, Dr. Jasinski, has traced a connection between errors of refraction and curvatures of the spine. In thirty-seven cases of curvature, he was able to prove with certainty the previous existence of these or other abnormal conditions in the eyes, such as insufficiency of the internal rectus, astigmatism, asthenopia, etc. Myopia alone, however, does not appear to cause curvature. Unequal vision and insufficiency of the internal recti seems to be most efficient in the production of spinal curvature. Spasm of the accommodation also is capable of producing it. Removal or relief of the eye affection is followed by improvement in the spinal curvature—a troublesome and obstinate class of cases in orthopædic practice.—*Lancet.*

UNION OF FRACTURES IN THE AGED.—Dr. O. N. Bradbury, of Paris Hill, Me., sends us an account of a case of fracture of the femur in a man aged eighty-eight, in which healing took place perfectly. Dr. Bradbury doubtless forgets that this is not unusual, since fractures often heal more quickly in the aged than during middle life. Mr. Erichsen recounts two cases where very perfect union of fractured femurs took place in patients over ninety years of age.

A Curious Monstrosity.—A child was born recently in Naples having a fifth limb, corresponding to the right lower extremity, growing from the region of the false ribs on the left side, near the sternum. There were well-developed male genital organs in the normal situation, and another set, complete in every respect, except that the testicles seemed to be wanting, on the inner side of the thigh of the supernumerary limb. The patellæ were absent, and a fold of skin prevented full extension of the leg. The skin and muscles of the abdominal wall were wanting in the umbilical region, so that the intestinal movements could be distinctly seen beneath the peritoneal covering. The pavilion of the left ear was also double. At last accounts this child was alive and in good health.

How a Doctor Got a Pass.—The pass question has its humorous side. A Chicago road derives some added traffic from a new cemetery started about a year ago, and lately received an application for a trip pass from a prominent physician, who based his request upon the ground that he had "worked up a good business for the graveyard." He got his pass.—*Omaha Republican.*

Microbes, Meteorology, and Disease.—According to the microbic statistics published by M. Miquel in *l'Annuaire du Bureau des Longitudes*, the bacteria dispersed in the atmosphere vary during the different seasons of the year. It is increased by north and east winds. At Montsouris, in a cubic metre of air, there are in winter, 260 bacteria; in spring, 495; in summer, 650; in autumn, 480; giving an annual average of 471. In January, there were 1,830; February, 1,700; March, 3,300; April, 4,330; May, 4,380; October, 3,910; November, 2,760; December, 1,800; throughout the twelvemonth, a monthly average of 3,480. In this part of Paris, the air is comparatively pure. A similar analysis of the atmosphere in the Rue de Rivoli proved the monthly average, throughout the year 1881, to be 6,295; in 1882, 3,435; in 1883, 2,345; in 1884, 1,836. Thus, during the last four years, the average has diminished. At the same time, the mortality from zymotic diseases has been less, although the population of Paris annually increases at the rate of 29 per 1,000. The deaths from typhoid fever, small-pox, scarlet fever, whooping-cough, diphtheria, dysentery, erysipelas, puerperal infection, and infantile enteritis, were, in 1880, 14,080; in 1881, 13,104; in 1882, 13,613; in 1883, 11,598; in 1884, 11,520; giving a decrease in mortality of 18 per 100. In thickly-populated districts, the proportion of microbes in the air is much larger. Sea-side towns, and those situated among mountains, are the freest from bacteria; a closely-packed population aids to engender and develop these organisms. Berne, although the mountain air constantly sweeps through its atmosphere, is by no means free from the presence of bacteria. According to Freudenreich's researches, the monthly average is 580, four times as pure as the air of Paris (2,020), but inferior to that of Montsouris (420). M. Miquel analyzed the air of a room in an old house in the Rue Monge. The analysis was made in the morning, before any door or windows had been opened. In winter, a cubic metre of air contained 45,000 bacteria; in spring, 26,600. The increased proportion in winter is in consequence of not opening the windows so much as in summer. In the wards of the Hôpital de la Pitié, which are ventilated, there are 92,960 bacteria to a cubic metre in winter, and 54,110 in spring. In a new house in the Rue Monge, a cubic metre of air contained, in winter, 3,120 bacteria; in spring, 3,660; in summer, 4,560. The proportion varies according to the hours of day; from twelve to one o'clock, there are 62 bacteria per cubic metre; from two to three o'clock, 102; from three to four, 130; from four to five, 128; from six to seven, 148. The largest proportion occurs at sunset and sunrise. The following gives an idea of the relative purity of different atmospheres: ocean air, 0.6 bacteria per cubic metre; mountain heights, 1; the saloons of vessels, 60; the top of the Pantheon, 200; Park Montsouris (the average of five years), 480; at Berne, 580; Rue de Rivoli, Paris, 3,480; new houses at Paris, 4,500; Paris sewers, 6,000; the laboratory at Montsouris, 7,420; old houses, 36,000; the new Hôtel-Dieu, 40,000; the Hôpital de la Pitié, 79,000.

Yellow Fever Inoculation.—Drs. Rabourgeon and Freire, of Rio de Janeiro, have recently practised inoculation of yellow fever on a number of medical students and over two hundred porters and laborers. Soon after the inoculation symptoms of yellow fever in a mild form appeared and passed away again in two days. None of the inoculated fell a prey to the disease, while many of their unprotected comrades were attacked by the disease and died. Many also of the European ship-captains and sailors on vessels in port were inoculated and remained free from the disease.

Removing the Sisters from the Paris Hospitals.—In an address recently delivered at the Commencement exercises of the École Municipale de la Salpêtrière, M. Bourneville said that eight of the Paris hospitals had been taken from the hands of the religious communities during the past eight years. There remained twelve institutions not yet attacked, which were served by 246 Sisters, and these, the speaker urged, should be at once put under the charge of lay nurses. At the same time, however, he admitted that there was a lack of properly educated lay nurses for the hospitals already in their hands. He said also that the authorities of these institutions knew so little about the management of the sick that they always put ignorant and incompetent nurses on the night service, just at the time when exigencies demanding experience and intelligence to meet them were the most likely to arise. Dr. Bourneville seems to be one of those unfortunate advocates who are constantly bringing up arguments which tell against their own cause. He also made the remarkable assertion that all the hospitals in the United States were in the hands of lay nurses. In view of the result of the recent elections in France, the present would hardly seem to be the most fitting time to renew the agitation against the Sisters of Charity, looking at it merely as a measure of political wisdom.

Diphtheria Statistics.—During the year 1884 there were 705 cases of diphtheria treated in the Hospital Trousseau. Of these 385 died, and 320, or 45.5 per cent., recovered. The mortality of these patients, upon whom tracheotomy was performed, was 73.2 per cent.

Honors for Brown-Séquard.—At the annual public session of the French Institute, held on October 24th, the president, M. Bouguereau, announced that the biennial prize of the institute had been awarded to M. Brown-Séquard. It was a pleasure, he said, to reward the labors of this indefatigable experimenter, and to recognize his work in a branch of science the great aim of which was to relieve human suffering.

Electricity and Dust.—From the *Popular Science News*, November, 1885, we take the following: "Electricity may yet be of important service as a sanitary agent. It is only within a short time that the discovery has been made that a discharge of electric sparks through a dusty atmosphere will cause the dust to settle, and already the fact is beginning to yield results of practical value. In the experiments to which we have referred, a continuous series of sparks were sent through a bell-jar filled with magnesium smoke, and in a very short time the air in the jar was cleared; similarly, when the jar was filled with steam, electrification caused the globules to aggregate into mist and fine rain, which rapidly fell. It soon occurred to a lead-smelter in Wales that, if electricity could do so much in a laboratory experiment, it might be made to do something useful on a large scale. In lead-smelting works the greatest difficulty is to deal in

a satisfactory manner with the lead-fume, or the volatilized lead which passes off from the furnaces. Long condensing flues and chambers are employed; but even with the best arrangements a good deal of lead escapes to poison the atmosphere, and to the loss of the manufacturers. In an English establishment an experiment has been made in the use of electricity for 'settling' the noxious dust. A large wooden flue was constructed out of casks, and fitted with windows at opposite points throughout its length, so that the 'fume' could be readily examined as it passed along. The experimental flue was fitted with dampers in such a manner that it could be filled with the fumes and closed at both ends, or could be used as a branch or loop in the main flues. The electrical machine had one pole connected to the ground, and the other to an arrangement of metallic points placed inside the flue; a stout brass rod, encircled by a glass tube to insulate it, being carried through the top of the flue, and held in the position desired for the discharging-points. A well-insulated copper wire connected this brass rod with the pole of the machine, which, being kept warm and dry in a shed, gave sparks in all weathers of about four inches in length. Various experiments proved that within certain limits, determined by the size of the electrical machine, the more points of discharge, the greater or more rapid the effect produced. The first experiments were made upon the 'fume' in a stagnant state, by filling the experimental flue with the gases from the main, and closing the dampers at each end. Viewed through the windows, the fume had the appearance of a dense fog; but the moment the electric discharge commenced, a whirling movement was observed round the points, and in a very few seconds the foggy matter collected into flakes, which were rapidly deposited on the sides and door of the chamber, and the atmosphere became clear. When the fume was permitted to pass through the temporary flue, with the rapid motion due to the pressure of the furnace gases, no change was witnessed as it passed the windows; but at the outlet it was found that the foggy matter had been agglomerated into flakes, which in calm weather fell to the ground immediately on escaping from the flue. In this case the pressure forced the fume on too rapidly to allow of the effects of the electric discharge being witnessed through the windows; but it was, nevertheless, deemed satisfactory, and the owner of the works determined to adopt the method of attacking the fume by the electrical method.

Gerhardt's Plumbum Causticum.—According to the report of the Medical Society of Würzburg, the best means of removing condylomata is the so-called "plumbum causticum" used by Gerhardt in the Würzburg syphilitic clinic, and which is composed of oxide of lead and potash. This does not penetrate deeply into the tissue, but produces a blackish slough where it is applied. It can, however, be made to destroy a condyloma in a single sitting. It is very useful for warts on the glans penis and vagina, but is not suitable for papillomata of considerable size, which must be subjected to operation.

Strychnine to Prevent Flooding.—Dr. A. Walker writes to the *British Medical Journal*: "In a number of cases, strychnine administered along with iron for a month before labor, has exerted a remarkable influence in preventing *post partum* hemorrhage, where severe flooding has occurred in previous labors."

Scenes at a Free Dispensary.—"The ingenuity," says Dr. H. Derby, in the *Boston Medical and Surgical Journal*, "of those who seek to disguise their resources must have been experienced to be credited. We were once surprised by a handsome legacy from the estate of an old lady, who had for weeks enjoyed the hospitality of the infirmary, and there been relieved of a cataract; an excellent thing for the institution itself, but not calculated to raise the spirits of the surgeon originally in charge of the case. Another free patient, treated for the same disease, was afterward discovered to have been the mayor of a New England town, and a large real-estate owner there at the time of the operation. 'I prefer to see you at your office, Doctor,' said a young man to me once, 'as I get more of your time. But I suppose I might go to the infirmary, as uncle does.' 'Is your uncle a very poor man?' I asked. 'O, Uncle owns a factory.' 'But how does he manage to pass at the infirmary?' 'Uncle's sly,' said the youth, with an exquisite enjoyment of the fact; 'he puts on old clothes and dirties his hands every time he comes down.' A well-known lawyer of this city once emerged from the waiting-room, and sat down in the patient's chair. On being remonstrated with for attempting to impose himself on a charity, he coolly informed me that all he wanted was an examination and opinion, having obtained which he proposed to place himself under private treatment outside. He had evidently thought he would escape recognition. A well-to-do merchant, being similarly detected, informed us that he had been a tax-payer for forty years, and demanded treatment as a right. Finally, one day, a very respectable and well-dressed lady from New Hampshire presented herself for treatment, and disclaiming poverty, was refused an examination. The next patient, evidently in good circumstances, hailed from the same place. So did the four succeeding, all unfit cases for relief. At last it transpired that we were dealing with the members of a cheap excursion, where one of the attractions offered by the enterprising agent had been a free call at the Eye Infirmary."

The Opium Habit in Temperance Towns.—Dr. R. C. Downey, of Caldwell, O., writes us that he has been much astonished at the large sales of opium and morphine in small towns. He lives in a place of 1,500 inhabitants. He writes: "I called at one of our two drug stores for a drachm of morphine. The druggist said he was out of it. I asked, 'What has become of the large amount you had only a few days ago.' He replied that his regular customers had taken it all. He declined to tell me who they were, but said he had one customer who bought it by the ounce." Dr. Downey thinks that he has obtained facts which show that opium-eating is more common in temperance towns and communities than in those in which the liberal use of alcoholic drinks is allowed.

Arsenical Wall-papers Utilized.—Mr. Matthieu Williams has suggested that the arsenical wall-papers, which are generally regarded as detrimental to health in ordinary localities, may be useful as a protection against the dangers of regions subject to malaria. In a recent number of the *Gentleman's Magazine* he says: "I maintain that the hotels in the vicinity of the Campagna, the Pontine Marshes, the Maremma, and other malarious regions of Italy, should be papered throughout with brilliant green arsenical papers, and painted with Scheele's green or other arsenical pigment. The same should be done in New Orleans and all other such places, for the special benefit of non-acclimatized visitors."

Throat "Comforts."—The following is taken from Davis on the Voice, and is given to show the peculiarities of some singers in their attempt to give a finishing touch to improve the quality of the voice. With many who follow the stage but little judgment is exercised in the selection of "throat helps," as the following quotations prove: "Southeim takes a pinch of snuff and a glass of lemonade between acts. Niemann sips champagne. Tichatcheck washes his throat with mulled claret. Ferenczy, the tenor, smokes a few cigars. Braun Brini drinks a glass of beer at the conclusion of the first act; after the second act, a little moistened bread; after the third and fourth acts drinks *café au lait*; and when she is going to sing the great duet in the fourth act of

'The Huguenots,' as goddess of the art of song, she demands a bottle of Moet Rose as a libation. Cruvelli takes a mixture of claret and champagne. Nilsson takes a glass of beer. Madame Borghi Mamo is lost without a pinch of snuff. Malibran used to take supper in her box about half an hour before coming on the stage. She ate mutton cutlets in the costume of *Desdemona*, and almost invariably washed them down with half a bottle of sauterne. This was generally followed by smoking a cigarette, which was only tossed aside just before her appearance on the stage. These 'fancies' are not recommended. The opinion of most voice-users that I have met is that those who employed them could sing and speak well in spite of the bad effects of these 'congesting' agencies. The course pursued by the following singers and speakers is recommended: Labatt, the Swedish tenor, is in the habit of eating a couple of salted cucumbers before appearing on the stage. He looks upon this as a strengthening remedy for the voice. Wachtel, the tenor, takes an egg beaten up with a little sugar. He considers that this softens the voice, and is, no doubt, very good. Madame Sonntag used to take sardines between acts. Madame Desparee soothes her throat with plain warm water. Madame Cabel eats pears. Adelina Patti prefers a bottle of seltzer water. Ugaldi has a preference for plums. Trevelli Bettini eats strawberries. One of my patients, a noted star actor, takes a cup of warm coffee with cream and sugar, and a warm boiled potato with a little salt, between acts. The following is the experience of an old amateur of New York City: 'It appears rational to avoid anything before singing that would tend to irritate the throat.'"

A Strong Argument in Favor of Vaccination.—Dr. W. T. Clute, of Schenectady, N. Y., sends the following interesting item: "Having read an editorial in the issue of The Medical Record for November 21, 1885, title, 'A Strong Argument in Favor of Vaccination,' allow me to add another case to the list in support of the argument. My own mother, now in her fifty-sixth year, had the small-pox while an infant in arms. Last September she allowed me to vaccinate her, just to see if it would take. To the surprise of both of us, it took and ran through a typical course. The vaccine used was a fresh bovine ivory point. It must have been nearly fifty-five years ago since she had the small-pox. She always expressed herself as ready and willing to attend any of her friends should they be unfortunate enough to be smitten with the small-pox, feeling sure that she was safe from an attack. She now thinks she would have taken the disease a second time, and that the vaccination will give her even better protection than the small-pox itself."

Dr. D. J. Cain, Asheville, N. C., also writes on the same subject as follows: "In an editorial in the issue of The Medical Record, November 21st, you say: 'We have been somewhat surprised to find that vaccination "takes" with those who have had small-pox, two or three such cases having come under notice. . . . Moreover, that vaccination is a surer safeguard from small-pox than small-pox itself.' As bearing upon these statements, in confirmation of the one and partial disproof of the other, I relate the following case which came under my notice many years ago: In 1839 a girl about eighteen years of age, with confluent variola, was admitted to the Hôtel Dieu, Paris, in the service of M. Chomel. She passed safely through the disease, and when she was well it occurred to M. Chomel to test the receptivity of the system for vaccinia. He vaccinated her with humanized virus, which 'took' properly; the vesicle being of the primary form. She was then discharged. Three months later she was admitted to the same ward with a second attack of confluent variola. Through this she likewise passed safely. The susceptibility of this disease possessed by this woman is paralleled by that of the woman reported by Dr. Gregory, of Edinburgh, who had confluent small-pox *nine* times, and died in the ninth attack."

Eruptions Due to the Use of Certain Medicines.—Quinine: Erythema scarlatina; papular erythema (Kohner); hemorrhages and purpura; pemphigus, œdema, and prurigo. Cinchona, Belladonna, Stramonium, Strychnine, have the same characters as quinine. Digitalis: Erythema after long use (Traube). Aconite: Vesicular exanthemata. Santonine: Pemphigus, vesicles (Deschamps). Opium and Morphine: Erythema (Apolan); papular eruption, with marked desquamation and itching. Pilocarpine: Increased perspiration. Atropia: Diminished perspiration. Phosphorus: Purpura. Mercury (internally): Erythema (Kalus, Zaissi, Gamberini); eczema (Aley, Fournier, Gamberini). Arsenic: Erythema and papules (Imberts-Goubayre); vesicles and pustules (Bazin, Raymondi, Gamberini). Carbolic Acid: Erythema (Taourschi); pemphigus (Zaissi). Salicylic Acid: Purpura (Freudenburg); vesicular angina, pemphigus. Chloral: Erythema, slightly colored, itching, desquamation; purpura and petechia (Crichton and Brown); eczema (Kirn). Copaiba, Cubebs, Turpentine: Pemphigus, erythema, eczema (Renter). Cod-liver Oil: Acne. Iodide of Potassium: Papules, vesicles (Bumstead, Gamberini); pustules, ecthyma, eczema (Landrieux); ecchymoses and purpura (Tilbury Fox). Bromide of Potash: Papules and pustules, deep tubercles with ecchymoses, pemphigus, ulcers.—*Translated by Dr. C. E. Warren in College and Clinical Record.*

Treatment of Carcinoma of the Womb.—After scraping away as thoroughly as possible a medullary carcinoma from the cavity of the womb, Professor Parvin applied this caustic: ℞. Bromi, ʒj.; Acid. carbolici, ʒiv.; Iodi, ʒij.; Alcoholis, fʒj.—M.

Accidental Cardicentesis.—Dr. H. H. D. Moorman, of Dalton, Mo., sends a report of a case of this nature which he met with in his practice recently. The patient, a negro, twenty-two years of age, had suffered from repeated attacks of rheumatism, and when first visited was found to have a mitral regurgitant murmur, with slight enlargement of the heart. During the fifth week of his illness he was rather suddenly seized with a pain in the region of the heart, and suffered intensely from dyspnœa. "The precordial region was excessively sensitive to pressure, so that very little information could be obtained by percussion. Even the ear or stethoscope applied to the chest-wall caused such an increase of pain and dyspnœa that a satisfactory physical examination was an impossibility. Very naturally I referred both pain and dyspnœa to pericarditis, and as the dyspnœa increased progressively, I inferred that effusion was taking place. On the fifth day of the attack I again attempted a physical examination, and thought I made out an increased area of precordial dulness. As the dyspnœa seemed to threaten life, I concluded to aspirate the pericardial sac, and proceeded to do so on the seventh day of the attack. Dr. G. M. Dewer, of Keytesville, Mo., was present. I introduced a medium-sized aspirating needle in the fifth intercostal space, midway between the nipple line and the outer margin of the sternum. The point of the needle was directed slightly upward, and introduced to a depth of about two and a half or three inches. Upon turning the stopcock venous blood was seen to be running through the tube, and the needle was vibrating in the same manner as observed in the familiar dart-and-flag experiment performed by physiologists. Of course the needle was instantly withdrawn. About two drachms of blood had escaped, without producing any disturbance so far as could be observed. No adventitious sounds were heard afterward over the region of the puncture. The patient slowly recovered from his rheumatism—all symptoms disappearing or being modified. At the present time he suffers slightly from dyspnœa, has his old mitral regurgitant murmur, and the heart is slightly enlarged." Dr. Moorman was led to report this case from reading the article on "Cardiac Aspiration," in The Record of November 14th.

The Medical Record

A Weekly Journal of Medicine and Surgery

Vol. 28, No. 26 NEW YORK, DECEMBER 26, 1885 Whole No. 790

Original Articles.

CYSTIC KIDNEYS WITH LARGE BILATERAL PERINEPHRITIC CYSTS.[1]

BY T. MITCHELL PRUDDEN, M.D.,

NEW YORK.

THE patient, a woman forty-seven years of age, corpulent, and with pale, sallow complexion, had suffered for sixteen months from meno- and metrorrhagia. Three months before death she had abdominal pain; the legs were œdematous. The vagina and cervix were of cartilaginous hardness, and the vagina so much contracted as scarcely to admit the examining finger. At this time the hemorrhages had entirely ceased. A diagnosis of malignant growth of cervix and vagina was made, supposed to be scirrhous carcinoma.

She continued to suffer from severe abdominal pain, especially referred to the right hypochondriac region, and with shortness of breath. Area of hepatic dulness apparently reached to umbilicus. Ascites slight. Œdema of subcutaneous tissue of abdomen excessive. Urine contains no albumen. Microscopical examination was not made.

At the autopsy the liver was found to be small and pressed upward by a cystic-looking tumor which occupied a large part of the right side of the abdomen, and was adherent to the mesentery and coils of small intestines. During its removal it was accidentally ruptured, and about one litre of bloody fluid containing flocculi of lymph was emptied. This cyst contained the right kidney. On the left side the same condition was found, except that the cyst was smaller. Both ureters were considerably dilated. Owing to the peculiar circumstances under which the autopsy was made, the lower part of the uterus and the vagina were not examined.

The cyst around the left kidney, which was intact, was found, when opened, to contain about three hundred cubic centimetres of transparent, yellowish, gelatinous material through which strings and flocculi of fibrin are scattered, and from which on removal from the sac clear yellowish fluid oozes. The cyst is 20 ctm. long and 11 ctm. wide. It contains, aside from this gelatinous material, in its posterior portion, the left kidney. The cyst wall is composed of dense connective-tissue, which in its outer layers contains a varying quantity of fat, and is from .5 to 1.5 mm. in thickness. Its inner surface is smooth, is covered with a thick pellicle of fibrin, and presents no internal cellular lining. This cyst-wall is attached to the kidney along its pelvic edge and along the convexity, so that the anterior surface of the kidney forms a part of the posterior cyst-wall. The kidney is 15 ctm. long, 9 ctm. broad, and about 4 ctm. thick. The posterior surface of this kidney is covered by a thick, dense connective-tissue investment which appears to consist of the thickened capsule of the kidney, rather loosely joined to the membrane, which passing forward forms the anterior portion of the above-described cyst-wall. On stripping the thickened capsule from the posterior surface of this kidney, it leaves a slightly nodular but in general rather smooth surface, on which three or four small cysts are seen, the largest about three millimetres in diameter.

The anterior surface of this kidney, which forms a part of the posterior wall of the large cyst, is thickly studded with small cysts, varying in diameter from one to thirteen millimetres. These are flattened, lie close beneath the capsule, and contain a transparent gelatinous material, similar in appearance to that with which the large cyst is filled. Over these small cysts the capsule is very thin, but between them it is thickened, in places, to nearly one millimetre. The capsule near these small cysts is, in places, of an orange color. A large, dilated blood-vessel, filled with a blood clot, projects from this free surface. On meridional section through this kidney the cortex is found thickened (in most places one centimetre thick); the markings are indistinct, and the whole appears as if not well preserved. (The specimen had been for some time in dilute alcohol.) The pelvis and calyces are dilated so that they would hold about from twenty to thirty centimetres of fluid. The mucous membrane of the pelvis presents no trace of inflammation.

The cyst inclosing the right kidney, which had been opened before it came into the hands of the writer, was about twenty-four centimetres long, sixteen centimetres wide, and nearly completely inclosed the kidney, being attached to it along its pelvic border. At the upper part of the kidney, anteriorly, a small opening led into another cyst similar to the large one, and forming a part of the complete cystic investment of the organ, which measured about seven centimetres in diameter. The wall of these large perinephritic cysts was similar to that on the other side, but in places was somewhat thicker. The surface of the kidney on both sides was studded with small, flat cysts, containing gelatinous material similar to those in the other kidney.

Microscopically the posterior portion of the left kidney showed a considerable increase in the interstitial connective-tissue. In other parts of both kidneys the interstitial tissue was but slightly increased in amount.

There was apparently swelling of the epithelium of the tubules, but the poor preservation of the specimen would not permit of a definite conclusion as to epithelial changes.

In the cortical portion, especially of the left kidney, close beneath the capsule, and scattered among apparently normal tubules, are found dilated convoluted tubules, with flattened epithelium, which are filled with gelatinous material, looking under the microscope somewhat like very soft mucous tissues (see Fig. 1). Near these, in the cortex, as well as in the thickened capsule, are small rounded cavities without a distinct cellular lining, which was filled with the same gelatinous materials (see Fig. 2). Between these simply dilated tubules and microscopic cysts and the larger cysts beneath and in the capsule on the surface of the kidneys (see Fig. 3) all intermediate forms are to be found.

The small cysts beneath and in the capsule, as well as the enormous cysts inclosing both kidneys, contain the same gelatinous material, which presents the same microscopical appearances as the above-described dilated tubules and the tiny cysts near them.

The orange color of the capsule near the small cysts is due to crystals of hæmatoidin.

Résumé.—We have thus two large kidneys with dilated

[1] The following case was reported, and the specimens presented, to the New York Pathological Society by Dr. H. J. Boldt, in behalf of Dr. Samuel Kohn, candidate for membership. The specimens were referred to Dr. Prudden for examination, and the following is his report, together with an abstract of the history as furnished by the candidate.—Wesley M. Carpenter, Secretary.

pelvis, calyces, and ureters, in a condition of chronic diffuse nephritis, and with the exception of the posterior surface of the left kidney, thickly bestrewn with small superficial intra- and subcapsular cysts containing material of gelatinous appearance. Thus far the organs present a lesion which in degree and kind is not unusual. But in

FIG. 1.—Dilated tubules filled with gelatinous material in cortex of kidney (left), × about 200.

addition to this both kidneys are lying, one with one, the other with both surfaces free, in the cavities of large inclosing cysts, which have a capacity respectively of about three hundred and one thousand cubic centimetres. One of these cysts, the larger, contains bloody fluid, fibrin, and gelatinous material, the other gelatinous material, clear fluid, and fibrin. Both kidneys are covered with a connective-tissue capsule which is thicker than normal, while the walls of the inclosing cysts are thicker than the capsules themselves.

Macroscopical and microscopical examination shows numerous intermediate stages between tubules simply dilated with gelatinous material of definite microscopical appearance, like small intra- and subcapsular cysts, and the large perinephritic cysts themselves.

Although in a lesion as old and extensive as this, it would be unwise to assert with great positiveness the exact mode of origin of these large perinephritic cysts; the date above furnished would seem to the writer to justify the conjecture that the process commenced as an ordinary bilateral cystic kidney, associated, as is often the case, with chronic diffuse nephritis. But while most of these cysts remained small, others increased in size, and working their way between the layers of the capsule

FIG. 2.—Small cyst filled with gelatinous material in cortex of left kidney, × about 200.

of the kidney produced the large inclosing cysts. The walls of these cysts are so thick that we must assume that hand in hand with the accumulation of the gelatinous material there occurred, as is frequently the case during the accumulation of adventitious material in various parts of the body, a thickening of the connective-tissue which formed the cyst wall. Whether the outer cyst capsule was formed by a splitting up of the kidney capsule, or from the connective-tissue of the fat capsule, or from both, it would be difficult or impossible to say.

Whether the kidneys were originally the ordinary congenital cystic kidneys or not, it would also be impossible to decide. The above-described intermediary forms between the larger and the smaller cysts would indicate that the process was progressive at the time of death. Furthermore, some of the small cysts in the kidney capsule have rather the appearance of cysts of mucous softening than of dilated tubules; but still, even if this were the case, they might have originated in the latter.

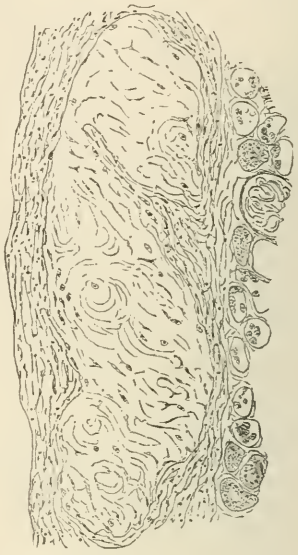

FIG. 3.—Section of the subcapsular cysts, × about 80.

It is a striking fact that the outside of the kidneys (posterior of the left) which is not involved in the large inclosing cysts at all, is the one which shows almost no small intra- and subcapsular cysts, and beneath which there is much new-formed interstitial tissue.

In the absence of a definite knowledge of the condition of the pelvic organs, it is impossible to decide whether the factors which induced the dilatation of both ureters and pelvis could have contributed to the development of the cysts; but it seems probable to the writer that they had nothing to do with it.

The writer has been unable to find any similar recorded case.

THE CONTAGIOUSNESS OF LEPROSY.—Although most authorities are in accord in the belief that leprosy is not contagious, yet there are some who claim that the disease may be communicated by contact. In a discussion held not long ago, before the Academy of Medicine of Paris, M. Vidal upheld the theory of contagiousness, but his views were controverted by Hardy, Dujardin-Beaumetz, Leroy de Méricourt, and others. Dr. Zambaco, of Constantinople, the physician to the Miskin Hané, the most notable lazaretto in Europe, is a strong non-contagionist. He asserts that he has never known a case of the disease to have been acquired by communication with a leper, although the patients of the Miskin Hané are visited by their relatives and friends without any restrictions. Heredity, he believes, is an important factor in the etiology of the disease.

A LARGE TUMOR.—M. Terrillon recently removed from a man, thirty-five years of age, a lipoma weighing fifty-five pounds. It was attached to the mesentery, and the incision necessary for its removal extended from the pubis a distance of twenty-two inches, nearly to the xyphoid appendix. Eight days after the operation the patient was reported to be in good condition, with every chance for a perfect recovery.

A MODIFICATION OF FÖRSTER'S METHOD OF ARTIFICIALLY RIPENING CATARACT.

By THOMAS R. POOLEY, M.D.,
NEW YORK.

THE fact, now well known to those who have used cocaine in operations upon the eye, that the aqueous humor escapes very slowly after puncture or incision of the anterior chamber, led me to consider whether its use would not enable us to perform the operation suggested by Förster without an iridectomy.

The obstacle against such a procedure as proposed by him, without first making a large iridectomy, is obvious. The lens, after the escape of the aqueous humor, will fall forward and come in contact with the cornea; unless the iris has been removed or the pupil is kept widely dilated during the next step of the operation, which consists in rubbing the cornea over the exposed surface of the lens, the iris will be injured. This is accomplished by the use of cocaine. If the pupil be first fully dilated by atropine, the subsequent use of cocaine will prevent it, by the slow escape of the aqueous, from at once contracting. That such a method of operating might be resorted to, has already been suggested, but, so far as I know, not yet attempted.

Candron, in an article on the artificial maturation of cataract (*Rev. gén. d'Ophth.*, 1883, No. 6), says, at the conclusion of his paper, that the maturation of the cataract, when we intend to extract without preliminary iridectomy, may be done by making paracentesis of the cornea, letting the aqueous escape, when the lens would fall forward upon the cornea, after which the lens could be triturated from without. In order, therefore, to determine whether an immature cataract can be matured in this manner, I resorted to the following experiments on a rabbit's eye. As it was very difficult, if not impossible, to procure a rabbit with an immature cataract, my first experiment was to see whether a healthy, transparent lens could be rendered cataractous by this method.

The operation was done in the following way: First the pupil was dilated to its utmost extent with atropine, then, from three to five minutes before operating, a few drops of a four per cent. solution of cocaine put in the eye. Paracentesis of the cornea was then made with a broad needle, taking care not to wound the lens capsule. The needle was then slowly withdrawn, allowing the aqueous to escape slowly. Trituration of the cornea was now made in a circular manner, the escape of the aqueous thus completed, and the collapsed cornea came in contact with the lens. The pupil remained moderately wide throughout this procedure and then slowly contracted. Atropine was now instilled, and the animal put in a barrel in which some clean straw had been placed. No attempt was made to close the eye in any way. The following day the pupil was contracted, but there was beginning opacity of the lens. By the vigorous use of atropine the pupil became wide, and the lens, which was well seen now, showed very decided opacity, most marked in the anterior cortical layer. The lens seemed to reach its maximum of opacity in from two to three weeks, but did not become complete, but showed a mottled, mother-of-pearl appearance, with opaque and clear setons (immature cataract). The ophthalmoscopic image was not shut off. The operation was therefore repeated on the same eye, April 12, 1885, and executed exactly in the same manner as the first. Immediately following the operation the opacification of the lens was more marked, and in the course of from three to four weeks the cataract was complete, so that the entire lens was opaque, and ophthalmoscopic view of the fundus no longer possible (mature soft cataract).

There was no inflammatory reaction following either of the operations, although after both the lens was considerably swollen, as shown by the narrow anterior chamber from bulging of the iris. It required, too, for the first few days rather active use of atropine to maintain dilatation of the pupil, which, a few days later, would remain wide enough from a single instillation once in twenty-four hours. At no time during the formation of the cataract did the animal seem to suffer any pain. It was only confined to the barrel for a few days after each operation, and the rest of the time allowed the liberty of the back yard. From these experiments, then, it seems to be proven that an operation for the maturation of cataract may be successfully done without any great risk of danger, without making an iridectomy. I have not, as yet, ventured to perform it on a patient. Nor do I feel sure, as yet, that further experience or observation will commend the method. I only communicate the result of my experiments for the purpose of giving my experience to the profession, leaving the future and the accumulated experience of my colleagues to decide whether the proposed modification shall be adopted.

MEDICO-LEGAL CASES.

By HENRY A. RILEY, ESQ.,
NEW YORK.

THERE was a famous case in New York, quite a number of years since, where a druggist in a country town gave out belladonna instead of extract of dandelion, in preparing a prescription. The wholesale manufacturer was the one who had made the original mistake, and the country druggist did nothing more than give out what had been placed in his hands as a harmless drug, when in reality it was a poison in the quantity used. The question at issue was whether the manufacturer or the dispenser was liable, and the court held that the former was. The same drugs now appear in an Iowa case, where the same mistake was made. The circumstances were unusual, and in some degree amusing. The druggist was preparing the prescription, when the customer helped himself to a dose from the jar. The druggist saw him take it, and the effect upon him stopped the further preparation of the prescription. The customer soon afterward sued the apothecary for damages. The answer interposed was to the effect that the customer was a trespasser in trying to help himself from the jar, and that if he suffered from so doing it was his own fault. The merits of this defence came up for consideration, and the court decided that it would not avail the apothecary. It was stated that as the customer took the dose with the knowledge of the apothecary, it would be under an implied promise to pay if asked to, and this negatived the idea of a trespass. The two persons were acquaintances, and the custom of "helping" one's self to drugs or goods is not an uncommon one in country stores. The apothecary therefore had to pay for the mistake of having belladonna in a jar supposed to contain extract of dandelion. The two drugs are much alike, but it will be a satisfaction to the public to be able to feel that the apothecary is bound to know what he is doing when he handles a dangerous article.

There are two projects of compulsory legislation in New York interesting to physicians. One of them is a bill making vaccination imperative, and this subject was recently discussed by the Society of Medical Jurisprudence in this city. It was the general opinion, however, that a law would not be wise now, and that the true policy was to make the public better acquainted with the merits of vaccination. On this point, it was stated by Dr. Taylor, of the Board of Health of New York City, that the opposition among people in the poorer districts was much less that it had been.

The other project is a bill providing that the bodies of all persons dying of contagious or infectious diseases shall be disposed of by cremation. The arguments in favor of such a law are hard to meet, but the attempt to put it upon the statute book would be very likely to stir up opposition to cremation in any case. As it is now, cremation is making wonderful progress in popular favor,

but nevertheless the vast majority of people still believe in earth burial, and will for generations to come, perhaps forever.

The great and increasing use made by manufacturing companies of the water-power furnished by running streams and the necessity of throwing refuse matter into the streams, which are thereby injured for drinking purposes, is an important question frequently calling for determination in the courts.

A recent decision in a Maine court, while not raising the question of injury for drinking purposes, involves the same principle, and will be of interest.

The Kennebec River, in Maine, has numerous dams which give water-power to a large number of mills of a great variety of industries. Some of these near Waterville are cotton mills, and the refuse thrown into the river by the lumbering mills some miles above gets into the race-ways, clogs the wheels, and frequently compels a stoppage of the entire mill until the matter can be cleared away. A very large amount of capital is employed in both branches of industry, and the mills have been established for years. The question now arises whether the cotton mills have such a right to the free use of the river water that they can compel the lumber mills by injunction to stop throwing refuse material, shavings, edgings, sawdust, etc., into the stream. The lumber-mill proprietors say that there is no other way to do but to let the water carry off the refuse, and that to be obliged to adopt some other means of getting rid of it would be so expensive as to render the mills worthless. The cotton-mill proprietors say that they cannot carry on their business without loss unless the practice is stopped. It will be seen that the question is a very important one, and involves the right to throw matter into a stream which may make it unhealthy to those using it for drinking. The court considered the case very carefully, and a large number of lawyers were employed on both sides. The decision, which has now been rendered by the highest court in the State, holds that the lumber mills cannot be permitted to throw refuse matter into the stream, and orders an injunction to issue against everything except common sawdust. The lumber mills were allowed, however, four months' time to arrange for some method of disposing of the waste material before the injunction should issue.

An interesting question in the law of *habeas corpus* was brought up in the case of Surgeon-General Wales, who, during the proceedings at Washington in his case, was ordered by the Secretary of the Navy to remain within the bounds of the city of Washington. The medical director thereupon secured a writ of *habeas corpus* to test the question of his lawful detention within the city limits. The granting of this writ came before the Supreme Court, and it was there held that the famous writ only applied to those persons actually imprisoned, and was a safeguard against unlawful imprisonment. Surgeon-General Wales was only under moral duress through the order of the Secretary of the Navy, and could have disobeyed if he had so desired. It was therefore decided that he had no right to have the writ issue in his favor.

The Abuse of the Present Dispensary System.—Dr. W. H. Haynes, of this city, writes: "As I understand it, the present dispensary system arose in this manner: Years ago each doctor was in the habit of appropriating a portion of his time, skill, and remedies to the treatment of poor people without charge. Later on the generous public took the burden of providing a proper place and medicines off their hands, and concentrated the labor in the hands of a comparatively few younger members of the profession, who gladly assumed the burden for the benefit they received in experience and income. This arrangement proved satisfactory till within the last few (ten) years, when abuses have arisen in consequence of increase in the number and in the attendance of improper subjects at these charitable institutions; so that now, besides the recognized general dispensaries, we have life insurance companies, beneficial organizations, and druggists carrying on such an institution in a modified way, as a legitimate branch of their business, aided by medical men who, not being able to make a living in the legitimate manner, are compelled to take these appointments in self-defence, to gain a maintenance by the advertisement and income they offer; of course, to the detriment of their brethren who are not so fortunate, or deem it unworthy, and, therefore, the ones to suffer. Now, this condition of affairs has been brought about as much by the profession itself as by the public, the former becoming too numerous, and the latter, except where a selfish motive is evident, too generous as regards this form of charity. Therefore it seems to me that the remedies must be applied to both these circumstances, and applied the same in both instances, viz., limitation in the first place of the number of men, and in the other the generosity of the public from providing any more such institutions, by law and education. In the meantime there is no better method of partially limiting the above than through the labors of the Charity Organization Society, but the main remedy lies with the profession itself, by raising the moral tone of their own body through the methods indicated."

The First Bacteriologist.—In the year 1726 a quack, Boïle by name, made his appearance in Paris, and promulgated a new theory of disease. All maladies, he said, were due to the presence of animalcules in the tissues, and all that was necessary to effect a cure was to introduce other and stronger animalcules which would destroy the disease-producers. He had, he claimed, a large supply of the superior and curative animalcules, and would dispose of a sufficient number of them to any one who stood in need of their services and would pay for them. Of course he found plenty of customers, and soon drove a thriving business. But he came to grief. He used to demonstrate under a magnifying glass the action of his remedies. He would take a little blood from the patient, and, putting it under the microscope, would exhibit to his awestruck visitors a number of hideous forms which were the cause of the malady. Then he added a drop of his special culture and away would go the wicked animalcules, leaving the field clear. Some incredulous fellow, however, examined into the matter a little too minutely, and discovered that the microscope had a false bottom and that the battle of the animalcules was nothing but a painted show. This discovery had the same effect upon M. Boïle that his remedy had upon the germs—he disappeared with amazing celerity.

Pyridine in the Treatment of Asthma.—Dr. Neff has used, with perfect success, the new drug pyridine in the treatment of the paroxysms of *asthma* in six different cases, independently of the cause, whether bronchial, cardiac, or renal. It seemed not only to relieve the paroxysm, but also to prevent the return in a measure. As the remedy is so very irritating to all the mucous membranes, the following method is used in its administration: The patient being placed in a small room, from thirty to forty drops of the drug are put on a plate and placed at a little distance from the patient. This may be repeated if necessary, and the inhalations kept up from five to thirty minutes, but relief usually is obtained in from one to five minutes.—*College and Clinic Record.*

Veterinary Surgery.—Mr. Snarry, a veterinary surgeon, has accomplished a novel feat in the way of surgery. A cow on the Westow Grange Farm, near York, broke its leg, and there being no chance of reducing the fracture, the limb was amputated, and Mr. Snarry tried the experiment of affixing a wooden leg. This has been found to answer admirably, and the cow may be seen grazing with a calf by her side.—*Provincial Medical Journal.*

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

PUBLISHED BY

WM. WOOD & Co., Nos. 56 and 58 Lafayette Place.

New York, December 26, 1885.

CONTROLLING SEX IN GENERATION.

WE are loth, most of us, to accept new theories concerning any vital phenomena. Such acceptance involves a rude disturbance of our mental ease, and we hesitate to bestir ourselves, particularly as we do not know whither our steps may lead us. If any new theory is to be entertained its logical conclusions necessarily enforce themselves, though we may not at first see their relations to previously existing facts. Often our first ventures are hindered by our recollection that the promulgators of new theories have very biased views. Collateral proof strengthens us, particularly when it comes from one approaching the subject from a standpoint which differs from that of the original champion of the new idea. An illustration of this fact is found in the recent publication, by a layman, of a volume with the title, "Controlling Sex in Generation."

The author is Mr. Terry, whose residence is not given. The publishers are a well-known firm in this city. To anticipate, the conclusions reached in regard to the subject are identical with those obtained some time since by scientific observers, viz., "That at the generation of male offspring the mother must be in a higher degree of sexual excitement than the father. And, reversely, at the generation of female offspring the father must be in a higher state of such excitement than the mother." The value contributed by this particular volume to the question lies (as we have indicated) in the fact that its author is an intelligent layman, who writes in a spirit of candor, and who presumably is free from the many tendencies to one-sided opinions which encompass purely scientific men.

The writer has been, according to his preface, a husband and father for over thirty years. His first five children were all girls. A natural desire for sons led him to look into the subject of origin of sex, and to collect and collate facts bearing thereon. From these facts he adduced the theory we have stated. Experiments with some farm stock confirmed it to his own mind. This physical law, he frankly tells us, he has put in practice in his own marital relations, with the result that of the last four children born to him, three were boys.

He regards the subject as one of importance, in view of the existing and increasing excess of females over males in all the fully-settled portions of our country. He argues that this is partly owing to the gradual decline in the strength of mothers, taking them as a class. This decline has three material indications: the first is shown in the proportionally increased number of deaths of boys in early infancy from debility, marasmus, etc.; the second in the increased proportion of boys among the still-born children; the third in the decrease in the conception of boys. These facts are illustrated in extensive and carefully prepared statistical tables, compiled from the mortality records of some of our largest cities and states. The relative mortality of boys to that of girls is, in still-births 100 to about 68; in brain diseases, 100 to 82; in diseases indicating feeble vitality (debility, marasmus, etc.), 100 to 85; the same ratio holds true in diseases of the respiratory organs; in diseases of the nutritive organs, 100 to 91; contagious diseases he finds about equally fatal in both sexes. From the study of the lower forms of life he advances to the assumption that any physical law governing sex operates either before or at the moment of conception or impregnation, and not afterward.

The natural sequence follows that in order for parents to have male offspring, it is necessary for them to put themselves under those conditions wherein this physical law may act. Inasmuch as most of our women in modern civilized life are physiologically below par, every favorable circumstance of environment ought to be brought to bear upon them. Fashionable follies should be shunned. In the large and influential class of women who avoid these—the class known as the religious world—the desires connected with maternity should receive a higher respect; a holier and less sensual idea should be accorded to the fulfilment of the maternal duty. Physical debility in the wife renders proportionally stronger the sexual impress of the husband. Under the operation of the law female children result. The more sickly the wife, the more debilitated the children. Says the author: "There was never yet a right-minded wife who would not be proud to be surrounded with a round dozen of stalwart, clear-headed sons and rosy-cheeked daughters; but when they come forth pale, stunted, scrofulous, and spine-distorted, fit only for the physician's hands, one or two quite suffice to satisfy the mother's pride."

The conclusion drawn as the final one is, that given a wife in average health desiring male offspring, she should carefully observe her disposition in regard to sexual desire with reference to the days following menstruation, and the time when this disposition is felt most strongly should be chosen for the performance of the marital function.

In the experience of the author it is noteworthy that all three of the male children born to him died in infancy, not one surviving till the birth of the next. The remaining child of the four was born intermediate between the second and third son. She suffered the usual run of infantile diseases (some of them being more severe, seemingly, in their attack, than were those that carried off the male children), and grew up to be a robust child. The author observes that women who bear preferably female offspring are often deficient in milk for males, if such are born to them. He thence argues that wet-nurses are more necessary for males.

The wonderful influence which brings the sexes together in reproduction he regards as a sort of animal electricity—

the male being the positive and the female the negative element. He adduces the alkalinity of the semen and the acidity of the menstrual fluid (asserted by some) as analogous in reaction to the behavior of certain chemical bodies when subject to disintegration by electrolysis.

We have, in the foregoing, outlined the main features of the volume. Many interesting points have not been touched upon. The author's lucid style and logical method show him to be no shallow observer of sociological and biological facts. He claims that the large surplus of women in the community is now the cause of many social evils as well as moral ones. Hence he feels "no doubt as to the propriety of publishing to the world a modest theory that professes to show how this relative disproportion of the sexes originates, and how the equilibrium can be restored" He asks for a careful examination of his theory before it is condemned. He claims to be actuated by a desire to do good, and asserts his honest belief in the truth of the theory advanced. In any event, the book is valuable as the contribution of a conscientious, intelligent layman to the solution of a scientific problem.

A CURIOUS MISREPRESENTATION.

The Medical and Surgical Reporter does us extreme injustice, and at the same time informs us of something entirely new. We are told that "THE MEDICAL RECORD is the organ of the New York circle," and that "its great mission has been submerged by an exceedingly unpatriotic course." Our valued contemporary has made an entire mistake, which we feel it will now be the first to correct. THE MEDICAL RECORD is an organ of no circle or clique whatever, but only of the medical profession of the United States. It has always endeavored consistently and earnestly to promote the welfare and elevate the status of the general practitioner. We venture to affirm that no medical journal is in more hearty sympathy with readers of this class all over the country, or receives from them in every State and section so many letters and communications showing an interest in the scientific and social advance of the medical profession. The Organ of a Circle! In the Name of the Prophet, Fudge!

A DANGER IN PUBLIC BATHS.

A CASE is related by Dr. Aubert, in the *Lyons Médical*, No. 35, 1885, of a family in which the father, mother, and little daughter were all suffering from gonorrhœa. The infection of the mother from her husband was evident, but the mode of communication of the disease to the four-year-old girl was not so clear, until the woman mentioned the fact that she had bathed twice since she had noticed the discharge from the vagina and had felt a scalding on passing water, and had taken her little girl into the bath with her. She said that the child had commenced to have a discharge from the vagina three or four days after taking the first bath. Another child in the same family, whom the mother had not taken into the bath, remained free from the disease.

In *Lo Sperimentale*, No. 10, 1885, Dr. Filippi asserts, in commenting upon the above case, that during the past year over fifty little girls acquired vulvitis, and some of them grave ophthalmia, in the free medicated baths of Santa Lucia, in Florence. The contagion was apparently conveyed in the water of the bath, which was limited in quantity and seldom changed.

This danger of acquiring not only specific vaginitis and ophthalmia, but other diseases, through the medium of water which is not constantly renewed, is one which would seem not to have received the attention it deserves. In the summer bath-houses along our river fronts there is a constant flow of water, it is true, but it may be doubted whether even there at slack tide this current is sufficient to carry away all infectious material. But in the winter baths, of which there is quite a number in New York, the water is warmed, and is not always renewed as often as it should be. If the project of some philanthropic individuals of providing free public baths in winter as well as in summer should ever assume definite shape, it would be necessary to consider this danger of infection and to take the proper measures to guard against it.

News of the Week.

CONCERNING THE DISINFECTION OF RAGS.—Mr. Augustine Smith, of this city, Vice-President of the American Paper-Makers' Association, writes: "The medical profession, of which you are a representative, is rightly regarded as the defender of the public against quacks and impostors. The confidence it has so well earned in this direction carries a certain responsibility with it, because it makes it very desirable for quacks to gain the aid of the profession where that can be done. It is in view of this responsibility that I wish to lay before you some facts touching the importation of rags (the raw material of paper) into the port of New York. Under the law of the State, as now interpreted and practised, it is within the discretion of the health officer of New York to forbid the landing of imported rags, no matter whether they be brought from infected districts or not, or whether there be reason to suppose that they are themselves infected or not, unless they are '*disinfected' to his satisfaction*. This is the accepted law and the actual practice at this port, and this extraordinary discretion is subject to no accountability or control except by the Board of Quarantine Commissioners, and in their hands the power of control, as a matter of fact, is not exercised. Now, the manufacturers of paper contend that this practically unchecked and arbitrary power in the health officer is subject to grave abuse, and that it is unnecessary to the protection of the public health. The manufacturers of paper do not wish to import disease. If they had no other reason for not wishing it, it is enough that it would be greatly against their interests to do so; for, as soon as it was known that they had done so, their employees would leave, their mills would be closed, and their importations would be stopped. They have been taught by experience to doubt whether rags can be thoroughly disinfected, especially in the bale. They are willing and desirous, if rags can be shown to be infected or to have been gathered in infected districts, that these rags shall be destroyed. But they protest that it is a gross outrage on

them and on the public that their property coming from uninfected districts, in ships bearing clean bills of health, shall be subjected to a patent disinfecting process. They demand, and they think they have a right to demand, that if disinfection be required, it may be done by some other than a patented or secret process. Nominally a choice is given between two processes; in reality only one can be applied, and that one belonging to what, for want of a better term, I shall call the Quarantine Ring. This is being done now and here in the name of 'sanitarian' vigilance and 'humanitarian' zeal, and the medical profession are asked to approve it. I would respectfully ask them to examine carefully and consider candidly these facts before lending their powerful support to such a scheme."

Dr. John Dudgeon and His Work in China.—The people of China—an aggregate of over 250,000,000 of the human family—are under the deepest obligations to Dr. Dudgeon. This distinguished member of our profession, says *The Lancet*, has lived among them twenty years and more, with his head-quarters at the capital. He has there a hospital and a dispensary, which have been fruitful of incalculable good to thousands. He has also set up in the Foreign College, with the sanction of the government, the nucleus of a medical school for the behoof of those of the young Chinese who propose making physic the business of their lives. He is himself the Professor of Anatomy; and he has a colleague who teaches chemistry—a science which, along with anatomy, is perhaps the best introduction the Chinese can have to the study, not of medicine only, but of the other departments of natural science also. Very valuable has been his work as a professor. Utterly ignorant of anatomy as Chinese medical men are, Dr. Dudgeon is on the eve of doing the rising generation of them a signal service. He has just translated into Chinese two English works of great value—Holden's "Osteology" and Gray's "Anatomy"—both containing all the wood and other engravings to be met with in the originals. By means of these, apart even from the actual dissection of the human body, the Chinese students cannot fail, thus aided with figures and with the living voice of the professor, to acquire a fair knowledge of the make and constitution of the human frame. The dissection of it, if not forbidden by law, is at least a thing abhorrent to the people. Ere long, it is to be hoped that people and students alike may be able to say, in a sense of their own, what M. Snagarelle so confidently affirmed in reply to M. Géronte as to the relative position of the liver and the heart, "Nous avons changé tout cela." Nor is this all that Dr. Dudgeon has done for them. He is at present, we understand, engaged in translating for them, with all its engravings, Dr. Kirkes' "Handbook of Physiology." Dr. Dudgeon is surely deserving of the highest honor in thus largely putting before the Chinese, in an orderly and systematic form, truths of the greatest value to them as a nation.

The Cost of Managing the Hospitals of New York.—At a meeting of the Hospital Saturday and Sunday Association, December 21st, Mr. Stone submitted a statement showing the work and resources of each of the hospitals connected with the association for the year ending September 30th. The total expenses of the twenty-one hospitals were $601,801.44. There was an income from invested funds of $127,099.20, and from city, county, and State appropriations of $29,635.93. The amount received from contributions other than gifts or bequests to the permanent fund was $201,492.58; through the Hospital Saturday and Sunday collection, $29,917.10; from paying patients, $136,403.68—making total contributions applicable to hospital expenses, $524,016.33. The number of patients treated in the hospitals for the year was 11,969, of whom 9,332 were free patients, at a cost of $476,000. In addition, medical aid was extended to 109,741 cases through the outdoor and dispensary departments.

Investigating Contagious Ophthalmia in the Schools.—Dr. Derby, in a communication to the Board of Health, last week, said that contagious ophthalmia among children in public institutions had increased to such an extent that the Academy of Medicine had taken the matter up, and the Committee on Ophthalmia had arranged to thoroughly investigate the disease. About twenty-five prominent physicians had been selected to visit the institutions, and the Board was requested to appoint them as sanitary inspectors without pay. Colonel Prentice, counsel to the Board, sent in an opinion on the request yesterday. It is to the effect that the appointment of special sanitary inspectors, without pay, would not be proper, and he suggested that regular sanitary inspectors be detailed to accompany the physicians selected by the committee, so that the investigation and its results can be reported to the Board. A resolution directing the Sanitary Superintendent to detail two inspectors to accompany the physicians was adopted.

At a Meeting of the Lackawanna County Medical Society, December 8th, a telegram was received from Dr. J. V. Shoemaker, of Philadelphia, asking the society to rescind their resolution of last month condemning the action of the American Medical Association's new committee in excluding eminent physicians from the Congress. A motion to reconsider the resolution of last month was offered, and, after an animated discussion, was defeated.

"New Yorker Medizinische Presse."—A new monthly medical journal, under the above title, has just appeared in this city, edited by Dr. Geo. W. Rachel. It aims to be the organ of the German-American physicians of the country. It is intended to furnish an opportunity for the many German physicians ere who do not care to trust themselves in English to publish the results of their work and observation. The first issue contains a number of excellent original articles.

Medico-Chirurgical Society of German Physicians.—At the last meeting of the Medico-Chirurgical Society of German Physicians, the officers for the following year were elected as follows: President, Dr. C. Heitzmann; Vice-President, Dr. L. Weber; Recording Secretary, Dr. Willy Mayer; Corresponding Secretary, Dr. H. J. Garrigues; Treasurer, Dr. A. Throg.

Dr. Harman Leslie Snow, of Albany, N. Y., died on December 19th, after a long illness. He was President of the Common Council, and partner of Dr. Vanderveer. He was forty-nine years of age.

The Medico-Chirurgical College of Philadelphia announces that it will not indorse any diploma of a person coming from other States and intending to register and practise in Pennsylvania, without the holder first passes a satisfactory examination. Fee, $30.

Several Cases of Small-pox that had been concealed have been hunted up by the Board of Health during the past week. New York physicians are not making a specialty of reporting cases of this kind just now, the penalty for such work being from $500 to $10,000.

Long Island College Hospital, Brooklyn.—Professor A. P. Grinnell, M.D., of the University of Vermont, will give the course of lectures on the Practice of Medicine at the Long Island College Hospital the ensuing year.

The American Supply of Doctors.—It is estimated that there are now in the United States 120,000 practitioners of medicine, including non-graduates.

Pasteur's Inoculations against Rabies.—The four Newark children who were sent to Paris to receive treatment by Pasteur have arrived, and the inoculations began on December 21st. A cablegram to *The Times* announces that Pasteur has now under treatment 20 cases, and that he has treated 114 since the beginning of his experiments.

Protesting against the Laicization of the Paris Hospitals.—The hospital physicians and surgeons of Paris, to the number of 106, have signed a petition, addressed to the Minister of the Interior, praying that the *religieuses* in the hospitals to which they are attached may be retained.

The Library of the College of Physicians of Philadelphia. — At the December meeting of the College the standing committees presented their annual reports. The Library Committee reported that the library now contains 33,686 volumes and 1,393 unbound pamphlets, an increase in the year of 2,592, as compared with 1,261 in 1884, and 869 in 1883.

The Death of Henri Bouley, Professor of Comparative Pathology, is announced. Professor Bouley has long occupied the highest rank among students of comparative pathology. He was a member of the Académie de Médicine, and of the Académie des Sciences, and was Inspector-General of Veterinary Schools. He was an ardent supporter of the views of Pasteur. Among his principal works were a treatise upon rabies and a treatise upon the anatomy of the horse's foot.

No more Medical Women.—It is reported that the New York Post-Graduate Medical School will not receive medical women as matriculants after the present session.

"The Christian Nation" is a religious journal which deserves hearty praise or two reasons—it refuses quack advertisements, and it denounces the "faith-cure" humbugs.

Death of Dr. John S. Heard.—Dr. John S. Heard, aged 70 years, died at Newburg, N. Y., on December 17th. Deceased was born in New York City. He graduated from Columbia College in 1834, and from the New York College of Physicians and Surgeons three years later. On graduating from the latter institution he became one of the two resident surgeons of the New York Hospital. In 1840 he began the general practice of medicine in New York City, continuing for twenty years. He gave up his practice in 1860 and went to Newburg, where he has since resided.

Priority in Inoculations against Rabies.—The last thing thought of would be that a claim of priority would be put in against Pasteur's preventive inoculations against hydrophobia. We learn, however, from *Le Progress Medicale*, that in a medical journal called *Klinische Anweisungen*, appearing in Leipsic in 1849, under the title of "Rabies and Poisoning," an article is published discussing a method of preventing rabies by vaccination. The doctor employing this measure called himself Constantin Hering, and lived in Philadelphia.

The Stomach and the Soul.—Twelve thousand people are daily under the charge of the Commissioners of Charities and Correction of New York City in the various hospitals and institutions over which that board has supervision. It costs the city $1,500,000 a year to care for their stomachs, while only $30,000 is spent on their souls, according to the statement of the New York Protestant Episcopal City Mission.

Death of Dr. Isaac G. Collins.—Dr. Isaac G. Collins, of Sing Sing, died on September 17th, aged 53 years. He was born in Greenville, N. Y., and was a graduate of Union College and the Albany Medical College in 1858. He began practice in Sing Sing in 1864.

DAMAGES FOR REPORTING A CASE OF CONTAGIOUS DISEASE—AN APPEAL TO THE PROFESSION.

Brown *vs.* Purdy.

The facts of the above case are briefly as follows: In November, 1879, Dr. A. E. M. Purdy was called to see Miss Angelina Brown. On his arrival he diagnosticated small-pox. He saw her later in the day with Dr. A. S. Purdy, who likewise diagnosticated small-pox. Still later he saw her again with Sanitary Inspector Dr. C. E. Lockwood, whom he had notified of the case. Dr. Lockwood's diagnosis was small-pox. The patient went or was sent to the small-pox hospital. On her arrival the house-physician, Dr. Bowen, made a diagnosis of small-pox, and so reported to the Board of Health. He subsequently revised this diagnosis and certified that Miss Brown was only suffering from eczema, and told her that she need not remain in the hospital. She voluntarily remained there, however, for some days.

After leaving the hospital she brought suit against the Drs. Purdy, claiming damages to the extent of $10,000. She asserted that the diagnosis made by Drs. A. E. M. Purdy, A. S. Purdy, and C. E. Lockwood was incorrect, and that she had been damaged to the above-named amount by being sent to the small-pox hospital, and that she was sent there through the agency of the Drs. Purdy.

On the trial of the cause in November, 1885, in the Superior Court, before Judge Ingraham, the counsel for the defendants moved to dismiss the complaint, on the ground that the defendants had not sent the plaintiff to the small-pox hospital, but that the sending of Miss Brown to the hospital was the act of the Board of Health, for which the defendants were not responsible.

His Honor denied the motion, and ordered that the trial proceed before the jury.

The plaintiff on the stand gave a lengthy history of her experiences, and declared that she was not suffering from the small-pox in November, 1879, but from the effects of a local irritant that she had applied to the skin.

The defendants testified minutely as to the symptoms and eruptive appearances presented at the time of their examination, and declared that they were unmistakably indicative of small pox.

Dr. Lockwood testified to the same effect, and that his opinion was formed independently of the Drs. Purdy, and *that Miss Brown was sent to the hospital in conformity with the rules and regulations of the Board of Health.*

Drs. Austin Flint, E. L. Keyes, and Geo. H. Fox testified that, from the recital of symptoms and character of the eruption as detailed by witnesses, Miss Brown was undoubtedly suffering from small-pox at the time referred to. Other physicians were in court prepared to testify to the same effect.

At the close of the testimony the counsel for the defence again moved that the case be dismissed, on substantially the same grounds as before, to wit: that it was the Board of Health and not the Drs. Purdy that caused the transfer of the plaintiff to the hospital.

His Honor again denied the motion, and in his charge to the jury said in effect, that *the defendants had set in motion the machinery* that led to the plaintiff being sent to the hospital.

The jury brought in a verdict of $500 against the defendants.

The features of the case that are important to the medical profession of this State do not hinge on the correctness or otherwise of the diagnosis.

The essential point is whether a physician who complies with the law, requiring him to report cases of suspected small-pox, thereby becomes liable for any damage arising or claimed to have arisen through the subsequent acts of the Board of Health.

The decision of Judge Ingraham in sending the case to the jury would imply that the physician may thus become liable.

This decision, in accordance with judicial custom, will be considered law until reversed by a higher court.

The case of Brown *vs.* Purdy having been brought to the notice of the Medical Society of the County of New York, that body referred the matter to its *Comitia Minora* with power. The *Comitia*, believing that it would be expedient to appeal from Judge Ingraham's decision, provided sufficient funds could be raised, appointed a special committee, consisting of members of the Society, for the purpose of raising said funds.

This committee appointed a sub-committee to prepare a brief statement of the facts of the case, and the foregoing is their report.

(Signed) H. G. Piffard,
Daniel Lewis,
P. A. Morrow,
Frederick R. S. Drake,
A. H. Smith,
Sub-Committee.

In the light of the facts as above stated, the special committee earnestly urge the members of the Medical Society of the County of New York, to contribute to the fund now being raised for the purpose of carrying the case to the higher courts. To this fund Dr. A. E. M. Purdy has subscribed one thousand dollars, and Dr. C. R. Agnew five hundred dollars. Other subscriptions, of one hundred dollars and under, have been received. Additional funds are still needed and may be sent, by check or otherwise, to Dr. O. B. Douglas, 123 East 36th Street.

Any part of the fund not required will be returned pro rata when the suit is decided.

By order of the Special Committee,
Daniel Lewis, *Chairman.*
F. R. S. Drake, *Secretary.*

Obituary.

PROFESSOR JOHN C. DRAPER, M.D., LL.D.,

NEW YORK.

The death of Professor John C. Draper, of this city, occurred on the 20th inst., from pneumonia, after an illness of four days. He was the eldest son of Professor John W. Draper, and was born on March 31, 1835, in Virginia. He entered the University of the City of New York in 1852, and left it in 1854, in his junior year. He then entered the medical department of the University, from which he was graduated in 1857. For a year prior to this he had held the position of House Physician and Surgeon of Bellevue Hospital. In July, 1857, he went to Europe for the double purpose of advancing his studies and regaining the health which he had lost by a too persistent application to them. Upon his return, in December, 1858, he was appointed Analytical Chemist in the University of the City of New York. This position he retained for thirteen years. In 1860 he assumed the Professorship of Chemistry in the Cooper Institute, but relinquished it in three years. For six months, in 1862, Professor Draper served as Surgeon in the United States Volunteers, and was on General Wood's staff at Harper's Ferry when that place was surrendered. In 1863 he became a member of the New York Academy of Medicine, and became a member of the Council of that institution in 1870. It was also in 1863 that Professor Draper was elected to the Chair of Natural History of the College of the City of New York. This position he retained up to the time of his death. In 1866 he became Professor of Chemistry in the medical department of the University of the City of New York. In the academical, as well as the medical, department of the University, he was one of the most popular lecturers.

Professor Draper was widely and favorably known as an author. On his recent trip to England he was made the recipient of special hospitality by distinguished literary and scientific bodies. The results of his researches in chemistry have been made widely known by articles published from time to time for a number of years and in book form. The Professor's first effort in book form was a text-book on anatomy, physiology, and hygiene. It was published in 1865. Fourteen semi-scientific articles from his pen appeared in the *Galaxy* from 1868 to 1871, inclusive. These treated of such subjects as diet, dress, and ventilation. They were of general interest, and in certain parts of the country one of them, "Tobaccophagoi and Tobaccophagism," an able argument against the use of tobacco, drew down upon the author a storm of abuse and some threats. He received one letter from a Texan who promised to shoot him if he wrote any more on the same subject. Professor Draper edited "Scribner's Year Book of Nature and Science" for 1872, and the same periodical for the following year, when it appeared as "Draper's Year Book of Nature and Science." He also edited the department under this head in *Scribner's Monthly* up to 1876. In addition to a number of scientific papers of much importance, written subsequent to 1876, he completed, in 1882, and had published by William Wood & Co., "A Practical Laboratory Course in Chemistry." This work has since held an important place among text-books. His last work, an advanced text-book on medical physics, was published a short time before his death by Lea Brothers & Co., of Philadelphia. It contains nearly four hundred illustrations, and the work proved of such absorbing interest to the author that the attention he gave it probably hastened his death.

The degree of LL.D. was conferred upon Professor Draper by Trinity College, Hartford, in 1873. This was only one of many honors conferred upon him by learned societies. He was married in November, 1864, and leaves a widow, but no children.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 25, 1885.

JOHN A. WYETH, M.D., PRESIDENT, IN THE CHAIR.

DR. H. J. BOLDT presented, in behalf of a candidate, a specimen of *Bilateral cysts of the capsules of the kidneys.* The specimen was referred to Dr. Prudden for examination and report.

Dr. Boldt also presented the

BRAIN AND MEDULLA OF A CAT.

Some time ago he encountered serious symptoms from the use of cocaine, and, therefore, determined to experiment upon animals with the drug. In the presence of Drs. Spitzka, Waldstein, and Brill, he injected eleven minims of a thirty-three and a third per cent. solution of cocaine into a cat weighing seven and a half pounds. Death took place twelve minutes after the injection was administered. The first effect noticed was a sort of leaping gait, with dragging of the hind extremities, and soon convulsions took place, probably forty in number. After each convulsion there was a period of quiescence, during which the legs of the animal straightened, the head turned up, the neck curved backward, and immediately afterward a severe convulsion took place. The respiration simulated the Cheyne-Stokes. After death the temperature in the rectum was 104° F.

An autopsy was made half an hour after the animal ceased to breathe. A small quantity of dark-colored blood oozed from the dura mater, and the vessels of the pia mater of both brain and cord were intensely congested. There was an extravasation of blood in the fourth ventricle, and also a small extravasation in the anterior part of the medulla. There were minute extravasations all through the brain.

The lungs were entirely collapsed, empty of blood, and the right ventricle of the heart was overdistended; the left empty. Death seemed to have taken place through paralysis of the respiratory centre. The gray substance of the cord was overfilled with blood, and resembled, as Dr. Spitzka remarked, a bloody sponge.

DR. PUTNAM-JACOBI remarked that the phenomena described by Dr. Boldt implied rather contraction of blood-vessels from vaso-motor irritation analogous to the contraction observed after a local application of cocaine, and that death was due not so much to direct effect upon the respiratory centre as to contraction of the blood-vessels in the lungs and secondary obstruction to the circulation in the right side of the heart.

THE PRESIDENT remarked that all the capillaries throughout the body being affected, the heart was paralyzed, and first the right ventricle, because it was the weaker.

DR. BOLDT said that might be the case, but clinical experience had shown that the most important trouble after the use of cocaine was primarily encountered in the respiration.

THE PRESIDENT remarked that, according to his experience, respiratory and cardiac shock was more likely to occur from invasion of the surface in the neighborhood of the fifth nerve than in any other locality.

DR. PRUDDEN asked what the appearances were which led to the statement that the lungs were anæmic.

DR. BOLDT replied that they were entirely devoid of air, and were of a pale color.

DR. PRUDDEN remarked that the lungs of a cat are very white normally, and fall back from the chest when the sternum is removed as compared with the human lung.

THE PRESIDENT directed attention to the danger of using chloroform or ether after the use of cocaine, and cited a case in the practice of a distinguished surgeon in which the life of the patient was nearly lost by administering chloroform after cocaine had been used unsuccessfully. The heart ceased to beat and breathing stopped, but the patient was resuscitated after about five minutes of artificial respiration.

The same surgeon had also told him of a case in which he knew the same result to follow the administration of ether after the use of cocaine. He believed that it would be well for the Society to express itself in unmistakable terms concerning the danger of the use of either chloroform or ether after the use of cocaine.

DR. WESLEY M. CARPENTER remarked that the Society had already expressed, in most positive terms, its opinion against the use of chloroform as an anæsthetic.

ABSTRACT OF THE CASE OF PROFESSOR PANUM.

DR. D. BRYSON DELAVAN presented a photograph of the late Professor P. L. Panum, President of the last International Medical Congress, together with a history of his last illness and death, translated by Dr. Holger Mygind, from the report made by the attending physician, Professor Frier, to the Medical Society of Copenhagen. Professor Panum, aged sixty-four and a half years, had always enjoyed good health. Ten years before death chronic bronchitis, with frequent acute exacerbations, developed, followed by emphysema which, two or three years later, became well marked. His symptoms were confined mainly to cough and slight dyspnœa, the latter particularly apparent upon going upstairs. It never reached any important degree, however, until the last weeks of his life, when it became more severe and was attended with oppression. The attacks were usually short. Physical explorations of the chest revealed no disease of the heart or of the large vessels.

On the first of May, while returning home in a high wind, Professor Panum experienced some difficulty in walking, and was unable to keep up with his companions, stopping several times evidently to rest and regain his breath. Soon after returning home he felt severe pain in the region of the heart, and a sudden feeling as of something bursting in the left side of the chest. The pain increased and the patient became uneasy and alarmed. When seen by Professor Frier, at 10 P.M., he was pale, somewhat collapsed; the skin cool and not perspiring; the pulse slight, frequent, and irregular. He talked freely and his respiration was not particularly accelerated. He moved about the room easily, undressed quickly, and went to bed. Here he continued to complain of pain, which now included the sternal region, and radiated out into the left arm and to the fingers. He was very restless and with difficulty repressed exclamations of pain. Attempts to give warm and stimulating drinks failed, as they only produced nausea. His mind was perfectly clear. Hot applications and counter-irritants applied to the chest gave no relief, nor did a hypodermic injection of morphine. About midnight the pain began to decrease, and after another hypodermic he fell into a light, uneasy sleep. The pain did not return until about 8 A.M. the next morning, up to which time he felt so well that he was with difficulty persuaded to remain in bed and give up his morning lecture; he gave directions, however, as to his business letters. His own diagnosis of his case was functional disorder of the vagus and sympathetic nerves. Half an hour after his son had left him, his pulse being strong and his general appearance decidedly improved, and a few moments after he had spoken jokingly to those around him, he suddenly groaned, fell back cyanotic and unconscious, and, a few minutes later, died.

From the superficial examination made the night before, no increased dulness of the heart had been discovered, but tumultuous action, with long, strong murmurs which prevented the two heart-sounds from being heard or distinguished. Professor Frier's diagnosis was angina pectoris. The real cause of death was discovered post-mortem. Autopsy, May 3, 1885, twenty-nine hours

after death, made by Dr. Dahl. Rigor mortis well marked, death suggillations all over. The panniculus adiposus well developed on chest and abdomen. The upper lobes of both lungs and the right middle lobe emphysematous and œdematous. No fluid in the pleural cavities. Mucous membrane of bronchial tubes somewhat injected and covered with cohesive white mucus. The pericardial sac filled with a little more than a pint of dark fluid and clotted blood. Blood of a similar appearance was seen to flow out of a fissure of the anterior left ventricular wall. The fissure was five centimetres long, and was parallel with and close to the septum. Its edges were lacerated. A similar but smaller fissure, one centimetre and a half in length, was seen along the first one, and united to it by a cross fissure. Both extended through the subpericardial fatty tissue, which was infiltrated with blood and reached the muscular substance; this was perforated by several small fissures and holes, none of which were more than large enough to admit a probe. In the lower part of the fissure the probe entered a small cavity between the muscular and fatty layers which was filled with blood. Heart flabby, with much subpericardial fat, especially at apex, where it was more than one centimetre thick, while at the seat of the fissure it was exactly one centimetre. In a few places the pericardium was thickened and white. Length of heart thirteen centimetres, breadth the same. The apex was formed by both ventricles, and a little rounded. Aortic valves normal. Foramen ovale open. The tricuspid orifice admitted three fingers, the mitral four. The tricuspid and pulmonary valves were healthy. On the anterior mitral flap there was a large, white, thickened patch. The right ventricular wall was two millimetres thick, the muscular tissue being of a deep, dull, grayish-brown color. Toward the septum there was a limited yellow area, extending somewhat in depth. The cavity was enlarged. The left ventricular cavity was much enlarged, the wall at its thickest part being 8 mm., at the apex 2–3 mm. The trabeculæ were flattened and not much developed. Muscular papillæ of normal thickness, the muscular tissue flabby, much softened, and of same color as that of right side. At several places yellow spots were seen through the endocardium. Toward the septum, at a point corresponding to external fissure, was a rectilinear fissure four centimetres long. It did not quite correspond to the external one, crossing it at an acute angle. The edges of this fissure were flattened. At the bottom of it were several small holes, corresponding to those described in the external fissure. The surrounding tissue much softened, and infiltrated with dark blood. A fresh cut across the fissure and through the muscular layer showed this to be very thin, about two mm. close to the edge, and five mm. farther away. Aortic valves somewhat thickened. In the tunica intima were many white fibroid patches, and similar ones were found in both coronary arteries. In the vertical branches of the left, just after its separation from the horizontal branch, was found a constriction which barely admitted the passage of a fine probe. Upon opening the artery, here was found a soft, whitish-yellow plug, which covered a softened atheromatous cavity formed in the thickened and partly calcareous intima, which was perforated in several places by small holes. From here down to the rupture the artery seemed healthy. A little below the plug a small branch went off; it could be followed to the spot of fatty degeneration in the right ventricle.

Microscopical examination of the muscular tissue showed the fibres around the fissure to be atrophied and very fatty. There were no transverse striæ visible and no increase of the interstitial fibrous tissue. Nuclei normal; many fibres broken by extravasation of blood. Specimens taken from other parts of the heart showed the transverse striæ were well marked, but everywhere there was more or less fatty degeneration. Other organs not examined. The plug which caused the fatty degeneration had probably developed during the last few weeks before death, causing the dyspnœa and oppression. The resulting rupture was probably observed by Professor Panum himself; but it seemed to have slowly penetrated the wall from within outward, not causing at first effusion into the pericardial sac, but only irregularity of the heart's action, pain, and nausea.

Dr. Van Santvoord presented a specimen of

CARCINOMA OF THE UTERUS,

probably primary of the cervix, and later involving the body of the organ. The clinical history had no special interest except the fact that the woman was confined and delivered of a living child within three days of her death.

At the autopsy the brain was not examined. The lungs exhibited a slight amount of hypostatic congestion. The heart was apparently somewhat fatty. The liver was pale on the surface, the intestines and omentum showed irregular patches of pigment, and the retro-peritoneal glands were also pigmented. In the broad ligament there were a number of irregular patches of pigment. The body of the uterus was about twice the normal size, closely adherent to the lower third of the rectum and to the bladder in front. The kidneys were exceedingly anæmic, their pelves considerably dilated, and one pelvis contained considerable clear urine. The ureters were dilated.

The uterus was firmly fixed; the cervix had been eaten entirely away by the malignant process; there was an ulceration into the urethra just as it joins the bladder, and the ureters were somewhat obstructed by thick, dense, fibrous tissue. The vagina was the seat of cancerous infiltration, and the endometrium also exhibited some thickening, due to the same process.

Dr. Van Santvoord also presented a specimen of

TUBERCULOSIS OF THE PHARYNX

which occurred in an infant, about two years of age, admitted to the Randall's Island Hospital four months before its death, in a cachectic condition, accompanying a large mass of enlarged glands under the angle of the jaw upon either side. The cachexia increased, and two and a half months before death slight cough was noticed, although nothing was discovered in the lungs except a few râles. About four days before death the house-physician thought the child had some difficulty in swallowing, and the larynx was observed to be covered with a thin grayish coating; the temperature 102.5° F. in the evening. Four days afterward the patient died of exhaustion.

At the autopsy the enlargements upon each side of the neck were found to be caseous lymphatic glands. The pharynx presented a roughened and somewhat worm-eaten appearance, with lenticular ulcers extending to some depth into the mucous membrane. The uvula was thickened and covered with granular elevations. The mucous membrane of the nasal cavities presented the same roughened appearance, and also the vault of the pharynx, from which it extended upon the nasal septum about one-fourth of an inch, and the convex surface of the inferior turbinated bodies also was in somewhat the same condition. The larynx upon the posterior surface had two small ulcers. Miliary tubercles were found in the lungs and also upon the pleural surfaces. In the middle lobe of the right lung was a single soft caseous nodule, with a number of areas of broncho-pneumonia. The spleen was filled with miliary tubercles. A number of tubercles were also noticed in the liver, and also in the kidney. In the intestines there were several tubercular ulcers. The retro-peritoneal and mesenteric glands formed a large mass which had undergone cheesy degeneration and was breaking down. The case was, therefore, one of the somewhat rare affection known as tubercular ulceration of the pharynx. Dr. Mackenzie, of London, has reported a number of cases, and says that they are more frequent than is generally supposed, and

that they are doubtless frequently mistaken for syphilitic disease.

Dr. Van Santvoord also presented the stomach and large intestine removed from the bodies of animals that had died of

HOG CHOLERA.

The stomach showed considerable gastritis, and at one point there was a necrotic spot, or so-called ulcer, sometimes observed in the stomach, but almost entirely in the large intestine, where it formed the characteristic lesion. The ulcer showed a dark, dirty sloughing centre, with yellow elevated edges, and this characteristic process extends to a variable depth, sometimes reaching the peritoneum.

The large intestine showed a swollen ileo-cæcal valve, chiefly on the side toward the colon, with irregular ulcers, and from about ten inches above the cæcum the gut was intensely hyperæmic as far as the descending colon, and the entire mucous membrane was sloughing, at least in the superficial portion. In the descending colon were seen enlarged solitary follicles with depressed, slightly ulcerated centres, and these also showed distinctly upon the peritoneal surface of the gut, as semi-translucent, pearl-like spots.

The other lesions found in the cases which he had examined were as follows: in the brain and cord he had found lesions in two cases; in two cases there was broncho-pneumonia, and in all a certain amount of œdema of the lungs with some mucus in the bronchi. In one case there were ecchymoses under the pericardium and endocardium. In one case the liver showed perihepatitis, and in another it showed a slight amount of flocculent lymph. In all of the cases there was enlargement of the mesenteric and retro-peritoneal glands, and in one of these the ecchymoses which occur so frequently. The spleen was normal in all the four animals examined. The kidneys showed no lesion except one in which there were a few small nodules, and also in the liver of the same animal there were a few nodules of the same character; but Dr. Van Santvoord was inclined to think that they had nothing to do with the disease of which the animal died.

Dr. Prudden remarked that although much has been done in the way of investigating the swine plague and the relation of bacteria to it, the matter does not yet appear to have been cleared up. While Pasteur asserted that his rouget was caused by a figure-of-8 coccus resembling that of chicken cholera, but not identical physiologically with it, Schütz found in the attenuated virus furnished by Pasteur himself, as well as in hogs affected with the disease in Baden, a fine bacillus apparently identical with the bacillus by septicæmia of mice of Koch. Klein's bacillus of swine plague is apparently not identical with that of mice septicæmia. The micrococcus of Salmon, recently redescribed in the report of the Bureau of Animal Industry for 1884, and of which he (Dr. Prudden) has in his laboratory pure cultures, received through the courtesy of Dr. Billings, of Washington, certainly could not be mistaken for a bacillus, nor does it resemble very closely the figure-of-8 coccus of chicken cholera. Löffler's experiments would suggest that this polyonomous disease may, after all, not be in all cases the same thing nor due to the same causes.

Dr. Delavan remarked that tuberculosis of the pharynx was unusual in adults, and its existence had been denied. There were cases sufficient, however, on record to make its existence undoubted. It was not by any means a common affection. He had seen three cases. The history of Dr. Van Santvoord's case was decidedly different from that of the same affection in the adult, because in adults the painful nature of the disease was very pronounced. He thought he had not seen a more painful case than one under his care of tuberculosis of the pharynx. The ulcers are particularly sensitive, and give rise to the most distressing dysphagia. The extreme painfulness had been regarded as one of the diagnostic points between tuberculosis of the pharynx and syphilis, as the affection often resembled syphilitic ulcers sufficiently close to mislead practitioners, and, besides, being so very rare, one was very liable not to think of the local affection being tubercular.

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 17, 1885.

Abraham Jacobi, M.D., President, in the Chair.

VAGINAL AND VULVAR ENTEROCELE.

Dr. T. Gaillard Thomas read a paper on the above subject, in which he defined *five* varieties of herniæ that may show themselves in the vagina and vulva: 1, cystocele, or hernia of the bladder; 2, rectocele; 3, vaginal enterocele; 4, pudendal enterocele; 5, perineal hernia, or descent of small intestine by protrusion through the perineum.

The author of the paper passed hernia of the bladder and of the anterior wall of the rectum, and confined his remarks to descent of the intestines through the pelvic roof, protrusion through the labia majora and vagina, and through the perineum.

Attention was first directed to the scarcity of the literature of the subject, only very slight mention, or none at all, being made of it in works written by obstetricians and gynecologists. It was first mentioned in 1786. Sir Astley Cooper treated fully of it in 1804. The best account of it was published in the French Dictionary of Medicine in 1846.

Vaginal enterocele is descent of intestines into the pelvic cavity, either in front of, or posterior to, the broad ligament of one side. Usually intestines alone descend in this hernial protrusion; sometimes omentum accompanies them; possibly the sac may contain omentum alone. Usually small intestine makes up the contents of the hernia. It develops in the following manner: A loop of intestine gradually pushes downward the peritoneum, which forms the pouch of Douglas, a tumor forms in the vaginal canal, and may end by hanging outside of the body. Such a tumor has for its coverings: first, inverted vaginal wall; second, peritoneum; and for its contents intestine.

Unquestionably the greatest danger from this form of hernia arises from possibility of error in diagnosis, either in the parturient or non-parturient woman.

Dr. Thomas then gave the histories of two striking cases of error in diagnosis. The first was one in which a portion of intestine, and also of the omentum, was removed with what had been diagnosticated as a polypus. In the second a supposed abscess was opened, intestine protruded, and the patient died of gangrene.

The most frequent cause of these varieties of hernia is parturition. Nevertheless, some of the most striking cases have occurred in non-parturient women.

Vaginal hernia is often of but little account, and gives rise to only slight inconvenience, so long as it remains within the vagina.

The prominent symptoms are difficulty in locomotion, pelvic tenesmus, colicky pains, dragging sensations, etc. Obstructed labor is liable to result. A tumor of greater or less size is found, soft and yielding, which decreases in size by pressure, increases by coughing, gives a sense of gurgling, resonance on percussion, and is usually reducible by taxis, with the patient in the knee-chest position.

The conditions from which it is to be differentiated are prolapse of the vagina, uterus, bladder, and rectum; vaginal cyst; simple par-ovarian cyst and fibrous tumor pressing low down in the pelvis; cold abscess of the pelvis, and marked cases of tubal dropsy.

Most cases present striking features, and with proper care mistakes in diagnosis will not be made. It may develop suddenly, more commonly in a gradual manner.

Dr. Thomas then reported a case in which a consultant was unwilling to give an opinion in a case of suspected extra-uterine pregnancy without introducing the entire hand into the vagina, which he did with the patient anæsthetized, and when he withdrew his hand a loop of intestine followed it, having escaped through a rent made in the vagina. Dr. Thomas sutured the laceration, and the patient barely escaped with her life, after having had a severe attack of peritonitis.

Pudendal enterocele is recognized by the presence of a small-sized elastic tumor, about the middle of the labia majora of one side. The manner of its formation was then described.

The conditions with which it is liable to be confounded are, cyst or abscess of the vulvo-vaginal glands, cyst of the labia minor or major, abscess of the labium major, fatty or fibrous tumor of the labia, and tumors descending from the pelvic cavity into the labium of one side.

Erroneous diagnosis will probably lead to a fatal issue. The symptoms almost pathognomonic are: 1, Airy feeling upon palpation; 2, gurgling on replacement; 3, diminished tension in dorsal decubitus; 4, diminution in bulk on taxis; 5, resonance on percussion; 6, succussion upon coughing; 7, abdominal pains of a colicky character.

Perineal hernia may effect both male and female. In the latter it consists of a descent of intestines between the vagina and rectum, the advance being made posterior to the broad ligament. In the female it may be felt through the rectum and the vagina. All these varieties of hernia are amenable to taxis, the manipulation being aided materially by the knee-chest position. Strangulation may occur. Dr. Thomas then reported a case of extreme vulvar hernia, occurring in a multipara, thirty-nine years of age, who about six years ago first noticed a small lump in the vulva on the right side, and began to suffer from difficulty in locomotion and in micturition, dragging pains in the back, and general malaise. The tumor gradually increased in size, and finally extended downward to the middle of the thigh. The tumor could be made to disappear by taxis, with very slight gurgling, but resonance on percussion did not appear distinctly. It was impossible to retain the hernia by mechanical apparatus.

For it Dr. Thomas proposed to perform the following operation, which was endorsed by his colleagues, Drs. Emmet and Bozeman. First, laparotomy, causing an assistant to keep the hernial sac well within the pelvis by means of one hand within the vagina, then to pull all the contents out of the sac, seize the sac at its most dependent part, drag it up and fasten it into the abdominal wound with sutures, sustaining the heavy sac by two knitting-needles passing through and lying flat across the abdomen.

The operation was complicated by encountering a tumor of softened œdomatous fibrous tissue, diagnosticated by Dr. H. C. Coe, pathologist to the Woman's Hospital, as a soft *fibroid tumor of the pelvic connective-tissue*, which was removed. The patient did well, and now, five weeks after the operation, there is no sign of returning hernia.

With reference to these varieties of hernia little could be said concerning treatment, as we were poor in methods of affording decided relief, and had no means of cure. Should he meet with other cases, however, Dr. Thomas would be inclined, if they were of sufficient gravity, to perform laparotomy and drag the sac up, as was done in the case reported.

Dr. Castle, from the Committee on Revision of the Constitution and By-laws, read the report, after which the Academy adjourned.

The Mortality from Hydrophobia.—In England and Wales during the years 1870 to 1883, has averaged from 31 to 82 in a population of about 20,000,000. The total number of deaths in thirteen years, was 635.

Correspondence.

SOME CURIOUS FACTS CONCERNING "THE JUMPERS."

To the Editor of The Medical Record.

Sir: During a somewhat protracted term of service as United States Sanitary Inspector on the northern frontier of Maine, between Canada and the United States, I have been much interested as well as amused in watching a certain class of individuals found among the hordes of French-Canadians who pass annually from all parts of Canada into the States, particularly into Maine and other lumbering districts. These people to whom I refer go by the name of "jumpers."

They attracted my attention as presenting some points of interest bearing upon the nervous system, showing to what a hyper-sensitive condition it may be brought by certain influences early begun and long continued.

I had from time to time heard lumbermen and others whose avocations lead them to spend much time among the French camps speak of these "jumpers," but had given no credence to the, as I thought, absurd stories they related in regard to them, until one day, while attending to my duties in the waiting-room of my fumigating station, I incidentally let fall the window near my desk, by turning the button suddenly, thus letting the frame fall a short distance, making a quick, sharp noise, when three out of seven French-Canadians who were sitting near, awaiting their certificates of inspection, leaped into the air as if they had been shot, at the same time uttering a yell which would have done credit to a North American Indian. From that time I was on the watch for these strange characters, and, when possible, made inquiries of them through my interpreter in regard to the cause of their condition. Before speaking of this, perhaps it will be well to enumerate some of the manifestations which give them the characteristic name of "jumpers." One or two instances will be sufficient. Recently one of them, a French-Canadian of small stature, came out from an adjacent camp to the post-office. Just as he was about to ask the postmaster for his mail, he being a total stranger to the official, a man of sixty-five years of age, some one knowing the fellow to be a "jumper," mischievously cried out: "Grab him by the throat!" The fellow sprung like a cat and grasped the old man by the throat, and held on until removed, the irate postmaster pouring forth torrents of invectives on the poor fellow, who really was perfectly guiltless.

Another unfortunate wood-chopper had just come into camp from two days' work, and was standing near the large camp-heater, in which was a very hot fire, when some one cried: "Grab the furnace!" No sooner were the words said than the poor fellow obeyed the order, and as a result left a scorched pattern of each hand on the nearly red-hot pipe, thus rendering him unfit for his work in the woods for some weeks.

I could, were it not for taking up valuable space, enumerate instance after instance fully as peculiar as the above. In brief, it may be stated that at any time and under any circumstances, with the slightest provocation, and almost instantaneously on being spoken to, one of these fellows will obey any command, imitate any action, without regard to its nature, trivial or serious. He will leap on to a table, or over a stove, or into a river or pond; throw any article or weapon he may have in hand in any direction indicated; will repeat any sentence or exclamation.

So serious a matter is this that many of the lumbermen absolutely refuse to admit a man known as a "jumper" into their camps.

I find they are not wholly confined to French-Canadians, as occasionally a Canadian of Irish parentage will exhibit the same symptoms.

As stated above, I have endeavored, when possible, to investigate as to the cause of this peculiar and distressing condition; and while I find, without doubt, that primarily it is due to an inherited nervousness, the immediate cause is in taking such children, when small, and while firmly held tickling them until convulsive symptoms appear. This seems to be the story of such ones as I have made inquiries of. Whatever the cause, the condition is one much more easily acquired than lost, as it firmly clings to its victim far into adult life.

J. B. THORNTON, JR., M.D.,
Sanitary Inspector U. S. Marine Hospital Service.

MOOSE RIVER, SOMERSET COUNTY, MAINE,
November 30, 1885.

BROTHERLY LOVE IN MEDICINE AND A MEDICAL ARCADIA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In these days of complaints about the abuse of medical charities, resignations from the International Medical Congress, Code discussions, and heart-burnings consequent upon the overcrowding of our professional ranks, it may be profitable to some to glance at what we here, in our innocence, consider to be the "Banner Medical County" of the United States. I refer to Boulder County, Col.

Our county contains less than 12,000 inhabitants, the largest town in it having 300. To attend to the medical wants of the county we have twenty-one legal practitioners (that is, legal either by diploma or license of the State Board of Medical Examiners), some four or five medical guerillas, several midwives, and a few retired medical gentlemen. These all manage to live in a comfortable manner, but for fear that others may wish to rush in and divide our blessing, I will state that we also have a Medical College in full blast, mostly run by outside physicians, so are able to fill all vacancies that may occur in our ranks.

Judging from this condition of affairs, you might infer that we have a "pretty kettle of fish to fry." Nothing of the kind. We have a regular Medical Society, which meets twice a year; there we discuss practical questions, or, if a member chooses, he reads a paper, being careful not to bore the rest with extracts or a rehash of what each man has in his library, and with which he is presumed to be fully acquainted. When disposed, we lighten the heavy work by sly jokes at each other's expense.

As to the subject of medical charity, we all have a number of charity patients, among them are dead beats whom we cannot eliminate; these occupy as much of our time as the average city practitioner gives to his hospital work. But should one of our number manifest a disposition to monopolize more than his share of this kind of work, we don't hold indignation meetings; not much; on the contrary, we all go out of our way to send him dead beats and charity cases until he is satisfied.

Under the operations of an unwritten by-law no Code discussions are permitted. Each member consults with whom he pleases, and is never required to justify himself by special pleading of "an emergency," or "for diagnostic purposes only."

Again, if a member fancies that he has a grievance against a brother, he is, by the operation of another unwritten by-law, forbidden to make a battle-ground of the Society meeting; our purpose of meeting is to have a good time socially as well as professionally, and we succeed.

PERFECT BLISS, M.D.

DYSIDROSIS OF THE FEET.—Mr. W. Whitworth advises that two pieces of common adhesive plaster be cut, of the same shape as the flat of the feet, and applied to the soles. Sweating and malodor will speedily cease.—*British Medical Journal.*

Reviews and Notices.

MINOR SURGICAL GYNECOLOGY. A Treatise of Uterine Diagnosis and the Lesser Technicalities of Gynecological Practice, including General Rules for Gynecological Operations and the Operations for Lacerated Cervix and Perineum, and Prolapse of Uterus and Vagina, for the Use of the Advanced Student and General Practitioner. By PAUL F. MUNDÉ, M.D., Professor of Gynecology at the New York Polyclinic and at Dartmouth College; Gynecologist to Mount Sinai Hospital, etc. Second edition, revised and enlarged, with three hundred and twenty-one illustrations. 8vo, pp. 552. New York: William Wood & Co. 1885.

THE second edition of this excellent work is before us, presenting many additions to the first edition, including rules for the governing of gynecological operations in general, and a minute description of the operations for laceration of the cervix and perineum, and prolapsus of the uterus and vagina. As the book is principally intended for beginners, the various methods of examination and diagnosis are very thoroughly studied. This part of the work will prove of great aid to the student, as success in gynecology results from a close attention to details, which is sometimes overlooked by the general practitioner. It is said that the last achievement of a science is to define itself; this may explain the difficulty of gynecologists in agreeing upon the exact position of the uterus. Concerning this vexed question the author explains that with every variation in intra-abdominal pressure during inspiration and expiration, and voluntary motions and positions of the body, the fundus and body of the uterus vibrate back and forth, like a pendulum, with its pivot at the reflection of the vagina on the cervix. A diagram is given showing the degrees of normal mobility of the uterus, with its average normal position. The student is thus enabled to begin the study of displacements with some degree of intelligence. The usual rather formidable array of pessaries is given, with plates; but a set of rules governing their introduction and supervision may lessen to a certain degree the perplexity of this subject to the beginner. It is not necessary to notice other points of value in this work. For those starting out upon the study of gynecology, and even for students more advanced in knowledge of the science, the book will prove invaluable. Good illustrations and a clear type enhance the value of the work.

THE MEDICAL NEWS VISITING LIST FOR 1886. Philadelphia: Lea Brothers & Co. 1885.

"IF the office of a visiting list is," to quote from the Preface, "to enable a physician to keep a clear record of his engagements and of his professional work," this list of the *Medical News* is certainly a model in its way. In addition to spaces for records of visits made, it has the usual tables of poisons, doses, etc., together with pages for addresses of patients, nurses, and all others whose whereabouts might be of interest to the physician. A thumb-letter index facilitates the work of reference. The volume is compact and complete, and a credit to the printer's and binder's art.

MICROSCOPICAL TECHNOLOGY, FOR USE IN THE INVESTIGATIONS OF MEDICINE AND PATHOLOGICAL ANATOMY. By DR. CARL FRIEDLÄNDER. Translated by STEPHEN YATES HOWELL, M.A., M.D., Buffalo, N. Y. New York and London: G. P. Putnam's Sons. 1885.

As the matter now stands, this volume is in competition with one published by another firm, and from another translation. The intrinsic merit of the two translations is practically equal. This book differs from the other in that it contains additional matter furnished by the translator, and also that it has no index. The material added by Dr. Howell is very acceptable, and enhances the value of the book. The merit of Friedländer's writing goes

without question, and does not require special reference, other than to say that it is concise, comprehensive, and scientific.

The house, however, that will publish such a work, or any work which is likely to be used as a book of reference, without giving it a complete index, ought to close business. Such an omission is inexcusable, and will provoke members of the medical profession unduly to the use of "swear words."

The excellence of the text is too great, and the translation is too excellent to be subjected to such a mutilation.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 19, 1885:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
December 19, 1885.....	5	15	56	2	12	78	12	0
Deaths.								
December 19, 1885.....	0	4	16	2	0	32	1	0

The Italian Medical Congress.—The Eleventh General Congress of Italian physicians, held in connection with the meetings of several hitherto independent medical societies, was convened in Perugia during the third week of September, 1885. Over three hundred of the representative medical men of Italy were present. At the opening session addresses were made by Professors Madruzza, Toscani, and Corradi, and by the Mayor and Prefect of Perugia. At the other general sessions addresses were made by Dr. Zucchi, who urged that the direction of matters of sanitation and public hygiene be confided to the medical profession; by Professor Pagliani, who advocated the passage of a bill regulating the hours of labor and the nature of the employment of women and children; and by Professor Pacchiotti on "Quarantine," in which the speaker argued against the establishment of land quarantine and sanitary cordons, and the fumigation of travellers and of mail matter. In the Section on Practice of Medicine, Dr. Paoletti read a paper on "Cholera," in which he endeavored to explain all the symptoms of the disease by the occurrence of spasm of the non-striated muscular tissues (arterial and intestinal), and stated his belief that the affection was a neurosis allied to tetanus. This view was strongly opposed by Professor Levi and others. Professor M. R. Levi related two cases of "Diphtheritic Nephritis," in which the morbific principle was located primarily in the epithelium of the glomeruli and tubules of the kidney. He regarded these cases as analogous to primary scarlatinal nephritis, and contended that they were an evidence that diphtheria was a general disease with local manifestations. This opinion was sustained by the majority of the speakers taking part in the discussion. Dr. A. Bianchi read a paper on "Auscultatory Percussion," exhibiting the instruments employed by him and demonstrating the application of the method on the living subject. Dr. Olivieri presented a communication upon the "Abortive Treatment of Typhoid Fever by Means of Intestinal Irrigations with Carbolized Water." He was opposed by Professor Levi, who pointed out the danger of poisoning from carbolic acid, and said that he had little faith in the efficacy of this drug, given either by the mouth or by the rectum, as a specific in typhoid fever. Professor M. R. Levi followed with a paper on the "Treatment of Diphtheria," in which he spoke very strongly in favor of oil of turpentine, given internally and by inhalation. As adjuvants he employed cold applications, lime-water, and lactic acid. Quinine and tonics were given internally when indicated. He advocated tracheotomy whenever death from suffocation was threatened. Professor Maragliano read a paper on "Antipyresis and Antipyretics," in which he expressed a decided preference for thallin over antipyrin, asserting that its action was more rapid and that it was effective in smaller doses. But he preferred baths and the application of cold externally to any of the internal antipyretics. In the ensuing discussion considerable stress was laid upon the danger resulting from the action of the antifebrile drugs in preventing the elimination of urea and carbonic acid, and a general preference was expressed for external antipyretic methods. Professor Riva spoke upon the "Treatment of Tuberculosis by Intrapulmonary Injections." He had found the lung-tissue very tolerant of these injections, but did not think the treatment exerted any curative influence upon the disease, although it had some effect upon the course of the fever. Dr. Magliero spoke of the efficiency of "Lemon-juice in the Treatment of Malarial Diseases," and Dr. Moretti related a case of a contagious "Dermatosis of the Lower Lip" somewhat resembling eczema. Dr. Nosotti said the eruption was very like that of epizoötic aphthæ, and he thought that probably the disease in question had been communicated from an animal. Dr. Balestrieri related several cases of "Tetanus" cured by the use of tartar emetic. Dr. Ascenzi exhibited an apparatus for the inhalation of compressed or rarefied air or of medicated vapors. Dr. Pagliani presented a short communication upon the "Treatment of Sciatica," in which he spoke of the good effects of strong sinapisms and baths of dry hot air. Dr. Dal Fabbro related a case of "Traumatic Cerebral Affection," in which the symptoms were corroborative of the present theories of motor localization in the cortical centres. Dr. Queirola read a paper on the "Physical Examination of the Spleen," demonstrating the changes in the area of splenic dulness occasioned by the different postures assumed by the patient. Dr. Bianchi spoke of the uses of the "Juice of the Fig," and explained the method of its preparation. He said that it possessed the power of digesting fibrin and albumin, and might be used with benefit in dyspepsia from deficient secretion of the gastric juice. In the Section on Surgery Professor Ceccherelli read a paper on "Tubercular Osteitis and Arthritis," which gave occasion to a somewhat animated discussion. Professor Durante presented a patient from whom he had removed a tumor of the dura mater, situated at the base of the skull on the left side. Entrance to the cranial cavity was obtained through an opening made in the left parietal bone. Professor Laurenzi sent a report of various operations performed by him, comprising laparotomy, resection of the knee, ligature of the carotid artery, and an operation for empyema. Professor Ceci related an operation for the "Extraction of Calculi from the Left Ureter," and Professor Massei reported several cases of "Erysipelas of the Larynx." Professor Occhini sent a communication entitled "Properitoneal Hernia," and Professor Chiari read a paper on "Hysterotomy for the Removal of Multiple Fibromyomata of the Uterine Appendages." Many of the papers presented elicited prolonged discussion. In the Section on Obstetrics and Gynecology papers were read by Professor Chiari on "Puerperal Antisepsis as Practised in the Obstetrical Institute at Florence," and upon a case of "Continuation of Pregnancy after Puncture of the Amniotic Sack and Evacuation of the Fluid." Dr. Borsini related a case of "Partial Ovariotomy." The patient was seventy-six years of age, and the operation was successful in its results. Dr. Piccinini read a paper on the "Treatment of Myomata of the Uterus." He employed the continued current, and

gave ergotine internally. Dr. Fibbi reported a case of "Cæsarean Section." The operation was rendered necessary by dystocia due to a fibroma of the uterus. Professor Fabbri read a paper on "Dropsy of the Amnion," relating three cases of the disease, and discussed the origin of the amniotic fluid. Dr. Mori presented a communication on "Uræmia as a Complication of Pregnancy," and advocated hypodermic injections of citiate of iron in the treatment of this affection. There were other Sections on Hygiene, Anatomy, and Physiology; Syphilis and Diseases of the Skin; Pharmacy and Psychiatrics, and Legal Medicine. In the general conferences papers were read by Professor Pagliani, on the "Best Systems of Sewerage in Cities;" by Dr. De Medici, on "Cremation;" by Dr. Simoncini, on "Evolution in the Education of Man;" and by Dr. Nomi, on a "Method for the Preservation of Cadavers." At the closing session it was resolved to form a permanent union of the various independent societies which had taken part in the congress. Pavia was selected for the next meeting, to be held in 1887.—*Lo Sperimentale*, No. 10, 1885.

To Increase the Efficiency of the Paquelin Cautery.—Dr. M. S. Kakeles, of New York writes: "The use of the Paquelin apparatus for cauterizing purposes cannot be overestimated, and in many cases is far superseding the expensive Galvano-cautery. To increase its efficiency the air-chamber of the now almost universally used spray apparatus is utilized instead of the ordinary rubber hand and air bulb. Its simplicity and convenience for office work is so far superior as to be immediately apparent to all who will give it a trial. It has been used in several cases in Dr. Alex. Hadden's office in operations for the removal of nævi, and with such good results as to call forth admiration of its applicability, and at the same time the condemnation of the tiresome hand apparatus. By merely connecting the benzine receptacle with the rubber tube from the air-chamber, we have a reservoir of compressed air at the immediate control of the operator. He can easily increase or diminish the quantity of air by a valve attached to the tube, and thus regulate the intensity of heat in the platinum point. So convenient is it, and its manipulation so easy, that after once it is used it will always be preferred to the wearisome hand bulb. Its practicability consists in that: 1. We have a reservoir of air of sufficient amount for quite a lengthy operation, confined at any pressure and under the control of the operator himself, which obviates the necessity of an assistant to work the hand bulb in order to keep up a constant glow. 2. We can regulate the pressure by the stop-cock attached to the tube, and thus keep up an equal temperature in the platinum point, or increase or diminish it. 3. A single person is only necessary to use the apparatus, by merely regulating the intensity of the heat by turning on the valve to a certain degree and allowing the air to blow through the Paquelin. Certainly, in operations at private houses, it would not be very convenient to carry a large air receiver along with the Paquelin instrument, but for office, hospital, and dispensary use there is no readier or more convenient apparatus for cauterizing purposes.

Ideal Cholecystotomy.—Dr. A. C. Bernays, of St. Louis, Mo., writes: "In your notice of my paper on 'Ideal Cholecystotomy,' you say that I report a case of cholecystotomy 'upon which he bestows the epithet "ideal," for various reasons sufficient unto himself.' I desire to correct this misunderstanding, and to make the following short explanation: Sims' method of cholecystotomy necessitates the formation of an abdominal biliary fistula. It exactly copies after nature in her efforts to effect a spontaneous cure of cholelithiasis. I called *this method* 'natural' cholecystotomy. The method employed by me does away with the abdominal fistula, and causes an immediate *restitutio ad integrum*. I called this method '*ideal*' cholecystotomy. It perfectly fulfils all that we can ask of the surgical art, in contradistinction to the method which imitates the healing process of nature but leaves the parts in an abnormal condition even after the fistula has become closed. Since the publication of my paper I have received accurate descriptions of the only two cases where a similar operation was supposed to have been performed successfully before. It so happens that my case is the only successful one up to date, the case by Courvoisier ended fatally some weeks after the operation, and the Bebbs case was not a cholecystotomy at all, but seems to have been a removal by abdominal incision of some gall-stones, which had perforated the gall-bladder and had become encysted after adhesions had been formed by a circumscript peritonitis. Finally, I may be allowed to express my pleasure at having placed American surgery one step in the van in a new field of our art."

Toxic Action of Cocaine.—Dr. Ziem, of Dantzic, has communicated to the *Allgemeine Medicinische Central-Zeitung* the notes of a case in which he applied two drops of a four per cent. solution of cocaine to the eye of a man aged forty. In a few minutes after the pupils had become dilated, the patient's face became pale, sweat broke out on his forehead, and his breathing became embarrassed. Dr. Ziem at once loosened his clothes and opened the window, but it was a quarter of an hour before he could return home. The man's wife said that he had not previously had syncope. He was of intemperate habits, and some years ago had been treated for disturbances of motor power in the lower limbs, apparently connected with syphilis. Dr. Ziem says that seventeen cases have been recorded in ophthalmological literature in which toxic effects followed the use of cocaine. In three it was injected hypodermically, and in fourteen dropped into the conjunctival sac. The cases have been described by Peck (1), Mayerhausen (1), Stevens (1), Reich (2), Knapp (3), Heuse (4), and Bellarminoff (5). In some cases the symptoms have been transient, consisting of pallor of the face, giddiness, and sweating of the face or neck; in others there have been dyspnœa, great feeling of prostration, malaise, and apathy, lasting sometimes for several days. Vomiting and headache have been rarely present. In one case the application of fifteen drops of a two per cent. solution to the conjunctiva was followed by tottering gait, difficulty of speech, confusion of the mind, and extraordinary restlessness; and in another the subconjunctival injection of about eight drops of a 3.5 per cent. solution produced convulsions and loss of consciousness. The strength of the solution used was four per cent. in eight cases, 2.5 per cent. in four, and two per cent. in three or four others. The quantity generally varied from two to four drops. The subjects were in some cases feeble, aged women; in others they were strong and healthy individuals, both male and female.—*British Medical Journal.*

Reduction of Temperature by Ice-bags.—Dr. F. A. Burrall, of this city, writes to the *Journal of the American Medical Association*: "Stephan, of St. Petersburg (see *Journal*, September 26, 1885), is of opinion that the temperature in fever may be lowered by the application of ice-bags over the superclavicular region. This effect is produced by bringing the cold in contact with the large superficial veins of the neck. I have noticed that in some cases of pneumonia a sensation of intense heat is one of the most trying sensations from which the patient suffers. In two of my cases much relief was afforded by the continuous application of the ice-bag to the occipito-cervical region. One of the patients told me 'it was the only comfort he had.'"

What Becomes of the Medical Students.—Our English exchanges inform us that Sir James Paget has been studying the question of what becomes of the medical students. Some statistics are given which are hardly to the purpose. Evidently Sir James has never watched the medical students slip round the corner at the close of lecture.

Progress of Medical Science.

The Non-tuberculous Nature of Lupus.—The following are the conclusions of Dr. Gamberini, in an article on this subject appearing in the *Giornale Italiano delle Malattie Veneree e della Pelle*, Nos. 3 and 4, 1885: 1, Lupus is not identical with tuberculosis; 2, even if tubercle is found in the tissue attacked by lupus, it does not necessarily follow that tuberculosis is the cause of the degeneration, for bacilli have been only occasionally found here, while they are abundant in tuberculous tissues; 3, experiments upon rats do not bear out the theory of identity of causation of the two diseases; 4, the differences exhibited in the response of the tuberculous and the lupus ulcerations to therapeutic measures is very striking; 5, lupus and the tuberculous skin affections are very dissimilar in their symptomatology and cause.

A New Disease.—Dr. Lutz has observed in the province of San Pablo, Brazil, several cases of a peculiar disease, of which he has never seen a description. It begins with vomiting and diarrhœa, hoarseness and a cough, and frequently coryza and catarrhal conjunctivitis. Then appears œdema of the skin, accompanied sometimes by ascites and a peculiar dermatitis, under the form of an erythema; invading first the lower parts, and then spreading over the whole body in patches of variable extent. This erythema does not disappear under pressure of the finger, and becomes gradually of a dark purple color, and finally black. Desquamation takes place in large strips, leaving a tender epidermis, which, in the negro, is without color. There is fever at the commencement of the disease, and grave anæmia occurs as a sequela. The duration is several months. It begins generally with symptoms of gastro-enteritis, or of bronchitis, and œdema and ascites appear only after several weeks. Of 23 cases seen by Dr. Lutz, 10 died, 6 recovered, and the result in the others was unknown. The disease affects chiefly infants who have been weaned, and is probably due to some special food. The author states that it bears considerable resemblance to pellagra.—*La Independencia Médica*, November 11, 1885.

Cancer of the Liver and Pancreas in an Infant.—Dr. Bohn reports the following case: "The child was born of healthy parents, and presented nothing abnormal during the first half-year of life. At the beginning of the seventh month the mother accidentally discovered a spot of induration, about the size of an apple, in the abdomen, which increased with great rapidity, so that within three or four weeks the tumor filled the greater part of the abdominal cavity. When the tumor was first discovered the health of the child seemed to be unaffected, but emaciation soon commenced, and during the few days immediately preceding death there was intense icterus, and the limbs and abdomen were covered with petechiæ. The child died within two months after the discovery of the tumor. The autopsy revealed primary cancer of the pancreas, with secondary infection of the liver and retroperitoneal lymphatics. The pancreas was almost entirely destroyed, the head only exhibiting some remains of glandular tissue. About the portal vein was a collection of enlarged glands, and on the surface of the liver, as well as within its substance, were numerous white, hard nodules, varying in size from that of a pea to that of a plum. Examination showed the new formation to be a typical carcinoma simplex.—*Wiener Medizinische Wochenschrift*, November 7, 1885.

Pemphigus Neonatorum.—Dr. Plomberg reports the case of a girl, six days old, who presented numerous little blisters, from the size of a hemp-seed to that of a hazel-nut, upon the genitals and neighboring portions of the thighs. Gradually the eruption spread over the entire body, being very thick over the four extremities, the face, and the scalp, and somewhat more thinly scattered over the trunk and neck. The entire sole of the right foot, with the toes, was involved in one large bulla, and after this had broken the epidermis came away like a glove. Two smaller blebs were present on the sole of the left foot, but the palms of the hands were free. The blisters rapidly attained their full development, and burst after two or three days, giving exit to a yellow serum. They were surrounded with a pale reddish areola, and after breaking left the denuded corium red and moist. The excoriations healed rapidly, crusts forming only on the face.—*Wiener Medizinische Wochenschrift*, November 7, 1885.

Treatment of Favus in the Adult.—The crusts should first be removed by lotions of green soap, preceded, if necessary, by poultices. The hair is then to be cut as short as possible, and an ointment of 8 to 15 grains of bichromate of potassium in one ounce of lard applied, the head being afterward covered with a cap of linen or cotton cloth. The head should be thus washed with green soap, and covered with the ointment every morning and evening. If the application cause much smarting the proportion of potassium bichromate should be reduced, or if the crusts fail to become detached it should be increased. A trial of a few days' duration will suffice to determine the relation between the individual tolerance and the degree of activity of the ointment. The hair should be cut very close, but epilation is useless.—*Journal de Médecine de Paris*, November 15, 1885.

Hæmatemesis following a Superficial Burn.—Professor Demme reports the case of a strong, healthy boy, five years old, who received a superficial burn of the left forearm and hand. The epidermis was raised in blisters on the wrist and extensor surface of the forearm, but there was no destruction of the deeper cutaneous tissues. A liniment of linseed-oil and lime-water was applied. Six hours after the receipt of the injury the patient vomited some milk which he had taken an hour before. An hour and a half later he vomited suddenly a quantity of mucus strongly colored with blood, and the hæmatemesis recurred frequently during several hours, the loss of blood being so great as to threaten the life of the child. Eighteen hours after the burn was received another attack of vomiting occurred, and the patient went into collapse. The temperature fell within two hours from 101° to 94° F., and the pulse became so rapid that it could not be counted. The face and extremities were cool, and covered with a clammy sweat, and the pupils were dilated. The feet and legs were covered with mustard plasters, and ether was injected hypodermically every half hour. The patient gradually recovered his strength. During the succeeding days there were several copious stools of altered blood.—*Wiener Medizinische Wochenschrift*, November 7, 1885.

Recovery from Traumatic Tetanus.—Dr. Rangé reports the case of a man whose foot was amputated on May 3d on account of osteitis. The case progressed favorably, and cicatrization was nearly complete on the 18th of May, when he complained of inability to open the mouth. There was no elevation of temperature, and the wound looked well; but the patient was not very docile and persisted in flexing the leg, thus rubbing the soft cicatrix at the end of the stump against the bed-clothing. The rigidity of the muscles of mastication and of the neck persisted, with some remissions, for a week, when general tetanic spasms set in. An attempt was made to give morphine hydrochlorate hypodermically, but the act of inserting the needle excited fresh convulsions, so the solution was used endemically, being applied to the stump. The trismus having subsided, chloral and bromide of potassium were given internally. It was impossible to isolate the patient, but in spite of this inconvenience improvement began in a few days, and by the end of the month recovery was complete.

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